

Utah Department of Transportation



State Environmental Study Project No. S-199(245)2, PIN 16518 Davis County

February 2020

Approval

The Utah Department of Transportation (UDOT) has completed a State Environmental Study (SES) for the proposed extension of State Route 193 (SR-193) from 4500 West (SR-110) to 3000 West through Syracuse City and West Point City in Davis County, Utah.

Four build alternatives were evaluated to meet the project goal, which is to improve local connectivity to existing and future regional routes. All build alternatives included extending SR-193 between 4500 West and 3000 West, with an interchange at West Davis Corridor. The 400 South Build Alternative was selected as the Preferred Alternative because it would:

- » avoid Rock Creek Park, Schneiter's Bluff Golf Course, and existing residences, and
- » minimize safety issues associated with other build alternatives by providing adequate spacing between the proposed West Davis Corridor interchange at SR-193 and the Antelope Drive interchange, and between the SR-193 interchange and nearby intersections (e.g., 4000 West), consistent with UDOT design standards.

For the Preferred Alternative, UDOT would continue the existing configuration of SR-193 east of 3000 West between 3000 West and the West Davis Corridor. The configuration includes two 12-foot-wide travel-lanes in each direction separated by a 26-foot-wide median swale. The proposed right-of-way line would be 26 feet from both sides of the road. The typical width of this section would be 150 feet-wide.

Between 4500 West and the West Davis Corridor, the typical cross section would be 84 feet-wide, providing one 12-foot-wide travel lane in each direction separated by a shared 14-foot-wide center turn lane. Ten-foot-wide shoulders would be provided on both sides, lined with curb, gutter, park strip, and sidewalks. At the West Davis Corridor interchange, the cross section would include an additional eastbound travel lane and left- and right-turn lanes.

To construct the interchange, West Davis Corridor would be raised to pass over SR-193. The interchange on- and off-ramps would consist of one 12-foot wide lane. Intersection stop-control for the off-ramps would be provided by stop signs. The northbound off-ramp would have a free-right lane in the eastbound direction onto SR-193. Street lights would be installed at the interchange.

The Syracuse Trail parallels the east side of the West Davis Corridor; the Preferred Alternative would realign the trail to the east of the northbound on- and off-ramps. A bridge for the trail would be constructed over SR-193.

During the environmental study process, the Preferred Alternative was evaluated and adjusted to minimize impacts while still addressing the goal of the project. All practical measures to minimize environmental harm by the Preferred Alternative have been considered and incorporated into the project.

As a result of this SES, UDOT has evaluated the effectiveness, benefits, costs, and likely effects of the Preferred Alternative and has considered and responded to all comments provided by the public and stakeholders. Based on the information summarized in this SES, UDOT has determined that the Preferred Alternative will best meet the need and goal for the project while minimizing environmental impacts.

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Keeping Utah Moving

SR-193 **TENVIRONMENTAL STUDY** 4500 W. to 3000 W.

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Acronyms and Abbreviations

	, Litab Automated Casegurphia Defenses Canton
AGRC	Utah Automated Geographic Reference Center
APA	Agricultural Protection Areas
APE	area of potential effects
CERCLA	• • • • • • • • • • • • • • • • • • •
CLG	Certified Local Government
CWA	Clean Water Act
dBA	A-weighted decibels
EIS	Environmental Impact Statement
EPA	US Environmental Protection Agency
ESA	Endangered Species Act
GIS	Geographic Information System
HCP	Habitat Conservation Plan
I-15	Interstate 15
IPaC	Information for Planning and Consultation
LOS	Level of Service
LRTP	Long-Range Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	noise-abatement criteria
PM	particulate matter
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
SES	State Environmental Study
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SR	State Route
TIP	Transportation Improvement Programs
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
UGS	Utah Geological Survey
US	United States
USACE	
USBOR	
WFRC	Wasatch Front Regional Council
WMA	Wasatern Hone Regional Council Waterfowl Management Area
WOTUS	0
00103	







Chapter 1 Project Need and Goal

1.1 Introduction

The Utah Department of Transportation (UDOT) has prepared this State Environmental Study (SES) to evaluate a proposed extension of State Route 193 (SR-193) from 3000 West to 4500 West (SR-110) through Syracuse City and West Point City in Davis County, Utah. In this SES, UDOT provides the following:

- An evaluation of existing and future needs for transportation improvements to SR-193,
- » An assessment of the potential impacts from each alternative (including a No-Action Alternative), and
- » An opportunity for the public to review and comment on this SES document prior to a decision by UDOT.

1.2 Study Area

SR-193 is what is known as a "principal arterial" roadway. It extends from 3000 West in Syracuse on the west to US Highway 89 in Layton on the east. On the east side of Interstate 15 (I-15), SR-193 provides access to the South Gate entrance of Hill Air Force Base and to commercial and residential areas in Layton. On the west side of I-15, SR-193 is the main route to reach Clearfield, and it provides access to the east entrance of the Freeport Center, a large manufacturing, warehousing, and distribution center in Clearfield. SR-193 also provides access to the rapidly developing residential areas in West Point and Syracuse.

The study area encompasses incorporated portions of West Point and Syracuse (see Figure 1-1). This study area for this SES extends from 4500 West (on the west) to 2000 West (on the east), and from 300 North (on the north) to 700 South (on the south). The study area consists of two distinct sections, roughly separated by 3000 West, which is where SR-193 currently terminates.

The largest single land use in the western section of the study area is Schneiter's Bluff Golf Course, which is surrounded by farmland. However, residential developments are rapidly expanding into this portion of the study area from all directions. The future West Davis Corridor and the existing Syracuse Trail will extend north and south to the western portion of the golf course. East of 3000 West, SR-193 is a four-lane arterial roadway (two lanes of travel in each direction) with 8foot-wide outside shoulders and dedicated right- and left-turn lanes at intersections with 3000 West and 2000 West.

What is a principal arterial roadway?

Each roadway has a functional classification that defines its role in serving local, regional, and interstate travel needs. Principal arterial roadways support relatively high speeds and traffic volumes, connect to other regional routes and destinations, and provide access to adjacent land uses.







Figure 1-1: Study Area Map



1.3 Transportation Planning

Transportation planning is an important, ongoing process that identifies improvements with the goal of ensuring that local and regional transportation systems are as safe and efficient as possible. The Wasatch Front Regional Council (WFRC), UDOT, and surrounding municipalities are responsible for transportation planning in the study area. The following sections discuss various transportation planning efforts and how they are related to the project outlined in this document. the extension of SR-193 between 3000 West and 4500 West.

1.3.1 Wasatch Front Regional Council 2019–2050 Regional **Transportation Plan**

WFRC is responsible for developing a regional transportation plan based on a comprehensive analysis of the region's transportation systems. The plan is designed for a 30-year horizon and is fiscally constrained.

The WFRC 2019-2050 Regional Transportation Plan takes into consideration all modes of transportation, including highways, public transit, trucking, and pedestrian and bicycle travel. It includes plans for the extension of SR-193 from 3000 West to 4500 West. This includes an interchange at the West Davis Corridor, which is a component of another transportation improvement project (Phase I east of West Davis Corridor, Phase II west of West Davis Corridor; WFRC Project Number: R-D-5 and R-D-6, respectively).

The following is a list of other projects in or near the study area that would add capacity to the regional roadway network or provide public transit and bicycle facilities (WFRC 2019):

West Davis Corridor: This will be a new limited-access » highway that will pass through the study area in the southeastnorthwest directions and will connect the I-15/Legacy Parkway in Farmington to Ogden's 12th Street (SR-39). The West Davis Corridor will initially be constructed with one travel lane in each direction (Phase I; WFRC Project Number: R-D-30), but after 2041, the roadway will be widened to include an additional travel lane in each direction (Phase 3; R-D-29).

---- City Boundary State Route

What is the WFRC and what is a **Regional Transportation Plan?**

WFRC is the metropolitan planning organization for the Wasatch Front urban area and is responsible for developing and maintaining a Regional Transportation Plan for Salt Lake, Davis, and Weber counties. WFRC works with UDOT, Utah Transit Authority, Utah Division of Air Quality, and regional cities and counties to develop the regional transportation plan to include new transportation systems and upgrades to existing transportation infrastructure. Projects are divided into the following phases:

- Phase 1: 2019-2030
- Phase 2: 2031-2040
- Phase 3: 2041-2050



- » 2000 West: This project will widen the 2000 West roadway from north of the interchange with West Davis Corridor to Antelope Drive (SR-127) (Phase 2; WFRC Project Number: R-D-32).
- » 2000 West: This project will widen the 2000 West roadway north of 300 North (SR-107) to Weber County line (Phase 1; WFRC Project Number: R-D-31).
- » Antelope Drive: This project will widen the Antelope Drive roadway between West Davis Corridor and 2000 West and (Phase 1; WFRC Project Number: R-D-10).
- » SR-193: This project will widen the SR-193 roadway east of 1000 West (Phase 3; WFRC Project Number: R-D-7).
- » 500 West: This project will extend the 500 West roadway from 1980 South to C Street in Clearfield (Phase 1; WFRC Project Number: R-D-34).
- » 4000 West Bike Lane: This project will add a shared lane along 4000 West from 1200 South to 300 North (Phase 3; WFRC Project Number: A-D-75).
- » 3000 West Bike Lane: This project will add a dedicated bike lane to 3000 West from 1700 South to the Weber County Line (Phase 2; WFRC Project Number: A-D-78).
- » Antelope Drive Bike Lane: This project will add a dedicated bike lane to Antelope Drive from the Antelope Island payment booth to 2000 West (Phase 1; WFRC Project Number: A-D-18)

Figure 1-2 shows the projects that are currently part of the WFRC 2019–2050 Regional Transportation Plan and are planned for completion by 2050, which includes the project discussed in this document, the extension of SR-193 between 3000 West and 4500 West.





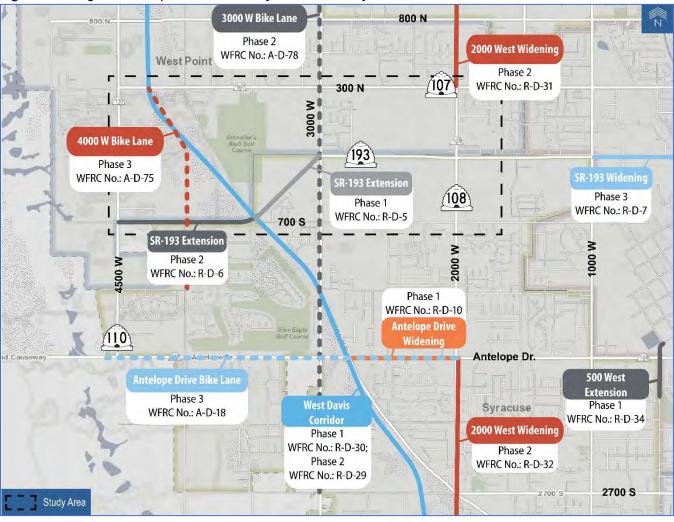


Figure 1-2: Regional Transportation Plan Projects in the Study Area

1.3.2 Unified Transportation Plan

The Unified Transportation Plan 2015–2040 (Unified Plan), was created by UDOT, WFRC, and other metropolitan planning organizations. The Unified Plan is a summary of all the individual agency plans, including the WFRC's regional transportation plan. The Unified Plan contains a comprehensive list of projects anticipated through 2040, and so any project listed in the WFRC 2019–2050 Regional Transportation Plan is also included in the Unified Plan.

1.3.3 Local Plans

Two local planning documents discuss the extension of SR-193: the Syracuse general plan (*2050 Syracuse*) and the *West Point City General Plan*. Both documents include planned transportation improvements in the study area, including West Davis Corridor and extending SR-193 to West Davis Corridor. *2050 Syracuse* also shows an interchange at West Davis Corridor and SR-193 at approximately 400 South (Syracuse 2019; West Point 2017).







1.4 Traffic Analysis

Traffic analyses are employed to determine how the traveling public would be affected by population and employment growth in a particular area. The traffic analysis that was conducted for the study area considered daily volumes and vehicles miles traveled, level of service, and travel times. Existing and future (2050) conditions were compared to measure predicted roadway performance. In this section, UDOT offers a summary of the results of this analysis. Those wanting additional detail or information may refer to the *SR 193 SES - Existing and 2050 No Action Traffic Analysis* in Appendix A.

1.4.1 Population and Employment Growth

The traffic analysis predicts that the population in the study area will more than double, from 12,650 people in 2018 to 31,370 people in 2050, which represents an average annual increase of 2.6 percent. Employment projections are predicted to increase at a higher rate (5.7 percent average annual rate) from 2,480 jobs in 2018 to 14,750 jobs in 2050.

1.4.2 Average Daily Volumes and Vehicle Miles Traveled

The study area traffic analysis revealed that existing daily traffic volumes (i.e., vehicles per day on a roadway segment) are within the typical limits for each roadway in the study area except 300 North (between 3000 West and 2000 West) and 3000 West (see Table 1-1). However, it is predicted that population growth, combined with SR-193 terminating at 3000 West, will increase daily volumes on the nearby non-arterial roadways. Major collector roadways, including 300 North and 700 South, are predicted to experience significant increases in traffic (100% and 42% increases, respectively). By contrast, SR-193—a principal arterial roadway designed to carry over 20,000 more vehicles on a daily basis than collector roadways—would experience a relatively insignificant increase of 12 percent (see Table 1-1 and Figure 1-3).

What are collector roadways?

Collector roadways (major city streets) provide access to local neighborhoods and businesses, and also funnel traffic to and from highercapacity arterial roadways and freeways.

In West Point and Syracuse, 300 North and 700 South, and 3000 West are examples of collector roadways. SR-193 and Antelope Drive are arterial roadways, and I-15 and the future West Davis Corridor are freeways.



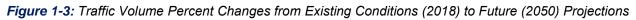


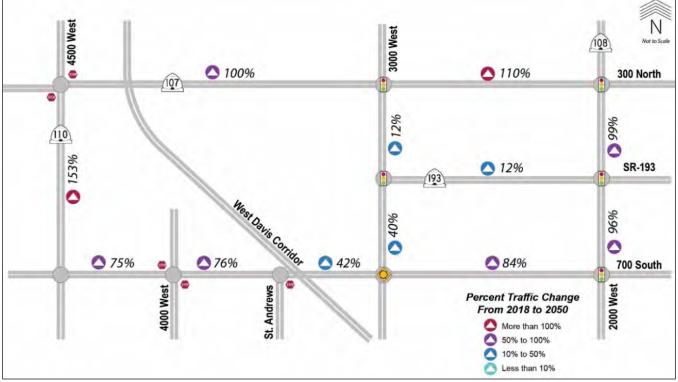


Road	Туре	Typical Daily Volume	Segment	Existing Daily Volume	2050 Daily Volume	% Change	Exceeds Typical Volume
300 North	Major	1,100 - 6,300	4500 W to 3000 W	5,100	9,200	100%	Yes
300 North	Collector	1,100 - 0,300	3000 W to 2000 W	7,600	13,200	110%	Yes
SR-193	Principal Arterial	7,000 - 27,000	3000 W to 2000 W	10,800	12,100	12%	No
			4500 W to 4000 W	1,200	2,100	75%	No
	N 41 and an		4000 W to West Davis Corridor	2,100	3,700	76%	No Yes
700 South	Minor Collector	1,100 - 6,300	West Davis Corridor to 3000 W	5,600	8,500	42%	
			3000 W to 2000 W	3,900	7,000	84%	Yes
4500 West	Minor Arterial	3,000 - 14,000	300 N to 700 S	3,800	9,600	153%	No
3000 West	Major	1 100 6 200	300 N to SR 193	11,600	13,000	12%	Yes
SUUU West	Collector	1,100 - 6,300	SR 193 to 700 S	9,500	13,300	40%	Yes No No Yes Yes No
2000 West	Principal	7,000 -	300 N to SR 193	21,100	42,000	99%	Yes
2000 West	Arterial	27,000	SR-193 to 700 S	18,100	35,500	96%	Yes

Table 1-1: Existing and Future (2050) Daily Volume Comparisons

Source: SR-193 Traffic Memo (Appendix A)





Source: SR-193 Traffic Memo (Appendix A)





As part of the study area traffic analysis, vehicle miles traveled was calculated to better understand the interaction between arterial and collector roadways within the study area. The addition of the West Davis Corridor by 2050 will provide an alternate direct connection to employment centers south of the study area in Davis and Salt Lake counties. However, the closest interchange would be approximately 1.2 miles south of the study area at Antelope Drive. Without a direct connection to West Davis Corridor, it is predicted that vehicle miles traveled in the study area on collector roadways would increase by 75 percent, from 38,900 miles in 2018 to 68,000 miles in 2050 (see Table 1-2).

What is vehicle miles traveled?

Vehicle miles traveled is a measurement of the amount of travel for all vehicles in a geographic region over a period of time.

Roadway	Vehi	cle Miles Trav	eled	Lengt	h (Miles)
Туре	2018	2050	% Change	2018	2050
Collector	38,900	68,000	75%	8.0	8.5
Arterial	90,900	162,400	79%	9.0	9.0
Freeway ¹	N/A	41,700	-	N/A	2.2
Total	129,800	272,100	110%	17.0	19.7

Table 1-2: Existing and Future (2050) Vehicle Miles Traveled by Roadway Type

Note: 1. Freeway vehicle miles traveled are attributed to West Davis Corridor **Source:** SR-193 Traffic Memo (Appendix A)

1.4.3 Level of Service and Intersection Delay

According to the study area traffic analysis, intersections in the study area currently operate at acceptable Level of Service (LOS) ratings (i.e., LOS D or better) during both peak periods. Although average daily volumes are expected to increase by 2050 (see Section 1.4.2), LOS would remain almost unchanged in 2050. The only exceptions are 700 South and 3000 West, where LOS ratings would deteriorate to LOS E, which is unacceptable (see Table 1-3). Figures 1-4 and 1-5 illustrate the existing and future (2050) LOS ratings during the morning peak hour, which generally represents the worst-case future traffic condition because of the excessive delay at 700 South and 3000 West.

What does Level of Service mean?

Level of service (LOS) is a method of measuring and describing the performance of an intersection or road. The LOS method uses letter grades ranging from A (for freeflowing traffic conditions) to F for failing conditions (extremely congested, stop-and-go traffic).

For signalized intersections, an overall LOS is reported for the entire intersection based on the average delay of all vehicles (A for the least amount of delay, F for the longest delays). For unsignalized intersections, LOS is reported based on the average vehicle delay for the worst approach.

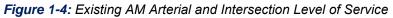


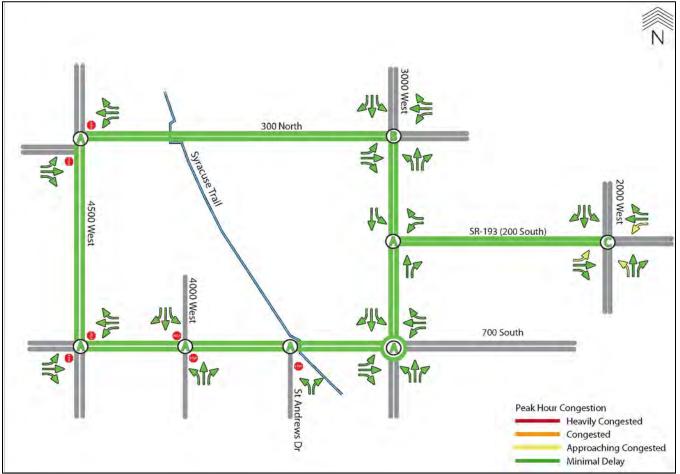




	AM Pe	AM Peak Hour PM Peak Hour		ak Hour
Intersection	Existing LOS/Delay (sec/veh)	2050 No Action LOS/Delay (sec/veh)	LOS / Delay (sec/veh)	LOS / Delay (sec/veh)
300 North & 4500 West	A / 10 (WB)	C / 24	B / 12 (WB)	C / 24
300 North & 3000 West	B / 11	B / 18	B / 13	B / 17
SR 193 & 3000 West	A / 9	B / 11	B / 13	B / 15
SR 193 & 2550 West	n/a	C / 27	n/a	C / 30
SR 193 & 2000 West	C / 25	D / 35	C / 24	D / 37
700 South & 4500 West	A / 9 (EB)	A / 8 (EB)	A / 8 (EB)	A / 8 (WB)
700 South & 4000 West	A / 9 (NB)	A / 9 (SB)	A / 8 (NB)	A / 10 (NB)
700 South & St Andrews Drive	A / 8 (NB)	A / 8 (NB)	A / 7 (NB)	A / 8 (NB)
700 South & 3000 West	A / 5	E / 48	A / 5	B / 11

 Table 1-3: Existing and Future (2050) Intersection Delay and Level of Service









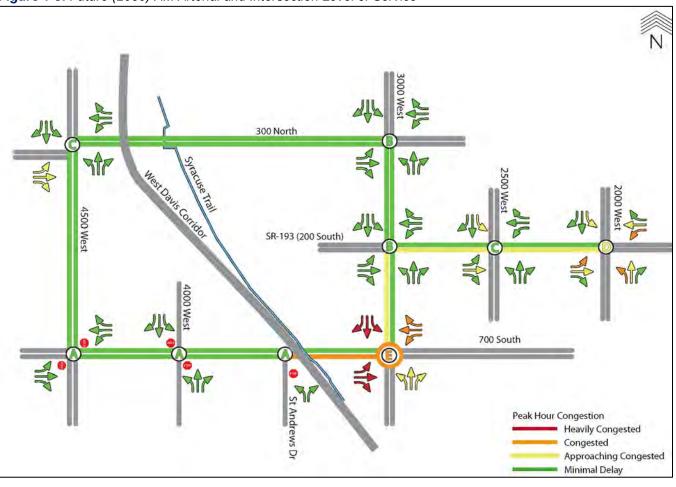


Figure 1-5: Future (2050) AM Arterial and Intersection Level of Service

1.4.4 Travel Time

As part of the study area traffic analysis, travel time was calculated for locations east and south of the study area. East-west travel time is affected by SR-193 terminating at 3000 West because this termination constrains the efficient movement of traffic from residential areas in the west to commercial areas in Clearfield (Freeport Center and I-15, for example). Westbound traffic from SR-193 must turn north or south onto 3000 West, then onto 700 South or 300 North to continue traveling west. This is inefficient because 700 South and 300 North have lower speeds and more conflict points (driveways, for example) compared to SR-193. These roadways also have multiple stop signs, limited vehicle capacity, and their connectivity to major destinations such as I-15 is indirect rather than direct. As a result of this indirect travel, it currently takes 12.6 minutes to travel from I-15 to the 4500 West and 200 South intersection (the western-most intersection in the study area). As the study area continues to develop and traffic volumes increase, this travel time is expected to increase to 15.5 minutes by 2050 (see Table 1-4). It should be noted that north-south travel times in 2050 are shorter than existing times because of the addition of West Davis Corridor, which provides a more direct route to Legacy Parkway.

What is travel time?

Travel time is the duration it would take for a vehicle to travel between select locations.





Pagmanta	Travel Time	e (Minutes)	% Change
Segments	Existing	2050	% Change
Legacy Parkway to 3000 West & SR-193	23.1	20.2	-13%
Legacy Parkway to 4500 West & 200 South	26.4	21.5	-19%
I-15 to 4500 West & 200 South	12.6	15.5	23%

Table 1-4: Existing and Future (2050) Travel Times

Source: SR-193 Traffic Memo (Appendix A)

1.5 Need for the Project

Transportation changes are often predicated on a defined need, such as unsafe or inefficient traffic conditions. Although the traffic analysis of the study area showed there would be measurable changes in the study area by 2050, these projections alone are not enough for UDOT to justify improvements to the roadway network. A more compelling reason is the current transition of the study area from rural to suburban (see Section 1.4.1). Population growth and the lack of direct connectivity to I-15 is predicted to result in increasing west-east travel times. Similarly, the lack of direct connectivity to the future West Davis Corridor is predicted to increase volumes on collector roadways and out-of-direction travel for residents travelling to employment centers in Davis and Salt Lake counties using West Davis Corridor.

1.6 Project Goal

The goal of the proposed project is to improve local connectivity to existing regional routes, such as I-15, and future regional routes, including the West Davis Corridor.





Chapter 2 Alternatives

2.1 Introduction

Transportation projects are developed by formulating alternatives for accomplishing the goal of the project, comparing the pros and cons of the alternatives, and then selecting one alternative as the "Preferred Alternative." In this chapter, UDOT describes the alternatives considered for this project, along with the rationale behind the selection of the Preferred Alternative.

2.2 Alternative Development and Screening

The process of developing and screening alternatives included evaluating potential solutions that meet the project goal, which is to improve connectivity to existing and future regional routes (see Section 1.6).

UDOT developed four alternatives to address connectivity to existing and future regional transportation routes. These are referred to as "build alternatives" because they include proposed construction and modification to the transportation system. A No-Action Alternative is also included, in which no construction or modifications would take place. The reason for this is to provide the detailed study with a baseline for comparing impacts associated with the build alternatives.

2.2.1 No-Action Alternative

The No-Action Alternative assumes that SR-193 would not be extended from 3000 West to 4500 West, and that the predicted 2050 traffic conditions would occur. Under this alternative, all the other transportation improvements outlined in the *WFRC 2019–2050 Regional Transportation Plan* would be built (see Section 1.3.1 for transportation improvements planned in or near the study area).

2.2.2 Build Alternatives

UDOT developed four build alternatives, each with a different road alignment, to extend SR-193 from its current western terminus at 3000 West to its proposed new terminus at 4500 West. Each build alternative includes a diamond interchange at the future West Davis Corridor. As shown in Figure 2-1, each alignment intersects the West Davis Corridor at a different location: 700 South, 600 South, 400 South, or 200 South. The name of each build alternative refers to the location of the proposed West Davis Corridor interchange, not necessarily the entire length of the alignment. Accordingly, the five alternatives are referred to by the following names:

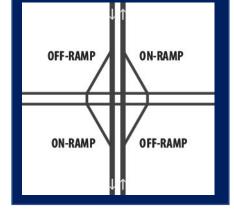
- » No-Action Alternative
- » 700 South Build Alternative
- » 600 South Build Alternative

Why is the No-Action Alternative Considered?

The No-Action Alternative is considered for detailed study to provide a baseline for comparing impacts associated with the build alternatives.

What is a diamond interchange?

A diamond interchange separates a freeway from a surface street to allow unrestricted travel on the freeway. Off-ramps in either direction diverge from the freeway, continue through the intersection of the surface street, and become onramps. Traffic at the surface street is controlled by a stop sign or signal, depending the traffic volume.







- » 400 South Build Alternative
- » 200 South Build Alternative

For traffic analysis purposes, UDOT assumed that in each build alternative SR-193 would have two travel lanes in each direction and a diamond interchange at West Davis Corridor.





2.2.3 Traffic Analysis

Using the following measures of effectiveness, a traffic analysis was performed to compare the effectiveness of each build alternative compared to the No-Action Alternative:

- » Daily Volumes: This measurement provides an understanding of the traffic flow that would result from each alternative.
- » Vehicles Miles Traveled and Average Volumes: These measurements evaluate the interaction between arterial roadways and collector roadways.
- » Travel Time: This measurement determines how long it would take for a vehicle to travel from one selected point within the study area to another.

Those wanting more detail may refer to the *SR-193 SES Build Traffic Analysis* in Appendix A.







DAILY VOLUMES

Projected traffic volumes on collector and arterial roadways would vary depending on the location of the proposed SR-193 and West Davis Corridor interchange (see Table 2-1). Under the No-Action Alternative, 700 South and 300 North would continue to carry the majority of west-east traffic between 3000 West and 2000 West, with a combined volume of 20,300 vehicles per day (VPD). Under all build alternatives, traffic volumes would increase on SR-193 between 3000 West and 2000 West, and decrease on 700 South and 300 North.

Also, each of the build alternatives would increase the traffic volume on West Davis Corridor between SR-193 and Antelope Drive compared to the No-Action Alternative (19,200 VPD). Traffic volumes range between 25,900 VPD and 30,200 VPD. The 600 South Build Alternative draws the most traffic onto West Davis Corridor.

	Sogmont				Iternative	live			
Road	Segment	No-Action	200 South	400 South	600 South	700 South			
300	4500 W to 3000 W	9,200	4,200	5,900	6,800	7,100			
North	3000 W to 2000 W	13,200	10,900	11,800	12,400	13,200			
	4500 W to West Davis Corridor	-	10,600	8,400					
SR-193	West Davis Corridor to 3000 W		11,900	11,700	14,900				
	3000 W to 2000 W	12,100	14,600	14,100	13,800	12,500			
	4500 W to 4000 W	2,100	1,000	900	6,400*	6,200*			
700	4000 W to West Davis Corridor	3,700	1,700	1,600	11,900*	10,500*			
South	West Davis Corridor to 3000 W	8,500	6,800	6,300	3,700	12,800*			
	3000 W to 2000 W	7,100	6,500	6,500	6,500	8,900*			
4500 West	300 N to 700 S	9,600	7,700	8,800	9,600	10,300			
3000	300 N to SR-193	13,000	9,200	11,600	12,200	10,500			
West	SR 193 to 700 S	13,300	11,400	9,700	7,200	8,900			
2000	300 N to SR-193	42,300	42,800	43,000	42,500	42,900			
West	SR-193 to 700 S	35,500	35,100	35,000	34,300	32,900			
West	SR-193 to Antelope	19,200	25,900	27,700	30,200	28,000			
Davis Corridor	SR-193 Int. Ramps		12,000	12,400	14,600	12,400			

Table 2-1: 2050 Daily Two-Way Traffic Volumes (vehicles/day)

*Contains a portion of SR-193







VEHICLE MILES TRAVELED AND AVERAGE VOLUMES

Vehicle miles traveled would increase slightly under each of the build alternatives, except the 600 South Build Alternative, compared to the No-Action Alternative (see Table 2-2). The predicted increase in vehicle miles traveled is primarily attributed to the increase in vehicles that would use the West Davis Corridor. An interchange at the West Davis Corridor would make it more convenient for drivers in the study area to access the highway. As a result, vehicle miles traveled on arterial and collector roadways would be reduced, while vehicle miles traveled on freeways would increase under the build alternatives when compared to the No-Action Alternative. Furthermore, under the build alternatives, average traffic volumes would decrease on collector roadways and increase on arterial roadways, including SR-193, and the West Davis Corridor (see Table 2-3).

Roadway Type	No-Action		Build A	Iternative	
Roadway Type	NO-ACTION	200 South	400 South	600 South	700 South
Collectors	68,000	65,200	66,700	62,600	59,600
Arterials	162,400	158,200	157,000	158,300	165,000
Freeways	41,700	50,800	50,900	50,700	48,100
Total	272,100	274,200	274,600	271,600	272,700

Table 2-2: 2050 Study Area Vehicle Miles Traveled by Alternative

Table 2-3: 2050 Average Volume (vehicles/day) by Alternative

Boodway Type	No-Action	Build Alternative				
Roadway Type		200 South	400 South	600 South	700 South	
Collectors	8,000	6,200	6,500	6,900	7,000	
Arterials	18,100	17,600	17,300	17,300	17,500	
Freeways	19,200	23,400	23,500	23,400	22,200	
Total	13,800	12,700	12,800	13,300	13,600	

TRAVEL TIME

West-east travel time from 4500 West and 200 South to I-15 would be reduced under all of the build alternatives when compared to the No-Action Alternative (15.5 minutes). The 200 South Build Alternative would have the shortest travel time (12.6 minutes), followed by the 400 South Build Alternative (13.2 minutes), the 600 South Build Alternative (13.7 minutes), and finally the 700 South Build Alternative (14.2 minutes) (see Table 2.4).

Two origin and destination routes were used to determine south-north travel times from Legacy Parkway to points west (4500 West and 200 South) and east (3000 West and SR-193) of West Davis Corridor. Travel times would be reduced under each alternative compared to west and east origin points under the No-Action Alternative (21.5 minutes and 20.2 minutes, respectively). The 200 South Build Alternative would have the greatest reduction west of the West Davis Corridor (18.1 minutes); the







400 South Build Alternative would be the shortest east of West Davis Corridor (18.2 minutes) (see Table 2-4).

		No-Action	Build Alternative			
	Travel Time Segment		200 South	400 South	600 South	700 South
-	Legacy Pkwy to 3000 W & SR-193	20.2	18.4	18.2	18.0	18.7
	Legacy Pkwy to 4500 W & 200 S	21.5	18.1	18.8	19.4	19.4
	I-15 to 4500 W & 200 S	15.5	12.6	13.2	13.7	14.2

Table 2-4: 2050 Travel Times (minutes) by Alternative

TRAFFIC ANALYIS SUMMARY

Each of the build alternatives would satisfy the project goal of improving local connectivity to existing and future regional routes. The traffic analysis concluded each build alternative would have similar roadway network benefits compared to the No-Action Alternative, as follows:

- » Each of the build alternatives would increase projected daily volumes on SR-193 and West Davis Corridor while reducing daily volumes on collector and arterial roadways.
- » Each of the build alternatives would increase projected vehicle miles traveled on freeways while reducing vehicle miles traveled on collector and arterial roadways.
- » Each of the build alternatives would result in a reduction in travel times to I-15 and Legacy Parkway.

2.2.4 Safety Considerations

UDOT evaluated each build alternative for design elements that could compromise vehicular safety. This evaluation identified the following constraints for the 700 South and 600 South build alternatives:

- Interchange Spacing: The distance between the 700 South Build Alternative and the proposed Antelope Drive interchanges along West Davis Corridor would be less than the one-mile minimum distance recommended by the American Association of State Highway and Transportation Officials (AASHTO 2016). Closely spaced interchanges, such as these, negatively affect the traffic operations and safety performance of urban highways because it creates weaving conflicts between vehicles entering and exiting the freeway.
- Intersection Spacing: Under the 600 South Build Alternative, the east leg of 700 South would be realigned near Rock Creek Park to intersect with SR-193 at a right-angle. A signal would be required at this intersection because of the predicted traffic volumes on SR-193; however, a signal at this intersection would result in inadequate spacing between the proposed on- and offramps, which could affect the operation and safety of the interchange. Without a traffic signal, left-turns from 700 South onto SR-193 would be restricted.





No safety constraints were identified for the 400 South and 200 South build alternatives.

2.3 Preferred Alternative

In the process of developing a transportation project, one alternative is eventually selected as the Preferred Alternative. For the current project, all of the build alternatives were similar from a traffic-performance perspective; therefore, UDOT considered impact assessment and engineering advantages in selecting the Preferred Alternative. The 400 South Build Alternative was selected as the Preferred Alternative because it would:

- » avoid Rock Creek Park (a Section 6(f) property), Schneiter's Bluff Golf Course, and existing residences, and
- » minimize safety issues associated with other build alternatives by providing adequate spacing between the proposed West Davis Corridor interchange at SR-193 and the Antelope Drive interchange, and between the SR-193 interchange and nearby intersections (e.g., 4000 West), consistent with UDOT design standards.

Although a residential development that has already been planned would be bisected in the western portion of the study area, UDOT has been coordinating with the developer to minimize the loss of building lots.

The following sections describe the details of the Preferred Alternative. Figures 2-5 through 2-13 illustrate segments of the proposed roadway in a detailed plan view.

What is a Section 6(f) property?

If a park funded through the Land & Water Conservation Fund Act is acquired in whole or in part, Section 6(f) of the act requires the affected property be replaced with other recreation properties of equal fair market value and of reasonable equivalent usefulness and location. Furthermore, alternatives to conversion (i.e., acquisition) of the property must be considered prior the conversion approval (36 Code of Federal Regulations 59.3(b)).



Figure 2-2: Preferred Alternative







2.3.1 Roadway Components

UDOT proposes to continue the existing lane configuration of SR-193 between 2000 West and 3000 West to the interchange at West Davis Corridor. The typical cross section for this segment consists of two 12-foot-wide travel-lanes in each direction separated by a 26-foot-wide median swale. The right-of-way line would extend 26 feet beyond each side of the roadway. The typical width of this section would be 150 feet-wide, as illustrated in Figure 2-3.

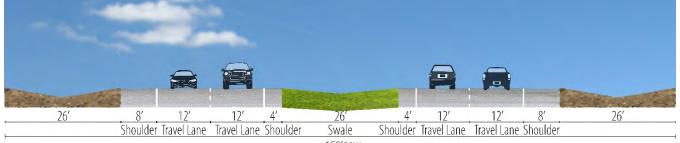
Between the West Davis Corridor and 4500 West, the proposed typical cross section would have one 12-foot-wide travel lane in each direction separated by a shared 14-foot-wide center turn lane. Ten-foot-wide shoulders would be provided on both sides, lined with curb, gutter, park strip, and sidewalks. The typical width of this section would be 84 feet-wide, as illustrated in Figure 2-4. At the West Davis Corridor interchange, the cross section would be expanded to include an additional eastbound travel lane and left- and right-turn lanes.

The interchange design would require raising West Davis Corridor over SR-193. The interchange on- and off-ramps would consist of one 12-foot-wide lane. Intersection stop-control for the off-ramps would be provided by stop signs (Figure 2-2). The northbound off-ramp would have a free-right lane in the eastbound direction onto SR-193. Street lights would be installed at the interchange.

Why is the West Davis Corridor interchange included in this state environmental study?

The West Davis Corridor Environmental Impact Statement (EIS) did not study an interchange at SR-193. Following the EIS, UDOT determined an interchange is needed along West Davis Corridor at SR-193 and elected to study it independent of the EIS.





150'ROW

Figure 2-4: SR-193 Typical Cross-Section Between West Davis Corridor and 4500 West



2.3.2 Trail Components

Through the study area, the Syracuse Trail parallels the east side of the West Davis Corridor. The Preferred Alternative would realign the trail to the east of the northbound on- and off-ramps at the interchange. A bridge for the trail would be constructed over SR-193 (Figure 2-8).







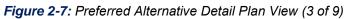


Figure 2-6: Preferred Alternative Detail Plan View (2 of 9)









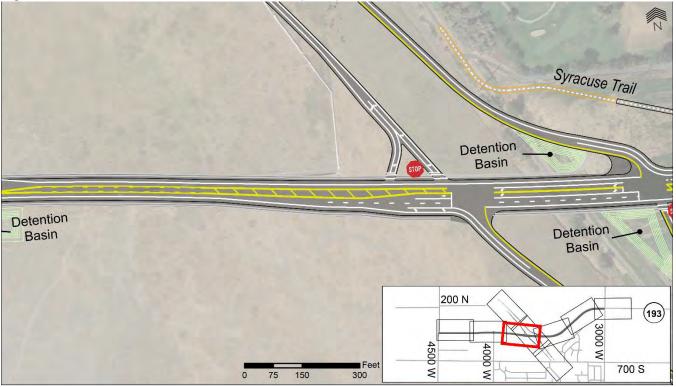
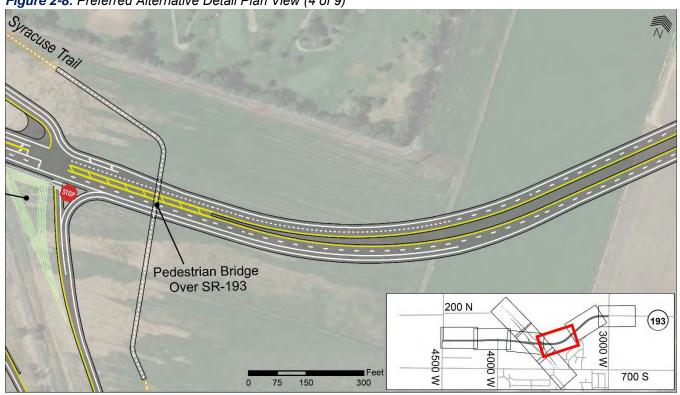


Figure 2-8: Preferred Alternative Detail Plan View (4 of 9)









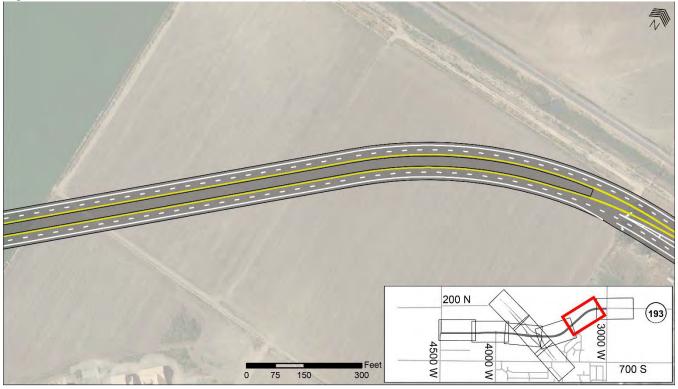
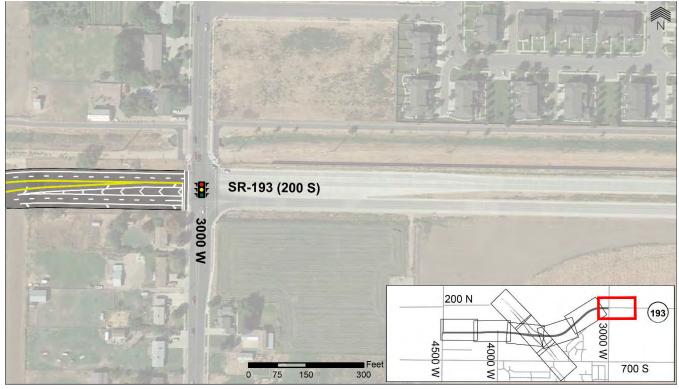
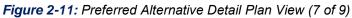


Figure 2-10: Preferred Alternative Detail Plan View (6 of 9)









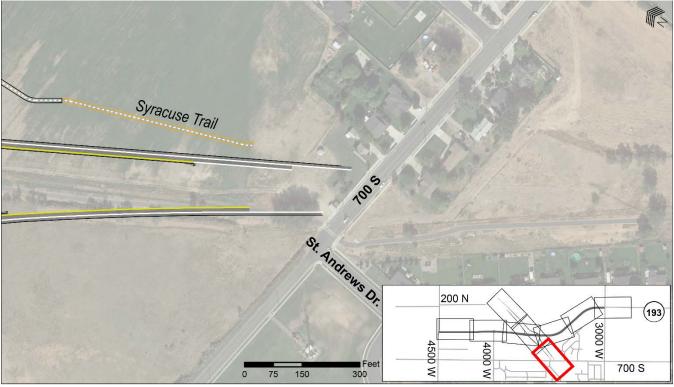
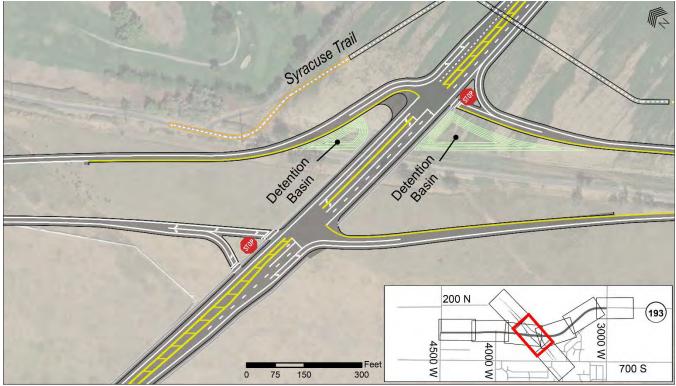
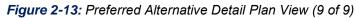


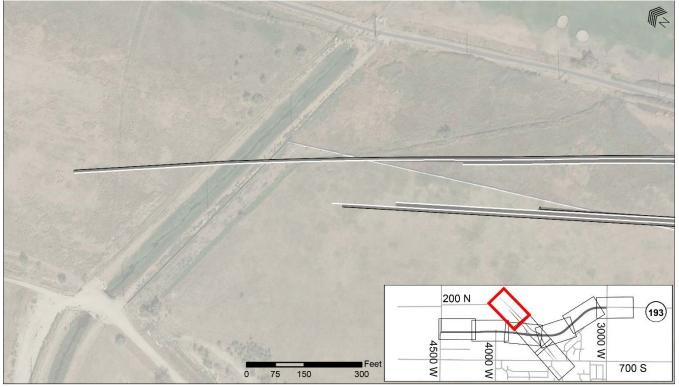
Figure 2-12: Preferred Alternative Detail Plan View (8 of 9)















Chapter 3 Environmental Analysis

In this chapter, UDOT describes the existing environmental, community, and economic conditions in the study area, which serve as a baseline for evaluating the impacts of the Preferred Alternative.

3.1 Introduction

The following resources will be discussed in the sections below:

- » Land Use
- » Farmland
- » Right-of-way and Relocations
- » Pedestrian and Bicyclists
- » Economics
- » Noise
- » Visual Resources
- » Cultural Resources
- » Wetlands, Other Waters of the United States, and Water Resources
- » Threatened and Endangered Species
- » Wildlife
- » Construction Impacts

For each resource analyzed, the impact analysis area, regulatory environment, existing conditions, expected impacts, and required mitigation are described. Impacts of the No-Action Alternative are described near the end of the chapter. An impact summary is also presented at the end of the chapter.

3.1.1 Issues Considered but not Evaluated in Detail

Some resource issues are eliminated from detailed evaluation because the resource would not be affected or available data examined early in the process did not identify presence of the resource in the study area. For this project, the following resource issues were not evaluated in detail:

- » Social Impacts: The Preferred Alternative would not affect social interaction patterns or social cohesion within the study area because there would be no relocations of residences, businesses, or community facilities; the Preferred Alternative would not divide neighborhoods and has been anticipated and included in local community planning.
- » Hazardous Materials and Hazardous Waste: Searches of available databases (UDEQ 2019, USEPA 2019) have no records of toxic releases, spills, or hazardous facilities on







properties where property would be acquired or where construction would occur.

- Air Quality: Because this project would not be federally funded, an air quality conformity determination was not required. Expected short-term air quality impacts from constructing the Preferred Alternative and UDOT's proposed mitigation measures are described in Section 3.13.
- Paleontological Resources: UDOT consulted with the Utah Geological Survey (UGS) regarding the potential for encountering paleontological resources (e.g., fossils) in the survey area. The UGS indicated that no such localities have been reported for the survey area and that the geological deposits exposed in the area have low potential for yielding significant fossil localities. A copy of the correspondence from the UGS is included in Appendix C. If unknown resources should be encountered during construction, the contractor would be required to follow UDOT Standard Specifications regarding discovery.
- Section 6(f) Resources: During the alternatives development process, the study team identified Rock Creek Park as a Section 6(f) resource (a recreation property that received federal funding under the Land and Water Conservation Fund Act). If acquired in full or in part, a Section 6(f) property must be replaced with other recreation properties of equal fair market value and of reasonable equivalent usefulness and location. Alternatives to conversion (i.e., acquisition) of the property must also be considered prior the conversion approval (36 Code of Federal Regulations 59.3(b)). The preferred alternative would not require property acquisition from Rock Creek Park; therefore, this issue was not further evaluated.

3.1.2 Study Area

The study area for evaluating impacts of the Preferred Alternative focused on the lands bounded by 4500 West (on the west), 2000 West (on the east), 200 South (on the north), and 700 South (on the south).

3.2 Land Use

Land use as a resource issue refers to ways the various properties within the study area are currently used and developed, and how they may be used in the future. The Preferred Alternative is located within the city limits of Syracuse and West Point, and these local governments have general plans showing existing and planned land uses for land development within their respective jurisdictional boundaries. In its environmental process, UDOT typically reviews these plans to help understand how the project could change land-use patterns and the relationship of planned land uses and roadway network needs.







3.2.1 Methodology

UDOT identified existing land uses in the study area using Google aerial imagery (September 10, 2018) available under license from the Utah Automated Geographic Reference Center (AGRC) and field verification (windshield survey). Additionally, Geographic Information System (GIS) data illustrating existing land uses created by the Utah Division of Water Resources (UDWRE 2017) was used.

The general plans of Syracuse and West Point were reviewed to identify land-use planning area designations. Representatives of the project team met with staff from Syracuse and West Point cities and the Davis School District to coordinate compatibility of the Preferred Alternative with local land use and transportation planning. Coordination with local governments is summarized in Chapter 4 (Section 4.3).

3.2.2 Existing Conditions

Existing land use in the study area (Figure 3-1) is primarily agricultural with residential development concentrated along the existing collector roadways that border the study area: 4500 West, 700 South, and 3000 West. Recreational land uses are represented by Schneiter's Bluff Golf Course and Rock Creek Park. Recently constructed subdivisions include the Trail's Edge subdivision, Rock Creek subdivision, and a development along 625 South at 4500 West. A planned residential development in West Point is the Elite Craft Development, the first phase of which was being constructed at the time this SES document was being prepared.



Figure 3-1: Existing Land Use

Sources: UDWRE 2017







Growth projections and land-use planning by West Point and Syracuse cities predict and anticipate the continued conversion of agricultural land to low- and medium-density housing with commercial developments at major roadway intersections. Planning maps for West Point and Syracuse, reproduced in Figure 3-2, show future commercial development along the SR-193 corridor between 3000 West and in the vicinity of the proposed interchange with West Davis Corridor. Between this interchange and 4500 West, Davis School District has planned a junior high school and an elementary school at the locations indicated in Figure 3-2. West Point City has planned a community commercial development at the intersection of 4500 West and 700 South intersection. Low- and medium-density residential development is expected to fill in the remaining agricultural lands surrounding the commercial and institutional developments in both cities. West Point City's planning map includes plans for a park west of 4500 West at 200 South and a neighborhood park along Cold Springs Road.



Figure 3-2: Local Land Use Planning with West Davis Corridor and the SR-193 Preferred Alternative

Sources: Syracuse City (2017), West Point City (2017)

3.2.3 Expected Impacts

The Preferred Alternative is compatible with and would support local land use plans. UDOT has coordinated with the local governments and the Davis School District to make adjustments to the Preferred Alternative alignment and its design features to be compatible with their land-use planning (See Chapter 4, Section 4.3).







The proposed east segment of SR-193 and the West Davis Corridor interchange are compatible with and would support planned commercial development areas shown in Figure 3-2; however, UDOT would manage access to these areas from SR-193 to ensure safety and efficient traffic flow. The SR-193 alignment would not impact the golf course or existing subdivisions. The west segment of the SR-193 alignment, between 4500 West and the interchange, largely avoids the two planned school development sites; however, minor partial acquisitions would be needed at each school property (see right-of-way impacts, Section 3.4).

3.2.4 Mitigation

No mitigation related to land use would be required.

3.3 Farmland

Farmland contributes to the economic output of an area as well as contributing to a sense of rural heritage and open space. It also supports wildlife. The Utah Administrative Code and subsequent state laws have established a system for designating Agricultural Protection Areas (APAs). An APA cannot be condemned for highway purposes unless (1) the landowner requests the removal of the designation or (2) the applicable legislative body (that is, the legislative body of the county, city, or town in which the agriculture protection zone is located) and the APA advisory board approves the condemnation as described in the Utah Administrative Code (Section 17-41-405 (4)(a)).

3.3.1 Methodology

Sources of information consulted to identify farmlands were aerial photography verified by field observation (windshield survey) and GIS data created by the Utah Division of Water Resources (UDWRE 2017). APAs were identified from statewide GIS data.

3.3.2 Existing Conditions

As discussed in Section 3.2, existing land use in the vicinity of the Preferred Alternative is primarily agricultural. However, residential development is expanding rapidly in this area and lands where the Preferred Alternative is proposed are within incorporated city limits of West Point and Syracuse. A group of parcels to the east of Schneiter's Bluff Golf Course are within a designated APA (see Figure 3-3).

3.3.1 Expected Impacts

The Preferred Alternative would convert lands currently used for agriculture to a transportation use. As discussed in Section 3.2, lands adjacent to the proposed alignment between 4500 West and Cold Springs Road are already planned for a residential subdivision, with the first phase of the development currently under construction. Additionally, West Point City has identified two parcels as development sites for future schools. Other parcels currently used for agriculture that do not have current development plans would be bisected by the road alignment of the Preferred Alternative. This would affect the agricultural productivity of the parcels and reduce the efficiency of farming the bisected segments,







Figure 3-3: Farmland and Designated Agricultural Protection Area

Source: UDWRE 2017

requiring the farm operator to move farming equipment to the other side of the roadway. This would also affect how fields are irrigated. These effects would potentially facilitate conversion of the remaining agricultural lands to developed uses. However, as previously discussed, the Preferred Alternative is located entirely within incorporated city limits, and the land-use plans of both cities anticipate future development of these lands irrespective of the Preferred Alternative.

The Preferred Alternative does not cross through designated APAs; therefore, the project would not require approval for condemnation of agricultural lands.

3.3.2 Mitigation

No mitigation-related to farmlands would be required.







3.4 Right-of-Way and Relocations

Highway projects often require property acquisition to accommodate right-of-way (ROW) needed for the roadway facility. Property acquisitions are governed at the state level by the Utah Relocation Assistance Act, Utah Code, Section 57-12. Information for property owners and renters regarding UDOT's process are described in the <u>Relocation Assistance</u> <u>Brochure</u> (UDOT 2016).

3.4.1 Methodology

ROW impacts were identified using GIS to overlay Davis County Parcel data with the proposed right-of-way for the Preferred Alternative. The impacts identified are based on preliminary engineering; actual impacts could change and would be determined during final design and during the property-acquisition process. Property impacts are defined as:

- » Relocation: a home or business structure is within the ROW of a proposed alternative.
- » Potential relocation: a home or business structure is within 15feet of the proposed ROW.
- » Partial acquisition: a home or business structure is more than 15feet from the proposed ROW.

3.4.2 Existing Conditions

Lands in the study area are privately owned with the exception of a few properties that are owned by public entities, including UDOT. UDOT owns a parcel at the intersection of SR-193 and 3000 West, three parcels west of Schneiter's Bluff Golf Course, and six parcels where West Davis Corridor will cross over 700 South (see Figure 3-4).



Figure 3-4: Proposed Right-of-Way and Parcels with Property Acquisition

Note: Numbers in the figure reference the parcels in Table 3-1.







Eight residential relocations from seven properties along 700 South associated with construction of the West Davis Corridor have been accounted for in the West Davis Corridor EIS (FHWA 2017), and are not part of the SR-193 project effects.

The Layton Aqueduct passes through the study area in the north-south direction immediately west of Schneiter's Bluff Golf Course. The Layton Aqueduct was constructed with funding through the US Bureau of Reclamation (USBOR) as a component of the Weber Basin Project. Portions of this waterway are open canal, but the portion that passes through the study area is a buried aqueduct. Segments of the aqueduct to the south of the study area would be realigned as part of the West Davis Corridor Project.

3.4.1 Expected Impacts

The Preferred Alternative would require an estimated 34.5 acres of ROW acquisition, which would affect 18 parcels. Parcels that would be affected are shown in Figure 3-4, and the preliminary ROW acquisition acreages are shown in Table 3-1. Property impacts could vary slightly from these quantities during the final design phase. All of the acquisitions would be partial acquisition; the road alignment of the Preferred Alternative would not require any relocations or potential relocations.

Reference Number	Acquisition	Parcel ID	Ownership/Land Use	Acquisition Estimate (Acres)
1	Partial	120450058	Private/Planned Subdivision	4.50
2	Partial	120450045	Public/Planned Elementary School	0.44
3	Partial	120390045	Private/Agricultural	2.28
4	Partial	120390043	Public/Planned Jr. High School	1.25
5	Partial	120390042	Private/Agricultural	0.82
6	Partial	120370092	Public/Davis County	0.41
7	Partial	120390028	Public/West Point City	0.17
8	Partial	120390005	Private/Agricultural	9.73
9	Partial	120390041	Public/Layton Aqueduct	1.35
10	Partial	120390010	Private/Agricultural	4.24
11	Partial	120400075	Private/Agricultural	1.78
12	Partial	120400086	Private/Agricultural	1.82
13	Partial	120400085	Private/Agricultural	0.10
14	Partial	120400081	Private/Agricultural	0.96
15	Partial	120400077	Private/Agricultural	0.95
16	Partial	120400067	Private/Agricultural	0.39
17	Partial	120400064	Private/Agricultural	3.11
18	Partial	120400026	Private/Residential	0.15
			Total	34.45

Table 3-1: Right-of-Way Impacts







The Preferred Alternative road alignment would require moving the Layton Aqueduct alignment farther to the east than what was evaluated for West Davis Corridor. The necessary ROW to route the aqueduct around the interchange has been included in the preliminary interchange design evaluated in this SES and is included in the acreages shown in Table 3-1.

3.4.2 Mitigation

Property acquisitions will be completed according to the provisions of the Utah Relocation Assistance Act, Utah Code, Section 57-12.

3.5 Pedestrians and Bicyclists

Existing and proposed pedestrian and bicycle facilities are typically defined in regional long-range transportation plans. In this case, the plans have been compiled with input from the appropriate cities and counties, and they identify which pedestrian and bicyclist accommodations should be included in the regional system. UDOT promotes active (human-powered) transportation for optimizing mobility and examines opportunities to preserve and enhance active transportation when projects are implemented.

3.5.1 Methodology

Existing pedestrian and bicycle facilities were identified using available statewide GIS data and aerial photography. Planned facilities were identified by reviewing the regional and local transportation plans and through coordination with local governments.

3.5.2 Existing Conditions

Both of the general plans for Syracuse and West Point include goals for maintaining and improving connectivity and safety of pedestrians and bicyclists. The Syracuse Trail presently provides north-south travel by walking or bicycling through these communities. The SR-193 trail presently provides connectivity to the east. The *WFRC 2019-2050 Regional Transportation Plan* also identifies future bike and pedestrian routes along 4000 West (Cold Springs Road), 3000 West, and 700 South for local connectivity (WFRC 2019).

As described in the West Davis Corridor EIS (FHWA 2017), the alignment of the West Davis Corridor has been identified in local planning as a joint-development corridor for both the highway and a separated trail. The Syracuse Trail has already been constructed, but a portion of the trail will need to be realigned when the West Davis Corridor highway is constructed. This realignment will locate the trail on the east side of West Davis Corridor through the SR-193 study area.

3.5.3 Expected Impacts

The Preferred Alternative would include sidewalks on either side of SR-193 between 4500 West and the interchange at West Davis Corridor (Figure 3-5). Sidewalks would create pedestrian connectivity from 4500 West to the Syracuse Trail and SR-193 Trail. West Point City plans a







multi-use trail connection at 200 South, which would provide bicycle connectivity to the west. The SR-193 Trail and the future 200 South Trail planned by West Point City would not be affected by the Preferred Alternative.

As mentioned for existing conditions, the Syracuse Trail will be realigned along the east side of West Davis Corridor as part of that project. Coordination between the West Davis Corridor and SR-193 project teams occurred during preparation of this SES so that the trail relocation would also be routed around the SR-193 interchange ramps. The trail realignment to accommodate the interchange is illustrated in Figure 3-5.

Figure 3-5: Location of New Sidewalks and Realignment of the Syracuse Trail



3.5.1 Mitigation

No mitigation related to pedestrians and bicycles would be required.







3.6 Economics

Transportation projects can have economic impacts because acquiring property, relocating businesses, or changing access is sometimes required.

3.6.1 Methodology

UDOT reviewed local plans and the Davis County website for information regarding existing and planned businesses and local tax revenues for the SR-193 study area.

3.6.2 Existing Conditions

Existing economic activity in the study area is agricultural production from agricultural lands and the Schneiter's Bluff Golf Course. There are no other businesses located in the study area portions of Syracuse or West Point.

Davis County collects property taxes for the cities, the county, school district, and various special-use districts in the county such as water, sewer, fire, library, and mosquito abatement, depending on location (Davis County 2015). The 2018 property tax rate in Syracuse was about 1.2% and for West Point it is 1.3% (Utah State Tax Commission 2018).

In recent years, Syracuse and West Point have been rapidly transitioning from agricultural communities to suburban, bedroom communities with a limited selection of local jobs and commercial or retail destinations.

In its 2050 General Plan, Syracuse City envisions the area south of SR-193 between 1000 West and 3000 West as a potential area for commercial development to diversify the tax base and create local jobs. This might include businesses such as data centers, light industrial manufacturing, or large office complexes (Syracuse City 2019).

West Point's economic goals are to establish a retail base without sacrificing the community's rural character (West Point 2019). West Point has experienced rapid growth of single-family housing and has limited commercial development (the nearest commercial area is at 300 North and 3000 West, approximately 0.5 miles north of the road alignment of the Preferred Alternative).

Both of the cities account for construction of the West Davis Corridor and an interchange at SR-193 in their respective local planning, envisioning a regional commercial shopping center surrounding the interchange.

3.6.3 Expected Impacts

As part of the Preferred Alternative, UDOT would acquire land that is currently in agricultural production, thus impacting agricultural operations, productivity, and revenue. The Preferred Alternative would not require business relocations, acquisition of commercial properties, or changes in access to existing businesses. Property acquired by UDOT would be exempt from property taxes; however, these would be a small proportion of the study area lands available for development.

3.6.4 Mitigation

No mitigation related to economic conditions would be required.







3.7 Noise

The State of Utah Administrative Code R930-3 and federal regulations (23 CFR 772) require consideration of noise abatement for certain types of highway projects, known as Type I projects. The UDOT Noise Abatement Policy implements the federal regulation and specifies the procedure for assessing noise impacts and mitigation for noise-sensitive land uses (UDOT 2017). As a new road segment, the SR-193 Preferred Alternative represents a Type I project. A noise study was prepared following the UDOT policy; the complete noise study report is included as Appendix B, with results summarized here.

3.7.1 Methodology

The noise evaluation area included first- and second-row noise-sensitive receptors closest to the Preferred Alternative alignment. Additional receptors were included along 4500 West and 3000 West (the project termini) to help determine the distance of noise increases from the alignment. Table 3-2 presents UDOT's noise-abatement criteria (NAC) for noise-sensitive land-use activity categories. NAC are used to define the sound levels that are considered an impact for each land use activity category. Impacts are based on an A-weighted decibel (dBA) scale averaged over one hour.

What is an A-weighted decibel?

An A-weighted decibel is a unit for measuring sound pressure levels (i.e., loudness) that closely represents the range of human hearing.

Activity Category	Leq(h) ^a	Land Use Activity Description
A	56 dBA⁵ (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
В	66 dBA (exterior)	Residential.
С	66 dBA (exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	51 dBA (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 dBA (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.
F		Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G		Undeveloped lands for which no building permit has been issued.

Table 3-2: Noise Abatement Criteria by Land Use Activity Category

Source: UDOT 2017

^a Hourly equivalent sound level.

^b Decibels on the A-weighted scale.





In the UDOT Noise Abatement Policy, noise abatement is evaluated for impacted receptors. In the policy, an impacted receptor either:

- 1. has or is predicted to have noise levels approaching or higher than the noise abatement criteria threshold for the appropriate land use category, or
- 2. is predicted to receive a substantial noise increase, defined as 10 dBA or more over existing noise levels.

Noise-sensitive land use activity areas in the study area include residential neighborhoods (Category B) and an outdoor activity area, Schneiter's Bluff Golf Course (Category C), The UDOT noise-abatement criterion level for both of these land-use categories is a Leq(h) of 66 dBA.

UDOT monitored existing noise levels in the noise evaluation area at six study area locations in August 2019 to provide information about existing noise levels and to validate the noise model used for this project. The noise-monitoring locations were selected to represent existing residential developments and recreation areas.

To determine noise impacts of the Preferred Alternative, UDOT estimated the future worst-case traffic noise levels using FHWA's Traffic Noise Model version 2.5. The model included the SR-193 Preferred Alternative as well as the West Davis Corridor. The traffic volumes used in the model were based on Level of Service C volumes at the posted speed limit. Where the noise modeling predicts traffic noise impacts at sensitive receptors, UDOT evaluated the feasibility and reasonableness of abatement according to the Noise Abatement Policy (UDOT 2017).

3.7.2 Existing Conditions

Under existing conditions, none of the field-measured or modeled existing noise levels in the study area exceed the abatement criteria. The highest existing traffic noise in the study area is in the vicinity of the intersection of SR-193 and 3000 West. Modeled existing traffic noise in this vicinity ranged from 53.7 dBA to 57.1 dBA. The vicinity of 4500 West had modeled existing noise in the range of 45.4 dBA to 50.4 dBA. The vicinity of 700 South had modeled existing noise 46.8 dBA to 49.5 dBA. These modeled noise levels were within 3 dBA of field-measured traffic noise for these locations.

Locations that are not near highways, arterial roadways, or collector roadways include residences in the 625 South neighborhood, new and permitted residences in the vicinity of 550 South/Cold Springs Road, residences on the north side of 3350 West, and Schneiter's Bluff Golf Course. The field-measured ambient noise for these locations was in the range of 41.9 to 43.3 dBA.

3.7.3 Expected Impacts

Locations of modeled noise receptors are illustrated in Figures 3-6 and 3-7 and results of noise modeling are summarized in Table 3-3.

What is Leq(h)?

Leq(h) is the average sound level over a one-hour period.





CHAPTER 3

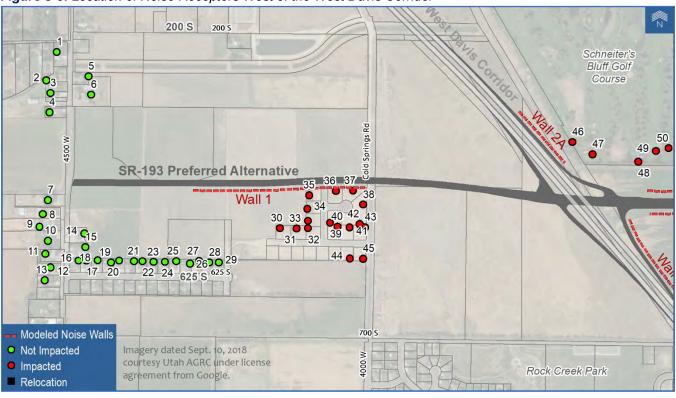
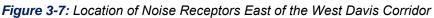


Figure 3-6: Location of Noise Receptors West of the West Davis Corridor



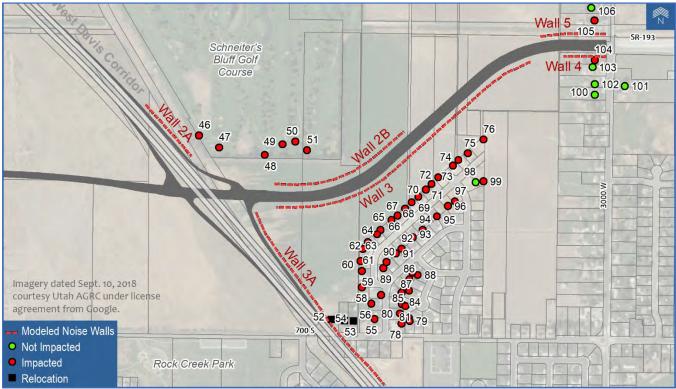








Table 3-3: Modeled Existing and Future Noise Levels

Receptor	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ª	Future Noise, 2050 ª	Increase	Noise Impact? ^b
1	226 S 4500 West	66	45	47	2	No
2	2 296 S 4500 West		42	48	6	No
3	314 S 4500 West	66	48	49	1	No
4	326 S 4500 West	66	49	50	1	No
5	295 S 4500 West	66	49	50	1	No
6	321 S 4500 West	66	48	50	2	No
7	530 S 4500 West	66	50	53	3	No
8	534 S 4500 West	66	42	51	9	No
9	538 S 4500 West	66	47	50	3	No
10	560 S 4500 West	66	50	51	1	No
11	572 S 4500 West	66	49	50	1	No
12	614 S 4500 West	66	50	51	1	No
13	638 S 4500 West	66	45	47	2	No
14	549 S SR-110	66	44	52	8	No
15	571 S 4500 West	66	42	49	7	No
16	4484 W 625 South	66	50	52	2	No
17	4468 W 625 South	66	45	49	4	No
18	4452 W 625 South	66	42	49	7	No
19	4436 W 625 South	66	42	49	7	No
20	4418 W 625 South	66	42	49	7	No
21	4402 W 625 South	66	42	49	7	No
22	4386 W 625 South	66	42	49	7	No
23	4370 W 625 South	66	42	49	7	No
24	4352 W 625 South	66	42	50	8	No
25	4336 W 625 South	66	42	50	8	No
26	4320 W 625 South	66	42	50	8	No
27	4302 W 625 South	66	42	50	8	No
28	4286 W 625 South	66	42	50	8	No
29	4268 W 625 South	66	42	51	9	No
30	4164 W 550 South	66	42	55	13	Yes
31	4140 W 550 South	66	42	55	13	Yes
32	4116 W 550 South	66	42	55	13	Yes
33	512 S 4100 West	66	42	56	14	Yes
34	478 S 4100 West	66	42	59	17	Yes
35	460 S 4100 West	66	42	63	21	Yes
36	463 S 4100 West	66	42	65	23	Yes
37	4040 W 475 South	66	42	65	23	Yes
38	4018 W 475 South	66	42	60	18	Yes
39	503 S 4100 West	66	42	56	14	Yes
40	529 S 4100 West	66	42	55	13	Yes





Receptor	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ª	Future Noise, 2050 ª	Increase	Noise Impact? ^b
41	4048 W 550 South	66	42	55	13	Yes
42	4045 W 475 South	66	42	56	14	Yes
43	4020 W 550 South	66	42	56	14	Yes
44	4051 W 550 South	66	42	52	10	Yes
45	4023 W 550 South	66	42	53	11	Yes
46	Golf Course - Hole 13 Tee	66	42	67	25	Yes
47	Golf Course - Hole 12 Green	66	42	66	24	Yes
48	Golf Course - Hole 7 Tee	66	42	64	22	Yes
49	Golf Course - Hole 6 Green	66	42	62	20	Yes
50	Golf Course - Hole 4 Tee	66	42	61	19	Yes
51	Golf Course - Hole 3 Green	66	42	62	20	Yes
52	3454 W 700 South	66	51	Relocation	(West Davis	Corridor Project)
53	3378 W 700 South	66	47	Relocation	(West Davis	Corridor Project)
54	3370 W 700 South	66	47	Relocation	(West Davis	Corridor Project)
55	696 S 3300 West	66	42	58	16	Yes
56	674 S 3300 West	66	42	60	18	Yes
57	662 S 3300 West	66	42	54	12	Yes
58	3353 W 625 South	66	42	57	15	Yes
59	622 S 3350 West	66	42	58	16	Yes
60	618 S 3350 West	66	42	59	17	Yes
61	592 S 3350 West	66	42	58	16	Yes
62	564 S 3350 West	66	42	58	16	Yes
63	542 S 3350 West	66	42	58	16	Yes
64	536 S 3350 West	66	42	58	16	Yes
65	524 S 3350 West	66	42	58	16	Yes
66	506 S 3350 West	66	42	58	16	Yes
67	498 S 3350 West	66	42	58	16	Yes
68	482 S 3350 West	66	42	58	16	Yes
69	464 S 3350 West	66	42	58	16	Yes
70	458 S 3350 West	66	42	58	16	Yes
71	446 S 3350 West	66	42	58	16	Yes
72	436 S 3200 West	66	42	58	16	Yes
73	428 S 3350 West	66	42	58	16	Yes
74	416 S 3350 West	66	42	58	16	Yes
75	404 S 3350 West	66	42	58	16	Yes
76	396 S 3350 West	66	42	58	16	Yes
77	676 S 3275 West	66	42	57	15	Yes
78	693 S 3300 West	66	42	58	16	Yes





Receptor	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ª	Future Noise, 2050 ª	Increase	Noise Impact? ^b
79	676 S 3275 West	66	42	57	15	Yes
80	681 S 3300 West	66	42	57	15	Yes
81	658 S 3275 West	66	42	56	14	Yes
82	667 S 3300 West	66	42	56	14	Yes
83	651 S 3300 West	66	42	56	14	Yes
84	642 S 3275 West	66	42	56	14	Yes
85	623 S 3300 West	66	42	56	14	Yes
86	611 S 3300 West	66	42	55	13	Yes
87	603 S 3300 West	66	42	54	12	Yes
88	608 S 3275 West	66	42	54	12	Yes
89	624 S 3300 West	66	42	53	11	Yes
90	583 S 3350 West	66	42	54	12	Yes
91	571 S 3350 West	66	42	53	11	Yes
92	539 S 3350 West	66	42	53	11	Yes
93	519 S 3350 West	66	42	53	11	Yes
94	501 S 3350 West	66	42	52	10	Yes
95	479 S 3350 West	66	42	52	10	Yes
96	449 S 3350 West	66	42	54	12	Yes
97	438 S 3200 West	66	42	53	11	Yes
98	431 S 3350 West	66	42	51	9	No
99	413 S 3350 West	66	42	52	10	Yes
100	290 S 3000 West	66	47	56	9	No
101	277 S 3000 West	66	53	59	6	No
102	270 S 3000 West	66	54	59	5	No
103	258 S 3000 West	66	56	64	8	No
104	246 S 3000 West	66	54	67	13	Yes
105	172 S 3000 West	66	54	65	11	Yes
106	136 S 3000 West	66	54	61	7	No
107	112 S 3000 West	66	54	58	4	No

^a Modeled Leq(h) for worst traffic hour (volume LOS C all roads); decibels on the A-weighted scale (dBA).

^b All impacted receptors have a substantial increase (10 dBA or greater increase over existing noise level); three receptors (46, 47, and 104) also have modeled future noise levels exceeding the Noise Abatement Criterion.

All modeled receptors would experience noise increases due to increased traffic volumes in the study area. The average noise increase across the study area is approximately 12 dBA. Of 107 receptor locations modeled there were 68 with a substantial noise increase (10 dBA or greater increase over existing noise levels). The highest noise increase would be at Schneiter's Bluff Golf Course (receptors that are closest to the interchange), which have modeled noise increases of 19-25 dBA over the existing ambient condition.







3.7.4 Mitigation

Five noise wall locations were modeled to assess noise abatement for the 68 impacted receptors. The locations of these modeled noise walls are shown in Figures 3-6 and 3-7, and complete modeling results are described in the noise report, which can be found in Appendix B. Noise barriers were evaluated for the UDOT noise abatement criteria described in the policy (UDOT 2017). Noise abatement will be implemented only if UDOT determines that noise-abatement measures are both feasible and reasonable.

Feasibility is determined first by the following criteria:

- Engineering Considerations: Engineering considerations such as safety, presence of cross streets, sight distance, access to adjacent properties, wall height, topography, drainage, utilities, maintenance access and maintenance of the abatement measure must be taken into account as part of establishing feasibility. Noise-abatement measures are not intended to serve as privacy fences or safety barriers. Abatement measures installed on structures will not exceed 10 feet in height measured from the top of deck or roadway to the top of the noise wall. Noise walls will not be installed on structures that require retrofitting to accommodate the noise abatement measure. Noise abatement measures will be considered if the project meets the criteria established in this policy if structure replacement is included as part of the project. Abatement measures shall be consistent with general American Association of State Highway and Transportation Officials (AASHTO) design principles.
- Safety on Urban Non-Access Controlled Roadways: To avoid a damaged wall from becoming a safety hazard, in the event of a failure, wall height shall be no greater than the distance from the back of curb to the face of proposed wall.
- » Acoustic Feasibility: Noise abatement must be considered acoustically feasible. This is defined as achieving at least a 5dBA highway traffic noise reduction for at least 50 percent of front-row receptors.

If a proposed noise barrier is determined to be feasible, it is then assessed using the following criteria:

- » Noise Abatement Design Goal: Every reasonable effort should be made to obtain substantial noise reductions. UDOT defines the minimum noise reduction (design goal) from proposed abatement measures to be 7 dBA or greater for at least 35 percent of front-row receptors. In accordance with 23 CFR 772, no abatement measure shall be deemed reasonable if the noise abatement design goal cannot be achieved.
- » Cost Effectiveness: The cost must not exceed \$30,000 per benefitted residential receptor (Activity Category B) and \$360 per lineal foot for Activity Categories A, C, D, or E.







» Viewpoints of Property Owners and Residents: If the previous two criteria can be met, balloting of property owners and residents is conducted to determine if noise abatement is desired.

The following engineering and safety considerations were important for the modeled noise barriers in the study area:

- Wall 1 was modeled for the impacted receptors along the segment of SR-193 west of the interchange; the maximum height of this wall was limited to 9 feet, which is the distance from the face of the wall to the back of the curb.
- » Wall 2 Segment A could not be extended eastward around the interchange to meet up with Wall 2 Segment B due to the necessary relocation of the Layton Aqueduct.
- » Wall 3A could not be extended eastward toward Wall 3B for the same reason. This created a gap between these respective wall segments. Also, portions of Wall 3A would be located on a structure (a West Davis Corridor Bridge over 700 South); the maximum height of a noise wall on a structure is 10 feet.
- » Walls 4 and 5 were modeled up to 12-feet high for the location of these walls along the Preferred Alternative right-of-way near the intersection with 3000 South.

None of the modeled noise walls meet the feasibility and reasonableness design criteria. In general, the largest constraint on the acoustic feasibility of the modeled noise walls was distance from the noise wall to the receptors. Wall 4 came the closest to meeting the criteria, providing acoustic feasibility (5 dBA reduction) and design goal (7 dBA) reductions for the front-row residential receptor. However, it was determined the wall was not cost effective because it would cost \$50,600 per benefitted property, which exceeds the \$30,000 limit.

Since none of the noise walls would meet the acoustic feasibility and reasonableness criteria, none were recommended for balloting.







3.8 Visual Resources

Transportation projects alter the visual and aesthetic qualities of their surroundings. Local communities often have aesthetic guidelines as part of a general plan to help create a sense of place. UDOT seeks a consistent approach to aesthetics to provide continuity to the state's transportation infrastructure while also allowing projects to exhibit unique features and local compatibility.

3.8.1 Methodology

In general, the visual environment in a given setting is influenced by existing topography, vegetation, and structures and different settings and viewpoints have differing fields of view as well as degrees of visual sensitivity based on viewer expectations. To describe the existing visual environment, UDOT considered visually sensitive resources and locations in the study area. The visual setting was characterized using aerial photography and photographs from site visits to illustrate existing conditions. Impacts were assessed qualitatively, based on the preliminary design of the Preferred Alternative, including typical cross sections and elevation profiles to assess expected changes from existing conditions.

3.8.2 Existing Conditions

As described in Section 3.2, the study area is primarily agricultural at the present time but is currently undergoing rapid residential development. Viewers in the study area include neighborhood residents, trail users, drivers, and golfers at Schneiter's Bluff Golf Course.

At present, residential viewers located along the outer boundaries of subdivisions have open space/agricultural views with dispersed residential subdivisions in the middle-ground and background views of open sky to the west or the Wasatch Range to the east (see Figures 3-8 and 3-9). Schneiter's Bluff Golf Course offers middle ground views bounded by trees and background views of the Wasatch Range.

As the study area continues to develop, middle-ground views will be increasingly dominated by residential structures and new commercial developments. Construction of West Davis Corridor will add a northsouth linear feature to the foreground and middle ground views for residents, trail users, and from some viewpoints at the golf course that are not obscured by trees along the golf course boundary. In terms of the nighttime visual environment, the West Davis Corridor EIS (FHWA 2017) indicates that the highway design would include fixtures that shield sideways glare and minimize lighting impacts; areas near interchanges would have increased illumination.





CHAPTER 3

Figure 3-8: A Typical Existing View from the Trails Edge Subdivision (3350 West) Facing Northwest



Figure 3-9: A typical Existing View of the Study Area for Residents and Drivers Along 4500 West









3.8.3 Expected Impacts

The Preferred Alternative would add an additional east-west linear feature to the foreground and middle-ground viewshed. The interchange at West Davis Corridor would be constructed on fill material, creating a north-south visual barrier from some viewpoints in the study area.

The Preferred Alternative would result in a distinct change in character of the study area viewshed as it is currently experienced by viewers, with the degree of visual impact dependent on distance from the project location and existing foreground features (e.g., other residences, tall trees) that obscure middle-ground and background views.

The addition of the interchange ramps at West Davis Corridor would add additional street lighting in that vicinity.

3.8.4 Mitigation

Visual impacts of the Preferred Alternative can be partially mitigated through aesthetic treatments such as landscaping and use of colors, textures, and styles that are compatible with the local setting and community preferences. UDOT considers aesthetic treatments during the final design phase of projects, in coordination with municipalities. Aesthetic treatments are completed in accordance with UDOT Policy 08C-03, *Project Aesthetics and Landscaping Plan Development and Review* (UDOT 2014a), and UDOT's *Aesthetics Guidelines* (UDOT 2014b).

3.9 Cultural Resources

Cultural resources (historically significant archaeological and architectural resources) offer a view of a community's history and unique assets. The purpose of cultural resource investigations under the National Historic Preservation Act and Utah Code (UCA 9-8-404) is to consider the effects of undertakings on cultural resources that are listed or eligible for listing on the National Register of Historic Places (NRHP) (historic properties). Determinations of the eligibility of historic properties and effects findings are made in consultation with the State Historic Preservation Officer (SHPO). As part of the process, Native American tribes and other potentially interested parties are consulted to help identify resources and to offer the opportunity to consult regarding project effects.

According to the Programmatic Agreement between UDOT and SHPO (renewed January 22, 2018) UDOT will be in compliance with Section 9-8-404 of the Utah Code for state projects by following the process in Section 106 of the National Historic Preservation Act for federal projects found in the Third Amended Programmatic Agreement between FHWA and UDOT.

3.9.1 Methodology

The study area for cultural resources is called the "area of potential effects" (APE), which is the geographic area or areas where an undertaking may result in direct or indirect alterations in the character or

What is an eligible historical property?

An eligible property is one that meets the requirements to be listed on the National Register of Historic Places.







use of historic properties. The APE for the SR-193 project consisted of an area that contained the build alternatives west of 3000 West. UDOT obtained resource investigations to identify potential archaeological and architectural historic resources in the footprint of the Preferred Alternative (Certus 2019a, 2019b). The survey area was a subset of the APE and was based on the Preferred Alternative. Areas that had been previously surveyed for the West Davis Corridor project were reassessed at a reconnaissance level while areas that had not been previously surveyed were intensively surveyed for the current undertaking. The intensive-level survey involved walking transects spaced no more than 50-feet apart, which is consistent with UDOT archaeological inventory guidelines. Also in accordance with UDOT guidelines, and to accommodate a time lag between the compilation of the survey data and any future construction associated with the undertaking, Certus employed a cutoff age of 45-years-old to designate archaeological resources as historical.

A handheld GPS unit capable of sub-meter accuracy and aerial photographs marked with the survey area boundary were used for navigation within the survey area. The GPS unit was also used to document the locations of any newly identified cultural resources.

For the same APE, a selective reconnaissance-level historic structures inventory was completed. Historic structures in the previously surveyed area were revisited to determine whether any changes to the property that might affect National Register eligibility had occurred.

3.9.2 Existing Conditions

Four archaeological sites were identified: the Hooper Canal System (Site 42DV158), an Unnamed Drainage Ditch (Site 42DV172), the Stevenson Ditch System (Site 42DV182), and the Layton Aqueduct (Site 42DV182). Of these, only the Hooper Canal System was determined to be an eligible archaeological resource (see SHPO concurrence Appendix C). However, the portions of the Hooper Canal System within the APE have been piped underground during the modern era using PVC pipe that was laid in the ditch and buried and are not eligible archaeological resources. Therefore, although the overall canal system is historically significant, no physical historically eligible features of the canal system were found within the APE (Certus 2019a).

The APE was also inventoried for potentially eligible historic buildings (Certus 2019b), resulting in the identification of one historically eligible residential structure located at 246 South 3000 West.

3.9.3 Expected Impacts

The Preferred Alternative alignment overlays the Hooper Canal eastwest lateral and would relocate it and its modern diversion structure adjacent to the new paved road. The open channel on 4500 West would be piped for approximately 80 feet under the new intersection of 4500 West and SR-193. The currently piped main canal along Cold Springs Road would not be impacted. The Preferred Alternative would affect a relatively small portion of the canal system and would not substantially impact or alter any contributing elements of the site or any of the







character-defining features for which it was determined to be an eligible historic resource. Thus, UDOT made a finding of *No Adverse Effect* for the Hooper Canal System, and the SHPO concurred on September 11, 2019.

For the eligible architectural structure at 246 South 3000 West, the Preferred Alternative would partially acquire approximately 0.15 acres of the 0.93-acre parcel, along the side of the property. The acquisition and associated construction would affect a relatively small portion of this property and would not substantially impact or alter any contributing elements of the property or any of the character-defining features for which it was determined to be an eligible historic property. Therefore, UDOT's finding was *No Adverse Effect*, and the SHPO concurred on September 11, 2019.

3.9.4 Consultation

Consultation was initiated through letters sent to the Confederated Tribes of the Goshute Reservation, Skull Valley Band of Goshutes, Northwestern Band of Shoshone Nation, Shoshone-Bannock Tribes, Eastern Shoshone Tribe of the Wind River Reservation, Uintah and Ouray Ute Tribes, and the Cedar and Shivwits Bands of the Paiute Indians (sent March 4, 2019). Letters were also sent to the Syracuse Certified Local Government (CLG) representative (sent March 6, 2019). No responses or comments were received from the tribes or CLG.

3.9.5 Mitigation

Due to the findings of *No Adverse Effect* for the eligible historic properties in the study area and SHPO concurrence with these findings (see Appendix C), no mitigation would be required.

3.10 Wetlands, Other Waters of the US, and Water Resources

Because of the importance of wetlands for water quality, flood management, and aquatic ecology, impacts on this resource are regulated by federal law. Proposals to fill or dredge jurisdictional wetlands or Waters of the United States are subject to Section 404 permitting requirements of the Clean Water Act. administered by the US Environmental Protection Agency and implemented by the US Army Corps of Engineers (USACE).

Other water resource issues potentially affected by a project include floodplains, streams, water rights, and water quality. Because this resource has many facets, there are also many regulations to ensure the system's proper functioning. These include the Clean Water Act (CWA), the Utah Administrative Codes R317 and R309, and guidance by the Utah Division of Water Quality and the Utah Division of Drinking Water. The EPA has authority for enforcing CWA requirements, which includes ensuring thresholds for pollutants in specific bodies of water are not exceeded. Additionally, the Federal Emergency Management Agency requires the examination of floodplains for development projects. In

What are Waters of the US (WOTUS)?

Waters of the US is a regulatory term that refers to bodies of water that fall under federal jurisdiction for wetland permitting requirements.







addition, UDOT must comply with State of Utah regulations for water wells (Utah Administrative Code [UAC] R655-4), stream alteration (UAC R655-13), and water quality (UAC R317), specifically UAC R317-8 pertaining to the Utah Pollutant Discharge Elimination System.

3.10.1 Methodology

WETLANDS AND OTHER WATERS OF THE UNITED STATES

Study area wetlands were identified using UDOT and USACE guidelines for delineating wetlands. UDOT had previously obtained a preliminary jurisdictional determination from USACE for the West Davis Corridor. Portions of the SR-193 study area that had not been previously delineated were surveyed by a Professional Wetland Scientist in May 2019 to delineate wetlands. Two of the preliminary alignments of SR-193 were delineated. These were the 400 South and 600 South alignments described in Chapter 2 (the 400 South alignment was identified as the Preferred Alternative).

FLOODPLAINS

UDOT identified the local communities and obtained the effective Flood Insurance Rate Maps for the study area from the FEMA Map Service Center (FEMA 2007).

PERENNIAL, INTERMITTENT OR EPHEMERAL STREAMS

Stream GIS data were obtained from AGRC (AGRC 2016). The data includes canals and aqueducts as well as natural streams.

POINTS OF DIVERSION

Points-of-diversion data were obtained from the Utah Division of Water Rights as a GIS shapefile (UDWRI 2019). UDOT performed a qualitative assessment for each point of diversion in the water resources impact analysis area.

3.10.2 Existing Conditions

UDOT previously obtained wetland delineations for portions of the study area during the West Davis Corridor EIS process. A delineation was completed by HDR Engineering in July 2016, portions of which have received a preliminary jurisdictional determination from the USACE. Potential wetland areas beyond the West Davis Corridor delineation but within potential alignments for the SR-193 project were delineated in May 2019 by BIO-WEST, Inc. Wetland areas inclusive of the two delineations are shown in Figure 3-10.





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Figure 3-10: Potentially Jurisdictional Wetlands and Waters of the U.S.

Note: The features shown here are representative of potentially jurisdictional wetlands and Waters of the U.S. that have been identified in delineations conducted for UDOT for the West Davis Corridor and SR-193 study areas but do not represent a jurisdictional determination from the USACE, which would be obtained in the wetland permitting process.

There are no special flood-hazard areas in the study area identified on the Flood Insurance Rate Map (FEMA 2007). There are also no natural perennial or intermittent streams in the study area. The only area of open water intersected in the study area is an open canal crossed by the West Davis Corridor alignment to the west of Schneiter's Bluff Golf Course (Figure 3-11). The Layton Aqueduct crosses through the study area from north to south; realignment of a portion of this pipeline is discussed in the ROW section of this chapter (Section 3.4).

Data from the National Hydrographic Dataset (AGRC 2016) shows two canals/ditches running along the west side of Cold Springs Road. Based on field observations, these are now in an underground pipe or pipes. Also based on field observations, there is a lateral pipe that extends westward from Cold Springs Road which occurs underneath the proposed alignment of SR-193.

Data showing water rights points of diversion (UDWRI 2019) for the study area are shown in Figure 3-11. All of the points shown in the extent of this figure are underground points of diversion (wells).





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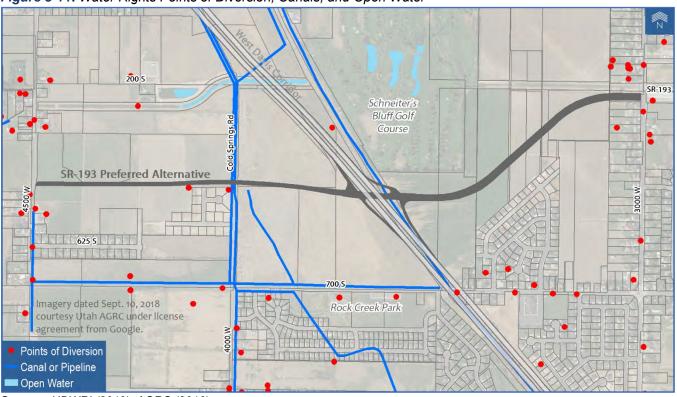


Figure 3-11: Water Rights Points of Diversion, Canals, and Open Water

Sources: UDWRI (2019), AGRC (2016)

3.10.3 Expected Impacts

Based on the preliminary design footprint, the construction of the Preferred Alternative would impact approximately 10.6 acres of potentially jurisdictional wetlands. This would be inclusive of the SR-193 footprint, drainage features, and the addition of the interchange at West Davis Corridor; it does not include the direct impact limits of West Davis Corridor, which would be permitted as part of that project.

The Preferred Alternative road alignment would not intersect a FEMAdesignated floodplain or affect water right points of diversion. The Preferred Alternative would not create a stream alteration and thus would not require a stream alteration permit.

The Preferred Alternative east of West Davis Corridor would be constructed as a four-lane divided highway. Lanes in each direction would have a vegetated side slope that would allow most stormwater to infiltrate into the ground; some stormwater would flow into detention ponds between the northbound on- and off-ramps and the mainline of West Davis Corridor. The Preferred Alternative west of West Davis Corridor would be constructed with curb and gutter to convey stormwater to a proposed detention pond. A location for the pond has been identified along the south side of the alignment, on a portion of property owned by the Davis School District and planned as the site of a new junior high school. Area for the detention pond has been included in the proposed ROW for the project (Section 3.4). Stormwater runoff could contain







common roadway contaminants including copper, lead, zinc, and salts. The use of existing, modified, or new storm drain systems would minimize negative impacts to water quality by including flow management controls, oil skimmers, grease traps, etc.; storm drain facilities will be analyzed and designed in accordance with UDOT's Stormwater Quality Design Manual during final design.

The Preferred Alternative overlays the east-west lateral pipeline that extends westward from the main pipeline of the Hooper Canal System, buried next to Cold Springs Road. The lateral water pipe and its diversion would be relocated within the ROW. The currently piped main canal along Cold Springs Road would not be impacted. There is also an open channel along the east side of 4500 West (not shown in Figure 3-11). This channel would be piped for approximately 80 feet under the new intersection of 4500 West and SR-193.

3.10.4 Mitigation

UDOT is coordinating with USACE for jurisdictional determinations and wetland permitting and mitigation requirements. No mitigation related to water resources would be required. See Section 3.13 regarding measures for protecting water quality during construction.

3.11 Threatened and Endangered Species

Threatened and endangered species legislation was established to protect plants and animals that are at risk of extinction. Potential effects to these species or their habitat require consideration under the Endangered Species Act (ESA). If there is no federal action (which is the case for the SR-193 project), Section 10 of the ESA applies. Under Section 10, an incidental take permit is required when non-federal activities would result in the "take" of listed species. A Habitat Conservation Plan (HCP) must accompany an application for an incidental take permit.

3.11.1 Methodology

Available databases from the USFWS and the Utah Division of Wildlife Resources (UDWR) were searched for potential species occurrences and habitat in the study area.

3.11.2 Existing Conditions

The USFWS online system, Information for Planning and Consultation (IPaC), was searched for potential occurrences and habitat for listed threatened or endangered species (USFWS 2019). No species occurrences or critical habitat were identified for the study area. Additionally, the Utah Natural Heritage Database was searched for any recorded occurrences of a federally listed species within a 2-mile radius (UDWR 2019a), and no occurrences were identified.







3.11.3 Expected Impacts

There are no known occurrences, critical habitat, or suitable habitat for any federally listed species in the study area, therefore the Preferred Alternative would have *No Effect* on federally listed species.

3.11.4 Mitigation

No mitigation for threatened and endangered species would be required.

3.12 Wildlife

Besides species which receive special considerations under the ESA, the State of Utah identifies sensitive species as candidates for federal listing or for which there is credible scientific evidence to substantiate a threat to continued population viability. Additionally, the federal Bald and Golden Eagle Protection Act could apply if any individual or nest of these two eagle species could be affected by project actions, and the Migratory Bird Treaty Act outlaws all instances that would result in take of a designated migratory bird species.

3.12.1 Methodology

Available databases were searched for known species occurrences in the study area. Habitat characteristics of the study area were assessed based on aerial photography and a site visit on August 1, 2019.

3.12.2 Existing Conditions

Agricultural fields provide habitat for wildlife including upland birds, small mammals, deer, and amphibians. Golf courses also provide habitat for nesting birds and other species. Near the study area, Howard Slough Waterfowl Management Area (WMA) and Great Salt Lake shoreline provide habitat for numerous shorebirds and waterfowl. Table 3-4 describes the likelihood of occurrence for 17 state-listed sensitive species in Davis County. Of these, there are five sensitive bird species with known nearby occurrences or potentially suitable habitat in the study area: bobolink, burrowing owl, grasshopper sparrow, long-billed curlew, and short-eared owl. The project does not take place within a designated Sage Grouse Management Area, nor does it take place within mapped habitat for sage-grouse.







Common Name	Scientific Name	Status ^a	Suitable Habitat ^b	Species Occurrence
American White Pelican	Pelecanus erythrorhynchos	SPC	Known breeding colony on Great Salt Lake. Primary food is fish. Preferred foraging areas are shallow lakes, marshlands, and rivers. Frequently sighted in nearby waters, but no suitable habitat in the study area.	Unlikely
Bald Eagle	Haliaeetus leucocephalus	SPC	Nests in tall trees, commonly near open water where fish and waterfowl prey are available. Wintering areas commonly associated with open water or nearby prey sources. Generally avoids areas with nearby human activity and development. Sightings along Great Salt Lake shoreline, causeway, and Antelope Island.	Unlikely
Bluehead Sucker	Catostomus discobolus	CS	Fast flowing water in high gradient reaches of mountain rivers.	Unlikely
Bobolink	Dolichonyx oryzivorus	SPC	Once common in Utah, sightings are rare. Nests and forages in wet meadows and transitional areas. No nearby sightings.	Possible
Bonneville Cutthroat Trout	Oncorhynchus clarkii utah	CS	High-elevation mountain streams and lakes to low-elevation grassland streams.	Unlikely
Burrowing Owl	Athene cunicularia	SPC	Habitats are open grassland and prairies, but also utilizes other open situations, such as golf courses, cemeteries, and airports. Sightings along Great Salt Lake shoreline, causeway, and Antelope Island.	Possible
Columbia Spotted Frog	Rana Iuteiventris	CS	Isolated springs and seeps.	Unlikely
Ferruginous Hawk	Buteo regalis	SPC	Flat and rolling terrain, grasslands, agriculture, shrub lands, and periphery of pinyon-juniper forests. Strong preference for elevated nest sites: cliffs, buttes, creek banks. During winter uses open farmlands, grasslands, and deserts where prey items such as prairie dogs are present.	Unlikely
Grasshopper Sparrow	Ammodramus savannarum	SPC	Weedy grasslands. Nests built at the base of grass clumps. Sightings along Great Salt Lake shoreline, causeway, and Antelope Island.	Possible
Kit Fox	Vulpes macrotis	SPC	Open prairie, plains, and desert habitats.	Unlikely
Least Chub	lotichthys phlegethontis	CS	Occurs only in scattered springs and streams in western Utah.	Unlikely
Lewis's Woodpecker	Melanerpes lewis	SPC	Attracted to burned-over Douglas-fir, mixed conifer, pinyon-juniper, riparian, and oak woodlands. Areas with a good under-story of grasses and shrubs to support insect prey populations are preferred. Winters in wide range of habitats, but oak woodlands are preferred.	Unlikely
Long-billed Curlew	Numenius americanus	SPC	At Great Salt Lake, prefers to nest near the edges of barren alkali flats. Commonly seen on Great Salt Lake shorelines and nearby open fields.	Possible

Table 3-4: State-Listed Species for Davis County and Likelihood of Occurrence in the Study Area





Common Name	Scientific Name	Status ^a	Suitable Habitat ^b	Species Occurrence
Short-eared Owl	Asio flammeus	SPC	Usually found in grasslands, shrublands, and other open habitats. Sightings along Great Salt Lake shorelines and wetlands.	Possible
Townsend's Big- eared Bat	Corynorhinus townsendii	SPC	Often found near forested areas. Caves, mines, and buildings are used for day roosting and winter hibernation.	Unlikely
Western Pearlshell	Margaritifera falcata	SPC	Small streams in northern third of Utah, possibly extirpated.	Unlikely
Western (Boreal) Toad	Bufo anaxyrus	SPC	Slow moving streams, wetlands, desert springs, ponds, lakes, meadows, and woodlands.	Unlikely

Source: UDWR 2019b

^a Species of Concern (SPC), Conservation Agreement Species (CS)

^b Habitat descriptions from Utah Conservation Data Center (UDWR 2019b), siting information from Utah Natural Heritage Database (UDWR 2019a) and eBird (2019).

3.12.3 Expected Impacts

As land is developed (with or without the Preferred Alternative), the study area will have reduced value for use by wildlife species, including the state-listed sensitive species. In this context, the effects of the Preferred Alternative on long-term wildlife use would be negligible. Adjacent wetland, playa, shoreline, and aquatic habitats associated with the Great Salt Lake and Howard Slough WMA would continue to provide wildlife habitat.

3.12.4 Wildlife Mitigation

Mitigation for wildlife impacts would not be required under the Preferred Alternative; see Construction Impacts (Section 3.13) regarding temporary impacts.

3.13 Construction Impacts and Mitigation

Although previous impact assessments in this chapter have considered the long-term impacts of the Preferred Alternative and reasonably foreseeable development of the study area, construction impacts focus on the temporary, short-term effects to local resources that could degrade the quality of the human or natural environment. The appropriate avoidance and minimization measures identified below will also be included in the Preferred Alternative's environmental commitments.

3.13.1 Land Use and Farmland

IMPACTS

Temporary impacts during construction in agricultural areas could result in the loss of vegetation and compacted soil within the temporary construction easements of the study area. Construction activities could also disrupt the slope and flow patterns of flood-irrigated fields or limit the operation of mechanical irrigation systems, which could diminish crop yields.







MITIGATION

To the extent possible, the contractor would be required to ensure irrigation systems in the study area remain intact and fully functional. Fencing that contains livestock in the study area could be altered during construction. The contractor would be required to maintain fencing and gate operations to protect livestock, as well as construction crews and the traveling public, during construction.

3.13.2 Right-of-Way

IMPACTS

Construction of the Preferred Alternative road alignment would require temporary easements for construction access and staging in the study area.

MITIGATION

Temporary construction easements would be acquired in accordance with state laws and UDOT ROW procedures.

3.13.3 Utilities

IMPACTS

Although utility service would be maintained throughout most construction activities, utility service could be temporarily disrupted in the study area during construction. The affected utilities could include electric, natural gas, water, sewer, telephone, cable, and storm drainage.

MITIGATION

UDOT would complete agreements with utility providers before construction, and the construction contractor would coordinate with the providers to minimize service disruptions in the study area.

3.13.4 Traffic

IMPACTS

Area residents and commuters may experience travel delays during construction.

MITIGATION

A public information program will be developed and implemented during the construction process to inform the public in and near the study area about construction impacts, including identifying work hours and alternate routes. Construction signs will be used in the study area to notify drivers about work activities and changes in traffic patterns.

3.13.5 Pedestrians and Bicyclists

IMPACTS

The Syracuse Trail and SR-193 Trail would be temporarily closed.

MITIGATION

As part of the public information program, UDOT will notify the community of trail closures and alternative routes, if available.







3.13.6 Air Quality

IMPACTS

Construction in the study area could cause temporary degradation of local air quality by generating fugitive dust, particulates, and emissions.

MITIGATION

The construction contractor would be required to obtain an Air Quality Approval Order by submitting a notice of intent to the Utah Division of Air Quality describing the construction activities and emissions that would be associated with operating construction equipment. Following *UDOT Standard Specification 01572* regarding dust control and watering would also be required of the contractor.

3.13.7 Noise

IMPACTS

Construction activity would temporarily increase noise for residents in the study area.

MITIGATION

UDOT's Standard Specifications include provisions to reduce the impacts of construction noise. Methods of reducing construction-noise impacts include establishing hours that construction equipment can be operated in the study area and permissible sound levels at sensitive times.

3.13.8 Visual/Aesthetic Impacts

IMPACTS

Construction would cause temporary visual and aesthetic impacts to study area residents and recreational users of the trails and golf course. These effects would include construction vehicles and equipment, clearing and grading, stockpiling of excavated material, and potential dust, exhaust, and airborne debris.

MITIGATION

Impacts from lights used during nighttime construction in the study area will be reduced by aiming construction lights directly at the work area and/or shielding the lights. Temporary disturbance areas would be restored following construction.

3.13.9 Cultural and Paleontological Resources

IMPACTS

Known cultural and paleontological resources in the study area would not be impacted.

MITIGATION

If unknown resources should be encountered during construction, the contractor would be required to follow provisions of UDOT Standard Specifications regarding discovery.







3.13.10 Wetlands

IMPACTS

Temporary impacts to wetlands would occur in temporary construction easement locations.

MITIGATION

Temporary wetland impact areas will need to be identified as part of the wetland permitting process, including measures to avoid, minimize, and restore disturbances to jurisdictional wetlands.

3.13.11 Water Quality

IMPACTS

Disturbance during construction can increase runoff, erosion, and constituents.

MITIGATION

To reduce water quality effects during construction, UDOT would prepare a Storm Water Pollution Prevention Plan to be included in the construction plans and the contractor would be required to adhere to UDOT Standard Specifications by obtaining a Construction General Permit from the UDEQ.

3.13.12 Wildlife

IMPACTS

Vegetation clearing and construction activity would convert existing agricultural lands to developed use for the highway and would temporarily disrupt use of adjacent lands by wildlife. Construction disturbance has the potential to adversely affect migratory birds.

MITIGATION

If work must take place within the nesting period for migratory birds, June 15–July 31, a qualified biologist should assess vegetation areas before removal. If active nests are found, removal should not take place until birds are confirmed to have fledged.

3.13.13 Invasive and Noxious Weeds

IMPACTS

Construction equipment and ground disturbance can facilitate the introduction and spread of invasive and noxious weeds.

MITIGATION

Supplemental Specification 02924S, "Invasive Weed Control" would be included in the contract documents, which outlines Best Management Practices that will be incorporated in construction.







3.14 Impacts of the No-Action Alternative

If the Preferred Alternative is not constructed, no other new project or projects would be identified to improve study area mobility. With the expected growth in West Point and Syracuse, the remaining open land in the study area is expected to convert to urban uses by or before the design year, 2050. UDOT expects that the population growth and associated development would have a similar level of impacts as the Preferred Alternative on resources such as land use, farmland, cultural resources, wetlands, and wildlife.

Under the No-Action Alternative, certain impacts of the Preferred Alternative would not occur:

- » **Right-of-way**: The No-Action Alternative would not require the property acquisitions described for the Preferred Alternative (Section 3.4).
- Pedestrians and bicyclists: The No-Action Alternative would not provide an opportunity to create new east-west pedestrian connectivity between 4500 West and the multi-use trail facilities east of the interchange (Syracuse Trail and SR-193 Trail).
- » Air quality: The Preferred Alternative would improve mobility over the No-Action Alternative; greater traffic congestion under the No-Action Alternative would increase vehicle idling and result in worse air quality conditions compared to the Preferred Alternative.
- » Noise: Traffic congestion under the No-Action Alternative would reduce vehicle travel speeds, which would also lower traffic noise during worst hour travel conditions. The No-Action Alternative would also not create a new east-west arterial roadway that would cause increased traffic noise for study area receptors.
- » Visual Resources: Under the No-Action Alternative, a new eastwest arterial and interchange with West Davis Corridor would not add linear features to the study area viewscape.
- » Construction Impacts: Short-term impacts of construction described in Section 3.13 would not occur under the No-Action Alternative.

3.15 Impact Summary

Table 3-5 summarizes the impact assessment conclusions presented in this chapter. Mitigation commitments and required permits are summarized in Chapter 5.







Table 3-5: Impact Assessment Summary

Issue	Preferred Alternative	No-Action Alternative
Land Use	 Project has been anticipated in local land use plans and is compatible with future land use planning. 	• Would not support local planning, but development would be expected to be similar to the Preferred Alternative.
Farmlands	 Effects to agricultural production by bisecting properties. No designated Agricultural Protection Areas impacted. 	• No impact.
Right-of-Way	 Partial acquisition from 18 parcels totaling 34.5 acres. No relocations. Partial acquisition of Layton Aqueduct right-of-way (Federally owned). Temporary construction easements and staging areas during construction. 	 No right-of-way impacts.
Pedestrians and Bicyclists	 Syracuse Trail affected by intersection design; addressed by rerouting segment of the trail. Sidewalks between 4500 West and West Davis Corridor interchange included. 	No benefit of adding pedestrian facilities.
Economics	 Effects to agricultural production of bisecting properties. No business relocations, property acquisition, or access changes. Compatible with commercial development/local land use planning. 	• No impact.
Noise	 68 receptors impacted by substantial increase (10 dBA or greater increase). Noise walls would not meet the acoustic feasibility and reasonableness criteria, none were recommended for balloting. 	No impact.
Visual Resources	 Visual impact of linear, highway feature and interchange. Additional street lighting at interchange. 	No impact.
Cultural Resources	No Adverse Effect finding.	No impact.
Wetlands, Other Waters of the US, Water Resources	 10.6 acres of permanent wetland impact in project footprint, including interchange ramps. Temporary wetland impacts to be determined in permitting/final design. No floodplains impacted. No water right point of diversion impacts. Relocation of an irrigation pipeline required. No stream crossings or alteration. Increased stormwater and pollutant runoff volumes. 	• No impact.
Threatened and Endangered	No Effect.	No impact.
Species Wildlife	 Five potentially occurring state-sensitive bird species and potential effects to migratory birds during construction. 	No impact







Chapter 4 Public and Agency Involvement

4.1 Agency Scoping

The project team conducted scoping with agencies that have an interest in the project due to presence of resources under their jurisdiction or because of land owned and/or managed by their agency are within the study area. Letters were mailed on March 8, 2019, soliciting input and inviting agency representatives to attend to a public meeting on March 19, 2019, or to schedule an individual meeting with the project team.

An agency scoping meeting was held prior to the public meeting on March 19, 2019. The goal of this meeting was to inform agencies about the SR-193 SES process, answer their questions, and gather their input before the public meeting began later in the evening. Representatives from the Syracuse Arts Academy, West Point City, and WFRC attended.

4.2 Public Scoping

4.2.1 Public Scoping Meeting

A public scoping meeting was held on March 19, 2019, at Syracuse Arts Academy. The meeting was held in an open house format. Fifty-one people signed-in. Display boards and a scroll plot provided information about the project. Members of the SR-193 project team were available to answer questions one-on-one and listen to concerns. A large map of the study areas was also available and attendees left comments on the maps indicating areas where they had concerns. Meeting information shown at the public open house was also available on the SR-193 website, so that residents or interested parties not able to attend could be engaged. A project email was available on the website for members of the public to submit comments electronically, as well as an online comment form, and an interactive comment map.

4.2.2 Public Scoping Comment Period

The public was encouraged to submit written comments on forms provided at the public scoping meeting or mail comments before the end of the 30-day comment period, which began on March 19, 2019 and ended on April 18, 2019. A total of 19 comments were received. Common themes included:

- » Feel that the SR-193 Corridor should go through (6 comments) or around the golf course (5 comments).
- Feel that the West Davis Corridor interchange should be located at SR-193 (5 comments)
- » Concerned with traffic and congestion increase due to West Davis Corridor traffic (5 comments)
- » Concerned about property impacts and land values (7 comments)
- » Comments in support of improvements but concerned about routing (1 comment)





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- » Comments not in support of improvements (2 comments)
- » Connect SR-193 at 200 S., not 700 S. (2 comments)
- » West Davis Corridor should be built on surface level (2 comments), with frontage road connecting SR-193 (1 comment)
- » Would prefer full acquisition over partial (2 comments)
- » Concerned about bike trail impacts (1 comment)
- » Concerned about safety of school children (1 comment)
- Concerned about compensation during ROW (1 comment), and ROW timeline (1 comment)
- Concerned about barriers along neighborhoods and homes near corridor (1 comment)

A scoping report that includes copies of public meeting materials, notices, and comments received is provided in Appendix D.

4.2.3 Additional Scoping Outreach

In addition to the advertisements sent to stakeholders, a legislative update was created, and an article was published about the project in the Standard Examiner on March 18, 2019. A project-specific website was created which included information on the scoping meeting.

4.3 Additional Stakeholder Outreach

Stakeholders included property owners, Davis School District, USBOR, and Syracuse and West Point cities. UDOT engaged six potentially affected property owners through one-on-one meetings. UDOT provided status updates, showed the general layout of the Preferred Alternative, and explained how each property would be affected. Where possible, the Preferred Alternative was modified to address property owner concerns.

Through meetings with the Davis School District, UDOT learned an elementary school and a junior high school are planned near the Preferred Alternative. In general, school district representatives were not concerned with the Preferred Alternative alignment because the main access to the junior high school is planned on 700 South, and the elementary school is not slated for construction in the foreseeable future.

The USBOR operates the Layton Aqueduct, which is a subsurface (i.e., piped) canal that bisects the study area in a northwest-southeast direction. The proposed northbound on- and off-ramps would cross over the canal. To avoid this conflict, UDOT worked with the USBOR to realign the canal east of the ramps.

UDOT provided project status updates to Syracuse and West Point cities during regularly scheduled meetings as part of outreach for the West Davis Corridor project. At the request of West Point City, the Preferred Alternative was modified to replace a 12-foot-wide multiuse trail along the north side of SR-193, between 4500 West and West Davis Corridor, with a standard five-foot-wide sidewalk. This multiuse trail would have







provided developing neighborhoods west of West Davis Corridor with a convenient connection to the Syracuse Trail. Instead, West Point City has plans for a similar multiuse trail north of the Preferred Alternative.

Another stakeholder that UDOT coordinated with early in the environmental process was the developer of a planned residential subdivision. The project team learned that the segment between 4500 West and Cold Springs Road would conflict with a residential development plan in West Point (the Elite Craft development site plan). The Preferred Alternative alignment was located so that it would not directly affect the first phase of the development that was currently underway; however, the alignment would require the development. Coordination with the developer occurred during the SES process so that adjustments to the development could be made.

4.4 Public Comment Period and Hearing

This State Environmental Study was available for public review for 30 days between November 18 and December 17, 2019. A public hearing was held on Tuesday, December 3, 2019 at the Syracuse Arts Academy, 2893 West 1700 South, Syracuse, Utah. The hearing an open house format from 5:00 pm to 7:00 pm and was held in conjunction with a hearing for another nearby project (SR-127/Antelope Drive. Information was also available regarding the West Davis Corridor project. Representatives of all three projects were present to answer questions. Approximately 160 people attended the meeting. Attendees interested in the SR-193 project were able to review project boards that included information about the SES process, details of the alternatives considered, and details of the Preferred Alternative. Information available at the meeting was also made available on the project website, <u>https://www.udot.utah.gov/sr193extension</u>, along with the draft SES document.

A total of 10 public comments were received during the comment period. The project team reviewed and provided a response to each comment. Verbatim comments and responses are included in Table 4-1. As a result of these comments, the Preferred Alternative design was updated to replace a proposed stop sign at SR-193 and 4500 West with a traffic signal (see Section 2.3).







Table 4-1: Public Comments and Responses

#	Commenter	Verbatim Comment	Comment Response
1	Kelly Barrett (12-3-19, Comment Form)	My home is under construction and the preferred 193 road will run directly behind our home. We moved from Roy to get away from road noise. I also work from home with the IRS and record narration for IRS training videos and I require or request 193 not run behind my home or the speed limit to be 35 mph and there be a sound wall erected to help mitigate any future road noise.	The noise study is summarized in Section 3.7 and the full noise study report is included as Appendix B. The feasibility and reasonableness of noise abatement for all impacted noise sensitive receptors was evaluated, consistent with the UDOT Noise Abatement Policy (UDOT 08A2-01). In this study, receptors included outdoor use areas at residences and recreation facilities (e.g., Schneiter's Bluff Golf Course).
		Please re-evaluate the sound study by taking into account the future schools along that road as that will certainly increase traffic and road noise. We request a sound wall be erected to help block any road noise. Please make the intersection of 193 and 4000 W a roundabout.	Future highway noise in this location is anticipated to average about 65 decibels under worst-case (free flow) traffic conditions, which is 1 decibel under the UDOT Noise Abatement Criterion of 66 dBA. However, the future noise level represents an increase of 23 dBA over existing conditions, which is a noise impact under the Noise Abatement Policy. A noise wall (Wall 1) was evaluated to potentially provide mitigation; however, it was eliminated from further consideration because it would not provide a 7 dBA reduction for 35 percent of homes closest to SR-193 (i.e., front row). Safety considerations restrict the height of wall that could be constructed at this location; additionally, the intersection of SR-193 with 4000 West also restricts the potential length of wall that could be constructed. These factors limit the potential effectiveness of the wall to reduce traffic noise. A roundabout at this location would predominantly facilitate east-west movement on SR-193 (the higher volume road), limiting the
			ability for vehicles traveling in the north-south direction (4000 West) to enter the intersection. Because traffic would not be equally distributed in both directions, a roundabout would not function well at this location and has not been incorporated in the design.
2	Steve & Linda Gates (12-3-19, Comment	How will our property be affected if you put in a right-turn lane to go west on 193 and 3000 W? When will we know if our property will be	A right turn lane at this location has not been proposed as part of the improvements evaluated in the SES. Property acquisition at your location is not
	Form)	acquired?	anticipated as part of the proposed improvements evaluated in the SES.
3	Edward H. Redd (12-3-19, Comment Form)	My parents (Matt Redd and Vera Lee Redd) have both passed away and I am the executor of their estate. Their estate included 7.5 acres of farmland located at Syracuse; parcel #s (Davis County): This land is directly above of recent subdivision Please contact me for further discussion of property acquisition process when you have finished your appraisal process. Thanks. Ed Redd.	A UDOT right-of-way agent will contact all affected property owners following the approval of the environmental document (approximately Spring 2020).







#	Commenter	Verbatim Comment	Comment Response
4	Terry Ellis (12-3-19, Comment Form)	We have an existing contract with building of homes planned in 2020/2021. Suggest you buy land to be impacted in 2020 so as to ensure no impacts to family trust or developer. Thank you.	UDOT intends to acquire all land required for the project in 2020.
5	Robin Nielson (12-3-19, Comment Form)	Our home is adjacent to the proposed SR 193 westbound extension at 3000 West. The plans show the right-of-way extending into our property and effectively cutting off all access to the back of our property behind our home to the west. The plans show an extremely wide margin of open land on the north side of the proposed extension. Why can't the extension be moved northward those extra feet and avoid encroaching my property? The extension doesn't line up with the existing 193 road but, instead, shifts to the south and into our property. It should line up with the existing road and be that extra 40 feet north and next to the canal just like the 193 that is east of 3000 West. I spoke with Sean about the sound wall that was proposed on the property and rejected. The sound study measured existing levels and it did not get to experience (in the 20 minutes my yard for which I was present) the noise levels from emergency vehicles. Two fire departments use the 193 corridor to traverse the area. The sirens go off day and night. The will only exponentially increase once the west bound road is opened at 3000 West. There <u>should</u> be a sound wall. So, in addition to my land being encroached upon and prohibiting access to the rear acreage (west), the sound wall will be far and above what the study has already shown affecting all the neighbors in the area.	UDOT will consider possible minor adjustments to the alignment during final design. Access needs will also be discussed with you during the property acquisition process. The noise study is summarized in Section 3.7 and the full noise study report is included as Appendix B. Consistent with the UDOT Noise Abatement Policy (08A2-01), UDOT evaluates noise impacts using Level of Service C hourly traffic volumes traveling at design speed (worst case hourly traffic noise). A noise wall was evaluated at your location and would meet the acoustic reasonableness design goal of providing at least a 7 dBA reduction for 35 percent of homes closest to SR-193 (i.e., front row); however, the cost of the noise wall would exceed the \$30,000 limit allowable (per the Policy) for each property that would experience a 5 dBA reduction.
6	Jennifer Struhs (12/9/19, online comment)	If West Point is centering all business around 300 north, why wouldn't it merge that way?	The West Point and Syracuse general plans identify a general alignment for the extension of SR-193 south of the Schneiter's Bluff Golf Course. To be consistent with these plans, alternative alignments (see Chapter 2) were considered based on that general concept and the goal identified for the project (Chapter 1).
7	Jim Gallegos (12/5/19, online comment)	Who is over the antelope project. I need a number or email address. Thank you.	Project contact information is available on the project website, <u>udot.utah.gov/SR193extension</u> .







#	Commenter	Verbatim Comment	Comment Response
8	Ron Williams (12/3/19, verbal comment to court reporter at the public hearing)	On 4500 West where the 193 extension meets, currently it's only scheduled for a stop sign on 193 to access 4500. We live on 4500, and I know the amount of traffic that's on there right now. There needs to be a traffic study done there because I think right now that would warrant a stoplight, a traffic signal.	The build traffic analysis (Appendix A, memorandum of October 28, 2019) did not identify the need for a signal at the SR-193 and 4500 West three-way intersection for the design year (i.e., 2050) because it was presumed that West Davis Corridor would extend north of SR- 193.
		So I'm recommending they do a traffic study for a stoplight there as opposed to a stop sign. If I come down 193, and then I have to turn back to the south, that would put me going across the traffic right? from a stop sign.	At the request of the commenter, UDOT analyzed an interim scenario (i.e., 2025) that had West Davis Corridor terminating at SR-193 to determine if traffic volumes at this intersection would be greater under that scenario. The
		And I know between 3:00 in the afternoon to probably 5:30 at night, I would be hard-pressed to be able to get across here without sitting at that stop sign for an extended period of time just by the amount of traffic that's going in due to all of the construction, the houses that are being built in that part of Davis County.	analysis indicated that a signal will be warranted by the year 2040, but not sooner. UDOT will revisit this need in the future.
		Any everybody north and west in Weber County comes up there and travels 4500 West to get to Antelope Drive to come up this direction because there's no traffic interruption, no stop sign or anything from 1800 to Antelope Drive.	
		So that's two and a half miles. They run down there 50 miles an hour in a 40-mile zone, and we have to wait on all of that, so we've seen the increase in traffic. So I just don't think a stop sign will work. Just my recommendation.	
		Otherwise, people on 193 that are going to try to go across that at certain times of day won't be able to make it because there's just too much traffic. I'll wait sometimes 5 to 15 minutes to get out of my driveway on to 4500, and I just live you know, we've lived there for 20 years and seen the traffic increase.	
		They run down there 50 miles an hour in a 40- mile zone, and we have to wait on all of that, so we've seen the increase in traffic. So I just don't think a stop sign will work. Just my recommendation.	
9	Jason Croxford (12-3-19, Comment Form)	Live off 3000. Concerned with taking part of my front yard.	Property acquisition at your location is not planned as part of the proposed improvements evaluated in the SES.
10	Brody Bovero (12/11/19, online comment submitted on behalf of Syracuse City)	Syracuse City has interest in extending Thurgood Lane to a signalized intersection at SR-193 coinciding with the SR-193 extension project.	Connections to SR-193 that have not been identified in the SES would be evaluated through UDOT's Conditional Access Permit process when adjacent development requiring access occurs.



CHAPTER 5

Chapter 5 Required Permits and Mitigation

Table5-1summarizespermitting,clearancesandmitigationcommitments for the Preferred Alternative.

Table 5-1: Permits,	Clearances	and Mitigation	Commitments
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Resource	Permit/Clearance/Commitment	Responsible Party
Pre-Construction Phase		
Right-of-Way	Complete property acquisition following the Utah Relocation Assistance Act, Utah Code Section 57-12	UDOT
Utilities	Complete agreements with utility providers before construction.	UDOT
Visual Resources	All aesthetic treatments will be completed in accordance with UDOT Policy 08C-03, <i>Project Aesthetics and Landscaping</i> <i>Plan Development and Review</i> , and UDOT's <i>Aesthetics</i> <i>Guidelines</i> . UDOT's policy is to set a budget for aesthetics and landscape enhancements based on the aesthetics guidelines.	UDOT
Wetlands	Obtain Individual Permit under Section 404 of the Clean Water Act. Potential for minimization of the wetland impacts of the respective projects would be addressed during the permitting process. Temporary wetland impacts that would occur during construction will need to be identified as part of the wetland permitting process, including measures to avoid, minimize, and restore disturbances to jurisdictional wetlands.	UDOT
Water Quality	Prepare Stormwater Pollution Prevention Plan for Construction General Permit	UDOT
Water Quality	Obtain Construction General Permit from Utah Division of Water Quality	Contractor
Invasive Species	Include Supplemental Specification 02924S, "Invasive Weed Control" in contract documents, outline Best Management Practices to be followed	UDOT
Construction Phase		
Traffic	A public information program will be developed and implemented during the construction process to inform the public about construction impacts including identifying work hours and alternate routes for vehicles, bicycles, and pedestrians during construction.	UDOT
Traffic	Construction signs will be used to notify drivers about work activities and changes in traffic patterns.	Contractor
Utilities	Coordinate with utility providers to minimize service disruptions.	Contractor
Air Quality	Obtain Air Quality Approval Order from the Utah Division of Air Quality	Contractor
Air Quality	Follow requirements outlined in Standard Specification 01572, "Dust Control and Watering"	Contractor
Noise	UDOT's Standard Specifications include provisions to reduce the impacts of construction noise. Construction activity would temporarily increase noise for residents. Methods of reducing construction noise impacts include establishing hours that construction equipment can be operated and permissible sound levels at sensitive times.	Contractor
Visual Resources/Aesthetics	Impacts from lights used during nighttime construction will be reduced by aiming construction lights directly at the work area and/or shielding the lights. Temporary disturbance areas would be restored following construction.	Contractor





CHAPTER 5

Resource	Permit/Clearance/Commitment	Responsible Party
Cultural Resources	If unknown resources should be encountered during construction, the contractor would be required to follow provisions of UDOT Standard Specifications regarding discovery (Standard Specification 01355 Parts 3.7 and 3.8).	Contractor
Migratory Birds	If work must take place within the nesting period for migratory birds, June 15–July 31, a qualified biologist should assess vegetation areas before removal. If active nests are found, removal should not take place until birds are confirmed to have fledged.	Contractor
Invasive Species	Follow Supplemental Specification 02924S, "Invasive Weed Control"	Contractor





CHAPTER 6

Chapter 6 References

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Appendix A: Traffic Memoranda





MEMORANDUM

To: UDOT Region One & Environmental

From: Avenue Consultants

Date: July 29, 2019

Subject: SR 193 SES - 2018 Existing and 2050 No Action Traffic Analysis

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UDOT has initiated a State Environmental Study (SES) for a potential extension of State Route 193 (200 South) from 2000 West (State Route 108) to 4500 West (State Route 110) or the future West Davis Corridor in West Point and Syracuse, Davis County, Utah. This memo describes the traffic evaluation performed for the 2018 existing and future 2050 No Action conditions.

1 TRAFFIC STUDY AREA

For the purposes of the traffic analysis, the study area is the rectangle formed by 300 North on the north, 2000 West on the east, 700 South on the south, and 4500 West on the west. Figure 1 shows the SR 193 SES traffic study area and the study intersections. SR 193 is an east-west road through the middle of the study area that has regional significance extending from its current terminus at 3000 West to US Highway 89. It provides access to I-15 as well as regional trip generators such as the Freeport Center and Hill Air Force Base. In 2018, SR 193 was extended west from its previous terminus at 2000 West to 3000 West. Local and regional plans for the area call for SR 193 to continue being extended west to the future West Davis Corridor and 4500 West.



Figure 1. Traffic Study Area



The general area is transitioning from rural to suburban. As such, the transportation system is also transitioning to what it will ultimately need to be to accommodate future travel demands. Two important characteristics of an effective roadway system are the functional classification of the roads that comprise the system and the connectivity of those roads. Each of these subjects are discussed in the following sections.

1.1 Roadway Functional Classification

The roadway system has a hierarchy to it that is based on roadway attributes such as speed and access. At the top end of the spectrum are freeways, which have high speeds and very limited access. At the other end of the spectrum are local roads, which have low speeds and high access. In between are arterials and collectors, each of which are divided into two sub-classifications: principal and minor arterials and major and minor collectors. The functional classification of a roadway indicates the road's role within the transportation system, which in turn helps determine when increased travel demand or change in the road's use could lead to negative impacts on its intended function in terms of speed, capacity, and relationship to existing and future land use (FHWA, 2013). Table 1 presents some of typical characteristics of the various roadway classes based on *Highway Functional Classification Concepts, Criteria and Procedures* report published in 2013 by the Federal Highway Administration (FHWA).

Functional Classification	Access	Average Annual Daily Traffic (AADT) Volume	Percentage of Vehicle Miles Traveled (VMT) ¹	Percentage of Roadway Mileage
Freeways/Expressways	Partially/Fully Controlled	13,000 – 129,000	20%-48%	1%-4%
Principal Arterial	Partially/Uncontrolled	7,000 – 27,000	17%-29%	4%-5%
Minor Arterial	Uncontrolled	3,000 - 14,000	15%-22%	7%-12%
Major Collector	Uncontrolled	1,100 - 6,300	7%-13%	7%-13%
Minor Collector	Uncontrolled	1,100 - 6,300	7%-13%	7%-13%
Local	Uncontrolled	80 - 700	6%-24%	67%-76%

Table 1. Roadway Characteristics by Functional Classification

¹ Percentage of VMT is defined as the amount of daily traffic driven on each roadway classification compared to the total miles driven in the state.

² Percentage of Roadway Miles is defined as the number of miles of each roadway classification compared to the total roadway miles in the state.

The table shows that while freeways and expressways have the fewest number of roadway miles, they carry the highest percentage of traffic, which makes sense because those roads carry high volumes over long distances. It also shows that local streets comprise the majority of the roadway miles, but carry little of the total traffic, which again makes sense because they carry low volumes over short distances.

UDOT publishes a statewide roadway functional classification map on their website (<u>https://www.udot.utah.gov/main/f?p=100:pg:0::::V,T:,1224</u>). Based on data from that map, Table 2 lists the key roads in the traffic study area, their functional classification, and their existing traffic volume.

Road	Functional Classification	Existing Daily Volume
300 North	Major Collector	5,400
SR 193	Principal Arterial	10,800
700 South	Minor Collector	3,300
4500 West	Minor Arterial	3,800
3000 West	Major Collector	10,500
2000 West	Principal Arterial	19,900

Table 2	Troffic	Crudy	A	Deeduura	Classifications
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The table shows that the traffic volumes generally follows the roadway functional classification hierarchy with the principal arterials carrying the largest volumes and the minor collector carrying the lowest volume. The volumes also generally fit within the range of typical volumes presented in Table 1. However, 3000 West is a notable exception since it is carrying over 10,000 vehicles per day, which is above the range of the typical collector. This is largely driven by the fact that SR 193 ends at 3000 West, which condition will be further discussed in the next section.

1.2 Roadway Connectivity

Good roadway connectivity is an important component of an effective roadway system. Good connectivity provides drivers with multiple routes to make their trips. Having more options allows for a better distribution of trips throughout the system. However, when viewed from a functional classification system perspective, it is important that the connections occur between compatible roadway types. Per the FHWA functional classification guide mentioned in the previous section, "a roadway of a higher classification should not connect to a single roadway of a lower classification." This is the situation that exists in the traffic study area at the intersection of SR 193 and 3000 West. SR 193 is a principal arterial that connects (and terminates) at a single major collector (3000 West). This condition results in unusually high volumes on 3000 West, given its classification, which then leads to more noise and difficulty pulling in and out of their driveways for those that live on 3000 West.

2 ANALYSIS METHODOLOGY

The analyses performed for this study used the jointly owned and maintained Wasatch Front Regional Council (WFRC)/Mountainland Associated of Governments (MAG) travel demand model and the Vissim traffic operations evaluation software. This section describes how each of these tools was used.

2.1 Travel Demand Modeling

The WFRC/MAG travel demand model (TDM) is a tool used to predict future travel and traffic volumes for the Wasatch Front area. WFRC and MAG are the Metropolitan Planning Organizations for the Wasatch Front and are responsible for coordinating transportation planning in the region. MAG is responsible for Utah County and WFRC for Weber, Davis, and Salt Lake Counties. Version 8.3 draft of the TDM was used for this study. The travel demand model has two primary inputs: land use data and transportation system data. Using the land use and transportation system inputs, the travel model predicts how many trips will be generated in the region, where

those trips are going, the mode by which they will be made, and the transportation facilities that will be used to get there.

2.1.1 Land Use

The land use data for the TDM consists of residential and employment data for the entire region. This data is prepared in geographic blocks called Traffic Analysis Zones (TAZs). The land use inputs are prepared for a base year, which in this case was 2018, and for a future year, which in this case was 2050. In consultation with region's cities, WFRC and MAG prepare future land use projections consisting primarily of household and employment information. These projections are used by the MPOs to develop the Regional Transportation Plan (RTP), which is the plan for the development of the future transportation system.

To prepare the model for use, several TAZs were split in the traffic study area to improve the resolution of the model in the area and to more accurately reflect local travel patterns. Several of these splits were done along the alignment of the future West Davis Corridor. A figure showing the TAZ splits can be found in Appendix A. Where TAZs were split, the resulting households and employment for each split TAZ were taken from the original TAZ and proportioned based on the distribution of existing development and the availability of developable land, as observed through aerial photography. Additionally, several household projections in the study area were adjusted for 2018 conditions to better match the observed households.

The resulting population and employment numbers by TAZ for both 2018 and 2050 are shown in Figure 2 and Figure 3, respectively. Between 2018 and 2050, the population for the SR 193 area is expected to more than double from 12,650 in 2018 to 31,370 in 2050, which represents an average annual increase of 2.6% per year. Employment projections show increases at a much greater rate (5.7% per year on average) from 2,480 in 2018 to 14,750 in 2050. TAZs 460 and 461 include a high proportion of this growth with a combined population of over 8,000 and employment of over 11,000 by 2050.

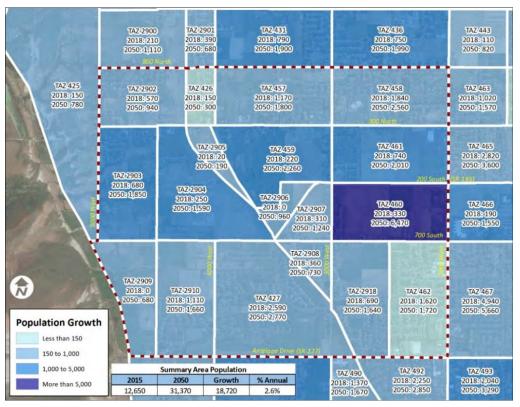


Figure 2. Population Growth by TAZ – 2018 to 2050



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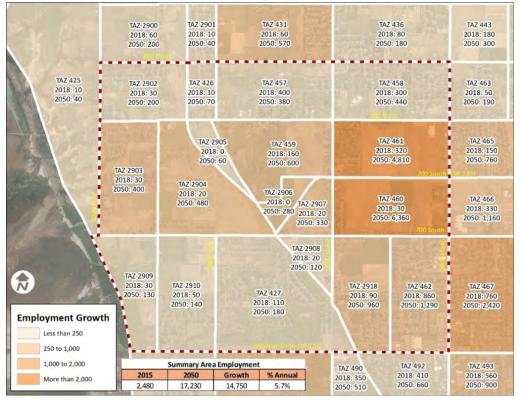


Figure 3. Employment Growth by TAZ – 2018 to 2050

2.1.2 Transportation Network

The second component of the TDM is the transportation network, which consists of the roadway network, including arterials and collectors in the traffic study area. To accommodate the zone splits, several existing collector roads in the study area were added that were not included in the base TDM network. Future roads are also included in the TDM based on the list of projects in the WFRC RTP that are planned to meet future transportation needs over a 20+ year horizon. Figure 4 shows the projects that are currently part of the draft 2050 RTP that would be completed by 2050, which includes the SR 193 extension. Other projects in the vicinity of SR 193 that may affect the corridor include the following:

- West Davis Corridor: a limited access highway that travels northwest/southeast through the study area and ultimately connects SR 39 (Ogden's 12th Street) to I-15/Legacy Parkway in Farmington
- 2000 West widening north of the interchange with West Davis Corridor to Antelope Drive
- Widening of Antelope Drive (SR 127) between 2000 West and West Davis Corridor
- Widening of SR 193 east of 1000 West



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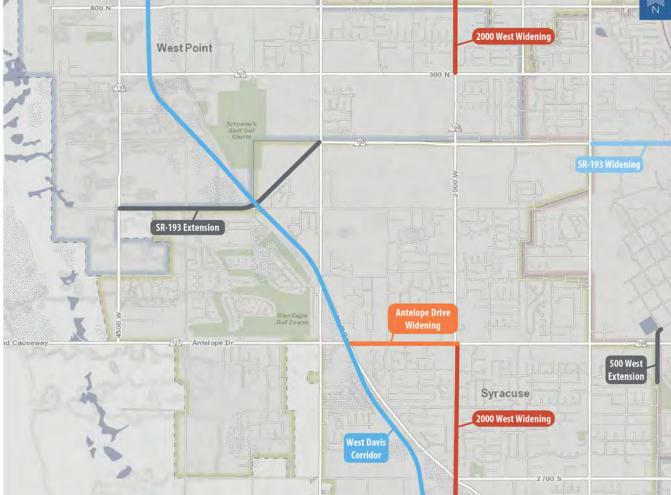


Figure 4. SR 193 Area Projects in Draft 2050 WFRC Regional Transportation Plan

After refining the land use and transportation network, the base year TDM was validated for the traffic study area by comparing 2018 TDM volumes to estimated daily traffic volumes. Daily volumes were estimated on roadways throughout the study area using published 2017 UDOT AADT data (2018 data is not yet available) and intersection turning movement count data gathered at intersections for this project. Free flow speeds on some roadways in the study area were adjusted to bring the model volumes closer to the observed volumes.

Once the final model and 2050 RTP are adopted in June 2019, sensitivity tests will be performed to ensure that the conclusions from this analysis are still valid with the new model and RTP.

2.2 Traffic Operations Analysis

The Vissim software was selected for this study because it allows for the evaluation of freeways, closely spaced intersections, and the interaction between the two facilities. Vissim allows for driving behaviors to be modified, can collect travel time data for user-specified segments and can measure queue lengths at key intersections, which collectively are used to calibrate the model to observed conditions.

Existing traffic signal timing data were obtained from the UDOT Traffic Operations Center and used in modeling signalized intersections in Vissim. The intersections within the traffic study area were modeled according to

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existing geometry and speeds. The study area was modeled as a network; however, the analysis was completed for each intersection independently.

2.2.1 Traffic Volumes

Two-hour turning movement counts were collected for intersections in the SR 193 area on Tuesday, December 18, 2018 from 7:00-9:00 AM and from 4:00-6:00 PM at the following intersections, shown in Figure 5:

- 300 North & 4500 West
- 300 North & Syracuse Trail
- 300 North & 3000 West
- SR- 193 & 3000 West
- SR- 193 & 2000 West

- 700 South & 4500 West
- 700 South & 4000 West
- 700 South & St Andrews Drive
- 700 South & 3000 West

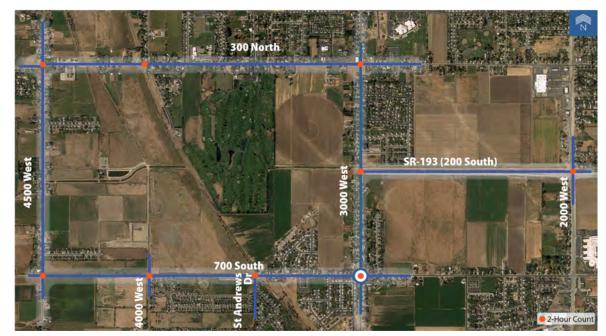


Figure 5. Traffic Count Locations

The collected turning movement traffic volumes were balanced throughout the traffic study area so that the volume leaving one intersection was the same as the volume arriving at the next to create existing AM and PM peak hour volumes. Estimated 2050 AM and PM peak hour volumes were developed using principles described in the National Highway Cooperative Research Program (NCHRP) Report 255 document. Additionally, traffic count data was collected during December when the volumes are generally lower on average. For this reason, seasonal adjustments were applied to both SR 193 and side street traffic to more accurately replicate peak conditions. The 2050 peak hour intersection volumes were developed from these adjusted volumes and data from the WFRC/MAG travel demand model. The travel model was run for the base year (2018) and for the future year (2050) and the difference between these models was used to estimate the traffic increase, which was applied to the existing traffic volumes. The future volumes were balanced to ensure the correct number of inbound and outbound vehicles on each leg of the intersection. Included in Appendix B has figures presenting the resulting 2018 Existing and 2050 No Action traffic volumes used in this analysis.



2.2.2 Measures of Effectiveness

For each Vissim analysis (e.g. Existing Conditions, 2050 No Action), the model was run 10 times to produce statistically significant results and the results were averaged. Three key measures of effectiveness were extracted from the Vissim models to analyze intersection performance along the corridor. The first was intersection and turning movement delay, which was used to determine level of service (LOS), as described in the *Highway Capacity Manual*. LOS describes the operating performance of an intersection or roadway. LOS is measured quantitatively and is reported on a scale from A to F, with A representing the best performance and F the worst. For signalized intersections, an overall LOS is reported for the entire intersection based on the average delay of all vehicles. For unsignalized intersections, LOS is reported based on the average vehicle delay for the worst approach. Table 3 provides a brief explanation for each LOS and the associated average delay per vehicle for signalized and unsignalized intersections.

Level of	Traffic Conditions	Average Delay (seconds/vehicle)	Average Delay (seconds/vehicle)	
Service		Signalized Intersection	Unsignalized Intersection	
А	Free Flow Operations / Insignificant Delay	0 ≤ 10	0 ≤ 10.0	
В	Smooth Operations / Short Delays	> 10 and ≤ 20	>10.0 and ≤ 15.0	
C	Stable Operations / Acceptable Delays	> 20 and ≤ 35	$>$ 15.0 and \leq 25.0	
D	Approaching Unstable Operations / Tolerable Delays	> 35 and ≤ 55	$>\!25.0$ and $\leq\!35.0$	
E	Unstable Operations / Significant Delays Begin	> 55 and ≤ 80	$>$ 35.0 and \leq 50.0	
F	Very Poor Operations / Excessive Delays Occur	> 80	> 50.0	



Source: Highway Capacity Manual 2016, Transportation Research Board National Research Council, Washington D.C

The second key measure of effectiveness is the 95th percentile queue length for each movement at the study intersections. The length of the 95th percentile queue is identified as the queue distance that will only be exceeded five percent of the time during the analysis period. The queue length helps to identify key issues such as queuing between intersections and queues that exceed their available storage and block the adjacent through lanes.

The third key measure of effectiveness is arterial level of service, which is based on travel speed. Specifically, arterial LOS is determined by comparing the actual or modeled travel speed to the base free-flow speed, which in this case was assumed to be the speed limit. Table 4 shows the various speed thresholds for LOS by base free-flow speed.

For the analyses, travel time data collection segments were placed throughout the Vissim model along key roadways, which measure the travel time and speed for those segments. The speeds were then used to determine the arterial LOS.

1.05	Travel Speed Threshold by Base Free-Flow Speed (mph)								
LOS	55	50	45	40	35	30	25		
А	> 44	> 40	> 36	> 32	> 28	> 24	> 20		
В	> 37	> 34	> 30	> 27	> 23	> 20	> 17		
С	> 28	> 25	> 23	> 20	> 18	> 15	> 13		
D	> 22	> 20	> 18	> 16	> 14	> 12	> 10		
Е	> 17	> 15	> 14	> 12	> 11	> 9	> 8		
F	≤ 17	≤ 15	≤ 14	≤ 12	≤ 11	≤ 9	≤ 8		

Table 4. Arterial Level of Service Criteria

Source: Highway Capacity Manual 2016, Transportation Research Board National Research Council, Washington D.C

2.2.3 Model Calibration

Vissim model calibration focused on matching modeled queues, travel times, and vehicle behavior to those same characteristics observed during field visits to the study area.

3 EXISTING AND 2050 NO ACTION ANALYSIS RESULTS

The analysis results presented in this section include intersection delay, LOS, travel times, and 95th percentile queue lengths.

3.1 Existing Conditions

The evaluation of key intersections and associated queue lengths within the traffic study area are presented in the following sections.

3.1.1 Intersection Delay and LOS Analysis

The delay and LOS calculated for the key intersections are presented in Table 5 for the AM and PM peak hours. For stop-controlled intersections, the approach having the worst delay is presented in the parenthesis. For the roundabout, the total intersection delay is reported, but the LOS is reported based on the unsignalized criteria. In 2018, during the AM and PM peak hour all intersections within the study area perform at LOS C or better. Figures showing LOS by movement can be found in Appendix C, while detailed results are in Appendix D.

Intersection	Traffic Control Type	AM LOS / Delay (sec/veh)	PM LOS / Delay (sec/veh)			
300 North & 4500 West	Two-way stop	A / 10 (WB)	B / 12 (WB)			
300 North & 3000 West	Signalized	B / 11	B / 13			
SR 193 & 3000 West	Signalized	A / 9	B / 13			
SR 193 & 2000 West	Signalized	C / 25	C / 24			
700 South & 4500 West	Two-way stop	A / 9 (EB)	A / 8 (EB)			
700 South & 4000 West	Two-way stop	A / 9 (NB)	A / 8 (NB)			
700 South & St Andrews Drive	One-way stop	A / 8 (NB)	A / 7 (NB)			
700 South & 3000 West	Roundabout	A / 5	A / 5			

3.1.2 95th Percentile Queue Analysis

Estimated 2018 existing 95th percentile queue lengths are presented in Table 6. Due to relatively low intersection volumes, there no significant queuing in the study area during the AM or PM peak hours. In queues, on average, there will be a vehicle approximately every 25 feet. The maximum queue shown in the table is 225 feet for the northbound approach on 2000 West at SR-193, suggesting a queue of about nine vehicles per lane.

95 th Percentile Queue Approach	АМ	РМ
EB Approach of 300 N & 4500 W	50 ft	25 ft
WB Approach of 300 N & 4500 W	125 ft	150 ft
EB Approach of 300 North & 3000 West	150 ft	125 ft
WB Approach of 300 North & 3000 West	100 ft	200 ft
EB Approach of SR- 193 & 2000 West	200 ft	125 ft
WB Approach of SR- 193 & 2000 West	125 ft	200 ft
NB Approach of SR- 193 & 2000 West	175 ft	225 ft
SB Approach of SR- 193 & 2000 West	200 ft	175 ft
EB Approach of 700 South & 4500 West	25 ft	25 ft
WB Approach of 700 South & 4500 West	100 ft	75 ft
SB Approach of 700 South & St Andrews Drive	100 ft	50 ft
EB Approach of 700 South & 3000 West	175 ft	75 ft
WB Approach of 700 South & 3000 West	75 ft	50 ft
NB Approach of 700 South & 3000 West	175 ft	75 ft
SB Approach of 700 South & 3000 West	100 ft	125 ft

Table 6. 2018 Existing 95th Percentile Queue Results

3.1.3 Arterial Analysis

The travel speeds and arterial LOS for key segments are labeled and compared in Table 7. Overall the corridors operate at LOS C or better for both AM and PM peak hour. A figure showing arterial LOS is included in Appendix C and Appendix D contains detailed travel time and speed results.

Table 7. Existing Arterial Level of Service Results						
	Road	way Segment	Base Free Flow Speed (mph)	AM LOS/Speed (mph)	PM LOS/Speed (mph)	
	300 N	4500 W to 3000W	40	B / 32	B / 32	
		3000 W to 2000 W	50	C / 33	C / 33	
σ	SR 193	3000 W to 2550 W	50	-	-	
uno		2550 W to 2000 W	50	-	-	
Eastbound		4500 W to 3000W	35	A / 32	A / 32	
ш	700 S	4500 W to 4000 W	35	A/34	A/34	
	700 5	4000 W to St Andrews Dr	35	A / 34	A/34	
		St Andrews Dr to 3000 W	35	B/28	A/30	
	300 N	3000 W to 4500W	40	A / 35	A / 34	
	SR 193	2000 W to 3000 W	50	A / 41	B / 39	
p		2000 W to 2550 W	50	-	-	
Westbound		2550 W to 3000 W	50	-	-	
/est	700 S	3000 W to 4500 W	35	A / 34	A / 32	
5		4000 W to 4500 W	35	A/33	A/29	
	700.3	St Andrews Dr to 4000 W	35	A/34	A/34	
		3000 W to St Andrews Dr	35	A/33	A/33	
pu	4500 W	700 S to 300 N	40	A / 38	A / 38	
Northbound		700 S to 300 N	35	B / 28	B / 28	
orth	3000 W	SR 193 to 300 N	35	A/30	A/29	
ž		700 S to SR 193	35	B/27	B/27	
pu	4500 W	300 N to 700 S	40	A / 38	A / 38	
Southbound		300 N to 700 S	35	A / 29	A / 30	
uth	3000 W	300 N to SR 193	35	A/30	A/31	
So		SR 193 to 700 S	35	B/28	B/28	

Table 7. Existing Arterial Level of Service Results

3.2 2050 No Action Conditions

For the 2050 No Action analysis, the following assumptions were made in the TDM and/or Vissim models:

- West Davis Corridor would pass through the study area, but there would be no access in the study area
- A new signalized intersection was added on SR 193 at 2550 West (between 3000 West and 2000 West)
- A west leg was added at the intersection of SR 193 and 3000 West as a street providing local access but no throughput
- The intersection of 300 North and 4500 West was signalized because of excessive queuing without a signal it would also likely warrant a traffic signal by 2050

The resulting analysis of the 2050 No Action conditions is presented in the following sections.

3.2.1 Traffic Volume

As expected by 2050, daily traffic volumes increase along the key roadways in the traffic study area. As shown in Figure 6, the daily volume on several corridors grows by about 100% or more including 300 North, 4500 West, and 2000 West. Table 8 shows similar information, but includes the relationship to the typical volume for the various roadway functional classifications. The daily roadway volumes shown in Table 2 in section 1.2 Roadway Functional Classification were developed by averaging the existing volumes from Figure 6 / Table 8.



Figure 6. Daily Volume Growth (2018 to 2050)

Table 8	Daily \	/olume	Comparisons
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Road	Functional Classification	Typical Daily Volume	Segment	Existing Daily Volume	2050 Daily Volume	% Change	Exceeds Typical?
300	Major Collector	1 100 6 200	4500 W to 3000 W	5,100	9,200	100%	Yes
North	Major Collector	1,100 - 6,300	3000 W to 2000 W	7,600	13,200	110%	Yes
SR 193	Principal Arterial	7,000 - 27,000	3000 W to 2000 W	10,800	12,100	12%	No
			4500 W to 4000 W	1,200	2,100	75%	No
700	Min en Celle sten	llector 1,100 - 6,300	4000 W to WDC	2,100	3,700	76%	No
South	Minor Collector		WDC to 3000 W	5,600	8,500	42%	Yes
			3000 W to 2000 W	3,900	7,000	84%	Yes
4500 West	Minor Arterial	3,000 - 14,000	300 N to 700 S	3,800	9,600	153%	No
3000	Major Collector	1 100 6 200	300 N to SR 193	11,600	13,000	12%	Yes
West Major Collector	1,100 - 6,300	SR 193 to 700 S	9,500	13,300	40%	Yes	
2000	Duin ain al Autanial	7.000 .27.000	300 N to SR 193	21,100	42,000	99%	Yes
West	Principal Arterial	Arterial 7,000 - 27,000	SR 193 to 700 S	18,100	35,500	96%	Yes

SR 193 SES - 2018 Existing and 2050 No Action Traffic Analysis | July 29, 2019

On 300 North, which is a major collector, with its large increase in traffic, the volumes would exceed those of a typical collector. The volume growth on 700 South is relatively modest as most of the east-west volume increase occurs on 300 North; however, the 700 South segments between WDC and 2000 West would still have volumes that exceed those of the typical minor collector. Similarly, while volume growth on 3000 West is quite modest, largely due to the presence of the West Davis Corridor, it does still show volumes that exceed those of a typical collector. In total, six of the eight collector road segments in the study area have volumes that exceed the typical collector threshold. This is largely due to the lack of an east-west arterial road through the study area.

To better understand the interaction between the arterial and collector roads in the study area, an analysis was performed to see how the average arterial and collector road volume would change by 2050. The average volume for each type of facility was calculated by dividing the daily vehicle miles travelled (VMT) on each type of road by the number of centerline miles of each roadway type. By 2050, total VMT in the study is expected to more than double. Average volume on collectors will increase from 4,900 to 8,000 vehicles per day, an increase of 63%. Arterial volumes increase from 10,100 to 18,100 vehicles per day, an increase of 79%. When including volumes on the new West Davis Corridor freeway, overall average volumes increase 82% in the study area. Table 9 details the VMT, length, and average volumes by each type of roadway.

	VMT		Length (miles)		Average Volume (vehicles/day)		
Roadway Type	2018 Existing	2050 No Action	2018 Existing	2050 No Action	2018 Existing	2050 No Action	% Change
Collectors	38,900	68,000	8.0	8.5	4,900	8,000	63%
Arterials	90,900	162,400	9.0	9.0	10,100	18,100	79%
Freeways	n/a	41,700	n/a	2.2	n/a	19,200	n/a
Total	129,800	272,100	17.0	19.7	7,600	13,800	82%

Table 9. 2018 Existing and 2050 No Action VMT

Table 10 shows a comparison of both Existing and 2050 No Action intersection volumes, the detailed turning movement volumes of which can be seen in Appendix B and Appendix C. These show that all intersections increase in volume by 2050.

Table 10. 2018 Existing and 2050 No Action Peak Hour Total Intersection Volumes

		AM Peak Hou	r	PM Peak Hour			
Intersection	Existing 2018	2050 No Action	% Growth	Existing 2018	2050 No Action	% Growth	
300 North & 4500 West	516	1,000	94%	611	1,220	100%	
300 North & 3000 West	1,241	1,890	52%	1,303	1,900	46%	
SR 193 & 3000 West	1,206	1,700	41%	1,237	1,730	40%	
SR 193 & 2550 West	-	2,830	n/a	-	3,280	n/a	
SR 193 & 2000 West	2,672	4,870	82%	2,830	5,330	88%	
700 South & 4500 West	276	695	152%	355	824	132%	
700 South & 4000 West	215	471	119%	189	480	154%	
700 South & St Andrews Drive	405	561	39%	341	570	67%	
700 South & 3000 West	1,164	1,850	59%	927	1,730	87%	

3.2.2 Intersection Delay and LOS Analysis

As presented in Table 11, during the AM peak hour, the roundabout at 700 S and 3000 W is expected to operate at LOS E with both the southbound and eastbound approaches at LOS F at 54 and 90 seconds of delay per vehicle, respectively. In the PM peak period, all the study intersections are expected to operate at LOS D or better. Appendix D contains additional details on the intersection analysis results.

	AM Pea	ak Hour	PM Pea	ak Hour
Intersection	Existing LOS/Delay (sec/veh)	2050 No Action LOS/Delay (sec/veh)	LOS / Delay (sec/veh)	LOS / Delay (sec/veh)
300 North & 4500 West	A / 10 (WB)	C / 24	B / 12 (WB)	C / 24
300 North & 3000 West	B / 11	B / 18	B / 13	B / 17
SR 193 & 3000 West	A / 9	B / 11	B / 13	B / 15
SR 193 & 2550 West	n/a	C / 27	n/a	C / 30
SR 193 & 2000 West	C / 25	D / 35	C / 24	D / 37
700 South & 4500 West	A / 9 (EB)	A / 8 (EB)	A / 8 (EB)	A / 8 (WB)
700 South & 4000 West	A / 9 (NB)	A / 9 (SB)	A / 8 (NB)	A / 10 (NB)
700 South & St Andrews Drive	A / 8 (NB)	A / 8 (NB)	A / 7 (NB)	A / 8 (NB)
700 South & 3000 West	A / 5	E / 48	A / 5	B / 11

Table 11. 2018 Existing and 2050 No Action Intersection Delay and Level of Service Results

3.2.3 95th Percentile Queue Analysis

The 95th percentile queue lengths presented in Table 12Table 12 are for the approaches with the longest queue lengths from the 2050 No Action analysis. The biggest difference is in the southbound direction on the roundabout at 700 South and 3000 West where the 2050 queue lengths increase by over 1,400 feet for the AM peak period. As anticipated, traffic operations are expected to deteriorate with the increased traffic demand. At an average of 25 feet per vehicle, a 1,400 foot queue would have approximately 56 vehicles in it. Other queues of 700 feet would have about 28 vehicles. These are substantial increases over the nine vehicles in the existing conditions.



Table 12. 2010 Existing and 2000 NO Action 95 Telecinite Quede nesults								
95 th Percentile Queue Approach	2018 AM Existing	2050 AM No Action	2018 PM Existing	2050 PM No Action				
EB Approach of 300 N & 4500 W	50 ft	200 ft	25 ft	175 ft				
WB Approach of 300 N & 4500 W	125 ft	275 ft	150 ft	400 ft				
EB Approach of 300 N & 3000 W	150 ft	175 ft	125 ft	250 ft				
WB Approach of 300 N & 3000 W	100 ft	675 ft	200 ft	450 ft				
EB Approach of SR- 193 & 2000 W	200 ft	375 ft	125 ft	350 ft				
WB Approach of SR- 193 & 2000 W	125 ft	350 ft	200 ft	450 ft				
NB Approach of SR- 193 & 2000 W	175 ft	425 ft	225 ft	450 ft				
SB Approach of SR- 193 & 2000 W	200 ft	475 ft	175 ft	600 ft				
EB Approach of 700 S & 4500 W	25 ft	50 ft	25 ft	50 ft				
WB Approach of 700 S & 4500 W	100 ft	100 ft	50 ft	100 ft				
NB Approach of 700 S & 4000 W	75 ft	50 ft	75 ft	50 ft				
SB Approach of 700 S & 4000 W	50 ft	75 ft	50 ft	50 ft				
SB Approach of 700 S & St Andrews Drive	100 ft	75 ft	50 ft	75 ft				
EB Approach of 700 S & 3000 W	175 ft	750 ft	75 ft	175 ft				
WB Approach of 700 S & 3000 W	75 ft	650 ft	50 ft	250 ft				
NB Approach of 700 S & 3000 W	175 ft	700 ft	75 ft	175 ft				
SB Approach of 700 S & 3000 W	100 ft	1,425 ft	125 ft	450 ft				

Table 12. 2018 Existing and 2050 No Action 95th Percentile Queue Results

3.2.4 Arterial Analysis

Travel speeds presented in Table 13 show a comparison of the 2018 and 2050 travel speeds, with the biggest increase being during the AM peak period. On 700 South the eastbound travel speed from St. Andrews Drive to 3000 West decreases by 16 mph to 12 mph which is only 34% of the base free-flow speed. This decrease is due to a 225% volume increase at the eastbound approach of the roundabout, which is more demand than it can handle. Additional detail on the travel time results can be found in Appendix D.



Roadway Segment Base Flow Speed (mph) 2018 AM Existing 2050 AM No Action 2018 PM Existing 2050 PM No Action 300 N 4500 W to 3000W 40 B/32 A/34 B/32 A/34 8 300 N 4500 W to 3000W 40 B/32 A/34 B/32 A/34 8 300 W to 2000 W 50 C/33 D/24 C/33 D/24 58 300 W to 2550 W 50 - D/25 - D/23 2550 W to 2000 W 50 - D/24 - C/25 2550 W to 2000 W 50 - D/24 - C/25 4500 W to 3000 W 35 A/34 A/34 A/34 A/34 700 S 300 W to 5t Andrews Dr 35 B/28 E/12 A/30 B/28 8193 2000 W to 4500W 30 - C/34 A/34 A/34 8193 2000 W to 4500W 30 - C/34 A/34 B/39 8193 2000 W to 4500W			a 2030 NO ACTION ATTEN	1	[ſ				
Markawa Speed (mph) LOS/Speed (mph) LOS/Speed (mph) <th speid<br="">(mph) <th speid<br="">(mph) <</th><th></th><th>Deciliar</th><th></th><th>Free</th><th></th><th></th><th></th><th></th></th>	(mph) <th speid<br="">(mph) <</th> <th></th> <th>Deciliar</th> <th></th> <th>Free</th> <th></th> <th></th> <th></th> <th></th>	(mph) <		Deciliar		Free				
PDOD 3000 W to 2000 W 50 C / 33 D / 24 C / 33 D / 24 SR 193 3000 W to 2550 W 50 - D / 25 - D / 23 2550 W to 2000 W 50 - D / 24 - C / 25 2550 W to 2000 W 35 A / 32 C / 21 A / 32 A / 31 4500 W to 3000 W 35 A / 34 A / 34 A / 34 A / 33 700 S 4500 W to 3000 W 35 A / 34 A / 34 A / 34 4000 W to 5t Andrews Dr 35 B / 28 E / 12 A / 30 B / 28 300 N 3000 W to 4500 W 40 A / 35 A / 34 A / 34 B / 39 SR 193 2000 W to 2550 W 50 - B / 37 - C / 33 SR 193 2000 W to 2550 W 50 - B / 37 - C / 34 3000 W to 4500 W 35 A / 34 A / 33 A / 32 A / 31 4000 W to 4500 W 35 A / 34 A /		Koadwa	y Segment	-						
SR 193 3000 W to 2550 W 50 - D/25 - D/23 2550 W to 2000 W 50 - D/24 - C/25 4500 W to 3000 W 35 A/32 C/21 A/32 A/31 4500 W to 3000 W 35 A/34 A/34 A/34 A/34 700 S 4000 W to St Andrews Dr 35 A/34 A/34 A/34 A/34 St Andrews Dr to 3000 W 35 B/28 E/12 A/30 B/28 300 N 3000 W to 4500 W 40 A/35 A/34 A/34 B/34 St Andrews Dr to 3000 W 300 W to 4500 W 50 A/41 B/35 B/39 C/33 SR 193 2000 W to 2550 W 50 - B/37 - C/34 2550 W to 3000 W 50 - B/37 - C/34 700 S 3500 W to 4500 W 35 A/34 A/33 A/29 B/28 3000 W to St Andrews Dr 35 A/34 A/33		300 N	4500 W to 3000W	40	B / 32	A / 34	B / 32	A / 34		
PPOP Image: Proposition of the state of the			3000 W to 2000 W	50	C / 33	D / 24	C / 33	D / 24		
Purper 4500 W to 3000W 35 A/32 C/21 A/32 A/31 700 S 4500 W to 4000 W 35 A/34 A/34 A/34 A/33 700 S 4000 W to St Andrews Dr 35 A/34 A/34 A/34 A/34 800 N 3000 W to St Andrews Dr 35 B/28 E/12 A/30 B/28 300 N 3000 W to 4500W 40 A/35 A/34 A/34 A/34 800 N 3000 W to 4500W 40 A/35 A/34 A/34 B/28 300 N 3000 W to 4500W 40 A/35 A/34 A/34 B/34 800 W to 250 W 50 - B/37 - C/33 2000 W to 250 W 50 - C/34 - C/34 4000 W to 4500 W 35 A/33 A/34 A/32 A/31 400 W to 4500 W 35 A/33 A/33 A/34 A/33 700 S St Andrews Dr 35 A/33		SR 193	3000 W to 2550 W	50	-	D/25	-	D/23		
Image: Propertype 4000 W to St Andrews Dr 35 A/34 A/34 A/34 A/34 St Andrews Dr to 3000 W 35 B/28 E/12 A/30 B/28 300 N 3000 W to 4500W 40 A/35 A/34 A/34 B/34 SR 193 2000 W to 3000 W 50 A/41 B/35 B/39 C/33 SR 193 2000 W to 2550 W 50 - B/37 - C/34 SR 193 2000 W to 2550 W 50 - B/37 - C/33 2550 W to 3000 W 50 - C/34 - C/34 4000 W to 4500 W 35 A/34 A/33 A/29 B/28 500 M to 4500 W 35 A/33 A/33 A/34 A/33 700 S St Andrews Dr to 4000 W 35 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/34 3000 W to St 3000 W to St 35 A/33 B/26 B/26 </td <td>pu</td> <td></td> <td>2550 W to 2000 W</td> <td>50</td> <td>-</td> <td>D/24</td> <td>-</td> <td>C/25</td>	pu		2550 W to 2000 W	50	-	D/24	-	C/25		
Image: Propertype 4000 W to St Andrews Dr 35 A/34 A/34 A/34 A/34 St Andrews Dr to 3000 W 35 B/28 E/12 A/30 B/28 300 N 3000 W to 4500W 40 A/35 A/34 A/34 B/34 SR 193 2000 W to 3000 W 50 A/41 B/35 B/39 C/33 SR 193 2000 W to 2550 W 50 - B/37 - C/34 SR 193 2000 W to 2550 W 50 - B/37 - C/33 2550 W to 3000 W 50 - B/37 - C/34 4000 W to 4500 W 35 A/34 A/34 A/32 A/31 4000 W to 4500 W 35 A/33 A/33 A/29 B/28 5t Andrews Dr to 4000 W 35 A/33 A/34 A/33 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/34 3000 W to St 3000 W to St 35 A/33 B/26 B/26 </th <th>Inoc</th> <th></th> <th>4500 W to 3000W</th> <th>35</th> <th>A / 32</th> <th>C / 21</th> <th>A / 32</th> <th>A / 31</th>	Inoc		4500 W to 3000W	35	A / 32	C / 21	A / 32	A / 31		
Image: Propertype 4000 W to St Andrews Dr 35 A/34 A/34 A/34 A/34 St Andrews Dr to 3000 W 35 B/28 E/12 A/30 B/28 300 N 3000 W to 4500W 40 A/35 A/34 A/34 B/34 SR 193 2000 W to 3000 W 50 A/41 B/35 B/39 C/33 SR 193 2000 W to 2550 W 50 - B/37 - C/34 SR 193 2000 W to 2550 W 50 - B/37 - C/33 2550 W to 3000 W 50 - C/34 - C/34 4000 W to 4500 W 35 A/34 A/33 A/29 B/28 500 M to 4500 W 35 A/33 A/33 A/34 A/33 700 S St Andrews Dr to 4000 W 35 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/34 3000 W to St 3000 W to St 35 A/33 B/26 B/26 </td <td>East</td> <td></td> <td>4500 W to 4000 W</td> <td>35</td> <td>A/34</td> <td>A/34</td> <td>A/34</td> <td>A/33</td>	East		4500 W to 4000 W	35	A/34	A/34	A/34	A/33		
Image: birder	-	700 S		35	A/34	A/34	A/34	A/34		
Purpose 2000 W to 3000 W 50 A / 41 B / 35 B / 39 C / 33 SR 193 2000 W to 2550 W 50 - B/37 - C/33 2550 W to 3000 W 50 - C/34 - C/34 2550 W to 3000 W 50 - C/34 - C/34 Andrews Dr 35 A/34 A/33 A/29 B/28 700 S St Andrews Dr to 4000 W to 4500 W 35 A/34 A/33 A/34 A/33 700 S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/33 900 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 900 W 700 S to 300 N 35 B/28 B/26 B/28 B/26 900 W 700 S to 300 N 35 B/27 B/25 B/27 B/26 900 W 300 N to 700 S 40 A/38				35	B/28	E/12	A/30	B/28		
SR 193 2000 W to 2550 W 50 - B/37 - C/33 2550 W to 3000 W 50 - C/34 - C/34 2550 W to 3000 W 50 - C/34 - C/34 4000 W to 4500 W 35 A/34 A/34 A/32 A/31 4000 W to 4500 W 35 A/33 A/33 A/29 B/28 700 S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/34 A/33 A/34 A/33 A/33 900 W 700 S to 300 N 400 A/38 B/32 A/38 A/33 900 W 700 S to 300 N 35 A/30 B/26 B/28 B/26 900 W 700 S to 300 N 35 A/30 B/27 A/29 B/26 900 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 900 W 300 N to 700 S 35 A/29 C/20<		300 N	3000 W to 4500W	40	A / 35	A / 34	A / 34	B / 34		
PUPOP 2550 W to 3000 W 50 C/34 C/34 2550 W to 3000 W 35 A/34 A/34 A/32 A/31 4000 W to 4500 W 35 A/33 A/33 A/29 B/28 700 S St Andrews Dr to 4000 W to 4500 W 35 A/34 A/33 A/34 A/33 3000 W to 5t 4000 W 35 A/34 A/33 A/34 A/33 A/34 3000 W to 5t Andrews Dr 35 A/33 A/34 A/33 A/33 3000 W to 5t Andrews Dr 35 A/38 B/32 A/38 A/33 3000 W to 5t Andrews Dr 35 B/28 B/26 B/28 B/26 3000 W 50 to 300 N 35 B/28 B/26 B/28 B/26 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 4500 W 300 N to 700 S 40 A/38 B/32 A/38 A/33			2000 W to 3000 W	50	A / 41	B / 35	B / 39	C/33		
Too S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/33 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 3000 W 700 S to 300 N 35 B/28 B/26 B/28 B/25 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 700 S to SR 193 35 A/30 B/32 A/38 A/33 900 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 300 N to SR 193 35 A/30 B/27 A/31 B/28		SR 193	2000 W to 2550 W	50	-	B/37	-	C/33		
Too S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/33 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 3000 W 700 S to 300 N 35 B/28 B/26 B/28 B/25 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 700 S to SR 193 35 A/30 B/32 A/38 A/33 900 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to SR 193 35 A/30 B/27 A/31 B/28	pu		2550 W to 3000 W	50	-	C/34	-	C/34		
Too S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/33 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 3000 W 700 S to 300 N 35 B/28 B/26 B/28 B/25 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 700 S to SR 193 35 A/30 B/32 A/38 A/33 900 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to SR 193 35 A/30 B/27 A/31 B/28	noq		3000 W to 4500W	35	A / 34	A / 34	A / 32	A / 31		
Too S St Andrews Dr to 4000 W 35 A/34 A/33 A/34 A/33 3000 W to St Andrews Dr 35 A/33 A/34 A/33 A/33 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 3000 W 700 S to 300 N 35 B/28 B/26 B/28 B/25 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 700 S to SR 193 35 A/30 B/32 A/38 A/33 900 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to SR 193 35 A/30 B/27 A/31 B/28	Vest		4000 W to 4500 W	35	A/33	A/33	A/29	B/28		
Madrews Dr 35 A/33 A/34 A/33 A/33 4500 W 700 S to 300 N 40 A/38 B/32 A/38 A/33 3000 W 700 S to 300 N 35 B/28 B/26 B/28 B/25 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 700 S to SR 193 35 A/38 B/32 A/38 A/33 4500 W 300 N to 700 S 40 A/38 B/25 B/27 B/24 700 S to SR 193 35 A/29 C/20 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to 5700 S 35 A/30 B/27 A/31 B/28	-	700 S		35	A/34	A/33	A/34	A/33		
Top 700 S to 300 N 35 B/28 B/26 B/28 B/29 B/26 3000 W SR 193 to 300 N 35 A/30 B/27 A/29 B/26 700 S to SR 193 35 B/27 B/25 B/27 B/24 4500 W 300 N to 700 S 40 A/38 B/32 A/38 A/33 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to 700 S 35 A/29 C/20 A/30 B/26				35	A/33	A/34	A/33	A/33		
Log State State State No. State State No. State State No. State State No. S	рг	4500 W	700 S to 300 N	40	A / 38	B / 32	A / 38	A / 33		
Log State State State No. State State No. State State No. State State No. S	Inoc		700 S to 300 N	35	B / 28	B / 26	B / 28	B / 25		
Above Above <th< td=""><td rowspan="3">Nor</td><td>3000 W</td><td>SR 193 to 300 N</td><td>35</td><td>A/30</td><td>B/27</td><td>A/29</td><td>B/26</td></th<>	Nor	3000 W	SR 193 to 300 N	35	A/30	B/27	A/29	B/26		
300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to SR 193 35 A/30 B/27 A/31 B/28			700 S to SR 193	35	B/27	B/25	B/27	B/24		
300 N to 700 S 35 A/29 C/20 A/30 B/26 3000 W 300 N to SR 193 35 A/30 B/27 A/31 B/28 SR 193 to 700 S 35 B/28 D/16 B/28 B/24		4500 W	300 N to 700 S	40	A / 38	B / 32	A / 38	A / 33		
How Solution 300 N to SR 193 35 A/30 B/27 A/31 B/28 SS 193 to 700 S 35 B/28 D/16 B/28 B/24	Inoq		300 N to 700 S	35	A / 29	C / 20	A / 30	B / 26		
SR 193 to 700 S 35 R/28 D/16 R/28 R/24	uthl	3000 W	300 N to SR 193	35	A/30	B/27	A/31	B/28		
57 57 57 57 57 57 57 57 57 57 57 57 57 5	So		SR 193 to 700 S	35	B/28	D/16	B/28	B/24		

Table 13. Existing and 2050 No	Action Arterial LOS Results
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The resulting arterial LOS for each segment is found on figures in Appendix E. Most segments are anticipated to have an arterial LOS C or better. The exception is eastbound SR 193 by 2050 between 3000 West and the new intersection at 2550 West with an anticipated arterial LOS E or worse in both AM and PM peak periods.

3.2.5 Travel Time Analysis

Travel time information was used to understand how long it would take for a vehicle to travel between select locations. The travel times were extracted from the TDM for the PM peak period. Three movements were identified for the analysis:

- from Legacy Parkway to the intersection of 3000 West and SR 193,
- from Legacy Parkway to the intersection of 4500 West and 200 South, and
- from I 15 to the intersection of 4500 West and 200 South.

The travel time results presented in Table 14 show a comparison of the 2018 and 2050 No Action travel times for the PM peak period.

Commonte	Travel Tim	04 Change	
Segments	2018 Existing	2050 No Action	% Change
Legacy Parkway to 3000 West & SR 193	23.1	20.2	-13%
Legacy Parkway to 4500 West & 200 South	26.4	21.5	-19%
l 15 to 4500 West & 200 South	12.6	15.5	23%

 Table 14. 2018 Existing and 2050 No Action Travel Times

By 2050 north-south connectivity will have improved due to the opening of West Davis Corridor in the study area. This explains the decrease in travel time in north-south travel times using Legacy Parkway towards the study area at SR 193. The east-west connectivity in 2050 remains the same as base year (2018) while the volume increases significantly. Therefore, there is expected to be an increase in east-west travel time through the study area.

4 CONCLUSION

The traffic operations analysis shows that there is not much congestion under existing conditions in the traffic study area. For the 2050 No Action alternative, traffic delays are still fairly low with the notable exception of the 700 South and 3000 West intersection where the roundabout is expected to fail in the 2050 AM peak hour.

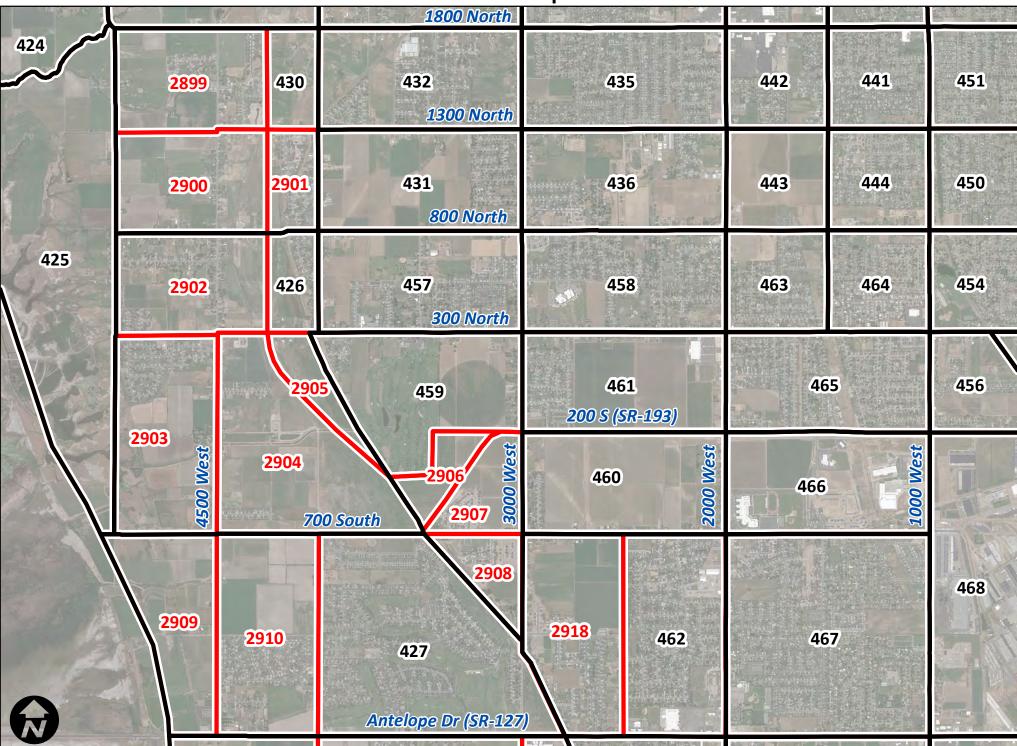
Although the analysis does not show significant congestion or increased delay, the traffic study area is transitioning from rural to suburban in nature. While there is generally good roadway connectivity throughout the area, there is currently a situation where a principal arterial (SR 193) terminates at a major collector (3000 West), which is not only inconsistent with good planning and network connectivity practices, but redirects higher than typical traffic volumes onto the surrounding roadways. Under existing conditions, this causes volumes on 3000 West to be higher than is typical for a collector road. This situation is exacerbated in the 2050 No Action alternative when 300 North and 700 South would also have volumes that exceed typical levels, which is largely due to the lack of an east-west arterial through the study area. This all leads to inefficient, ineffective, and out-of-direction travel for motorists and higher traffic volumes for residents on roads not intended for major corridor movement.

Overall, the largest issues in the future are expected to be the lack of principal arterial street connectivity. A disconnected SR 193 will continue to shift regional traffic onto collectors not designed for this level and type of traffic. Furthermore, having the West Davis Corridor pass through the study area, but not be able to have access to it means that residents will not receive the full traffic benefit that a connected transportation network with West Davis Corridor can provide.

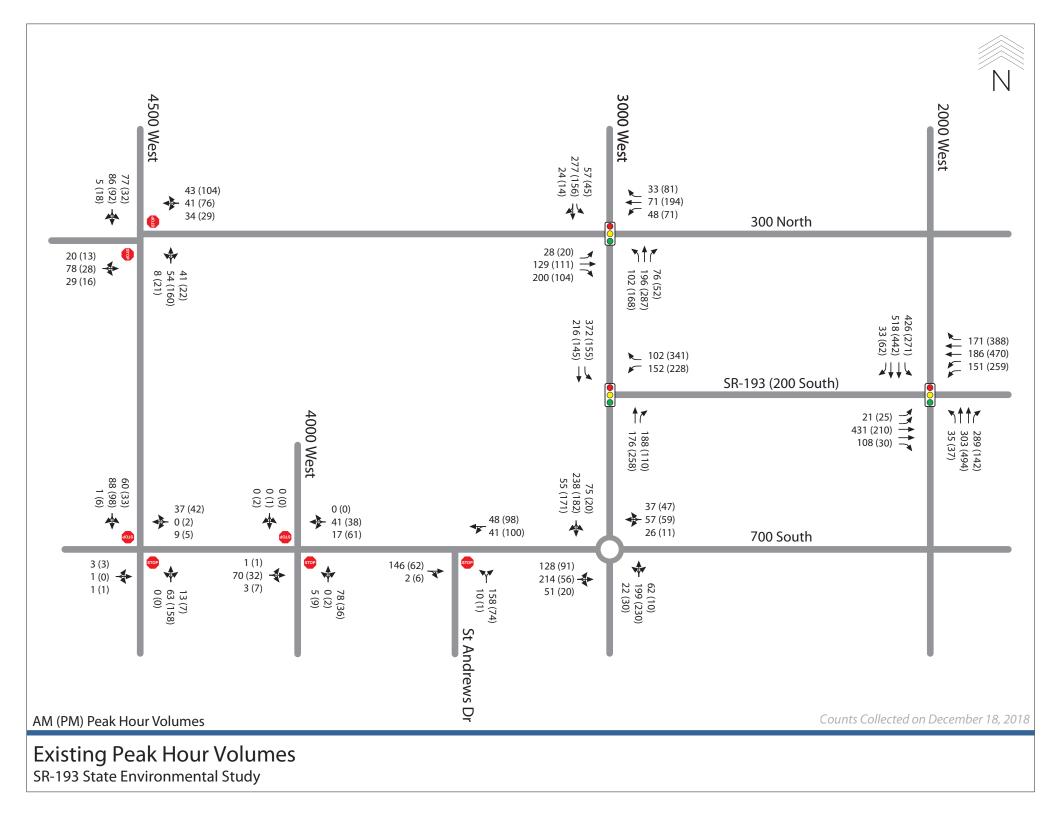
APPENDIX A – TAZ SPLIT FIGURE

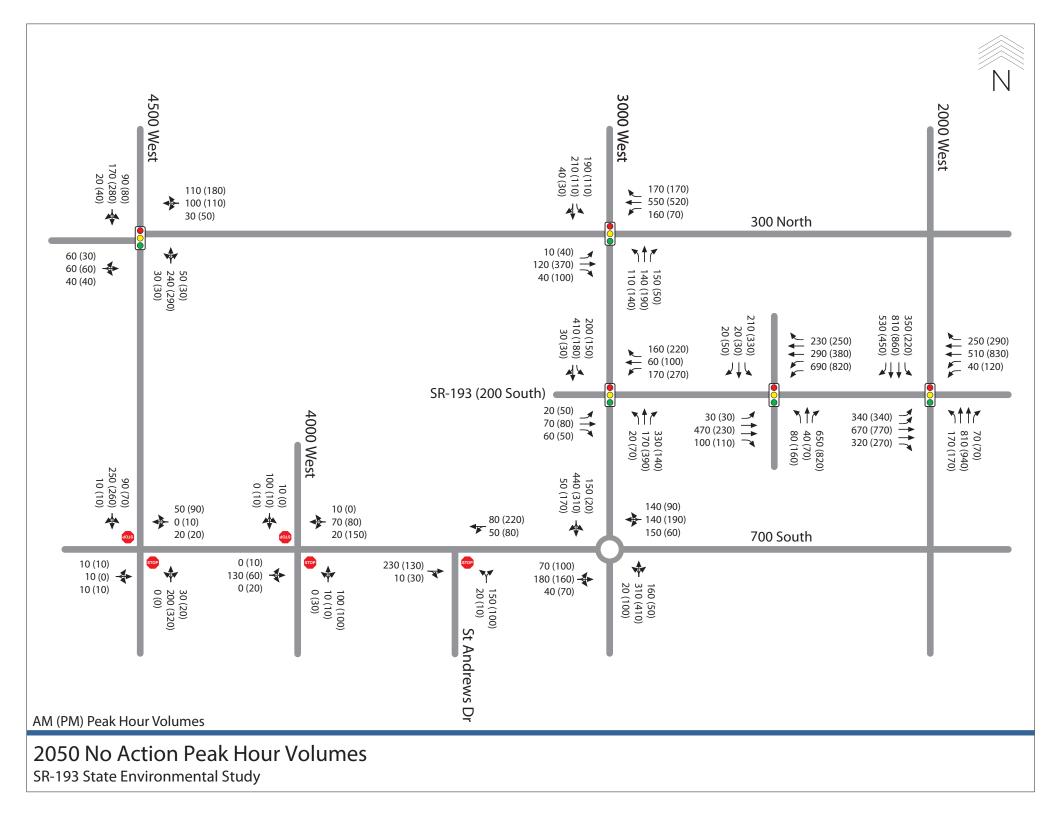


SR-193 TAZ Splits

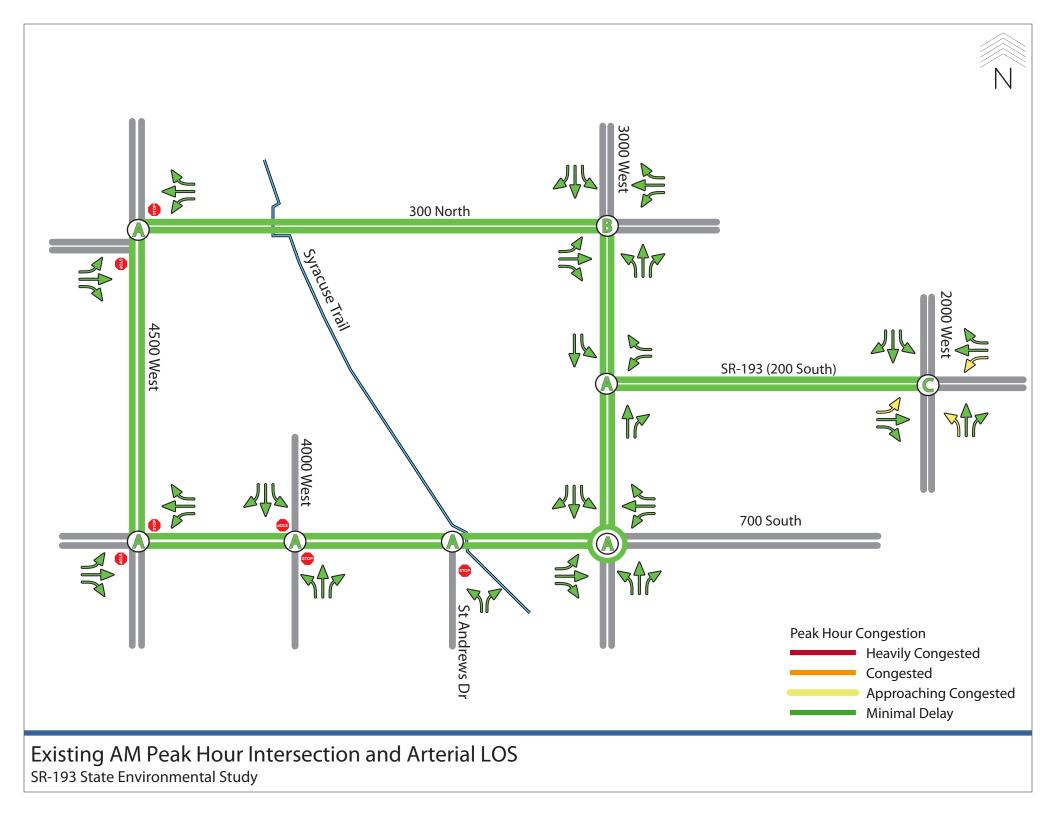


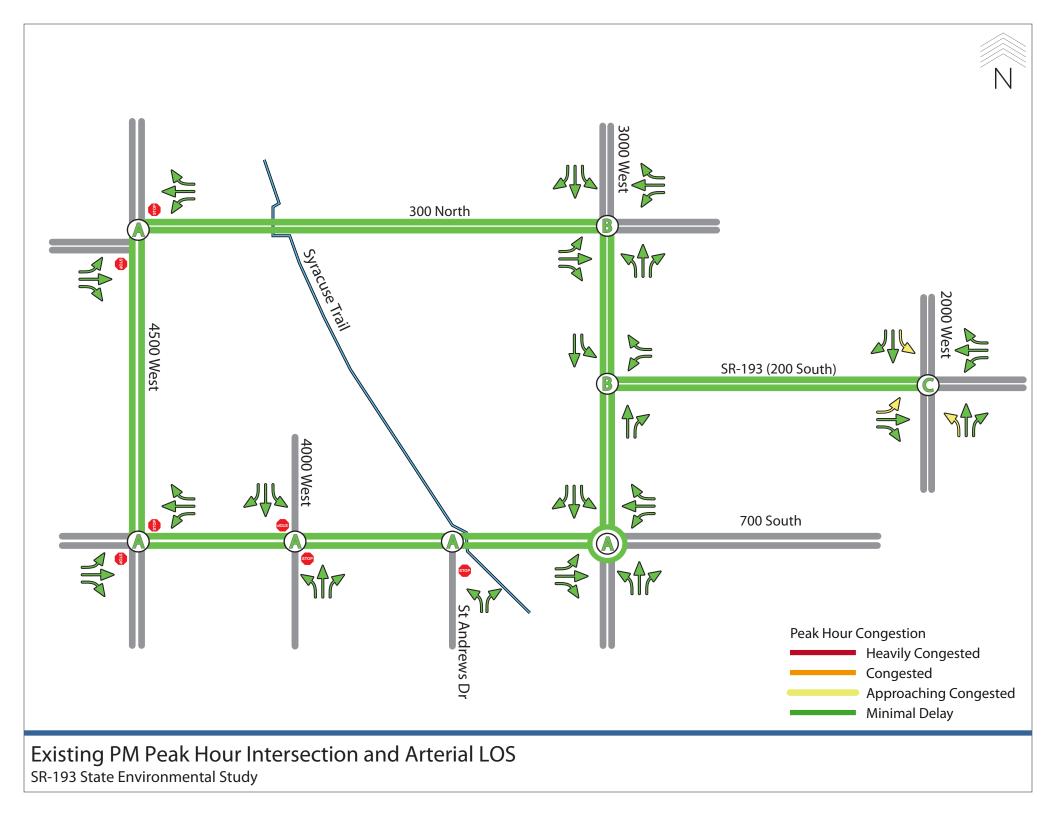
APPENDIX B – TRAFFIC VOLUME FIGURES

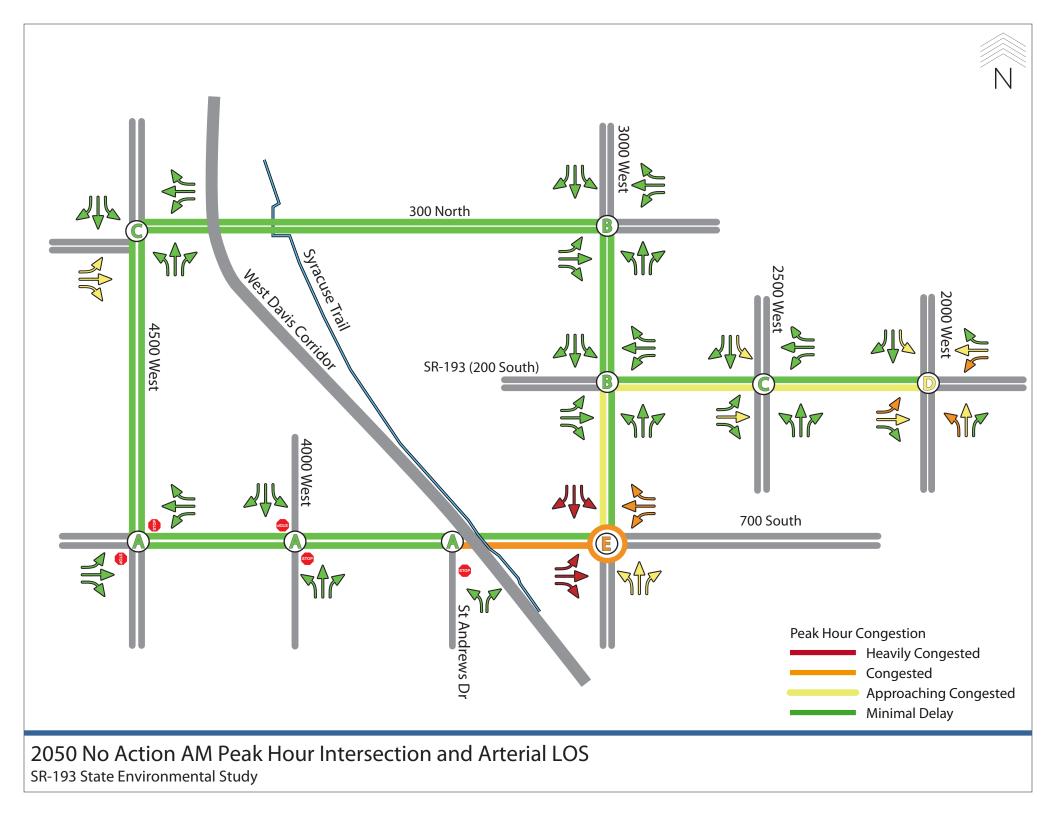


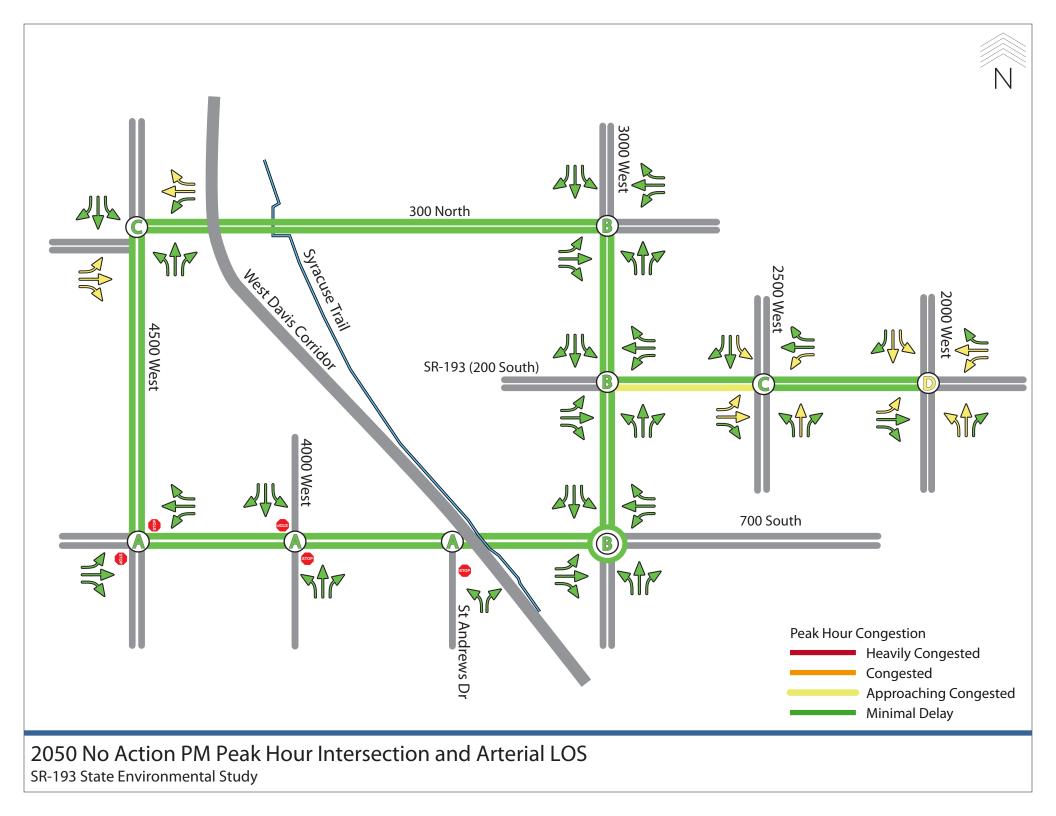


APPENDIX C – LEVEL OF SERVICE FIGURES









APPENDIX D – DETAILED VISSIM RESULTS

Existing AM

LOS Category: Unsignalized									
1: West-	1: West-4500 W & 300 N Delay / LOS								
Mvmt	Demand	Volume Served	% Served	Queue (ft) A 900-4		Analysis P 900-45			
NBL	8	9	113%	0	50	1	А		
NB	8	9	113%			1	А		
SBR	5	4	80%	0	0	1	А		
SB	5	4	80%			1	А		
EBL	20	19	95%	0	50	9	А		
EBT	78	75	96%	0	50	8	А		
EBR	29	29	100%	0	50	9	А		
EB	127	123	97%			9	A		
WBT	41	40	98%	0	125	3	А		
WB	41	40	98%			3	А		
Total	181	176	97%			7	А		

Node Letter: A VISSIM ID: 1

Existing PM

	LOS Category: Unsignalized								
1: West-4500 W & 300 N Delay / LOS									
		Volume		. ,		Analysis P			
Mvmt	Demand	Served	% Served	900-4	500	900-45	00		
NBL	21	20	95%	0	75	1	А		
NB	21	20	95%			1	А		
SBR	18	17	94%	0	0	1	А		
SB	18	17	94%			1	А		
EBL	13	14	108%	0	25	8	А		
EBT	28	25	89%	0	25	8	А		
EBR	16	16	100%	0	25	8	А		
EB	57	55	96%			8	А		
WBT	76	79	104%	0	150	3	А		
WB	76	79	104%			3	А		
Total	172	171	99%			4	А		
Noda Lattar:	A VISSIMID: 1								

Node Letter: A VISSIM ID: 1

2: East-4500 W & 300 N

2050 No Action AM

LOS Category: Signalized									
1:4500	1: 4500 W & 300 N Delay / LOS								
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		Analysis Po 900-450	eriod		
NBL	30	30	100%	25	325	18	В		
NBT	240	236	98%	25	325	19	В		
NBR	50	51	102%	25	325	18	В		
NB	320	317	99%			18	В		
SBL	90	88	98%	25	250	15	В		
SBT	170	171	101%	25	250	15	В		
SBR	20	20	100%	0	100	4	А		
SB	280	279	100%			14	В		
EBL	60	61	102%	25	200	39	D		
EBT	60	60	100%	25	200	38	D		
EBR	40	39	98%	25	200	36	D		
EB	160	160	100%			38	D		
WBL	30	28	93%	50	275	32	С		
WBT	100	105	105%	50	275	34	С		
WBR	110	115	105%	50	275	32	С		
WB	240	248	103%			33	С		
Total	1,000	1,004	100%			24	С		
Nodo Lottor	VISSIM ID: 1								

- - -

Node Letter: A VISSIM ID: 1

LOS Catego	ry: Unsig	gnalize

2: East-4	2: East-4500 W & 300 N								
		Volume	(Queue (ft) A	vg / 95th	Analysis P	eriod		
Mvmt	Demand	Served	% Served	900-4	500	900-450	00		
NBR	41	39	95%	0	0	1	А		
NB	41	39	95%			1	А		
SBL	77	74	96%	0	100	1	А		
SB	77	74	96%			1	А		
EBT	78	75	96%	0	150	3	А		
EB	78	75	96%			3	А		
WBL	34	35	103%	0	100	10	В		
WBT	41	40	98%	0	100	10	В		
WBR	43	42	98%	0	100	10	А		
WB	118	117	99%			10	А		
Total	314	305	97%			5	А		

Node Letter: A VISSIM ID: 2

						Delay /	LUS
Mvmt	Demand	Volume Served	% Served	Queue (ft) A 900-4	.,	Analysis P 900-450	
NBR	22	19	86%	0	0	1	A
NB	22	19	86%	0	0	1	A
SBL	32	30	94%	0	75	1	A
SB	32	30	94 <i>%</i>	0	75	1	A
FBT	28	25	89%	0	100	3	
FB	28	25	89% 89%	0	100	з З	A A
				0	105	_	
WBL WBT	29 76	27 78	93% 103%	0	125 125	13 12	B B
WBR	104	102	98%	0	125	12	B
WB	209	207	99%	0	120	12	B
Total	291	281	97%	• •		10	A
	2 9 1 A VISSIM ID: 2	201	7//0			10	A

LOS Category: Unsignalized

2050 No Action PM

LOS Category: Signalized

1:4500	1: 4500 W & 300 N Delay / LOS										
Mvmt	Demand	Volume Served	% Served	Queue (ft) A 900-4	.,	Analysis Pe 900-450	eriod				
NBL	30	28	93%	25	250	15	В				
NBT	290	287	99%	25	250	16	В				
NBR	30	28	93%	25	250	15	В				
NB	350	343	98%			16	В				
SBL	80	80	100%	25	325	20	В				
SBT	280	278	99%	25	325	18	В				
SBR	40	41	103%	0	0	6	А				
SB	400	399	100%			17	В				
EBL	30	31	103%	25	175	41	D				
EBT	60	58	97%	25	175	39	D				
EBR	40	40	100%	25	175	38	D				
EB	130	129	99%			39	D				
WBL	50	49	98%	75	400	34	С				
WBT	110	113	103%	75	400	38	D				
WBR	180	184	102%	75	400	36	D				
WB	340	346	102%			36	D				
Total	1,220	1,217	100%			24	С				

Node Letter: A VISSIM ID: 1

Existing AM

	LOS Category: Signalized								
3: 3000	W & 300 I	N				Delay /	LOS		
		Volume		Queue (ft) A	.vg / 95th	Analysis P	eriod		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00		
NBL	102	97	95%	0	100	7	А		
NBT	196	197	101%	0	125	5	А		
NBR	76	73	96%	0	50	3	А		
NB	374	367	98%			5	А		
SBL	57	56	98%	0	50	6	А		
SBT	277	278	100%	0	125	5	А		
SBR	24	24	100%	0	125	3	А		
SB	358	358	100%			5	А		
EBL	28	30	107%	0	75	28	С		
EBT	129	121	94%	25	150	29	С		
EBR	200	198	99%	0	100	8	А		
EB	357	349	98%			17	В		
WBL	48	47	98%	0	75	32	С		
WBT	71	72	101%	0	100	28	С		
WBR	33	32	97%	0	25	5	А		
WB	152	151	99%			24	С		
Total	1,241	1,225	99%			11	В		

Node Letter: C VISSIM ID: 3

LOS Category: Signalized									
4: SR 19	3 & 3000	W				Delay /	LOS		
		Volume	(Queue (ft) A	.vg / 95th	Analysis P	eriod		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00		
NBT	176	172	98%	0	175	14	В		
NBR	188	186	99%	0	0	1	А		
NB	364	358	98%			7	А		
SBL	372	366	98%	0	150	8	А		
SBT	216	217	100%	0	100	5	А		
SB	588	583	99%			7	А		
WBL	152	151	99%	25	175	21	С		
WBR	102	102	100%	0	100	7	А		
WB	254	253	100%			15	В		
Total	1,206	1,194	99%			9	А		

Node Letter: D VISSIM ID: 6

Existing PM

		0				LOS Cate	gory: Sign	alizer
2.2		V & 300 I	M			200 0010		
J. J	000 1	v & 500 i					Delay /	
			Volume		. ,	.,	Analysis P	
Mvi	nt	Demand	Served	% Served	900-	4500	900-45	00
NE	3L	168	164	98%	0	100	8	А
NE	ΒT	287	287	100%	0	150	6	А
NE	R	52	51	98%	0	50	3	А
N	В	507	502	99%			6	А
SB	L	45	45	100%	0	50	7	А
SB	Т	156	156	100%	0	100	6	А
SB	R	14	13	93%	0	100	4	А
SE	3	215	214	100%			6	А
EB	L	20	21	105%	0	75	23	С
EB	Т	111	102	92%	25	125	27	С
EB	R	104	104	100%	0	75	6	А
E	3	235	227	97%			17	В
WE	3L	71	69	97%	0	100	31	С
WE	BT .	194	194	100%	25	200	28	С
WE	BR	81	79	98%	0	50	5	А
W	В	346	342	99%			23	С
Tot	al	1,303	1,285	99%			13	В
Node L	etter: C	VISSIM ID: 3						

Node Letter: C VISSIM ID: 3

LOS Category: Signalized										
4: SR 19	3 & 3000	W				Delay /	LOS			
Mvmt	Demand	vg / 95th 500	n Analysis Po 900-450							
NBT	258	254	98%	25	175	14	В			
NBR	110	108	98%	0	0	1	А			
NB	368	362	98%			10	В			
SBL	155	152	98%	0	100	7	А			
SBT	145	143	99%	0	100	5	А			
SB	300	295	98%			6	А			
WBL	228	226	99%	25	225	21	С			
WBR	341	333	98%	25	350	18	В			
WB	569	559	98%			19	В			
Total	1,237	1,216	98%			13	В			

Node Letter: D VISSIM ID: 6

2050 No Action AM

3: 3000 \	N & 300 N	٧									
		3: 3000 W & 300 N Delay / LOS									
		Volume	(Queue (ft) A	vg / 95th	Analysis Pe	eriod				
Mvmt	Demand	Served	% Served	900-4	500	900-450	00				
NBL	110	110	100%	0	125	15	В				
NBT	140	148	106%	0	125	12	В				
NBR	150	150	100%	0	100	5	А				
NB	400	408	102%			10	В				
SBL	190	189	99%	25	200	16	В				
SBT	210	210	100%	25	200	13	В				
SBR	40	40	100%	25	225	9	А				
SB	440	439	100%			14	В				
EBL	10	10	100%	0	50	20	В				
EBT	120	118	98%	0	175	20	В				
EBR	40	39	98%	0	50	4	А				
EB	170	167	98%			16	В				
WBL	160	158	99%	25	150	27	С				
WBT	550	547	99%	75	675	26	С				
WBR	170	169	99%	0	75	10	А				
WB	880	874	99%			23	С				
Total	1,890	1,888	100%			18	В				

Node Letter: C VISSIM ID: 3

LOS Category: Signalized

4: SR 19	3 & 3000	VV				Delay /	LOS		
		Volume	(Queue (ft) A	.vg / 95th	n Analysis Pe	eriod		
Mvmt	Demand	Served	% Served	900-4	500	900-450	00		
NBL	20	20	100%	0	50	17	В		
NBT	170	176	104%	25	150	18	В		
NBR	330	327	99%	0	0	2	А		
NB	520	523	101%			8	А		
SBL	200	200	100%	0	150	12	В		
SBT	410	408	100%	25	225	11	В		
SBR	30	30	100%	25	225	9	А		
SB	640	638	100%			11	В		
EBL	20	19	95%	0	100	16	В		
EBT	70	70	100%	0	0	15	В		
EBR	60	59	98%	0	150	7	А		
EB	150	148	99%			12	В		
WBL	170	171	101%	25	175	21	С		
WBT	60	60	100%	0	125	17	В		
WBR	160	161	101%	0	150	8	А		
WB	390	392	101%			15	В		
Total	1,700	1,701	100%			11	В		

Node Letter: D VISSIM ID: 6

2050 No Action PM

LOS Category: Signalized

2. 2000	3: 3000 W & 300 N										
3: 3000	VV & 300 I	N				Delay /	LOS				
		Volume	Queue (ft) Avg / 95th			n Analysis P	eriod				
Mvmt	Demand	Served	% Served	900-4	500	900-450	00				
NBL	140	137	98%	0	150	15	В				
NBT	190	194	102%	0	175	13	В				
NBR	50	51	102%	0	50	4	А				
NB	380	382	101%			13	В				
SBL	110	107	97%	0	125	16	В				
SBT	110	110	100%	0	150	12	В				
SBR	30	30	100%	0	150	7	А				
SB	250	247	99%			13	В				
EBL	40	43	108%	0	75	24	С				
EBT	370	362	98%	25	250	20	С				
EBR	100	101	101%	0	75	6	А				
EB	510	506	99%			18	В				
WBL	70	66	94%	0	75	26	С				
WBT	520	521	100%	50	450	22	С				
WBR	170	171	101%	0	75	7	А				
WB	760	758	100%			19	В				
Total	1,900	1,893	100%			17	В				

Node Letter: C VISSIM ID: 3

LOS Category: Signalized

4: SR 19	3 & 3000 '	W				Delay /	105
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		Analysis Pe 900-450	eriod
NBL	70	65	93%	0	75	17	В
NBT	390	398	102%	50	325	22	С
NBR	140	140	100%	0	0	2	А
NB	600	603	101%			17	В
SBL	150	151	101%	0	125	13	В
SBT	180	178	99%	0	150	10	В
SBR	30	28	93%	0	150	6	А
SB	360	357	99%			11	В
EBL	50	49	98%	0	75	16	В
EBT	80	79	99%	0	0	15	В
EBR	50	50	100%	25	150	8	А
EB	180	178	99%			13	В
WBL	270	270	100%	25	250	22	С
WBT	100	96	96%	0	125	17	В
WBR	220	212	96%	0	150	9	А
WB	590	578	98%			17	В
Total	1,730	1,716	99%			15	В

Node Letter: D VISSIM ID: 6

Existing AM

Existing PM

2050 No Action AM

LOS Category: Signalized

5: SR-19	Delay /	LOS					
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		Analysis Pe 900-450	
NBL	80	76	95%	0	100	28	С
NBT	40	39	98%	50	250	31	С
NBR	650	656	101%	50	250	20	С
NB	770	771	100%			22	С
SBL	210	208	99%	25	150	42	D
SBT	20	21	105%	0	50	23	С
SBR	20	18	90%	0	25	3	А
SB	250	247	99%			38	D
EBL	30	30	100%	0	100	30	С
EBT	470	465	99%	50	275	35	D
EBR	100	102	102%	75	300	25	С
EB	600	597	100%			33	С
WBL	690	684	99%	75	350	34	С
WBT	290	296	102%	25	250	13	В
WBR	230	224	97%	25	275	10	А
WB	1,210	1,204	100%			24	С
Total	2,830	2,819	100%			27	С

Node Letter: Z VISSIM ID: 20

LOS Category: Signalized

				L	US Cale	gory: sign	anzeu
6: SR- 1	93 & 2000	W				Delay /	LOS
		Volume	(Queue (ft) A	wg / 95th	Analysis P	eriod
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	170	173	102%	25	125	55	E
NBT	810	807	100%	100	475	39	D
NBR	70	70	100%	0	75	6	А
NB	1,050	1,050	100%			40	D
SBL	350	345	99%	50	225	50	D
SBT	810	817	101%	75	425	33	С
SBR	530	525	99%	25	475	16	В
SB	1,690	1,687	100%			31	С
EBL	340	335	99%	50	250	58	Е
EBT	670	678	101%	75	375	35	D
EBR	320	312	98%	25	275	16	В
EB	1,330	1,325	100%			36	D
WBL	40	40	100%	0	100	56	Е
WBT	510	512	100%	75	350	46	D
WBR	250	249	100%	25	250	11	В
WB	800	801	100%			36	D
Total	4,870	4,863	100%			35	D

Node Letter: E VISSIM ID: 17

LOS Catagory: Sign	bozilee
LOS Category: Sigr	Ializeu

LOS Calegoi y. Signalized								
6: SR- 19	93 & 2000	W				Delay /	LOS	
		Volume	(Queue (ft) A	wg / 95th	n Analysis P	eriod	
Mvmt	Demand	Served	% Served	900-4	500	900-450	00	
NBL	37	35	95%	0	75	39	D	
NBT	494	493	100%	50	225	30	С	
NBR	142	145	102%	0	100	6	А	
NB	673	673	100%			26	С	
SBL	271	270	100%	25	150	35	D	
SBT	442	438	99%	25	175	20	В	
SBR	62	63	102%	0	25	2	А	
SB	775	771	99%			24	С	
EBL	25	24	96%	0	50	39	D	
EBT	210	205	98%	25	125	33	С	
EBR	30	29	97%	0	50	5	А	
EB	265	258	97%			31	С	
WBL	259	267	103%	25	150	34	С	
WBT	470	462	98%	25	200	23	С	
WBR	388	392	101%	25	225	12	В	
WB	1,117	1,121	100%			22	С	
Total	2,830	2,823	100%			24	С	
Node Letter: E	VISSIM ID: 17							

100	Catagon	· Sian	alizo

LOS Category: Signalized									
6: SR- 1	93 & 2000	W				Delay /	LOS		
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		Analysis Pe 900-450			
NBL	35	32	91%	0	50	42	D		
NBT	303	302	100%	25	175	32	С		
NBR	289	293	101%	25	200	11	В		
NB	627	627	100%			23	С		
SBL	426	424	100%	50	225	34	С		
SBT	518	517	100%	25	200	19	В		
SBR	33	34	103%	0	25	1	А		
SB	977	975	100%			25	С		
EBL	21	22	105%	0	50	40	D		
EBT	431	423	98%	50	200	34	С		
EBR	108	104	96%	0	75	6	А		
EB	560	549	98%			29	С		
WBL	151	149	99%	25	150	36	D		
WBT	186	188	101%	25	125	22	С		
WBR	171	171	100%	0	125	6	А		
WB	508	508	100%			21	С		
Total	2,672	2,659	100%			25	С		

Node Letter: E VISSIM ID: 17

2050 No Action PM

LOS Category: Signalized

5: SR-19	93 & 2550	W				Delay /	LOS			
	Volume			Queue (ft) A	wg / 95th	n Analysis P	eriod			
Mvmt	Demand	Served	% Served	900-4	500	900-450	00			
NBL	160	154	96%	25	175	27	С			
NBT	70	66	94%	75	350	41	D			
NBR	820	831	101%	75	350	26	С			
NB	1,050	1,051	100%			27	С			
SBL	330	327	99%	50	200	50	D			
SBT	30	31	103%	0	75	25	С			
SBR	50	49	98%	0	50	4	А			
SB	410	407	99%			43	D			
EBL	30	31	103%	0	75	40	D			
EBT	230	229	100%	50	200	42	D			
EBR	110	107	97%	50	225	24	С			
EB	370	367	99%			36	D			
WBL	820	828	101%	75	375	35	D			
WBT	380	376	99%	25	250	19	В			
WBR	250	244	98%	25	275	15	В			
WB	1,450	1,448	100%			28	С			
Total	3,280	3,273	100%			30	С			

Node Letter: Z VISSIM ID: 20

LOS Category: Signalized

6: SR- <u>1</u> 9	6: SR- 193 & 2000 W Delay / LOS									
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		Analysis Pe 900-450	eriod			
NBL	170	169	99%	25	125	51	D			
NBT	940	936	100%	125	600	44	D			
NBR	70	70	100%	0	50	7	А			
NB	1,180	1,175	100%			43	D			
SBL	220	219	100%	50	175	51	D			
SBT	860	855	99%	100	450	38	D			
SBR	450	445	99%	25	350	15	В			
SB	1,530	1,519	99%			33	С			
EBL	340	344	101%	50	225	51	D			
EBT	770	778	101%	75	350	33	С			
EBR	270	275	102%	25	225	13	В			
EB	1,380	1,397	101%			34	С			
WBL	120	120	100%	25	100	50	D			
WBT	830	838	101%	125	450	46	D			
WBR	290	285	98%	25	250	13	В			
WB	1,240	1,243	100%			39	D			
Total	5,330	5,334	100%			37	D			

Node Letter: E VISSIM ID: 17

Existing AM

LOS Category: Unsignalized									
7: East- 700 S & 4500 W Delay / LOS									
Mvmt	Demand	Volume Served	(% Served	2ueue (ft) A 900-4		n Analysis Po 900-450			
NBR NB	13 13	14 14	108% 108%	0	0	0 0	A A		
SBL SB	60 60	61 61	102% 102%	0	75	1 1	A A		
EBT EB	1 1	1 1	100% 100%	0	75	2 2	A A		
WBL WBR	9 37	10 33	111% 89%	0 0	100 75	8 6	A A		
WB Total	46 120	43 119	93% 99%			6	A		

Node Letter: F VISSIM ID: 13

LOS Category: Unsignalized									
8: West	- 700 S & 4	4500 W				Delay /	LOS		
		Volume	(Queue (ft) A	wg / 95th	n Analysis P	eriod		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00		
SBR	1	2	200%	0	50	2	А		
SB	1	2	200%			1	А		
EBL	3	2	67%	0	25	8	А		
EBT	1	1	100%	0	25	8	А		
EBR	1	1	100%	0	25	6	А		
EB	5	4	80%			9	А		
Total	6	6	100%			6	А		

Node Letter: F VISSIM ID: 14

LOS Category: Unsignalized

				LUSU	aiegoi	y. Unsign	anzeu
9: North	1- 700 S &	4000 W				Delay /	LOS
Volume Queue (ft) Avg / 95th A							eriod
Mvmt	Demand	Served	% Served	900-450	0	900-450	00
EBL	1	2	200%	0	0	1	А
EB	1	2	200%			1	А
Total	1	2	200%			1	А

Node Letter: G VISSIM ID: 11

Existing PM

	0			LOS	Catego	ry: Unsign	alized				
7: East-	7: East- 700 S & 4500 W Delay / LOS										
		Volume	(Queue (ft) A	.vg / 95th	Analysis P					
Mvmt	Demand	Served	% Served	900-4	500	900-450	00				
NBR	7	7	100%	0	0	0	А				
NB	7	7	100%			0	А				
SBL	33	34	103%	0	75	2	А				
SB	33	34	103%			2	А				
WBL	5	5	100%	0	75	7	А				
WBT	2	2	100%	0	50	8	А				
WBR	42	39	93%	0	50	6	А				
WB	49	46	94%			6	А				
Total	89	87	98%			4	А				
Node Letter: F	VISSIM ID: 13										

LOS Category: Unsignalized : West- 700 S & 4500 W Volume Queue (ft) Avg / 95th Analysis Period Mvmt Demand Served % Served 900-4500 900-4500 SBR 0 25 6 6 100% А 1 SB А 6 6 100% 1 EBL 3 3 100% 0 25 9 А EBR 1 1 100% 0 25 А 6 4 100% А EB 4 8 А WBT 2 2 100% 0 75 2 WB 2 100% А 2 3 Total 12 12 100% 4 A Node Letter: F VISSIM ID: 14

LOS Category: Unsignalized 9: North-700 S & 4000 W Delay / LOS Queue (ft) Avg / 95th Analysis Period Volume Demand Served % Served 900-4500 900-4500 Mvmt NBT 2 0 75 1 3 А NB 2 3 А 1 EBL 1 1 100% 0 0 1 А EΒ 1 100% Α 1 2 Total 3 4 133% 1 Α

Node Letter: G VISSIM ID: 11

2050 No Action AM

LOS Category: Unsignalized										
7: East-	7: East- 700 S & 4500 W									
Mvmt					wg / 95th 500	Analysis P 900-45				
NBR	30	27	90%	0	0	0	А			
NB	30	27	90%			0	А			
SBL	90	86	96%	0	150	11	В			
SB	90	86	96%			11	В			
EBT	10	9	90%	0	75	2	А			
EB	10	9	90%			2	А			
WBL	20	17	85%	0	100	9	А			
WBR	50	49	98%	0	75	7	А			
WB	70	66	94%			7	А			
Total	200	188	94%			8	А			

Node Letter: F VISSIM ID: 13

LOS Category: Unsignalized										
8: West-	Delay /	LOS								
Mvmt	Demand	Volume Served	(% Served	Analysis Pe 900-450						
SBR	10	11	110%	0	150	10	А			
SB	10	11	110%			10	А			
EBL	10	10	100%	0	50	10	А			
EBT	10	9	90%	0	50	8	А			
EBR	10	10	100%	0	50	7	А			
EB	30	29	97%			8	А			
Total	40	40	100%			9	А			

Node Letter: F VISSIM ID: 14

LOS Category: Unsignalized

9: North	I- 700 S &	4000 W				Delay /	LOS		
	Volume			Queue (ft) Avg / 95th			Analysis Period		
Mvmt	Demand	Served	% Served	900-4500		900-4500			
NBT	10	10	100%	0	125	2	А		
NB	10	10	100%			2	А		
SBL	10	11	110%	0	75	9	А		
SBT	100	96	96%	0	75	9	А		
SB	110	107	97%			9	А		
WBR	10	10	100%	0	25	1	А		
WB	10	10	100%			1	А		
Total	130	127	98%			8	А		

Node Letter: G VISSIM ID: 11

2050 No Action PM

LOS Category: Unsignalized 7: East- 700 S & 4500 W Volume Queue (ft) Avg / 95th Analysis Period Mvmt Demand Served % Served 900-4500 900-4500 20 100% NBR 20 0 0 0 Α NB 20 20 100% 0 А Α SBL 70 66 94% 0 150 4 SB 66 94% А 70 4 22 110% А WBL 20 0 100 9 WBT 10 9 90% 0 75 9 А WBR 86 96% 0 75 7 А 90 8 WB 120 117 98% А 210 203 97% Total 6 A

Node Letter: F VISSIM ID: 13

LOS Category: Unsignalized

8: West-700 S & 4500 W							LOS	
	Volume			Queue (ft) Avg / 95th			Analysis Period	
Mvmt	Demand	Served	% Served	900-4	900-4500		00	
SBR	10	11	110%	0	125	2	А	
SB	10	11	110%			2	А	
EBL	10	10	100%	0	50	10	А	
EBR	10	10	100%	0	25	7	А	
EB	20	20	100%			8	А	
WBT	10	9	90%	0	75	3	А	
WB	10	9	90%			3	А	
Total	40	40	100%			5	А	

Node Letter: F VISSIM ID: 14

LOS Category: Unsignalized

9: North- 700 S & 4000 W							Delay / LOS	
		Volume	(Queue (ft) Av	vg / 95th	Analysis P	eriod	
Mvmt	Demand	Served	% Served	900-45	900-4500		00	
NBT	10	11	110%	0	75	2	А	
NB	10	11	110%			2	А	
SBT	10	9	90%	0	25	8	А	
SBR	10	10	100%	0	50	7	А	
SB	20	19	95%			8	А	
EBL	10	11	110%	0	50	2	А	
EB	10	11	110%			2	А	
Total	40	41	103%			5	А	

Node Letter: G VISSIM ID: 11

SR 193 SES

Existing AM

	S Catego	ory: Unsign	alized				
10: Sout	Delay /	los					
Murat	Analysis P						
Mvmt	Demand	Served	% Served	900-4	1000	900-45	00
NBL	5	4	80%	0	50	9	А
NBR	78	78	100%	0	50	9	А
NB	83	82	99%			9	А
EBR	3	4	133%	0	0	1	А
EB	3	4	133%			1	А
Total	86	86	100%			8	А

Node Letter: G VISSIM ID: 12

Existing PM

	0			LOS	S Catego	ry: Unsign	alized					
10: South- 700 S & 4000 W Delay / LOS												
Mvmt	Demand	Avg / 95th 1500	Analysis P 900-45	eriod								
NBL	9	10	111%	0	50	9	А					
NBT	2	3	150%	0	50	8	А					
NBR	36	33	92%	0	50	8	А					
NB	47	46	98%			8	А					
EBR	7	8	114%	0	0	1	А					
EB	7	8	114%			1	А					
Total	54	54	100%			7	А					

Node Letter: G VISSIM ID: 12

LOS Category: Unsignalized											
10: Sou ⁺	Delay / LOS										
Mvmt	Analysis Period 900-4500										
NBT NBR	10 100	10 98	100% 98%	0 0	75 75	9 9	A A				
NB	110	108	98%			9	А				
SBT	100	96	96%	0	75	1	А				
SB	100	96	96%			2	А				
Total	210	204	97%			6	А				

Node Letter: G VISSIM ID: 12

					LOS	Categoi	ry: Unsign	alized
	11: 700	S & St And	drews Di				Delay /	LOS
	Mvmt	Demand	Volume Served	% Served	Queue (ft) A 900-4		Analysis Pe 900-450	
	NBL	20	17	85%	0	100	8	А
	NBR	150	152	101%	0	100	8	А
_	NB	170	169	99%			8	А
	EBR	10	10	100%	0	0	1	А
_	EB	10	10	100%			1	А
	WBL	50	47	94%	0	125	2	А
_	WB	50	47	94%			2	А
	Total	230	226	98%			7	А

Node Letter: H VISSIM ID: 10

LOS Category: Uns											
11: 700 S & St Andrews Dr Delay / LOS											
Mvmt	Demand	Volume Served	% Served	Queue (ft) A 900-4		Analysis P 900-45					
NBL NBR NB	10 158 168	10 156 166	100% 99% 99%	0 0	100 100	9 8 8	A A A				
EBR EB	2 2	3 3	150% 150%	0	0	1 1	A A				
WBL WB	41 41	41 41	100% 100%	0	100	1 1	A A				
Total	211	210	100%			7	А				

Node Letter: H VISSIM ID: 10

 LOS Category: Unsignalized

 Delay / LOS

 Volume
 Queue (ft) Avg / 95th
 Analysis Period

 Mvmt
 Demand
 Served
 900-4500
 900-4500

 NBL
 1
 100%
 0
 50
 7
 A

NBL 1 1 100% 0 50 7 A NBR 74 73 99% 0 50 7 A NB 75 74 99% 0 50 7 A EBR 6 6 100% 0 0 1 A EB 6 6 100% 0 125 1 A WBL 100 100 100% 125 1 A Total 181 180 99% 4 A								
NB 75 74 99% 7 A EBR 6 6 100% 0 0 1 A EB 6 6 100% 1 A WBL 100 100 100% 0 125 1 A WB 100 100 100% 1 A A	NBL	1	1	100%	0	50	7	А
EBR 6 6 100% 0 0 1 A EB 6 6 100% 1 A WBL 100 100 100% 0 125 1 A WB 100 100 100% 1 A	NBR	74	73	99%	0	50	7	А
EB 6 6 100% 1 A WBL 100 100 100% 0 125 1 A WB 100 100 100% 1 A	NB	75	74	99%			7	Α
WBL 100 100 100% 0 125 1 A WB 100 100 100% 1 A	EBR	6	6	100%	0	0	1	А
WB 100 100 100% 1 A	EB	6	6	100%			1	А
	WBL	100	100	100%	0	125	1	Α
Total 181 180 99% 4 A	WB	100	100	100%			1	А
	Total	181	180	99%			4	А

Node Letter: H VISSIM ID: 10

2050 No Action PM

LOS Category: Unsignalized

10: Sout	th- 700 S &	& 4000 V	V			Delay /	LOS
		Volume	(Queue (ft) Av	/g / 95th	Analysis P	eriod
Mvmt	Demand	Served	% Served	900-45	500	900-450	00
NBL	30	29	97%	0	50	10	А
NBT	10	11	110%	0	50	10	А
NBR	100	98	98%	0	50	9	А
NB	140	138	99%			10	А
SBT	10	9	90%	0	75	2	А
SB	10	9	90%			2	А
EBR	20	19	95%	0	0	1	А
EB	20	19	95%			1	А
Total	170	166	98%			8	А

Node Letter: G VISSIM ID: 12

LOS Category: Unsignalized

11: 700	11: 700 S & St Andrews Dr											
	Volume Queue (ft) Avg / 95th											
Mvmt	Demand	Served	% Served	900-4		900-450						
NBL	10	10	100%	0	75	8	А					
NBR	100	101	101%	0	75	8	А					
NB	110	111	101%			8	А					
EBR	30	30	100%	0	0	1	А					
EB	30	30	100%			1	А					
WBL	80	78	98%	0	125	2	А					
WB	80	78	98%			2	А					
Total	220	219	100%			5	А					

SR 193 SES

Existing AM

	5			LOS	Catego	ry: Unsign	alizeo
12: 700	S & 3000	W				Delay /	LOS
		Volume		Queue (ft) A	wg / 95th	Analysis P	eriod
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	22	22	100%	0	175	6	А
NBT	199	198	99%	0	175	5	А
NBR	62	62	100%	0	175	5	А
NB	283	282	100%			5	А
SBL	75	72	96%	0	100	5	А
SBT	238	240	101%	0	100	5	А
SBR	55	55	100%	0	100	5	А
SB	368	367	100%			5	А
EBL	128	127	99%	0	175	7	А
EBT	214	207	97%	0	175	7	А
EBR	51	54	106%	0	175	6	А
EB	393	388	99%			7	А
WBL	26	26	100%	0	75	5	А
WBT	57	60	105%	0	75	4	А
WBR	37	33	89%	0	75	4	А
WB	120	119	99%			4	А
Total	1,164	1,156	99%			5	А

Existing PM

	-			LOS	Categor	ry: Unsign	alized
12: 700	S & 3000 V	W				Delav /	1 OS
		Volume	(Queue (ft) A	vg/95th		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	30	30	100%	0	75	2	А
NBT	230	230	100%	0	75	2	А
NBR	10	8	80%	0	75	2	А
NB	270	268	99%			2	А
SBL	20	20	100%	0	125	5	А
SBT	182	180	99%	0	125	5	А
SBR	171	171	100%	0	125	5	А
SB	373	371	99%			5	А
EBL	91	86	95%	0	75	3	А
EBT	56	56	100%	0	75	3	А
EBR	20	19	95%	0	75	3	А
EB	167	161	96%			3	А
WBL	11	11	100%	0	50	3	А
WBT	59	60	102%	0	50	3	А
WBR	47	46	98%	0	50	2	А
WB	117	117	100%			3	А
Total	927	Volume Oueue (ft) Avg / 95th Analysis Period 30 30 100% 0 75 2 A 30 30 100% 0 75 2 A 30 230 100% 0 75 2 A 10 8 80% 0 75 2 A 70 268 99% 2 A 20 20 100% 0 125 5 A 82 180 99% 0 125 5 A 71 171 100% 0 125 5 A 73 371 99% 75 3 A 91 86 95% 0 75 3 A 20 19 95% 0 75 3 A 20 19 95% 0 75 3 A 20 19 95% 0		А			
Noda Lattar: I	VISSIM ID: 7						

2050 No Action AM

LOS Category: Unsignalized											
12: 700	S & 3000 V	W				Delay /	los				
		Volume	(Queue (ft) A	Avg / 95th	Analysis P					
Mvmt	Demand	Served	% Served	900-4	.,	900-45					
NBL	20	19	95%	75	700	28	D				
NBT	310	310	100%	75	700	26	D				
NBR	160	160	100%	75	700	25	D				
NB	490	489	100%			26	D				
SBL	150	153	102%	250	1,425	55	F				
SBT	440	435	99%	250	1,425	53	F				
SBR	50	49	98%	250	1,425	52	F				
SB	640	637	100%			54	F				
EBL	70	69	99%	200	750	92	F				
EBT	180	177	98%	200	750	90	F				
EBR	40	37	93%	200	750	91	F				
EB	290	283	98%			90	F				
WBL	150	145	97%	100	650	38	E				
WBT	140	140	100%	100	650	36	E				
WBR	140	145	104%	100	650	37	Е				
WB	430	430	100%			37	E				
Total	1,850	1,839	99%			48	E				

Node Letter: I VISSIM ID: 7

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Node Letter: I VISSIM ID: 7

2050 No Action PM

LOS Category: Unsignalized

12: 700	S & 3000 '	W				Delay /	LOS
Mvmt	Demand	Volume Served	(% Served	Queue (ft) A 900-4		n Analysis P 900-450	
NBL	100	100	100%	0	175	7	А
NBT	410	410	100%	0	175	6	А
NBR	50	48	96%	0	175	6	А
NB	560	558	100%			6	А
SBL	20	18	90%	25	450	17	С
SBT	310	305	98%	25	450	17	С
SBR	170	176	104%	25	450	17	С
SB	500	499	100%			17	С
EBL	100	99	99%	0	175	8	А
EBT	160	159	99%	0	175	7	А
EBR	70	66	94%	0	175	7	А
EB	330	324	98%			7	А
WBL	60	58	97%	25	250	13	В
WBT	190	185	97%	25	250	13	В
WBR	90	93	103%	25	250	12	В
WB	340	336	99%			12	В
Total	1,730	1,717	99%			11	В

VISSIM Travel Time Comparison

SR 193

Existing AM							Existing PM							2050 No Action A	M						2050 No Action	PM				
300 N EB		#	Time	l Travel Speed (mph) (FFS		300 N EB		#	Time	l Travel Ba Speed FF (mph)(mp	FS I	Base	300 N EB			Time	e Spe	vel Base ed FFS ph)(mph)		300 N EB		#	Time	l Travel Base Speed FFS (mph)(mph	Base
EB-4500Wto 3000W	1.5	67	169	32	40	80% B	EB-4500Wto 3000W	1.5	32	169	32 4	0	80% B	EB-4500Wto 3000W	1.5	118	160	34	40	85% A	EB-4500Wto 3000W	1.5	119	160	34 40	84% B
300 N WB		#	Time	l Travel Speed (mph) (FFS		300 N WB		#	Time	l Travel Ba Speed FF (mph)(mp	FS I	Base	300 N WB			Time	e Spe	vel Base ed FFS ph)(mph)		300 N WB		#	Time	l Travel Base Speed FFS (mph)(mph	Base
WB-4500Wto3000W Total		40 	156 156	35 35		87% A 87% A	WB-4500Wto3000W Total		79 	159 159	34 4 34 4		85% A 85% A	WB-4500Wto3000W Total		105 	183 183			74% B 74% B	WB-4500Wto3000W Total		113 	186 186	29 40 29 40	
SR 193 EB		#	Time	l Travel Speed (mph) (FFS		SR 193 EB		#	Time	l Travel Ba Speed FF (mph)(mp	FS I	Base	SR 193 EB			Time	e Spe	vel Base ed FFS oh)(mph)		SR 193 EB	Dist (mi)		Time	l Travel Base Speed FFS (mph)(mph	Base
EB-3000Wto2000W Total		423 	109 109	33 33		66% C 66% C	EB-3000Wto2000W Total		205 	108 108	33 5 33 5		67% C 67% C	EB-3000Wto2550W EB-2550Wto2000W Total	0.5	465 678	-		4 50	49% D 49% D 49% D	EB-3000Wto2550W EB-2550Wto2000W Total		229 779	80 72 152	23 50 25 50 24 50	
SR 193 WB	(mi)	# Veh	Time (sec)		FFS mph)	Base FFS LOS		(mi)	# Veh	Time (sec)	l Travel Ba Speed FF (mph)(mp	FS ph)	Base FFS LOS	SR 193 WB	Dist	#	Trave Time	el Trav e Spe	vel Base ed FFS	% Base	SR 193 WB	Dist	#	Travel Time	l Travel Base Speed FFS	% Base
WB-3000Wto2000W Total		151 	86 86	41 41		82% B 82% B	WB-3000Wto2000W Total		227 	89 89	39 5 39 5		79% B 79% B	WB-3000Wto2550W Total	0.5	56 	53 53	34	4 50	FFS LOS 68% C 68% C	WB-3000Wto2550W Total		88 	53 53	(mph) (mph 34 50 34 50	68% C
700 S EB	Dist (mi)	#	Time	I Travel Speed (mph)(FFS		700 S EB	Dist (mi)	# Veh	Time	l Travel Ba Speed FF (mph)(mj	FS I	Base	700 S EB	Dist (mi)		Tim	e Sp	avel Base eed FFS iph)(mph		700 S EB		# Veh	Time	el Travel Bas e Speed FF) (mph)(mp	Base
EB-4500Wto4000W EB-4000WtoSyracuseTr EB-SyracuseTrailto3000 Total	0.5 0.5		54 54 66 173	34 34 28	35 35 35	96% A 96% A 80% B 90% A	EB-4500Wto4000W EB-4000WtoSyracuseT EB-SyracuseTrailto300 Total	r 0.5 0 0.5		53 53 62 169	34 3 34 3 30 3 32 3	5 5 5	97% A 98% A 85% A 93% A	EB-4500Wto4000W EB-4000WtoSyracuseTr EB-SyracuseTrailto3000 Total	0.5 0.5	5 121 5 220 5 177 5	54	3 1 1	4 35 2 35	96% A 35% E	EB-4500Wto4000W EB-4000WtoSyracuseT EB-SyracuseTrailto300 Total	r 0.5 0 0.5	112	54	28 35	96% A 80% E
700 S WB		#	Time	l Travel Speed (mph) (FFS		700 S WB			Time	l Travel Ba Speed FF (mph)(mp	FS I	Base	700 S WB		t #) Vel	Tim	e Sp	avel Baso eed FFS nph) (mpl		700 S WB			Time	el Travel Bas e Speed FF) (mph)(mp	6 Base
WB-4000WtoSyracuseT WB-SyracuseTrailto300 Total	0.5		53 52 105	34 33 34	35	98% A 95% A 97% A	WB-4000Wto4500W WB-4000WtoSyracuse WB-SyracuseTrailto30 Total	T 0.5 0 0.5	2 36 100 	62 54 53 168	29 3 34 3 33 3 32 3	5 5	83% A 97% A 94% A 91% A	WB-4000WtoSyracuse WB-SyracuseTrailto300 Total	0.		2 52	2 3		97% A 94% A 96% A	WB-4000Wto4500W WB-4000WtoSyracuse WB-SyracuseTrailto30 Total	0 0.5	5 76 5 220	55 53 0	33 3	5 80% 5 95% 5 93% 5 89%
4500 W NB	(mi)	# Veh	Time (sec)		FFS mph)	Base FFS LOS	4500 W NB			Time	l Travel Ba Speed FF (mph)(mp	FS I	Base			#	Time	Spee	vel Base ed FFS oh) (mph)		4500 W NB	Dist	#	Travel Time	Travel Base Speed FFS	% Base
NB-700Sto300N Total		48 	93 93	38 38		96% A 96% A	NB-700Sto300N Total	1.0	156 	93	38 4 38 4	0	96% A 96% A	NB-700Sto300N Total			112 112			80% B 80% B	NB-700Sto300N Total	1.0	287	(sec) 109 109	(mph) (mph 33 40 33 40	
4500 W SB	(mi)	# Veh	Time (sec)		FFS mph)	Base FFS LOS	4500 W SB	Dist	#	Trave Time	I Travel Ba Speed FF (mph)(mp	ise FS I	% Base			#	Time	Spee	vel Base ed FFS oh) (mph)		4500 W SB	Dist	#	Travel Time	Travel Base Speed FFS (mph) (mph	% Base
SB-700Sto300N	1.0	12	93	38	40	96% A						•										. ,				

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VISSIM Travel Time Comparison

SR 193

Total	1.0 93 38 40 96% A	SB-700Sto300N	1.0 85 91 39 40 98% A	SB-700Sto300N	1.0 142 108 33 40 82% B		
		Total	1.0 91 39 40 98% A	Total	1.0 108 33 40 82% B	SB-700Sto300N 1.0 23	
3000 W NB	Travel Travel Base %					Total 1.0 -	- 95 37 40 93% A
	Dist # Time Speed FFS Base	3000 W NB	Travel Travel Base %	3000 W NB	Travel Travel Base %		
	(mi) Veh (sec) (mph)(mph) FFS LOS		Dist # Time Speed FFS Base	5000 W ND	Dist # Time Speed FFS Base	3000 W NB	Travel Travel Base %
NB-700StoSR193	0.5 172 65 27 35 77% B	-	(mi) Veh (sec) (mph)(mph) FFS LOS		(mi) Veh (sec) (mph)(mph) FFS LOS	Dist #	Time Speed FFS Base
NB-SR193to300N	0.5 147 61 30 35 85% A	NB-700StoSR193	0.5 254 65 27 35 76% B	NB-700StoSR193	0.5 176 70 25 35 71% B	(mi) Ve	h (sec) (mph)(mph) FFS LOS
Total	1.0 126 28 35 81% B	NB-SR193to300N	0.5 287 62 29 35 84% A	NB-SR193to300N	0.5 131 67 27 35 78% B	NB-700StoSR193 0.5 39	8 73 24 35 68% B
		Total	1.0 127 28 35 80% B	Total	1.0 137 26 35 74% B	NB-SR193to300N 0.5 19	4 71 26 35 74% B
3000 W SB	Travel Travel Base %					Total 1.0 -	· 144 25 35 71% B
	Dist # Time Speed FFS Base	3000 W SB	Travel Travel Base %	3000 W SB	Travel Travel Base %		
	(mi) Veh (sec) (mph)(mph) FFS LOS		Dist # Time Speed FFS Base	5000 W 3B	Dist # Time Speed FFS Base	3000 W SB	Travel Travel Base %
SB-700StoSR193	0.5 240 63 28 35 81% B		(mi) Veh (sec) (mph)(mph) FFS LOS		(mi) Veh (sec) (mph)(mph) FFS LOS	Dist #	Time Speed FFS Base
SB-SR193to300N	0.5 193 61 30 35 87% A	SB-700StoSR193	0.5 180 63 28 35 81% B	SB-700StoSR193	0.5 435 113 16 35 45% D	(mi) Ve	h (sec) (mph)(mph) FFS LOS
Total	1.0 124 29 35 84% B	SB-SR193to300N	0.5 143 60 31 35 88% A	SB-SR193to300N	0.5 260 68 27 35 77% B	SB-700StoSR193 0.5 30	5 75 24 35 68% B
		Total	1.0 123 30 35 84% B	Total	1.0 182 20 35 57% C	SB-SR193to300N 0.5 13	
						Total 1.0	140 26 35 74% B

1 MEMORANDUM

- 2 **To:** UDOT Region One & Environmental
- 3 From: Avenue Consultants
- 4 Date: October 28, 2019
- 5 **Subject:** SR 193 SES 2050 Build Traffic Analysis
- 7 UDOT has initiated a State Environmental Study (SES) for a potential extension of State Route 193 (200 South)
- 8 from 2000 West (State Route 108) to 4500 West (State Route 110) or the future West Davis Corridor in West Point
- 9 and Syracuse, Davis County, Utah. This memo describes the study area traffic evaluation performed for the
- 10 future 2050 Build conditions and is companion to the SR 193 SES 2018 Existing and 2050 No Action Traffic
- 11 Analysis dated June 29, 2019. Figure 1 shows the study area.



Figure 1: Traffic Study Area

12 1 BUILD ALTERNATIVES

- 13 SR 193 is currently an east-west principal arterial with two lanes in each direction between 2000 West and 3000
- 14 West. This study contemplates the extension of SR 193 farther to the west to 4500 West with an interchange at
- 15 the future West Davis Corridor. The following five build alternatives (see Figure 2) with their alignment and
- 16 interchange location on West Davis Corridor were considered for this analysis: 200 South, 400 South, 600 South,
- 17 and 700 South.
- 18



SR 193 SES – 2050 Build Traffic Analysis | October 28, 2019



19

Figure 2: SR-193 Build Alternatives

20 2 MEASURES OF EFFECTIVENESS

Three key measures of effectiveness were used to compare the transportation network performance under each alternative: daily segment-level volumes, study area VMT and average volumes by facility type, and travel times.

23 DAILY VOLUMES

To understand for the changes in traffic flow for each alternative, daily volumes were estimated for the collector and arterial roads in the study area. Estimates were based on the output of the WFRC/MAG Travel Demand Model (TDM), which were then adjusted to account for differences between the existing conditions TDM and observed existing traffic volumes.

28 VMT AND AVERAGE VOLUMES

- To better understand the interaction between the arterial and collector roads in the study area, an analysis was performed to see how the VMT and average arterial and collector road volume would change by alternative. These were calculated using the roadways within the study area from 300 North to 700 South and 4500 West to
- 32 2000 West. The average volume for each type of facility was calculated by dividing the daily VMT on each type
- 33 of road by the number of centerline miles of each roadway type.

34 TRAVEL TIMES

- Travel time information was used to understand how long it would take for a vehicle to travel between select locations. The travel times were extracted from the TDM for the PM peak period. Three movements were identified for the analysis:
- from Legacy Parkway to the intersection of 3000 West and SR 193,
- from Legacy Parkway to the intersection of 4500 West and 200 South, and
- from I 15 to the intersection of 4500 West and 200 South.

41 3 2050 BUILD ANALYSIS RESULTS

- 42 The analysis results presented in this section include daily volumes, VMT and average volumes, and travel times.
- 43 The 2050 No Action analysis was used as a baseline against which to compare the build alternatives.

44 3.1 Daily Volumes

- The daily volumes by roadway segment for each build alternative are shown in Table 1. The volumes are highly dependent on the location of SR 193 and its interchange with WDC. For instance, 700 South between 4000 West and WDC fluctuates between 1,600 vehicles per day under the 400 South alternative to 11,900 vehicles per day under the 600 South alternative, in which SR-193 is routed on to 700 South for this portion of roadway. Volumes are reduced the most on the parallel 300 North and 700 South corridors in the two scenarios (200 South and 400 South) where SR 193 creates a new east-west corridor between 3000 West and 4500 West rather than being
- 51 aligned along an existing roadway,

Deed	C		Build Alterna	tive (SR 193 Ali	gnment/Interch	ange Location)
Road	Segment	No Action	200 South	400 South	600 South	700 South
200 North	4500 W to 3000 W	9,200	4,200	5,900	6,800	7,100
300 North	3000 W to 2000 W	13,200	10,900	11,800	12,400	13,200
	4500 W to WDC		10,600	8,400		
SR 193	WDC to 3000 W		11,900	11,700	14,900	
	3000 W to 2000 W	12,100	14,600	14,100	13,800	12,500
	4500 W to 4000 W	2,100	1,000	900	6,400*	6,200*
700 South	4000 W to WDC	3,700	1,700	1,600	11,900*	10,500*
700 South	WDC to 3000 W	8,500	6,800	6,300	3,700	12,800*
	3000 W to 2000 W	7,100	6,500	6,500	6,500	8,900*
4500 West	300 N to 700 S	9,600	7,700	8,800	9,600	10,300
3000 West	300 N to SR 193	13,000	9,200	11,600	12,200	10,500
3000 West	SR 193 to 700 S	13,300	11,400	9,700	7,200	8,900
2000 W/ast	300 N to SR 193	42,300	42,800	43,000	42,500	42,900
2000 West	SR 193 to 700 S	35,500	35,100	35,000	34,300	32,900
WDC	SR 193 to Antelope	19,200	25,900	27,700	30,200	28,000
WDC	SR-193 Int. Ramps		12,000	12,400	14,600	12,400

Table 1. 2050 Daily Two-Way Traffic Volumes (vehicles/day)

*Contains a portion of SR 193

52 When looking at SR 193 itself, the 600 South alternative puts the most traffic onto SR-193 between WDC and

53 3000 West with 14,900 vehicles per day (vpd). The 200 and 400 South alternatives are further behind with 11,900

54 vpd and 11,700 vpd, respectively. As for getting volume onto WDC, the 600 South alternative draws the most

55 traffic with 30,200 vpd between SR-193 and Antelope Drive and 14,600 vpd using the SR-193 interchange 56 ramps.

57 3.2 VMT and Average Volumes

58 VMT and average volumes for each alternative were calculated and are shown in Table 2 and Table 4, 59 respectively. Additionally, the length by roadway type is listed for each alternative (see Table 3) since there was

- 60 some reclassification of roadways depending on which alternative was being analyzed. For example, in the
- alternatives when the alignment of SR 193 utilizes 600 South and 700 South, this portion of roadway was
- 62 reclassified as an arterial.
- 63 While the overall total VMT only increases slightly between the No Action alternative and the build alternatives,
- 64 the changes by roadway type are more substantial. The 700 South alternative does the best in reducing average
- 65 collector VMT by 8,400 down to 59,600 and increases arterial VMT the most by 2,600 to 165,000. The 400 South
- 66 alternative has the highest overall VMT.

Deed.uev Tures		Build Alternat	tive (SR-193 Al	ignment/Intercl	hange Location)
Roadway Type	No Action	200 South	400 South	600 South	700 South
Collectors	68,000	65,200	66,700	62,600	59,600
Arterials	162,400	158,200	157,000	158,300	165,000
Freeways	41,700	50,800	50,900	50,700	48,100
Total	272,100	274,200	274,600	271,600	272,700

Table 2. 2050 Study Area VMT by Alternative

- 67 The total length of roadways increases across all alternatives due to the SR-193 extension. The SR-193 extension
- 68 in the 200 South and 400 South alternatives adds an all new roadway resulting in the most roadway miles. Where
- 69 the extension utilizes existing 700 South, the roadway type is reclassified as an arterial and the resulting length
- adjustments can be seen in the shift from collector to arterial.

Table 3. 2050 Roadway Length (miles) by Alternative	Table 3. 2	2050 Ro	adway Leng	th (miles)	by Al	ternative
---	------------	---------	------------	------------	-------	-----------

Deed.uev Tures		Build Alternative (SR-193 Alignment/Interchange Location)							
Roadway Type	No Action	200 South	400 South	600 South	700 South				
Collectors	8.5	10.5	10.3	9.1	8.5				
Arterials	9.0	9.0	9.1	9.2	9.4				
Freeways	2.2	2.2	2.2	2.2	2.2				
Total	19.7	21.6	21.5	20.5	20.1				

- 71 While the 600 South alternative had the lowest VMT, when calculating average volumes by roadway functional
- type, the 200 South alternative had the lowest average volume on collectors with 6,200 vpd. The 700 South
- 73 alternative had the highest average volume on collectors at 7,000 vpd, which is still 1,000 vpd less than the No

74 Action alternative. Because of the WDC interchange, all the alternatives move traffic to the highest roadway

75 class (freeway) and away from the lowest class (collectors) with a smaller reduction in arterial traffic.

Table 4. 2050 Average Volume (vehicles/day) by Alternative

Deadway Type	No Action	Build Alternative (SR-193 Alignment/Interchange Location)							
Roadway Type	NO ACUON	200 South	400 South	600 South	700 South				
Collectors	8,000	6,200	6,500	6,900	7,000				
Arterials	18,100	17,600	17,300	17,300	17,500				
Freeways	19,200	23,400	23,500	23,400	22,200				
Total	13,800	12,700	12,800	13,300	13,600				

3.3 Travel Times 77

- 78 The travel time results presented in Table 5 show a comparison of the 2050 travel times for the PM peak period.
- 79 The worst or highest travel time performer for a given segment is shown in **red** and the best or lowest in **blue**.
- 80 For the segment from Legacy Parkway to 3000 West & SR 193 (east of WDC), the 400 South alternative had the
- 81 lowest travel time and the 700 South alternative had the highest travel times. For the segment from Legacy
- 82 Parkway to 4500 West & 200 South (west of WDC), the lowest travel time was the 200 South alternative, while 83
- the 600 South and 700 South alternatives had the highest travel times. For the segment going from east to west 84 through the study area, I-15 to 4500 West & 200 South, the 200 South alternative performed the best and 700
- 85 South the worst.

Table 5. 2050 Travel Times (minutes) by Alternative

Travel Time Segment	No Action	Build Alternative (SR-193 Alignment/Interchange Location)						
		200 South	400 South	600 South	700 South			
Legacy Pkwy to 3000 W & SR 193	20.2	18.4	18.2	18.0	18.7			
Legacy Pkwy to 4500 W & 200 S	21.5	18.1	18.8	19.4	19.4			
I-15 to 4500 W & 200 S	15.5	12.6	13.2	13.7	14.2			

- 86 The travel times for these segments are highly dependent on the desired origin and destination, and a different
- 87 pair of origins and destinations would likely yield different results. For instance, the third segment in the table
- 88 is west-to-east travel along 200 South, so naturally the 200 South alternative performs best, since it is a straight
- 89 shot. However, if there was a different segment added from I-15 to 4500 W & 700 South, the 600 South or 700
- 90 South alternatives would likely perform better than the other alternatives, since in these alternative SR 193 is
- 91 aligned on southwestern diagonal through the study area. The most important fact is that all the alternatives
- 92 show lower travel times than the No Action alternative.

CONCLUSION 93 4

94 Extending SR 193 to the west creates additional connectivity to West Davis Corridor thus providing greater 95 regional access to the surrounding area. The 2050 No Action alternative shows an increase in traffic throughout 96 the area with arterials and collectors experiencing high rate of traffic growth. Five build alternatives were 97 analyzed to see their impact on roadway segment volumes, VMT and average volumes, and travel times. The 98 analysis shows that all alternatives do well in adding traffic to the West Davis Corridor and SR 193 and, 99 depending on the alternative, generally reduce traffic on other corridors throughout the study area. When 100 considering 2050 VMT, the 600 South alternative decreases VMT the most across the study area; however, the 101 200 South alternative does the best in reducing average volumes on collector streets in the study area. The 200 102 South alternative also does the best at reducing travel times into or across the area in the 2050 PM peak with 103 the caveat that the travel times are highly dependent on the location of the origin/destination in relation to

104 proposed improvements.

1 MEMORANDUM

- 2 **To:** UDOT Region One & Environmental
- 3 **From:** Avenue Consultants
- 4 **Date:** January 15, 2020
- 5 Subject: SR-193 SES Interim Years and 2050 Build Condition Traffic Analysis
- 6
- 7 UDOT has initiated a State Environmental Study (SES) for a potential extension of State Route (SR)193 from 2000
- 8 West (SR-108) to 4500 West (SR-110) in West Point and Syracuse, Davis County, Utah. This memo describes the
- 9 traffic evaluation performed on two key intersections for interim years and 2050 build condition and is prepared
- 10 in response to public comments on Draft State Environmental Study (SES) published on November 18, 2019.

11 1 TRAFFIC ANALYSIS

- 12 A VISSIM traffic analysis was performed for 2050 and interim years 2025, 2030, and 2040 for the intersections at 13 4500 West & SR-193 (400 South) and 3000 West & SR-193 (200 South).
- 14 The analysis was performed to address the following issues:
- 15 1. To inspect how the 4500 West & SR-193 (400 South) intersection will perform as a one-way stop control 16 under future traffic and to determine if a traffic signal is needed at this intersection.
- To evaluate the performance of the 3000 West & SR-193 (200 South) intersection with a shared through right lane in the southbound direction instead of a separate right-turn lane and to determine if a
 dedicated southbound to westbound right-turn lane is needed.
- The study contemplates the extension of SR-193 from 3000 West to 4500 West with the future West Davis Corridor (WDC) interchange located at 400 South. The year 2050 was evaluated as the full build-out condition of WDC. Interim years were analyzed to evaluate the traffic conditions when WDC ends at 400 South and the study area has limited north-south connectivity.

24 1.1 4500 West & SR-193 (400 South)

- WFRC/MAG travel demand model (TDM) was used to predict AM and PM peak hour traffic volumes for the study years. Figure 1 presents 2025, 2030, and 2040, and 2050 traffic volumes for the 4500 West & 400 South intersection. With the south leg of WDC already constructed to SR-193 in the interim years, 400 South is anticipated to attract more traffic to and from the interchange during the peak hours. This explains the heavy SBL volume during the AM peak hour and heavy WBR volume during the PM peak hour. By 2050, WDC will be extended north of 400 South, thus providing improved north-south connectivity. This attributes to increased traffic volumes on WDC while reducing the overall traffic volumes at the intersection.
- 32

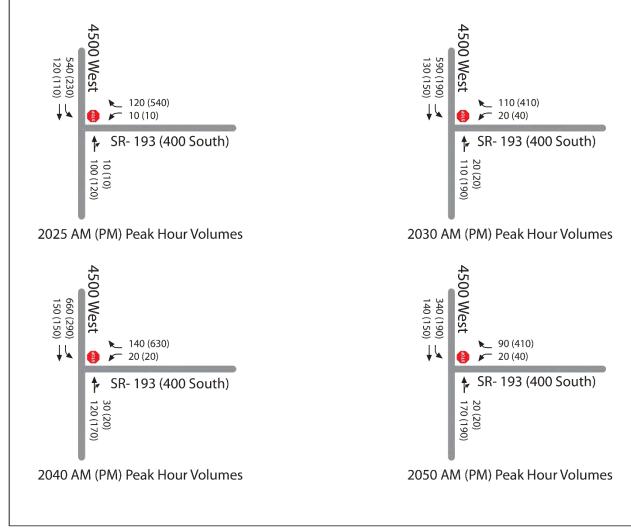


Figure 1. Peak Hour Volumes at 4500 West & SR-193

- 33 The delay and LOS calculated for different years during AM and PM peak hours are presented in Table 1. The
- 34 approach having the worst delay is the stop-controlled approach (WB). Due to high WBR-NBT conflict volume,
- 35 the PM peak hour in 2040 experiences maximum delay and the intersection is anticipated to operate at a LOS
- 36 F. For all the other scenarios, the intersection operates at a LOS C or better. Detailed VISSIM results showing LOS
- 37 and delay by movements can be found in Appendix A.

Table 1. Intersection LOS for 2050 and Interim Years

Year	LOS/Delay (sec/veh)					
	AM Peak Hour	PM Peak Hour				
2025	A/3	C/16				
2030	A/3	A/10				
2040	A/3	F/90				
2050	А/б	C/22				

- 38 Estimated future 95th percentile queue lengths are presented in Table 2. Due to relatively low intersection
- 39 volumes, there is no significant queuing at the intersection during the years 2025, 2030, and 2050. By 2040, the
- 40 95th percentile queue for the westbound is approximately 1,500 feet because of the high conflict volume.

Table 2. Intersection LOS for 2050 and Interim Years

Year	95 th Percentile for WB Approach (feet)					
	AM Peak Hour	PM Peak Hour				
2025	100	450				
2030	75	300				
2040	100	1,500				
2050	125	450				

41 1.2 3000 West & SR-193 (200 South)

42 For the 3000 West & SR-193 intersection, it was assumed that SR-193 would have one left-turn lane, two through

lanes, and one right-turn lane in the eastbound and westbound direction. On 3000 West, it was assumed that
 there would be one left-turn lane, one through lane and one right-turn lane in the northbound direction and

45 one left-turn lane, one shared through-right turn lanes in the southbound direction. The evaluation was focused

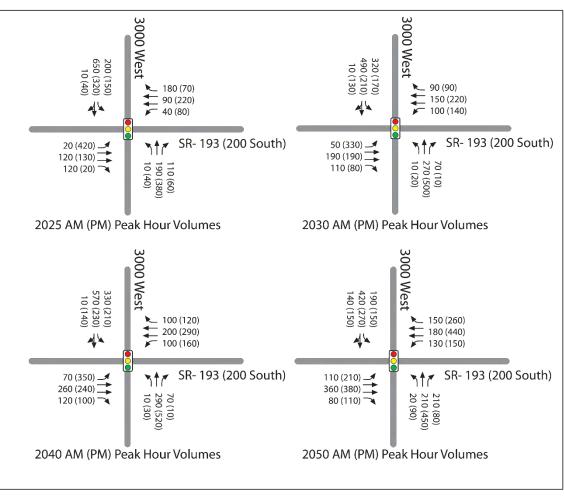
46 on investigating whether a shared through right-turn was sufficient for the southbound direction at this

47 intersection.

48 WFRC/MAG TDM was used to predict AM and PM peak hour traffic volumes for the study years. Figure 2 presents

49 the lane configuration and 2025, 2030, and 2040, and 2050 traffic volumes for the 3000 West & SR-193

50 intersection. As expected, by 2050 peak hour traffic volumes increase with increased demand.



51 52

Figure 2. Peak Hour Volumes at 3000 West & SR-193

- 53 The delay and LOS calculated for different years are presented in Table 3 for the AM and PM peak hours. For all
- 54 scenarios, the intersection is anticipated to operate at a LOS C or better. Detailed VISSIM results showing LOS
- and delay by movements can be found in Appendix A.

Year	LOS/Delay (sec/veh)					
	AM Peak Hour	PM Peak Hour				
2025	B/12	C/21				
2030	B/15	C/22				
2040	B/16	C/29				
2050	B/15	C/26				

Table 3. Intersection LOS for 2050 and Interim Years

- 56 Estimated future 95th percentile queue lengths for the southbound approach are presented in Table 4. Due to
- 57 relatively low intersection volumes, there is no significant queuing at the intersection for the study years.

Year	95 th Percentile for	SB Approach (feet)
	AM Peak Hour	PM Peak Hour
2025	450	275
2030	350	275
2040	475	325
2050	650	400

Table 4. Intersection LOS for 2050 and Interim Years

58 2 CONCLUSION

59 The traffic analysis shows that with the WDC ending at 400 South, the intersection at 4500 West & 400 South is 60 expected to perform at a LOS F during PM Peak hour by 2040. After the extension of WDC north of 400 South, 61 the north-south connectivity of the study area improves, and the intersection operates at a LOS C or better. The 62 evaluation of the traffic performance of the intersection at 3000 West & SR-193 suggests that without a separate 63 right-turn lane in the southbound approach, the intersection will still operate at a LOS C or better for all the 64 study years. Based on the results of the traffic analysis, the following recommendations can be made for the 65 specific intersections:

- A traffic signal is recommended at 4500 West and SR-193 because the intersection is predicted to perform at LOS F by 2040 with the westbound queue extending up to 1,500 feet during PM peak hour.
- A separate southbound to westbound right-turn lane at SR-193 and 3000 West is not needed because
 the intersection operates at LOS C or better for all the study years without the exclusive right-turn lane
 in the southbound direction.

APPENDIX A – DETAILED VISSIM RESULTS



SR 193 SES 400 S Alt_2025 AM

LOS Category: Signalized											
1: 3000	West					Delay /	LOS				
		Volume	(Queue (ft) A	.vg / 95th	Analysis P	eriod				
Mvmt	Demand	Served	% Served	900-4	500	900-45	00				
NBL	10	8	80%	0	50	19	В				
NBT	190	195	103%	0	150	11	В				
NBR	110	105	95%	0	125	4	А				
NB	310	308	99%			9	А				
SBL	200	195	98%	0	150	13	В				
SBT	650	654	101%	50	450	15	В				
SBR	10	9	90%	25	450	11	В				
SB	860	858	100%			14	В				
EBL	20	19	95%	0	75	18	В				
EBT	120	120	100%	0	100	14	В				
EBR	120	121	101%	0	125	9	А				
EB	260	260	100%			12	В				
WBL	40	38	95%	0	100	20	В				
WBT	90	91	101%	0	150	14	В				
WBR	180	179	99%	0	175	7	А				
WB	310	308	99%			11	В				
Total	1,740	1,734	100%			12	В				

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2. 1500	\\/oot						
2: 4500	Delay /	Delay / LOS					
	n Analysis P	Analysis Period					
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
WBL	10	10	100%	0	50	6	А
WBR	120	117	98%	0	100	2	А
WB	130	127	98%			3	А
Total	130	127	98%			3	А

Node Letter: J VISSIM ID: 22

400 S Alt_2025 PM

LOS Category: Signalized

1:3000	Most						
1.3000	VVC21					Delay /	los
		Volume	(Queue (ft) A	.vg / 95th	i Analysis Pe	eriod
Mvmt	Demand	Served	% Served	900-4	500	900-450)0
NBL	40	38	95%	0	75	23	С
NBT	380	386	102%	50	425	23	С
NBR	60	57	95%	0	100	6	А
NB	480	481	100%			21	С
SBL	150	145	97%	25	175	21	С
SBT	320	321	100%	25	275	19	В
SBR	40	42	105%	25	250	14	В
SB	510	508	100%			19	В
EBL	420	419	100%	50	400	25	С
EBT	130	131	101%	0	100	12	В
EBR	20	20	100%	0	50	4	А
EB	570	570	100%			21	С
WBL	80	80	100%	0	100	13	В
WBT	220	222	101%	25	150	29	С
WBR	70	68	97%	25	175	17	В
WB	370	370	100%			23	С
Total	1,930	1,929	100%			21	С

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2:4500	2: 4500 West									
	Analysis P	Analysis Period								
Mvmt	Demand	Served	% Served	900-4	500	900-450	00			
WBL	10	11	110%	0	25	9	А			
WBR	540	536	99%	25	450	16	С			
WB	550	547	99%			16	С			
Total	550	547	99%			16	С			

SR 193 SES 400 S Alt_2030 AM

				L	OS Cate	gory: Sign	alized
1: 3000	West					Delay /	LOS
		Volume	(Queue (ft) A	.vg / 95th		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	10	9	90%	0	50	19	В
NBT	270	275	102%	25	250	17	В
NBR	70	66	94%	0	100	4	А
NB	350	350	100%			15	В
SBL	320	318	99%	25	300	17	В
SBT	490	494	101%	25	350	14	В
SBR	10	9	90%	25	350	10	В
SB	820	821	100%			15	В
EBL	50	50	100%	0	100	17	В
EBT	190	188	99%	25	125	16	В
EBR	110	112	102%	0	125	7	А
EB	350	350	100%			13	В
WBL	100	100	100%	25	150	21	С
WBT	150	149	99%	0	125	15	В
WBR	90	87	97%	25	150	8	А
WB	340	336	99%			15	В
Total	1,860	1,857	100%			15	В

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2. 1500							
2: 4500	Delay /	Delay / LOS					
	n Analysis F	Analysis Period					
Mvmt	Demand	Served	% Served	900-45	500	900-45	500
WBL	20	24	120%	0	50	6	А
WBR	110	104	95%	0	75	2	А
WB	130	128	98%			3	А
Total	130	128	98%			3	А

Node Letter: J VISSIM ID: 22

400 S Alt_2030 PM

LOS Category: Signalized

1:3000							
1. 3000	VVCSI					Delay /	LOS
		Volume	(Queue (ft) A	.vg / 95th	Analysis Pe	eriod
Mvmt	Demand	Served	% Served	900-4	500	900-450	00
NBL	20	20	100%	0	75	26	С
NBT	500	501	100%	100	750	31	С
NBR	10	10	100%	0	50	9	А
NB	530	531	100%			31	С
SBL	170	166	98%	25	200	22	С
SBT	210	208	99%	25	275	18	В
SBR	130	133	102%	25	250	12	В
SB	510	507	99%			18	В
EBL	330	332	101%	50	325	23	С
EBT	190	190	100%	0	125	15	В
EBR	80	79	99%	0	100	4	А
EB	600	601	100%			18	В
WBL	140	137	98%	0	150	19	В
WBT	220	222	101%	25	175	29	С
WBR	90	86	96%	25	175	18	В
WB	450	445	99%			24	С
Total	2,090	2,084	100%			22	С

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2:4500	2: 4500 West									
	Analysis P	Analysis Period								
Mvmt	Demand	Served	% Served	900-4	500	900-450	00			
WBL	40	40	100%	0	75	7	А			
WBR	410	408	100%	25	300	10	А			
WB	450	448	100%			10	А			
Total	450	448	100%			10	А			

SR 193 SES 400 S Alt_2040 AM

				L	OS Cate	gory: Sign	alizeo
1: 3000	West					Delay /	LOS
		Volume		Queue (ft) A	.vg / 95th		
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	10	10	100%	0	50	22	С
NBT	290	292	101%	25	275	18	В
NBR	70	66	94%	0	100	5	А
NB	370	368	99%			16	В
SBL	330	331	100%	25	250	18	В
SBT	570	570	100%	50	475	15	В
SBR	10	8	80%	25	450	12	В
SB	910	909	100%			16	В
EBL	70	70	100%	0	150	18	В
EBT	260	258	99%	25	150	17	В
EBR	120	121	101%	0	125	8	А
EB	450	449	100%			15	В
WBL	100	100	100%	25	175	25	С
WBT	200	201	101%	25	175	16	В
WBR	100	97	97%	25	175	10	А
WB	400	398	100%			16	В
Total	2,130	2,124	100%			16	В

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

D. 1E00	\\/oot						
2: 4500	Delay /	Delay / LOS					
	n Analysis P	Analysis Period					
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
WBL	20	21	105%	0	75	6	А
WBR	140	136	97%	0	100	3	А
WB	160	157	98%			3	А
Total	160	157	98%			3	А

Node Letter: J VISSIM ID: 22

400 S Alt_2040 PM

LOS Category: Signalized

1:3000	Most						
1. 3000	VVE21					Delay /	LOS
		Volume	(Queue (ft) A	.vg / 95th	Analysis Pe	eriod
Mvmt	Demand	Served	% Served	900-4	500	900-450	00
NBL	30	29	97%	0	75	47	D
NBT	520	518	100%	200	925	51	D
NBR	10	8	80%	0	50	25	С
NB	560	555	99%			50	D
SBL	210	207	99%	25	250	26	С
SBT	230	227	99%	25	325	20	С
SBR	140	142	101%	25	325	14	В
SB	580	576	99%			21	С
EBL	350	350	100%	50	375	29	С
EBT	240	238	99%	25	150	17	В
EBR	100	99	99%	0	125	5	А
EB	690	687	100%			21	С
WBL	160	158	99%	25	150	20	С
WBT	290	294	101%	50	225	32	С
WBR	120	116	97%	50	250	24	С
WB	570	568	100%			27	С
Total	2,400	2,386	99%			29	С

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2:4500) West				Delay /	/ LOS
		Volume	(Dueue (ft) Avg / 95th	Analysis I	Period
Mvmt	Demand	Served	% Served	900-4500	900-45	500
WBL	20	19	95%	0 50	67	F
WBR	630	618	98%	350 1,500	91	F
WB	650	637	98%		90	F
Total	650	637	98%		90	F

SR 193 SES 400 S Alt_**2050** AM

				L	OS Cate	gory: Sign	alizeo
1: 3000	West					Delay /	LOS
		Volume	(Queue (ft) A	.vg / 95th	Analysis P	
Mvmt	Demand	Served	% Served	900-4	500	900-45	00
NBL	30	29	97%	0	50	17	В
NBT	180	186	103%	0	200	14	В
NBR	240	234	98%	0	175	7	А
NB	450	449	100%			10	В
SBL	160	156	98%	0	150	14	В
SBT	430	431	100%	50	650	20	С
SBR	170	172	101%	50	625	17	В
SB	760	759	100%			18	В
EBL	80	81	101%	25	150	21	С
EBT	370	367	99%	25	200	16	В
EBR	100	101	101%	0	125	7	А
EB	550	549	100%			15	В
WBL	100	102	102%	25	175	22	С
WBT	150	153	102%	25	175	14	В
WBR	220	213	97%	25	175	9	А
WB	470	468	100%			13	В
Total	2,230	2,225	100%			15	В

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

D. 1E00	\\/oot						
2: 4500	west					Delay /	LOS
		Volume	(Queue (ft) A	vg / 95th	Analysis P	eriod
Mvmt	Demand	Served	% Served	900-45	500	900-45	00
WBL	20	22	110%	0	50	5	А
WBR	90	86	96%	0	125	6	А
WB	110	108	98%			6	А
Total	110	108	98%			6	А

Node Letter: J VISSIM ID: 22

400 S Alt_**2050** PM

LOS Category: Signalized

1, 2000	1: 3000 West						
1:3000	west		Delay /	los			
		Volume				Analysis Pe	
Mvmt	Demand	Served	% Served	900-4	500	900-450)0
NBL	90	86	96%	0	375	35	D
NBT	450	453	101%	125	825	37	D
NBR	80	78	98%	0	100	13	В
NB	620	617	100%			34	С
SBL	150	146	97%	25	200	26	С
SBT	270	269	100%	50	400	26	С
SBR	150	153	102%	50	400	21	С
SB	570	568	100%			25	С
EBL	210	211	100%	25	250	26	С
EBT	380	380	100%	25	150	16	В
EBR	110	110	100%	0	100	5	А
EB	700	701	100%			17	В
WBL	150	147	98%	25	225	24	С
WBT	440	441	100%	75	400	31	С
WBR	260	256	98%	75	400	29	С
WB	850	844	99%			29	С
Total	2,740	2,730	100%			26	С

Node Letter: D VISSIM ID: 6

LOS Category: Unsignalized

2:45	00 West					Delay /	LOS
Mvm	t Demand	Volume Served	(% Served	2ueue (ft) A 900-4		Analysis P 900-45	
WBI	40	40	100%	0	50	9	А
WB	R 410	407	99%	75	450	23	С
WE	450	447	99%			22	С
Tota	al 450	447	99%			22	С



Appendix B: Noise Study







Traffic Noise

UDOT Project S-R199(245), PIN 16518

November 2019

Prepared for:

Utah Department of Transportation 501 Constitution Blvd. Taylorsville, Utah 84129

Prepared by:

BIO-WEST, Inc. and Avenue Consultants

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Attachments

Attachment A – Noise Impact Map Series

Attachment B – Measurement Data Sheets, Photos, and Sound Meter Data Logs

Attachment C – Traffic Volumes Used for Noise Modeling

Attachment D – Traffic Noise Model Sound Level Results Tables and Figures

Introduction

This study provides an evaluation of traffic-generated noise and potential noise abatement for the proposed extension of State Route 193 (SR-193) in Davis County, Utah. The SR-193 Build Alternative, illustrated in Figure 1, would involve continuing SR-193 from 3000 West to 4500 West. The Build Alternative includes a diamond interchange with the future West Davis Corridor. Between 3000 West and the West Davis Corridor, UDOT proposes to continue the configuration of SR-193 that currently exists between 2000 West and 3000 West, which consists of two travel-lanes in each direction separated by a median swale; the typical width of this section would be 150 feet-wide (Figure 2). Between West Davis Corridor and 4500 West, the typical cross section would be 84-feet wide, consisting of one travel lane in each direction separated by a continuous two-way left-turn lane median (Figure 3).



Figure 1. Build Alternative

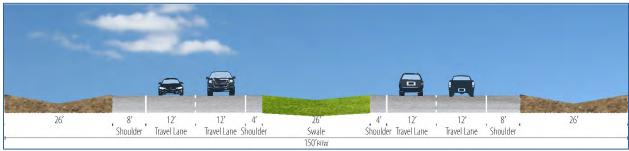


Figure 2. Typical Cross Section Between 3000 West and West Davis Corridor



Figure 3. Typical Cross Section Between West Davis Corridor and 4500 West

State funds would be applied to construct the project and UDOT is preparing a State Environmental Study to evaluate impacts. The extension of SR-193 would be a Type I project under the UDOT Noise Abatement Policy (UDOT 2017), which is a project requiring preparation of a noise study.

Fundamentals of Noise Measurement

This section provides some basic information regarding the fundamentals of traffic noise measurement for readers who are less familiar with traffic noise modeling methods and regulatory procedures. Additional helpful information for understanding fundamentals of traffic noise can be found on the Federal Highway Administration (FHWA) website (FHWA 2018).

Sound is created when an object moves, such as the rustling of leaves when the wind blows. Noise is defined as unwanted sound, and sound coming from traffic is generally understood to be a form of unwanted sound because at certain levels traffic noise can interfere with our ability to hear desirable sounds, such as a conversation between friends taking place in a park, golf course, or backyard.

In terms of measuring sound, the unit used in sound measurement is called the decibel (dB), and decibels are measured on a logarithmic scale. On this logarithmic scale, a doubling of acoustic energy corresponds to an increase of 3 dB, regardless of the level of the original sound. So if one vehicle produces 70 dB when it passes an observer, two identical vehicles that produce 70 dB passing the observer simultaneously would together produce 70 dB + 3 dB = 73dB, not simple arithmetic doubling (i.e. 70+70=140). This happens because acoustic energy from a source that is closer to us (or a source with more energy) will mask much of the acoustic energy from a source farther away (or a source with less energy).

To understand how we experience sound, it is also important to know that different decibel weighting scales are used for measuring various kinds of noise environments. The most commonly used scale is known as the A-weighted scale, abbreviated as dBA. The A-weighted scale has been demonstrated to closely represent the response of the human ear to sound. Table 1 illustrates sound level changes on the A-weighted decibel scale compared to relative loudness as perceived by most people. Experiments show that most people begin to detect a sound level increase at 3 dB, while changes in noise of 1 to 2 dB are generally not perceptible. A 5 dB increase is a readily perceptible change by most people, and a 10 dB increase is generally perceived as a doubling of loudness.

Table 1. Sound Level Change and Relative Loudness (UDOT 2017).				
Sound Level Change Relative Loudness				
1 dBA ^a No perceptible change				
3 dBA Barely perceptible change				
5 dBA Readily perceptible change				
10 dBA Perceived as twice as loud				

	o					
Table 1.	Sound Leve	el Change and	Relative	Loudness	(UDOT 2017)).

^a Decibels on the A-weighted scale.

With the A-weighted scale in mind, Figure 4 illustrates typical sound levels for some common outdoor and indoor noise environments. Evident from the comparisons in Figure 4, sound levels dissipate quickly with distance (a gas lawnmower at 3 feet compared to 100 feet) and also vary greatly over periods of time (daytime and nighttime, for example).

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet flyover at 1,000 feet Gas lawnmower at 3 feet Diesel truck at 50 mph Noisy urban area, daytime Gas lawnmower at 100 feet Commercial area Heavy traffic at 300 feet Quiet urban daytime Quiet urban nighttime Quiet suburban nighttime Quiet rural nighttime	110 100 90 80 70 60 50 40 30 20 10	Rock band Food blender at 3 feet Garbage disposal at 3 feet Vacuum cleaner at 10 feet Normal speech at 3 feet Large business office Dishwasher in next room Theater, large conference room (background) Library Bedroom at night, concert hall (background) Broadcast/recording studio (background)
	0 vels (CalTrans	

Figure 4. Typical A-weighted sound levels (CalTrans 2013).

In terms of noise dissipation with distance, sound intensity decreases in proportion with the square of the distance from the source; generally, this means that sound levels from a point source will decrease by 6 dBA for each doubling of distance.

In terms of the variability of sound over time, the measurement that is most commonly used to express dBA levels for traffic noise is the hourly equivalent sound level, or Leq(h). The Leq(h) describes a noise-sensitive receiver's average exposure to all noise-producing events over a 1-hour period. UDOT's noise abatement criteria are based on Leq(h) noise levels for the worst traffic noise generating hour during a typical work day.

To summarize key points, sound level for typical human exposures to noise is measured in Aweighted decibels (dBA) and in traffic noise measurement, exposure of a noise-sensitive receiver to traffic noise over time is typically measured as the Leq(h), or the average exposure during the worst hour of traffic noise during a typical work day.

Noise Abatement Criteria

FHWA has developed criteria for evaluating potential noise impacts and for determining if such impacts require mitigation (23 CFR Part 772). Noise Abatement Criteria (NAC) are values which, when approached or exceeded, require consideration of noise abatement measures. Criteria are specific to land use activity categories, as presented in Table 2. The UDOT Noise Abatement Policy (UDOT 2017) uses "approach" criteria, which are values 1 dBA lower than the FHWA's noise abatement criteria.

In UDOT's Noise Abatement Policy (UDOT 2017), a receptor is a discrete or representative location of a noise sensitive area(s). A receptor is considered impacted by traffic noise under one of two possible conditions:

- 1) The future worst-case noise level for the receptor is equal to or greater than the NAC for the appropriate land use activity category, or;
- 2) the receptor is predicted to receive a substantial noise increase, defined as an increase of 10 dBA or more over *existing noise levels*. This impact criterion takes effect regardless of existing noise levels.

If either of these conditions are met for a given receptor, then UDOT considers implementing noise abatement measures for that receptor.

Worst-case hourly traffic noise levels occur when vehicle volume, operating speed, and the number of heavy trucks combine to produce the highest possible free-flowing capacity for a given road. Under the UDOT Noise Abatement Policy, roadway capacity Level of Service C is used in noise modeling to represent this worst-case traffic noise condition unless there is a project-specific reason to use a different roadway capacity that has been prior-approved by the UDOT Environmental Services Director.

Activity Category	FHWA Criteria, Leq(h)	UDOT Criteria, Leq(h)ª	Evaluation Location	Land Use Activity Description
A	57	56	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
В	67	66	Exterior	Residential
С	67	66	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	71	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.
F				Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G				Undeveloped lands for which no building permit has been issued.

Table 2. Noise Abatement Criteria (UDOT 2017).

^a Hourly A-weighted sound level in decibels reflecting a 1 dBA "approach" value below 23 CFR 772 values

Study Methods and Procedures

To assess existing and future worst-case traffic noise for receptors in the study area, noise modeling was completed using the traffic noise prediction computer model (FHWA Traffic Noise Model [TNM] Version 2.5). The model accounts for factors that influence traffic noise propagation and dissipation. These factors include roadway geometry, vehicle volumes, types, and speeds, ground absorption, buildings and other noise barriers, and receptor location/distance from other objects. The noise model is verified using field collected noise measurements and traffic counts. The verified model is used to determine existing and future worst-case traffic noise. Noise abatement measures can also be modeled.

A site visit was conducted on August 1, 2019 to identify and map land use categories and relevant noise model objects and to obtain existing noise measurements for representative locations. The map series in Attachment A illustrates locations of noise-sensitive receptors that

were modeled in the noise study. Existing noise sensitive land uses include residential neighborhoods that border existing major roads (3000 West, 700 South, and 4500 West) and Schneiter's Bluff Golf Course. Portions of two trails cross through the study area, the Syracuse Trail (Emigration Trail) and the SR-193 trail. These trails were considered transportation facilities and were not considered noise-sensitive land uses.

Traffic noise measurements were collected at six locations using a Quest Technologies 2900 sound level meter; locations are illustrated in Figure 5. Three sites were representative locations with existing traffic noise:

- Site 1 4500 West
- Site 3 700 South
- Site 6 3000 West

Noise measurements taken at these sites to assess the existing noise level near existing roads and to verify the traffic noise model.



Figure 5. Noise Measurement Sites

Measurements at three other sites (Sites 2, 4, and 5) were taken at locations where there are no existing roads and little or no existing traffic noise; measurements at these sites were taken to establish the ambient noise level.

Each noise measurement was taken for 20 minutes. For Sites 1, 3, and 6 where existing roads are present, traffic was classified and counted for the measurement duration at each site. Vehicles were classified as automobiles, medium-duty trucks, heavy-duty trucks, and motorcycles. An automobile was defined as a vehicle with two axles and four tires designed primarily to carry

passengers. Small vans and light trucks were included in this category. Medium-duty trucks included all cargo vehicles with two axles and six tires. Heavy-duty trucks included all vehicles with three or more axles. Operating speeds were also noted. Measurements were taken on August 1, 2019. Air temperature during measurements ranged from 84 to 89 degrees Fahrenheit with wind speed from 4 to 15 miles per hour. Noise measurement data sheets, site photos, and sound meter log reports are included as attachments to this report (Attachment B).

For the noise model, representations of study area noise model objects (buildings, terrain lines, roadways, noise-sensitive receptors) were created using aerial photography and CAD drawing objects (.dxf file) and then imported into TNM model runs for the project. Measured Leq(h) and traffic counts for existing roads were entered into TNM to verify that the model accurately predicted traffic noise based on the modeled objects and vehicle types, volumes, and speeds. Table 3 compares the measured and modeled noise levels for the noise model validation run. The measurement sites near existing roads (Sites 1, 3, and 6) returned modeled noise levels within 3.0 dBA of the field-measured noise level, indicating that the model provided accurate noise prediction for the study area.

Measurement Site	Address	Field-measured Leq(h) ^{a,b}	TNM-modeled Leq(h) ^{a,b}	Difference
1	530 S 4500 W, West Point Residence	56.0	53.9	- 2.1
3	Rock Creek Park, 3850 W 700 S	43.1	41.7	- 1.4
6	246 S 3000 W, Syracuse Residence	59.3	60.2	0.9

Table 3. Comparison of measured and modeled traffic noise.

^a Hourly equivalent sound level.

^b Measurement unit is decibels on the A-weighted scale (dBA).

Measurements at sites 2, 4, and 5 had field measured Leq(h) ambient noise between 41.9 to 43.3 dBA, which was a reasonably expected ambient noise level for a quiet, urban environment (see Figure 4) at locations that are remote from existing roads. FHWA guidance indicates that ambient noise measurements taken in the study area should be used to determine existing noise levels for projects on new alignment (FHWA 2011). Therefore, it was decided that the low end of the field measured range at these sites (42 dBA) would be used as the existing noise level for study area receptors that are not located along existing roads.

Existing and Future Noise Levels

Traffic volumes for modeling existing traffic noise were obtained from the project traffic study (Avenue Consultants 2019). Traffic volumes were based on peak hour 2018 volumes traveling at posted speed limits. Medium and heavy truck traffic proportions were based on UDOT Annual Average Daily Traffic information (UDOT 2019). Design year 2050 traffic volumes were based on Level of Service C volumes traveling at design speeds. Attachment C includes copies of the existing traffic volumes and design year Level of Service C volumes used.

Results of noise modeling for receptor locations are reported in Table 4. The locations of receptors are shown in the attached map series (Attachment A). Of 107 receptor locations modeled there were 68 with a substantial noise increase (10 dBA or greater increase over existing noise levels). The highest noise increase would be at Schneiter's Bluff Golf Course receptors that are closest to the interchange, Receptors 46 and 47), which have modeled noise increases of 24-25 dBA over the existing ambient condition. The average noise increase across the study area is approximately 12 dBA. Copies of noise model run output from TNM is included in Attachment D.

Receptor ^a	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ^b	Future Noise, 2050 ^b	Increase	Noise Impact?
1	226 S 4500 West	66	45	47	2	No
2	296 S 4500 West	66	42	48	6	No
3	314 S 4500 West	66	48	49	1	No
4	326 S 4500 West	66	49	50	1	No
5	295 S 4500 West	66	49	50	1	No
6	321 S 4500 West	66	48	50	2	No
7	530 S 4500 West	66	50	53	3	No
8	534 S 4500 West	66	42	51	9	No
9	538 S 4500 West	66	47	50	3	No
10	560 S 4500 West	66	50	51	1	No
11	572 S 4500 West	66	49	50	1	No
12	614 S 4500 West	66	50	51	1	No
13	638 S 4500 West	66	45	47	2	No
14	549 S SR-110	66	44	52	8	No
15	571 S 4500 West	66	42	49	7	No
16	4484 W 625 South	66	50	52	2	No
17	4468 W 625 South	66	45	49	4	No
18	4452 W 625 South	66	42	49	7	No
19	4436 W 625 South	66	42	49	7	No
20	4418 W 625 South	66	42	49	7	No
21	4402 W 625 South	66	42	49	7	No
22	4386 W 625 South	66	42	49	7	No
23	4370 W 625 South	66	42	49	7	No
24	4352 W 625 South	66	42	50	8	No
25	4336 W 625 South	66	42	50	8	No
26	4320 W 625 South	66	42	50	8	No
27	4302 W 625 South	66	42	50	8	No
28	4286 W 625 South	66	42	50	8	No
29	4268 W 625 South	66	42	51	9	No
30	4164 W 550 South	66	42	55	13	Yes
31	4140 W 550 South	66	42	55	13	Yes

Table 4. Modeled Existing and Future Noise Levels.

Receptor ^a	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ^b	Future Noise, 2050 ^b	Increase	Noise Impact?	
32	4116 W 550 South	66	42	55	13	Yes	
33	512 S 4100 West	66	42	56	14	Yes	
34	478 S 4100 West	66	42	59	17	Yes	
35	460 S 4100 West	66	42	63	21	Yes	
36	4076 W 475 South	66	42	65	23	Yes	
37	4040 W 475 South	66	42	65	23	Yes	
38	4018 W 475 South	66	42	60	18	Yes	
39	503 S 4100 West	66	42	56	14	Yes	
40	529 S 4100 West	66	42	55	13	Yes	
41	4048 W 550 South	66	42	55	13	Yes	
42	4045 W 475 South	66	42	56	14	Yes	
43	4020 W 550 South	66	42	56	14	Yes	
44	4051 W 550 South	66	42	52	10	Yes	
45	4023 W 550 South	66	42	53	11	Yes	
46	Golf Course - Hole 13 Tee	66	42	67	25	Yes	
47	Golf Course - Hole 12 Green	66	42	66	24	Yes	
48	Golf Course - Hole 7 Tee	66	42	64	22	Yes	
49	Golf Course - Hole 6 Green	66	42	62	20	Yes	
50	Golf Course - Hole 4 Tee	66	42	61	19	Yes	
51	Golf Course - Hole 3 Green	66	42	62	20	Yes	
52	3454 W 700 South	66	51	Relocation (Relocation (West Davis Corridor Project)		
53	3378 W 700 South	66	47	Relocation (West Davis C	Corridor Project)	
54	3370 W 700 South	66	47	Relocation (West Davis C	Corridor Project)	
55	696 S 3300 West	66	42	58	16	Yes	
56	674 S 3300 West	66	42	60	18	Yes	
57	662 S 3300 West	66	42	54	12	Yes	
58	3353 W 625 South	66	42	57	15	Yes	
59	622 S 3350 West	66	42	58	16	Yes	
60	618 S 3350 West	66	42	59	17	Yes	
61	592 S 3350 West	66	42	58	16	Yes	
62	564 S 3350 West	66	42	58	16	Yes	
63	542 S 3350 West	66	42	58	16	Yes	
64	536 S 3350 West	66	42	58	16	Yes	
65	524 S 3350 West	66	42	58	16	Yes	
66	506 S 3350 West	66	42	58	16	Yes	
67	498 S 3350 West	66	42	58	16	Yes	

Receptor ^a	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ^b	Future Noise, 2050 ^b	Increase	Noise Impact? °
68	482 S 3350 West	66	42	58	16	Yes
69	464 S 3350 West	66	42	58	16	Yes
70	458 S 3350 West	66	42	58	16	Yes
71	446 S 3350 West	66	42	58	16	Yes
72	436 S 3200 West	66	42	58	16	Yes
73	428 S 3350 West	66	42	58	16	Yes
74	416 S 3350 West	66	42	58	16	Yes
75	404 S 3350 West	66	42	58	16	Yes
76	396 S 3350 West	66	42	58	16	Yes
77	676 S 3275 West	66	42	57	15	Yes
78	693 S 3300 West	66	42	58	16	Yes
79	676 S 3275 West	66	42	57	15	Yes
80	681 S 3300 West	66	42	57	15	Yes
81	658 S 3275 West	66	42	56	14	Yes
82	667 S 3300 West	66	42	56	14	Yes
83	651 S 3300 West	66	42	56	14	Yes
84	642 S 3275 West	66	42	56	14	Yes
85	623 S 3300 West	66	42	56	14	Yes
86	611 S 3300 West	66	42	55	13	Yes
87	603 S 3300 West	66	42	54	12	Yes
88	608 S 3275 West	66	42	54	12	Yes
89	624 S 3300 West	66	42	53	11	Yes
90	583 S 3350 West	66	42	54	12	Yes
91	571 S 3350 West	66	42	53	11	Yes
92	539 S 3350 West	66	42	53	11	Yes
93	519 S 3350 West	66	42	53	11	Yes
94	501 S 3350 West	66	42	52	10	Yes
95	479 S 3350 West	66	42	52	10	Yes
96	449 S 3350 West	66	42	54	12	Yes
97	438 S 3200 West	66	42	53	11	Yes
98	431 S 3350 West	66	42	51	9	No
99	413 S 3350 West	66	42	52	10	Yes
100	290 S 3000 West	66	47	56	9	No
101	277 S 3000 West	66	53	59	6	No
102	270 S 3000 West	66	54	59	5	No
103	258 S 3000 West	66	56	64	8	No
104	246 S 3000 West	66	54	67	13	Yes
105	172 S 3000 West	66	54	65	11	Yes
106	136 S 3000 West	66	54	61	7	No

Receptor ^a	Description/ Location	Noise Abatement Criterion	Existing Noise, 2019 ^b	Future Noise, 2050 ^b	Increase	Noise Impact? ^c
107	112 S 3000 West	66	54	58	4	No
a Locations of recentors are illustrated in the Attachment A man series						

^a Locations of receptors are illustrated in the Attachment A map series.

^b Modeled Leq(h) for worst traffic hour (volume LOS C all roads); decibels on the A-weighted scale (dBA).

^c All impacts are associated with a substantial increase (10 dBA or greater increase over existing noise level); three receptors (46, 47, and 104) also have modeled future noise levels exceeding the Noise Abatement Criterion.

Abatement Considered

Potential methods of abating traffic noise impacts include traffic management (speed reduction or restriction of heavy truck traffic), noise insulation (building interiors), and noise barriers (berms or noise walls). Speed reductions and restriction of truck traffic would not be practicable or consistent with the intended transportation functions of the study area roadways. No sensitive interior land uses are present in the study area, so noise insulation is also not a practicable mitigation measure for this project. Therefore, preliminary noise barrier (noise wall) modeling was performed for the study area impacted receptors.

As a general design rule for a traffic noise wall, it should be continuous along the roadway adjacent to the impacted site or sites. Openings for pedestrian or vehicular access greatly reduce the ability of a wall to reduce noise levels. For safety purposes, a wall that is located along an urban non-access-controlled roadway should not be taller than the distance from the back of curb to the face of the proposed wall. Five noise walls were evaluated for the SR-193 project, these are illustrated in the Attachment A map series.

Feasibility and reasonableness design criteria for evaluating noise walls are described in the UDOT Noise Abatement Policy (UDOT 2017), Attachment E. In general, if noise modeling determines that a noise wall would be feasible from an engineering and safety standpoint and the wall would meet acoustic feasibility and acoustic design goals, then the wall is recommended for balloting during the project final design phase to determine if noise abatement is desired by property owners and residents.

Wall 1

The conceptual design for Wall 1 extended westward from Cold Springs Road for a length of approximately 1,500 feet along the south side of the SR-193 alignment; the location of the wall is illustrated in Map 1 of Attachment A. The wall would potentially provide abatement to 16 existing and permitted residential properties located west of Cold Springs Road and south of the SR-193 alignment. Following the UDOT Noise Abatement Policy, the maximum safe height for this wall would be 9-feet because this segment of SR-193 would not be access controlled and this would be the distance from the back of the curb to the face of the wall.

Three wall heights (7, 8, and 9 feet) were modeled with noise reduction results summarized in Table 5. Wall heights of 8 or 9 feet would meet the acoustic feasibility criterion of providing at least a 5 dBA reduction for 50 percent of front row receptors. However, none of the wall heights

would meet the reasonableness design goal of providing a 7 dBA or greater reduction for at least 35 percent of front-row receptors. Therefore, Wall 1 was not recommended for balloting.

Receptor	Receptors ^a	Noise Reduction ^b with Barrier Height in Feet			
Receptor	Receptors	7	8	9	
30	4164 W 550 South (Front Row)	- 2	- 3	- 3	
31	4140 W 550 South (Front Row)	- 3	- 3	- 3	
35	460 S 4100 West (Front Row)	- 5	- 5	- 6	
36	4076 W 475 South (Front Row)	- 5	- 5	- 6	
37	4040 W 475 South (Front Row)	- 5	- 5	- 6	
32	4116 W 550 South	- 2	- 2	- 2	
33	512 S 4100 West	- 2	- 3	- 3	
34	478 S 4100 West	- 4	- 4	- 4	
38	4018 W 475 South	- 1	- 2	- 2	
39	503 S 4100 West	- 1	– 1	- 1	
40	40 529 S 4100 West		– 1	- 1	
41	4048 W 550 South	– 1	– 1	– 1	
42	4045 W 475 South	- 1	– 1	- 1	
43	4020 W 550 South	– 1	– 1	– 1	
44	4051 W 550 South	- 1	– 1	- 1	
45	4023 W 550 South	- 0	- 0	- 0	
Potentially ber	nefitted receptors, number ^e	16	16	16	
Potentially ber	Potentially benefitted front row receptors, number		5	5	
Front row receptors with 5 dBA or greater reduction, %		60.0	60.0	60.0	
Front row receptors with 7 dBA or greater reduction, %		0.0	0.0	0.0	
Meets acoustic	Meets acoustic feasibility goal? c		Yes	Yes	
Meets reasona	bleness design goal? ^d	No	No	No	

Table 5. Wall 1 Analysis.

^a Locations of receptors are indicated in the Attachment A map series.

^b Modeled noise reduction in decibels on the A-weighted scale (dBA).

^c A 5 dBA reduction for at least 50 percent of front-row receptors (acoustic feasibility)

^d A 7 dBA or greater reduction for at least 35 percent of front-row receptors (reasonableness design goal).

^e A benefitted receptor is any receptor that receives a noise reduction of at least 5 dBA.

Wall 2

Two segments of Wall 2 were modeled to determine if 6 impacted receptor locations at Schneiter's Bluff Golf Course could be mitigated. Locations of the wall segments are illustrated in Map 2 of Attachment A. The wall segments are separated because as part of constructing the interchange with West Davis Corridor, a segment of the Layton Aqueduct would be rerouted between the interchange and the golf course. The aqueduct is located on a right-of-way managed by the U.S. Bureau of Reclamation (Reclamation). UDOT has coordinated with Reclamation for both the West Davis Corridor and SR-193 projects. Reclamation indicated that they would not permit a noise wall to be constructed over the aqueduct or within the right-of-way for the aqueduct because access must be unimpeded for maintenance.

Results of noise wall modeling for Wall 2 (including Segments A and B) are summarized in Table 6. Wall heights of 16, 18, and 20 feet were modeled. None of the modeled wall heights met the acoustic feasibility or reasonableness design goals. Therefore, Wall 2 was not recommended for balloting.

Receptor	Receptors ^a	Noise Reduction ^b with Barrier Height in Feet			
		16	18	20	
46	Golf Course - Hole 13 Tee	- 2	- 3	- 3	
47	Golf Course - Hole 12 Green	– 1	- 1	– 1	
48	Golf Course - Hole 7 Tee	- 1	– 1	– 1	
49	Golf Course - Hole 6 Green	– 1	– 1	– 1	
50	Golf Course - Hole 4 Tee	- 1	- 2	- 2	
51	Golf Course - Hole 3 Green	- 2	- 2	- 3	
Potentially ben	efitted receptors, number e	6	6	6	
Potentially ben	efitted front row receptors, number	6	6	6	
Front row rece	ptors with 5 dBA or greater reduction, %	0.0	0.0	0.0	
Front row rece	ptors with 7 dBA or greater reduction, %	0.0	0.0	0.0	
Meets acoustic	feasibility goal? ^c	No	No	No	
Meets reasona	bleness design goal? ^d	No	No	No	

Table 6. Wall 2 Analysis.

^a Locations of receptors are indicated in the Attachment A map series.

^b Modeled noise reduction in decibels on the A-weighted scale (dBA).

^c A 5 dBA reduction for at least 50 percent of front-row receptors (acoustic feasibility)

^d A 7 dBA or greater reduction for at least 35 percent of front-row receptors (reasonableness design goal).

^e A benefitted receptor is any receptor that receives a noise reduction of at least 5 dBA.

Wall 3

For the same reason as stated for Wall 2, Wall 3 was modeled in two segments, separated by the Layton Aqueduct right-of-way. Locations of the Wall 3 segments are illustrated on Map 3 in Attachment A. The Wall 3 segments would potentially benefit impacted residential receptors located along 3350 West and along 700 South. Wall heights of 16, 18, and 20 feet were modeled. Portions of Wall 3 would be located on a bridge structure over 700 South. The maximum allowable height of a noise wall on structure (UDOT Noise Abatement Policy) is 10-feet. The portion of Wall 3 (Segment A) over the structure was limited to 10-feet high in the noise model.

Results of noise modeling for the wall segments are summarized in Table 7. Modeled noise walls would meet the acoustic feasibility goal but not the reasonableness design goal. Therefore, Wall 3 was not recommended for balloting.

Wall 4

The conceptual design of Wall 4 was developed for an impacted residential receptor located along 3000 West to the south of the SR-193 alignment. The location is illustrated on Map 3 (Attachment A). The wall length is approximately 273 feet. Wall heights of 8, 10, and 12-feet were modeled; all of these met the acoustic feasibility goal, providing a 5 dBA or greater reduction for 100 percent of the front-row receptors (Receptor 104), with results reported in Table 8 (in this case, there is only one front-row receptor).

In the modeling, it was determined that a combination of a 10-foot wall for approximately 170 feet and then reducing to an 8-foot wall for an additional 100 feet would be sufficient for meeting the 7 dBA reduction or greater for the front-row receptor, with modeling results for this combination (average wall height 9 feet reported in the middle column of Table 8). Because this wall would meet the reasonableness design goal, the cost estimate was calculated (also calculated for the 12-foot wall). However, the wall would not meet the cost-effectiveness criterion in the UDOT Noise Abatement Policy because only one receptor would receive a 5 dBA or greater noise reduction from the wall. Therefore, the cost of the wall would exceed the cost effectiveness criterion of \$30,000 or less per benefited receptor. In conclusion, Wall 4 would be acoustically feasible and acoustically reasonable, but not cost reasonable, and was therefore not recommended for balloting.

Receptor	Receptors ^a	Noise Reduction ^b with Barrier Height in Feet				
Receptor	Receptors	16	18	20		
55	696 S 3300 West (front row)	- 2	- 2	- 2		
56	674 S 3300 West (front row)	- 2	- 3	- 3		
57	662 S 3300 West (front row)	- 3	- 3	- 3		
58	3353 W 625 South (front row)	- 5	- 5	- 5		
59	622 S 3350 West (front row)	- 4	- 4	- 4		
60	618 S 3350 West (front row)	- 3	- 3	- 4		
61	592 S 3350 West (front row)	- 4	- 4	- 5		
62	564 S 3350 West (front row)	- 5	- 5	- 5		
63	542 S 3350 West (front row)	- 4	- 5	- 5		
64	536 S 3350 West (front row)	- 5	- 5	- 5		
65	524 S 3350 West (front row)	- 5	- 5	- 6		
66	506 S 3350 West (front row)	- 5	- 6	- 6		
67	498 S 3350 West (front row)	- 5	- 6	- 6		
68	482 S 3350 West (front row)	- 5	- 6	- 6		
69	464 S 3350 West (front row)	- 5	- 6	- 6		
70	458 S 3350 West (front row)	- 5	- 6	- 7		
71	446 S 3350 West (front row)	- 5	- 6	- 6		
72	436 S 3200 West (front row)	- 5	- 6	- 6		
73	428 S 3350 West (front row)	- 6	- 6	- 7		
74	416 S 3350 West (front row)	- 6	- 6	- 7		
75	404 S 3350 West (front row)	- 6	- 6	- 6		
76	396 S 3350 West (front row)	- 5	- 6	- 6		
Potentially ben	efitted front row receptors, number ^e	22	22	22		
Front row rece	otors with 5 dBA or greater reduction, %	68.0	72.7	77.2		
ront row rece	otors with 7 dBA or greater reduction, %	0.0	0.0	13.6		
leets acoustic	feasibility goal? ^c	Yes	Yes	Yes		
leets reasonal	bleness design goal? ^d	No	No	No		

Table 7. Wall 3 Analysis.

^a Locations of receptors are indicated in the Attachment A map series.

^b Modeled noise reduction in decibels on the A-weighted scale (dBA).

^c A 5 dBA reduction for at least 50 percent of front-row receptors (acoustic feasibility)

^d A 7 dBA or greater reduction for at least 35 percent of front-row receptors (reasonableness design goal).

^e A benefitted receptor is any receptor that receives a noise reduction of at least 5 dBA.

Receptor	Receptors ^a	Noise Reduction ^b with Average Barrier Height in Feet				
Receptor		8	9	12		
104	246 S 3000 West (front row)	- 6	- 7	- 8		
103	258 S 3000 West	- 3	- 3	- 4		
102	270 S 3000 West	- 1	– 1	- 1		
100	290 S 3000 West	– 1	- 1	– 1		
Potentially benefitted receptors, number e		4	4	4		
Potentially benefitted front row receptors, number		1	1	1		
Front row receptors with 5 dBA or greater reduction, %		100.0	100.0	100.0		
Front row recept	otors with 7 dBA or greater reduction, %	0.0	100.0	100.0		
Meets acoustic	feasibility goal? ^c	Yes	Yes	Yes		
Meets reasonal	leness design goal? ^d	No	Yes	Yes		
Wall length, fee	et		273	273		
Wall surface area, square feet			2,530	3,279		
Total cost, \$20 per square foot			\$50,600	\$65,580		
Cost per benefi	tted receptor ^e		\$50,600	\$65,580		
Cost effective?			No	No		

Table 8. Wall 4 Analysis.

^a Locations of receptors are indicated in the Attachment A map series.

^b Modeled noise reduction in decibels on the A-weighted scale (dBA).

^c A 5 dBA reduction for at least 50 percent of front-row receptors (acoustic feasibility)

^d A 7 dBA or greater reduction for at least 35 percent of front-row receptors (reasonableness design goal).

^e A benefitted receptor is any receptor that receives a noise reduction of at least 5 dBA.

Wall 5

Wall 5 was modeled for impacted receptors located north of the SR-193 alignment near 3000 West. This included one front-row residence and two other residences along 300 West. The location of Wall 7 is shown on Map 3 in Attachment A. The wall is approximately 1,620 feet in length. Wall heights of 8, 10, and 12 feet were modeled with results summarized in Table 9. None of these walls would meet the acoustic feasibility goal; therefore, this wall was determined to be not feasible and was not recommended for balloting.

Receptor	Receptors ^a		Feet	
·	·	8	10	12
105	172 S 3000 West (front row)	- 2	- 2	- 3
106	136 S 3000 West	– 1	– 1	– 1
107	112 S 3000 West	- 0	- 0	- 0
Potentially benefitted receptors, number e		3	3	3
Potentially bene	fitted front row receptors, number	1	1	1
Front row recep	otors with 5 dBA or greater reduction, %	0.0	0.0	0.0
Front row receptors with 7 dBA or greater reduction, %		0.0	0.0	0.0
Meets acoustic feasibility goal? ^c		Yes	Yes	Yes
Meets reasonableness design goal? ^d		No	No	No

Table 9. Wall 5 Analysis.

^a Locations of receptors are indicated in the Attachment A map series.

^b Modeled noise reduction in decibels on the A-weighted scale (dBA).

^c A 5 dBA reduction for at least 50 percent of front-row receptors (acoustic feasibility)

^d A 7 dBA or greater reduction for at least 35 percent of front-row receptors (reasonableness design goal).

^e A benefitted receptor is any receptor that receives a noise reduction of at least 5 dBA.

Construction Noise

Land uses that are sensitive to traffic noise are also sensitive to construction noise. Methods of controlling construction noise include establishing the hours that construction equipment can be operated and permissible sound levels at those times. In order to consistently address construction traffic noise for noise-sensitive land uses, UDOT has developed Supplemental Specifications that include requirements related to construction noise and nighttime construction work (Supplemental Specification 00555, UDOT 2017 Standards and Specifications). The contractor selected for the project would be required to conform to this specification.

Local Planning and Future Noise Levels

Federal noise abatement regulations require providing information for local officials regarding potential avoidance of future traffic noise impacts for currently undeveloped lands (23 CFR 772.17). The current project is located in a rapidly developing portion of Davis County.

Based on noise contours generated in the noise modeling that includes the West Davis Corridor interchange and SR-193, the 66 dBA NAC level (land use activity categories B and C) would be exceeded within approximately 50 to 100 feet from the edge of pavement east of West Davis Corridor. With the lower traffic volume and speed to the west of West Davis Corridor, the range is closer to the edge of pavement, with the 66 dBA NAC level exceeded within 25 to 75 feet.

This information is intended to provide a general guide for future planning but does not account for variable influences of terrain, ground cover type, and intervening structures at various locations that can partially dissipate traffic noise at specific locations.

Conclusions

Noise-sensitive receptors in the SR-193 study area include residences and portions of Schneiter's Bluff Golf Course. The new segment of SR-193 would pass through currently undeveloped lands where the ambient noise level is a Leq(h) of approximately 42 dBA. Construction of SR-193 and the interchange with the future West Davis Corridor and accompanying design year traffic volumes would increase ambient noise by as much as 25 dBA for the closest receptors to the edge of pavement. The average increase would be about 12 dBA.

Five noise walls were modeled; however, none met the feasibility and reasonableness criteria and none were recommended for balloting. Short-term construction noise impacts would be minimized by requiring the construction contractor to follow UDOT Standard Specifications for noise control.

References

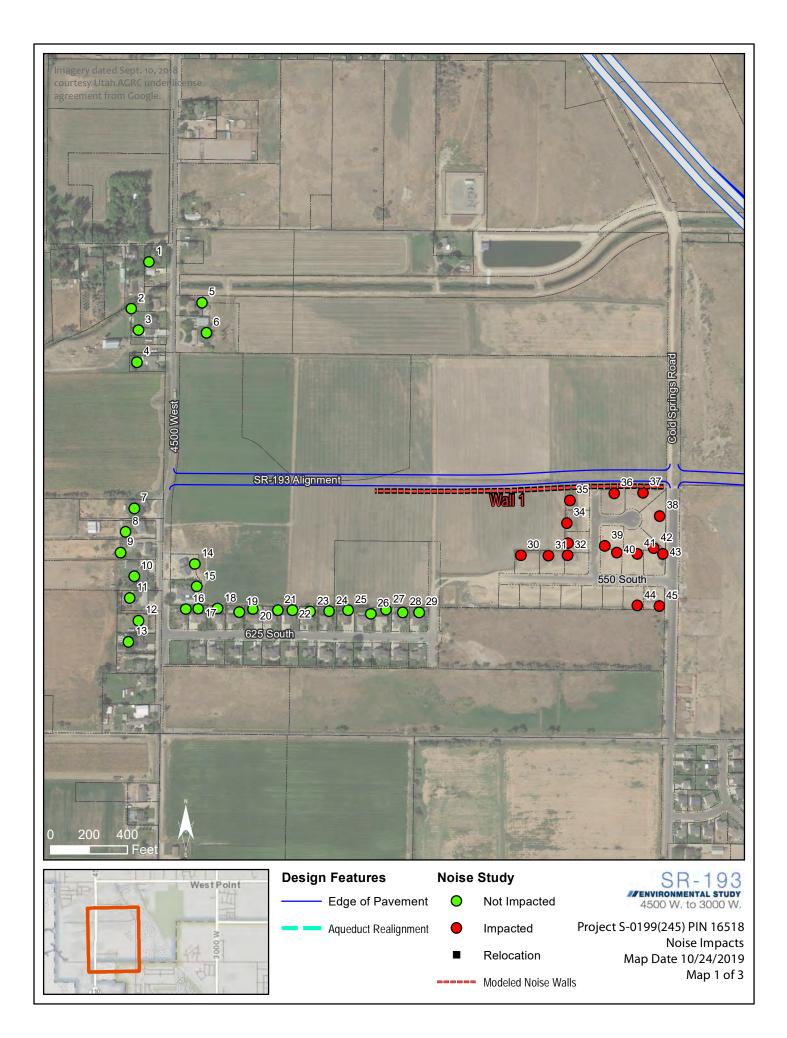
- Avenue Consultants. 2019. SR-193 State Environmental Study 2018 Existing and 2050 No Action Traffic Analysis. Memorandum dated July 20, 2019.
- [Caltrans] California Department of Transportation. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. California Department of Transportation, Division of Environmental Analysis, September.

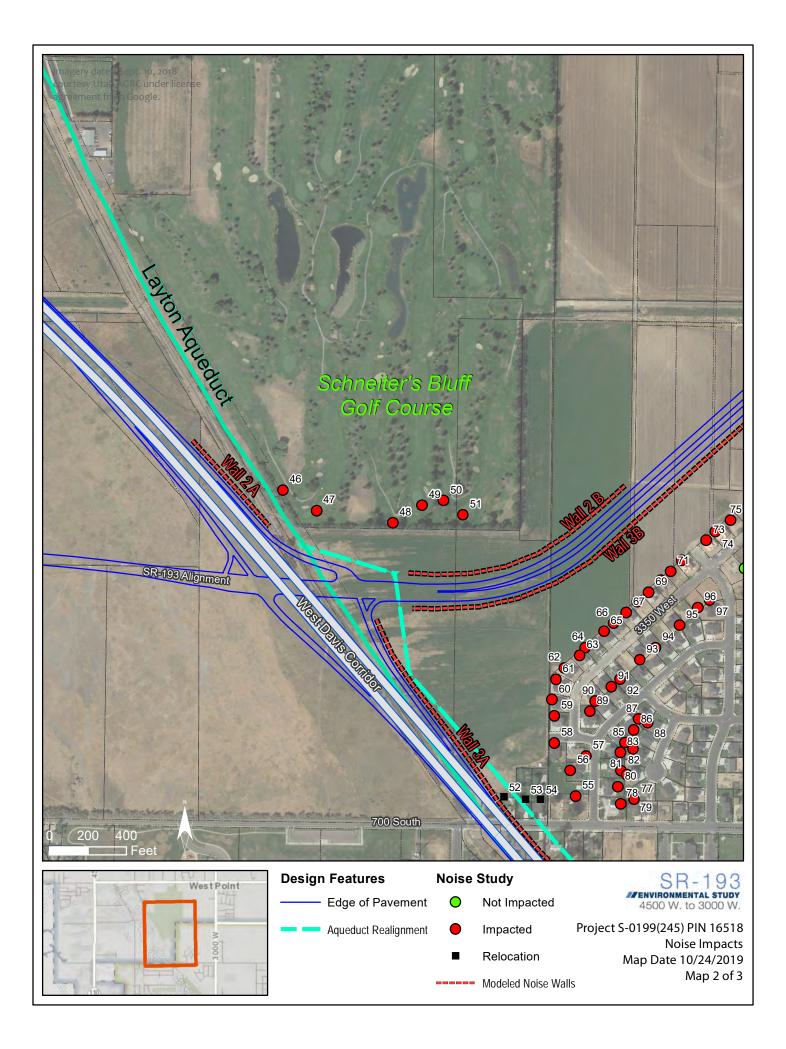
[FHWA] U.S. Department of Transportation, Federal Highway Administration. 2018. Highway Traffic Noise Analysis and Abatement Policy and Guidance: Noise Fundamentals. Location: <u>https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/ polguide02.cfm</u>. Accessed: 3/1/18.

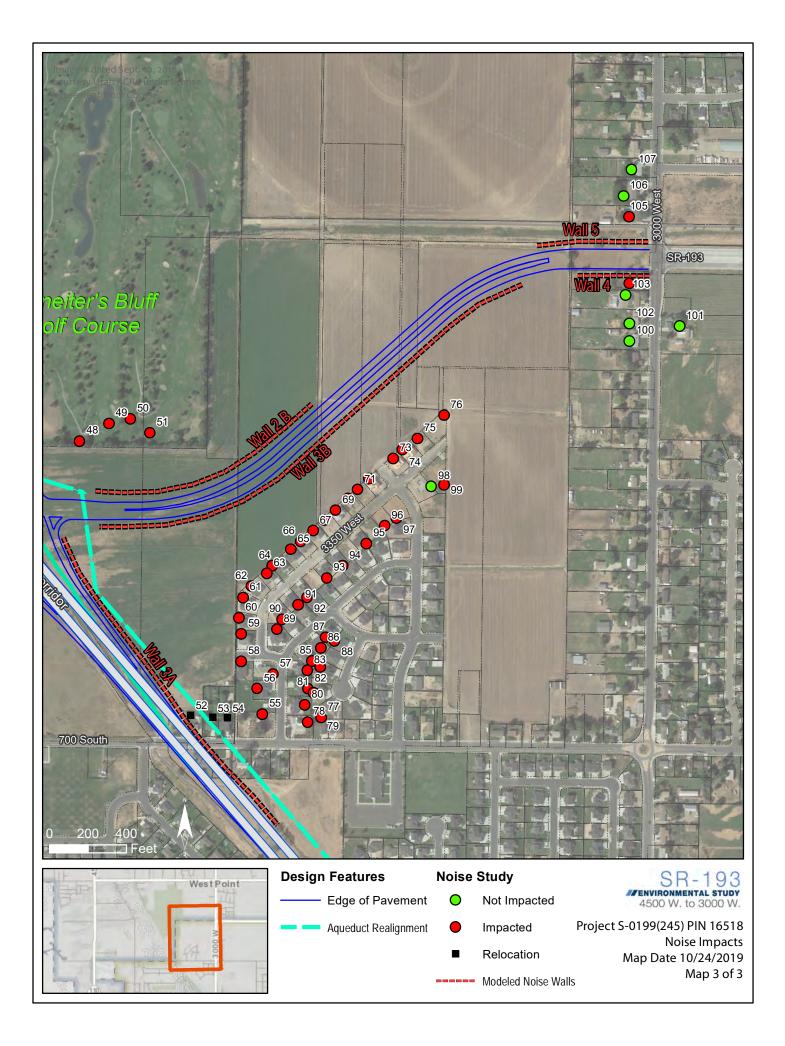
- [FHWA] U.S. Department of Transportation, Federal Highway Administration. 2011. Highway Traffic Noise: Analysis and Abatement Guidance. Publication FHWA-HEP-10-025.
- [UDOT] Utah Department of Transportation. 2019. Traffic Maps AADT. Location: <u>https://www.udot.utah.gov/main/f?p=100:pg:0::::V,T:,528</u>. Accessed: 8/28/19.
- [UDOT] Utah Department of Transportation. 2017. Noise Abatement Policy. UDOT Policy 08A2-01, Revised June 15, 2017. Location: <u>http://www.udot.utah.gov/main/uconowner.gf?n=10496602977480171</u>. Accessed: 3/1/18.

Attachment A

Map Series







Attachment B

Noise Measurement Data Sheets,

Site Photos, and Sound Meter Data Logs

TRAFFIC NOISE DATA	MEASUREN SHEET	IENT	BIO-WEST www.blo-west.com
Project SR 193			435.752.4202 Date: 第一1一2019
Project: <u>SR 193</u> Technician: <u>S. Keen</u>	an		Date: <u>۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ </u>
Site Description:	» S. 450	50 M.	
Response Setting: \Box Set the Frequency Weighting: \Box Set the Frequency Weighting: \Box Set the Frequency Weighting: \Box Set the	So Slow (typica Set to A-weigh Hur Clou Clou End LEQ(h	nlly) nted Sound Wea nidity: <u>ZS</u> uds: <u>Cloa</u>	Range Setting: Low: <u>40</u> dBA; High: <u>10</u> dBA
Major Sources: <u>Traff</u> Background Noise: <u>No</u> Unusual Events: <u>No</u> Other Notes:	ne		
			affic
Road	45005	•	
Direction of Travel	/V 45	·lke	
Traffic Speed		75	- · · · · · · · · · · · · · · · · · · ·
Autos Medium Trucks	48	32	
Heavy Trucks	5	<u>ථ</u> ව	
Motorcycles	0	0	
			Sketch
4500 EN	s. Meter 53 ft. from edge ft paven		530 S. 4550 M



Site 1. Looking West



Site 1. Looking East

STUDY 6 Notes

Measuring Parameters: Range 40-100dB А Weighting Time Constant SLOW Threshold OFF Exchange Rate 3dB Peak Weighting А Session Started Session Stopped **Run Time** 01-AUG-19 @ 16:16:38 01-AUG-19 @ 16:36:39 0:20:00 Peak Level 86.1dB 01-AUG-19 @ 16:20:16 Max Level 73.0dB 01-AUG-19 @ 16:20:16 Min Level 34.4dB 01-AUG-19 @ 16:34:02 Overload 0.00% 56.0dB SEL(3) 86.8dB TWA LEQ 42.3dB TAKM5 59.4dB LDN 56.0dB CNEL 56.0dB Pa2Sec 0.1 L5 46.7dB L90 38.1dB 62.8dB L10 60.3dB L50 LOGGING (30 SEC) LEQ LMAX LPK L10 L90 Study 6 16:17:08 55.8dB 66.0dB 83.9dB 61.5dB 37.9dB 16:17:38 52.8dB 62.2dB 78.3dB 58.6dB 41.3dB 16:18:08 51.8dB 60.5dB 75.3dB 56.2dB 38.5dB 16:18:38 38.0dB 39.8dB 69.0dB 38.9dB 37.6dB 53.3dB 61.0dB 75.5dB 58.4dB 38.6dB 16:19:08 16:19:38 58.0dB 63.2dB 79.0dB 62.1dB 45.7dB 58.9dB 66.2dB 80.5dB 63.9dB 46.9dB 16:20:08 16:20:38 64.2dB 73.0dB 86.1dB 70.6dB 41.3dB 39.8dB 43.6dB 62.8dB 43.1dB 37.2dB 16:21:08 58.9dB 72.0dB 55.5dB 37.2dB 16:21:38 49.6dB 16:22:08 50.4dB 59.4dB 74.2dB 56.1dB 38.5dB 16:22:38 46.1dB 54.7dB 65.2dB 51.2dB 37.6dB 16:23:08 60.4dB 67.0dB 81.6dB 65.8dB 50.3dB 16:23:38 58.3dB 63.0dB 76.7dB 61.5dB 45.1dB 16:24:08 53.9dB 59.7dB 74.8dB 57.9dB 43.6dB 51.5dB 59.5dB 72.5dB 56.2dB 41.9dB 16:24:38 16:25:08 59.3dB 67.7dB 82.8dB 63.8dB 46.3dB 16:25:38 58.1dB 64.2dB 80.1dB 63.1dB 46.5dB 40.5dB 45.8dB 62.8dB 44.0dB 38.7dB 16:26:08 16:26:38 43.3dB 51.2dB 65.3dB 44.7dB 40.4dB 16:27:08 58.7dB 66.1dB 84.8dB 64.2dB 47.6dB 16:27:38 44.7dB 51.9dB 64.1dB 48.8dB 38.5dB 16:28:08 58.1dB 63.0dB 77.8dB 61.5dB 41.7dB 54.8dB 63.9dB 82.2dB 59.5dB 43.4dB 16:28:38

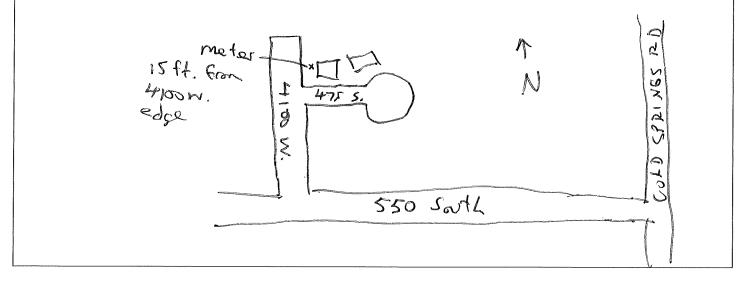
46.00.00					
16:29:08	54.4dB	60.6dB	82.5dB	59.6dB	41.5dB
16:29:38	57.4dB	66.6dB	80.5dB	63.2dB	43.6dB
16:30:08	50.5dB	59.9dB	77.9dB	56.4dB	39.5dB
16:30:38	53.8dB	61.7dB	75.7dB	60.1dB	40.1dB
16:31:08	60.7dB	68.7dB	84.7dB	65.6dB	44.3dB
16:31:38	54.0dB	64.3dB	77.9dB	60.1dB	38.5dB
16:32:08	59.5dB	69.3dB	84.0dB	64.8dB	42.5dB
16:32:38	41.6dB	44.8dB	62.2dB	43.7dB	39.4dB
16:33:08	55.2dB	62.8dB	76.2dB	59.9dB	38.7dB
16:33:38	60.2dB	64.8dB	81.8dB	63.2dB	49.1dB
16:34:08	49.5dB	61.8dB	69.8dB	53.4dB	35.1dB
16:34:38	53.2dB	60.1dB	75.7dB	58.7dB	37.0dB
16:35:08	40.0dB	45.3dB	68.2dB	42.1dB	37.9dB
16:35:38	52.0dB	58.0dB	74.0dB	56.8dB	40.3dB
16:36:08	48.0dB	57.7dB	71.0dB	53.9dB	36.4dB
16:36:38	49.9dB	59.2dB	80.7dB	56.0dB	36.7dB

TRAFFIC NOISE MEASUREMENT

DATA SHEET	BIO-WEST www.blo-west.com 435.752.4202				
Project: <u>SR - 193</u>			Dat	te: <u>8 -1 ~</u>	2019
Project: <u>SR - 193</u> Technician: <u>S. Kesnan</u> Site Description: <u>463 S.</u>	4100 W.		Site	e Number:	2
Equipr Meter: 9 2900 #1 Battery Check: Bosponso Sotting: \Stat to Slow (1)	nent Check (First	and Last Me Ca	asurement) librator:		
Battery Check:		Cali	bration: First	measurement	t:dB
Response setting: Deset to slow (spically)		Last	measuremen	r:ar
Frequency Weighting: 🖄 Set to A-v	veighted Sound	Range Setti	ng: Low:	dBA; Hig	h: <u> </u>
Temp:68 ⁵⁵ Wind (MPH/Dir):	Wea Humidity: Clouds:	ther	Pressur	'e:	
Start Time: <u>3.32 PM</u> Meter Event Number: <u>5</u> Major Sources: <u>A guiet sep</u> Background Noise: <u>None</u> Unusual Events: <u>None</u>	st today	LMin_3	Duratio		
Other Notes:					
	Traf	fic			
Road 41	5 W	475	south		
Direction of Travel \mathcal{N}	S	E	W		

Direction of Travel	N	5	E	W	
Traffic Speed	2Š	52	25	52	
Autos	1	١	Ô	0	
Medium Trucks					
Heavy Trucks					
Motorcycles					

Site Sketch





Site 2. Looking East



Site 2. Looking South

STUDY 5 Notes

Measuring Parameters: Range 30- 90dB Weighting А Time Constant SLOW Threshold OFF Exchange Rate 3dB Peak Weighting А Session Started Session Stopped **Run Time** 01-AUG-19 @ 15:32:40 01-AUG-19 @ 15:52:40 0:20:00 Peak Level 73.2dB 01-AUG-19 @ 15:33:35 Max Level 59.0dB 01-AUG-19 @ 15:39:28 Min Level 31.8dB 01-AUG-19 @ 15:46:06 Overload 0.00% LEQ 41.9dB SEL(3) 72.7dB TWA 28.1dB TAKM5 43.6dB 41.9dB CNEL 41.9dB Pa2Sec 0.0 LDN L5 47.4dB L10 42.0dB L50 36.1dB L90 33.3dB LOGGING (30 SEC) LEQ LMAX LPK L10 L90 Study 5 15:33:10 38.8dB 44.1dB 70.2dB 41.4dB 35.9dB 15:33:40 38.1dB 45.7dB 73.2dB 40.3dB 35.3dB OL 15:34:10 37.5dB 43.5dB 69.8dB 39.0dB 35.4dB 15:34:40 36.5dB 41.2dB 66.3dB 38.7dB 34.7dB 37.0dB 39.5dB 63.4dB 38.4dB 35.3dB 15:35:10 15:35:40 37.9dB 40.4dB 62.7dB 39.1dB 36.9dB 41.8dB 46.6dB 63.4dB 43.6dB 38.8dB 15:36:10 15:36:40 37.2dB 41.2dB 57.4dB 38.9dB 35.1dB 35.6dB 36.8dB 54.6dB 36.3dB 34.5dB 15:37:10 36.2dB 37.5dB 62.1dB 37.2dB 34.9dB 15:37:40 15:38:10 37.8dB 39.9dB 65.2dB 38.9dB 36.3dB 15:38:40 41.3dB 47.7dB 60.4dB 45.1dB 37.2dB 15:39:10 51.0dB 57.1dB 71.4dB 54.0dB 46.1dB 15:39:40 54.3dB 59.0dB 72.4dB 58.0dB 48.5dB 15:40:10 45.0dB 51.1dB 64.5dB 49.3dB 40.0dB 41.8dB 45.1dB 63.7dB 43.1dB 40.5dB 15:40:40 39.6dB 42.6dB 57.9dB 41.9dB 37.5dB 15:41:10 15:41:40 34.3dB 37.4dB 52.4dB 35.9dB 33.3dB 15:42:10 33.5dB 36.0dB 54.4dB 34.1dB 32.9dB 15:42:40 33.9dB 36.5dB 53.4dB 35.4dB 32.6dB 35.9dB 44.4dB 65.6dB 15:43:10 38.8dB 33.0dB 15:43:40 35.2dB 37.4dB 53.8dB 36.7dB 33.5dB 15:44:10 37.7dB 41.1dB 58.2dB 38.9dB 36.3dB 36.3dB 38.2dB 64.2dB 37.7dB 35.1dB 15:44:40

15:45:10	36.4dB	42.8dB	71.0dB	37.9dB	34.6dB
15.45.10	50.4UD	42.0UD	71.0UB	57.9UD	54.0UD
15:45:40	35.1dB	39.0dB	67.8dB	36.3dB	34.1dB
15:46:10	33.1dB	34.1dB	51.6dB	33.8dB	32.2dB
15:46:40	34.4dB	36.3dB	54.3dB	35.3dB	32.9dB
15:47:10	34.7dB	36.8dB	54.4dB	35.8dB	33.8dB
15:47:40	35.4dB	37.7dB	56.6dB	36.6dB	34.0dB
15:48:10	35.9dB	39.6dB	68.7dB	38.0dB	34.1dB
15:48:40	37.6dB	42.8dB	72.3dB	39.1dB	35.8dB
15:49:10	34.5dB	38.5dB	56.0dB	36.7dB	33.3dB
15:49:40	33.7dB	35.9dB	53.9dB	35.1dB	32.5dB
15:50:10	34.4dB	37.5dB	56.9dB	36.0dB	32.9dB
15:50:40	33.2dB	34.1dB	55.2dB	33.7dB	32.7dB
15:51:10	38.3dB	44.9dB	60.4dB	42.1dB	34.5dB
15:51:40	39.4dB	45.3dB	62.2dB	42.1dB	36.2dB
15:52:10	36.4dB	39.5dB	56.0dB	38.4dB	33.8dB
15:52:40	36.5dB	42.5dB	59.7dB	37.1dB	34.8dB

TRAFFIC NOISEDATAProject: $SP - 193$ Technician: $S \cdot K = 193$ Technician: $S \cdot K = 193$ Site Description: $Fork$	SHEET			www.bio-w 435.752		2019
Site Description: <u><u><u>kock</u></u></u>	Ripels Par	K				
Meter: <u>Quest</u> 290 Battery Check: <u></u> Response Setting: D Set to Frequency Weighting: D S	っ Slow (typicall	y) .		brator: ration: First m Last m	easurement: easurement:	dB dB
Temp: Wind (MPH/Dir):/	Humi	We a idity: ds:	ther	Pressure:		
Start Time: <u>3:049</u> Meter Event Number: <u>4</u> Major Sources: Background Noise: Unusual Events: Other Notes:	End T LEQ(h)	ime: <u>3</u> : : <u>43 . 1</u> dB/		Duration: <u>3,7</u> dBA	: <u>20 min</u> LMax: <u>60</u>	<u> </u>
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Direction of Travel	Ē	\mathcal{N}	<u>N</u>	2	Ģ	W
Traffic Speed	35	35	25	25	25	25
Autos	16 2	· · · · · · · · · · · · · · · · · · ·	15	27	*	6.
Medium Trucks Heavy Trucks	<u> </u>	7	0	2	0	0
Motorcycles	Z		\bigcirc		6)
		Site S	ketch	/	· · ·	
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M . L	Po	king		152 fact X meter	Andrews	
	Roe	kiciae to	Park 8005			
Landon and Carlos			<u> </u>		•	4 1



Site 3. Looking Southeast



Site 3. Looking North

STUDY 4 Notes

Measuring Parameters: Range 30- 90dB Weighting А Time Constant SLOW Threshold OFF Exchange Rate 3dB Peak Weighting А Session Started Session Stopped **Run Time** 01-AUG-19 @ 15:01:49 01-AUG-19 @ 15:21:49 0:20:00 Peak Level 82.2dB 01-AUG-19 @ 15:16:39 Max Level 60.6dB 01-AUG-19 @ 15:16:38 Min Level 33.7dB 01-AUG-19 @ 15:03:22 Overload 0.01% LEQ 43.1dB SEL(3) 73.9dB TWA 29.3dB TAKM5 45.9dB 43.1dB CNEL 43.1dB Pa2Sec 0.0 LDN L5 40.3dB L90 36.1dB 48.5dB L10 46.2dB L50 LOGGING (30 SEC) LEQ LMAX LPK L10 L90 Study 4 15:02:19 36.5dB 41.4dB 66.8dB 38.3dB 34.9dB 15:02:49 36.2dB 37.3dB 58.4dB 36.9dB 35.6dB 15:03:19 34.9dB 36.2dB 56.5dB 35.6dB 34.5dB 15:03:49 35.5dB 42.1dB 57.0dB 36.6dB 34.2dB 41.4dB 48.0dB 71.5dB 45.9dB 36.3dB 15:04:19 15:04:49 39.0dB 46.0dB 57.5dB 41.9dB 36.1dB 37.4dB 41.4dB 67.7dB 39.5dB 35.9dB 15:05:19 15:05:49 45.1dB 48.4dB 65.8dB 47.6dB 41.3dB 15:06:19 38.5dB 41.7dB 72.7dB 40.1dB 36.9dB 37.0dB 41.6dB 60.1dB 38.8dB 35.5dB 15:06:49 15:07:19 42.7dB 47.7dB 61.7dB 46.3dB 37.5dB 15:07:49 40.8dB 44.6dB 61.0dB 43.2dB 36.8dB 15:08:19 41.0dB 44.6dB 60.7dB 42.9dB 37.4dB OL 48.8dB 56.0dB 71.6dB 52.8dB 41.7dB 15:08:49 15:09:19 39.2dB 42.1dB 58.0dB 41.4dB 37.1dB 46.5dB 52.2dB 67.8dB 49.7dB 40.7dB 15:09:49 15:10:19 45.5dB 54.9dB 70.1dB 51.0dB 37.0dB 15:10:49 39.4dB 43.0dB 61.6dB 42.3dB 36.1dB 40.9dB 43.1dB 58.2dB 42.4dB 38.8dB 15:11:19 15:11:49 40.2dB 41.9dB 60.6dB 41.3dB 38.8dB 15:12:19 39.2dB 42.9dB 61.7dB 40.6dB 37.7dB 15:12:49 44.1dB 47.9dB 63.6dB 46.2dB 40.7dB 15:13:19 48.0dB 52.3dB 67.4dB 50.2dB 43.7dB 41.5dB 45.9dB 58.5dB 43.9dB 39.1dB 15:13:49

15:14:19	41.0dB	44.6dB	58.0dB	43.3dB	38.8dB	
15:14:49	38.6dB	42.0dB	60.9dB	40.5dB	36.8dB	
15:15:19	42.4dB	46.2dB	62.2dB	44.5dB	39.7dB	
15:15:49	43.4dB	49.9dB	63.1dB	47.4dB	38.6dB	
15:16:19	37.8dB	40.8dB	56.8dB	39.9dB	35.5dB	
15:16:49	48.9dB	60.6dB	82.2dB	51.4dB	42.1dB OL	
15:17:19	39.1dB	44.1dB	66.9dB	40.9dB	37.3dB	
15:17:49	46.9dB	52.2dB	67.8dB	50.1dB	42.0dB	
15:18:19	43.0dB	46.1dB	62.0dB	44.7dB	41.6dB	
15:18:49	47.9dB	51.1dB	71.0dB	50.1dB	44.0dB	
15:19:19	44.0dB	48.1dB	61.2dB	47.4dB	40.9dB	
15:19:49	40.3dB	44.0dB	68.8dB	42.6dB	37.7dB	
15:20:19	42.4dB	44.9dB	60.6dB	44.0dB	40.7dB	
15:20:49	43.7dB	47.8dB	65.2dB	45.9dB	41.7dB	
15:21:19	40.1dB	46.4dB	59.3dB	42.9dB	35.7dB	
15:21:49	39.1dB	43.7dB	59.8dB	41.9dB	36.9dB	

TRAFFIC NOISE MEA DATA SHEI		BIO-WEST www.bio-west.com 435.752.4202
Project: SR-193		Date: 8-1-2019
Technician: S. Kesoan		Site Number: 4
Site Description: $SR - 193$	/Suracuse Trai	Site Number: 4-
	<u> </u>	
Equ Meter: Quest 2900 F Battery Check:		Last Measurement) Calibrator:d Calibration: First measurement:d
Response Setting: Set to Slov		Last measurement: <u>たき.3</u> d
		nge Setting: Low: <u>20</u> dBA; High: <u>80</u> dBA
Temp: $\underline{\$4}^{4}$ Wind (MPH/Dir): $\underline{41NN}$	Weather	
Wind (MPH/Dir): 4/NNW	_ Clouds: <u>clear</u>	
Start Time: <u>8:25 pm</u> Meter Event Number: <u>12</u> Major Sources: <u>Amblant</u> Background Noise: <u>None</u> Unusual Events: <u>Other Notes</u> :	- occasional tr	<u>pm</u> Duration: <u>20 m/n</u> LMin <u>33.3</u> dBA LMax: <u>64.2</u> dBA ail vsocs passing <u>54</u> -
	Traffic	
Road	Jone	
Direction of Travel		
Traffic Speed		
Autos		
Medium Trucks		
Heavy Trucks		
Motorcycles		
	Site Sketcl	h
	JIC SKCIC	
I HANKEN	Schneite Golf Co meter	SR-193 Trail



Site 4. Looking West



Site 4. Looking East

STUDY 12 Notes

Measuring Parameters: Range 20- 80dB Weighting А Time Constant SLOW Threshold OFF Exchange Rate 3dB Peak Weighting А Session Started Session Stopped **Run Time** 01-AUG-19 @ 20:25:55 01-AUG-19 @ 20:45:56 0:20:00 Peak Level 87.6dB 01-AUG-19 @ 20:41:22 Max Level 64.2dB 01-AUG-19 @ 20:35:05 01-AUG-19 @ 20:28:42 Min Level 33.3dB Overload 0.02% LEQ 43.3dB SEL(3) 74.1dB TWA 29.5dB TAKM5 47.5dB 43.3dB CNEL 48.3dB Pa2Sec 0.0 LDN L5 36.3dB L90 34.3dB 45.7dB L10 42.6dB L50 LPK LOGGING (30 SEC) LEQ LMAX L10 L90 Study 12 20:26:25 36.7dB 42.5dB 70.3dB 38.0dB 35.2dB 20:26:55 37.6dB 42.2dB 78.1dB 39.8dB 35.3dB 20:27:25 42.4dB 49.8dB 83.3dB 45.8dB 34.5dB OL 20:27:55 34.3dB 35.1dB 53.9dB 34.6dB 33.9dB 37.5dB 45.2dB 76.5dB 40.3dB 34.1dB 20:28:25 20:28:55 34.4dB 37.7dB 64.0dB 35.5dB 33.6dB 20:29:25 34.8dB 37.2dB 57.0dB 35.4dB 34.3dB 20:29:55 34.6dB 35.6dB 49.3dB 34.9dB 34.1dB 20:30:25 34.1dB 35.0dB 51.0dB 34.4dB 33.8dB 34.5dB 35.1dB 50.0dB 34.7dB 34.2dB 20:30:55 20:31:25 35.4dB 37.6dB 51.6dB 36.4dB 34.6dB 20:31:55 36.4dB 38.4dB 64.3dB 37.9dB 35.5dB 20:32:25 36.2dB 37.9dB 54.9dB 37.3dB 35.4dB 20:32:55 34.9dB 36.8dB 56.6dB 35.8dB 34.2dB 20:33:25 36.1dB 43.1dB 60.2dB 37.8dB 34.1dB 37.1dB 43.9dB 76.8dB 39.0dB 34.1dB 20:33:55 39.2dB 49.3dB 71.1dB 42.6dB 33.7dB 20:34:25 20:34:55 40.6dB 49.0dB 74.9dB 45.6dB 34.7dB 20:35:25 55.9dB 64.2dB 81.0dB 61.5dB 41.3dB 20:35:55 36.8dB 41.0dB 62.9dB 38.0dB 35.1dB 20:36:25 42.1dB 51.1dB 72.1dB 46.5dB 37.0dB 20:36:55 37.7dB 44.0dB 74.2dB 41.0dB 33.9dB 20:37:25 35.0dB 37.3dB 57.6dB 35.9dB 34.3dB 36.7dB 39.3dB 55.7dB 37.8dB 35.5dB 20:37:55

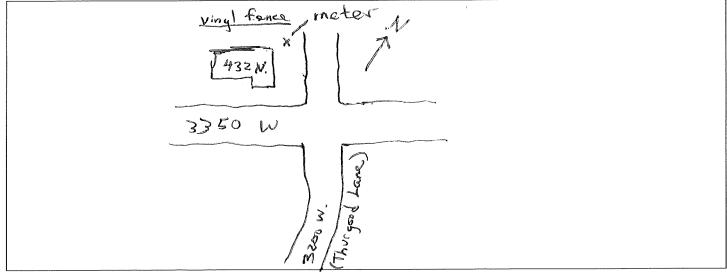
20:38:25	36.9dB	38.8dB	54.6dB	38.0dB	35.5dB
20:38:55	37.0dB	39.2dB	65.8dB	38.5dB	35.5dB
20:39:25	40.8dB	50.0dB	80.9dB	44.7dB	37.2dB
20:39:55	43.0dB	48.1dB	71.8dB	45.6dB	40.1dB
20:40:25	38.7dB	43.8dB	64.2dB	41.6dB	36.2dB
20:40:55	38.9dB	41.4dB	58.8dB	39.9dB	38.1dB
20:41:25	51.8dB	62.4dB	87.6dB	56.0dB	42.0dB OL
20:41:55	48.7dB	56.0dB	83.3dB	55.0dB	38.8dB
20:42:25	40.2dB	45.8dB	68.7dB	42.4dB	37.6dB
20:42:55	40.7dB	43.2dB	65.2dB	42.0dB	38.8dB
20:43:25	37.7dB	41.2dB	66.7dB	39.5dB	36.2dB OL
20:43:55	37.1dB	42.7dB	74.5dB	40.6dB	34.7dB
20:44:25	35.4dB	37.3dB	53.7dB	35.9dB	34.9dB
20:44:55	39.3dB	46.7dB	66.8dB	42.6dB	36.0dB
20:45:25	37.7dB	45.8dB	65.2dB	41.0dB	34.7dB
20:45:55	34.5dB	36.0dB	57.4dB	35.1dB	33.9dB

TRAFFIC NOISE MEASUREMENT DATA SHEET	BIO-WEST www.blo-west.com 435.752.4202
Project: <u>SP-193</u> Technician: <u>S-Keenan</u>	Date: <u>8 - 1 - 2017</u>
Technician: S. Keenan	Site Number:
Site Description: 436 N 3200 W	
Equipment Check (F	irst and Last Measurement)
Meter: Quest 29:00 7/	Tirst and Last Measurement) Calibrator:
Battery Check:	Calibration: First measurement:dB
Response Setting: 🖾 Set to Slow (typically)	Last measurement:dB
Frequency Weighting: 🖂 Set to A-weighted Sour	id 🦳 Range Setting: Low: <u>३०</u> dBA; High: <u>q</u> ə_dBA
	Weather
Temp: <u>840</u> Humidity:	Pressure:
Wind (MPH/Dir): $15 s \omega$ Clouds:	
Noise Mea	isurement Results
Start Time:S : O [P M End Time:	<u>3:21 pm</u> Duration: <u>20 mm</u> dBA LMin <u>32.6</u> dBA LMax: <u>54.9</u> dBA
Meter Event Number: 3 LEQ(h): 4/1.9	_dBA _ LMin <u>SE ,</u> dBA _ LMax: <u>SH- 4</u> dBA
Major Sources:	
Background Noise:	
Unusual Events:	
Other Notes:	

Traffic

					4
Road	3350	W.	3200 W (Thurgond)	
Direction of Travel	. F	W	. N	5'	
Traffic Speed	25	25	25	25	
Autos	3	None	1	2	
Medium Trucks	0		σ	0	
Heavy Trucks	. 0		0	O ,	
Motorcycles	0			0	

Site Sketch





Site 5. Looking West



Site 5. Looking East

STUDY 3 Notes

Measuring Parameters: Range 30- 90dB Weighting А Time Constant SLOW Threshold OFF Exchange Rate 3dB Peak Weighting А Session Started Session Stopped **Run Time** 01-AUG-19 @ 14:31:11 01-AUG-19 @ 14:51:11 0:20:00 Peak Level 79.8dB 01-AUG-19 @ 14:39:46 Max Level 54.9dB 01-AUG-19 @ 14:41:50 Min Level 32.8dB 01-AUG-19 @ 14:41:18 Overload 0.00% LEQ 41.9dB SEL(3) 72.7dB TWA 28.1dB TAKM5 44.5dB 41.9dB CNEL 41.9dB Pa2Sec 0.0 LDN L5 38.8dB L90 37.0dB 46.7dB L10 43.6dB L50 LOGGING (30 SEC) LEQ LMAX LPK L10 L90 Study 3 14:31:41 39.9dB 48.8dB 72.1dB 41.1dB 37.7dB 14:32:11 39.9dB 42.1dB 63.7dB 41.1dB 37.5dB 14:32:41 40.2dB 43.8dB 64.4dB 41.1dB 39.2dB 14:33:11 39.8dB 41.1dB 64.0dB 40.4dB 39.2dB 41.7dB 39.3dB 40.5dB 46.2dB 66.5dB 14:33:41 14:34:11 42.1dB 48.1dB 71.3dB 43.4dB 40.2dB 14:34:41 40.5dB 42.1dB 70.5dB 41.6dB 39.5dB 14:35:11 43.2dB 51.2dB 74.7dB 45.1dB 40.6dB 14:35:41 40.1dB 42.1dB 59.8dB 40.8dB 39.5dB 39.6dB 43.9dB 64.2dB 40.9dB 38.3dB 14:36:11 14:36:41 38.3dB 39.5dB 63.0dB 39.1dB 37.8dB 14:37:11 38.1dB 39.7dB 63.1dB 38.8dB 37.7dB 14:37:41 37.7dB 39.6dB 66.1dB 38.3dB 37.3dB 38.0dB 41.5dB 61.1dB 40.2dB 37.1dB 14:38:11 14:38:41 43.3dB 46.1dB 71.0dB 44.8dB 41.1dB 46.1dB 54.8dB 67.6dB 50.7dB 38.0dB 14:39:11 14:39:41 37.4dB 39.9dB 65.5dB 38.1dB 36.6dB OL 14:40:11 45.8dB 53.2dB 79.8dB 52.6dB 36.9dB 14:40:41 47.2dB 54.8dB 69.0dB 52.9dB 39.8dB 14:41:11 43.5dB 52.9dB 66.7dB 49.4dB 33.6dB 14:41:41 38.4dB 46.4dB 61.5dB 42.4dB 33.4dB 14:42:11 50.0dB 54.9dB 73.7dB 53.6dB 39.8dB 14:42:41 45.7dB 53.3dB 75.6dB 48.7dB 40.2dB 41.5dB 48.7dB 75.0dB 45.3dB 38.3dB 14:43:11

14:43:41	38.0dB	42.1dB	63.2dB	38.8dB	36.9dB
14:44:11	37.4dB	39.8dB	62.6dB	38.3dB	36.4dB
14:44:41	42.4dB	49.7dB	78.7dB	46.6dB	37.7dB
14:45:11	37.4dB	39.1dB	58.2dB	38.4dB	36.5dB
14:45:41	39.3dB	44.9dB	71.4dB	41.1dB	37.0dB
14:46:11	39.9dB	44.1dB	70.3dB	42.0dB	37.9dB
14:46:41	38.9dB	42.3dB	59.4dB	39.9dB	37.9dB
14:47:11	45.0dB	51.5dB	70.7dB	48.6dB	39.1dB
14:47:41	37.9dB	43.4dB	57.7dB	38.6dB	37.1dB
14:48:11	37.8dB	39.9dB	65.3dB	38.6dB	36.9dB
14:48:41	37.4dB	38.7dB	57.1dB	38.1dB	36.8dB
14:49:11	38.3dB	40.4dB	57.4dB	39.9dB	37.3dB
14:49:41	37.6dB	39.6dB	60.1dB	38.4dB	36.5dB
14:50:11	38.0dB	40.0dB	59.7dB	39.3dB	37.1dB
14:50:41	37.6dB	42.0dB	61.2dB	38.6dB	36.5dB
14:51:11	39.3dB	48.1dB	71.6dB	40.5dB	37.1dB

TRAFFIC NOISE DATA		ENT		www.blo 435.75	BIO-WEST west.com 2.4202	
Project: 5^{2} - 193				Date	: 8-1-	12019
Project: 5^{2} - 193 Technician: 5^{3} Keen	ran			Site	e: <u>8 -1 -</u> Number: <u>C</u>	2 *
Site Description:	<u>6 5. 30</u>	530 W.				
		•				
Meter: $\underline{\mathcal{R}}$ $\underline{\mathcal{R}}$ $\underline{\mathcal{R}}$ $\underline{\mathcal{R}}$ $\underline{\mathcal{R}}$	Equipment (Check (First	and Last Mea Ca	asurement) librator:		
Battery Check:			Cali	bration: First r		t: <u>+ • . 2 d</u> B
Response Setting: Set t	o Slow (typica	lly) Fact		Last i	neasurement	
Frequency Weighting:			Range Setti	ng: Low:	dBA; Hig	h:dBA
Temp: <u>84</u> Wind (MPH/Dir): <u>7/S</u> Start Time: <u>1.40 PM</u> Meter Event Number: <u>1</u> Major Sources: <u>Tcof</u> Background Noise: <u></u> Unusual Events: <u></u> Other Notes: <u></u>	No End ا LEQ(h	Dise Measure Time: <u>てい</u>): <u>59 .3</u> dBA	ement Resul	ts Duration <u>*1)</u> dBA		o O D d BA
		Tra	ffic			
Road	3000	» W.	Sp-	193		
Direction of Travel	N	s W. S 35	E	w		
Traffic Speed	32	35	50	50		- 0.00
Autos	64	75	54	73		
Medium Trucks	2	5	3	2		
Heavy Trucks	1	3	2	2		
Motorcycles	/		0	0		
		Site S	ketch			·
	4					

T N	SR-193
S 24 Norte	

f



Site 6. Looking West



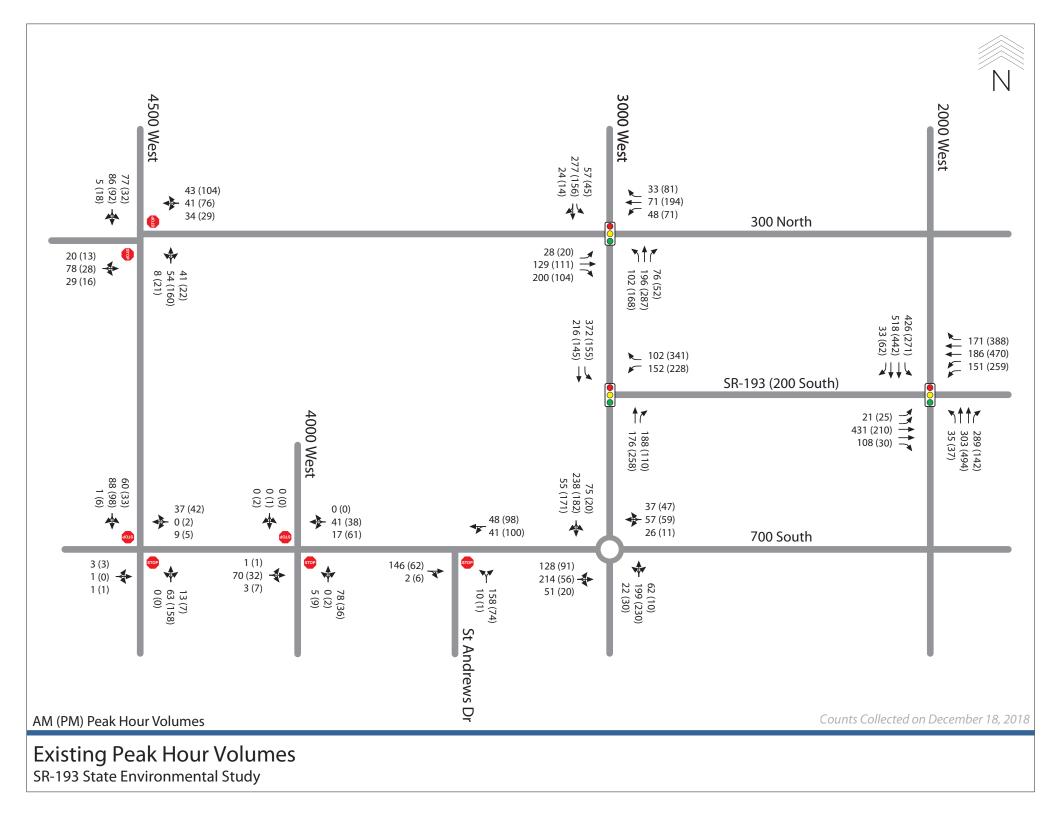
Site 6. Looking East

STUDY 1 Notes

Measuring Parameters: Range 40-100dB А Weighting Time Constant FAST Threshold OFF Exchange Rate 3dB Peak Weighting Α Session Started Session Stopped **Run Time** 01-AUG-19 @ 13:31:08 01-AUG-19 @ 13:51:09 0:20:00 Peak Level 91.9dB 01-AUG-19 @ 13:39:25 Max Level 80.7dB 01-AUG-19 @ 13:39:25 Min Level 41.1dB 01-AUG-19 @ 13:47:42 Overload 0.00% LEQ 59.3dB SEL(3) 90.1dB TWA 45.5dB TAKM5 63.2dB LDN 59.3dB CNEL 59.3dB Pa2Sec 0.4 L5 64.6dB L10 62.0dB L50 53.5dB L90 46.5dB LOGGING (30 SEC) LEQ LMAX LPK L10 L90 Study 1 13:31:38 58.2dB 65.9dB 80.2dB 62.4dB 48.6dB 13:32:08 57.6dB 66.0dB 77.0dB 63.0dB 47.2dB 13:32:38 52.3dB 61.8dB 74.1dB 56.5dB 44.5dB 13:33:08 51.4dB 55.4dB 68.8dB 53.6dB 49.3dB 70.6dB 79.7dB 61.5dB 48.9dB 13:33:38 58.8dB 13:34:08 49.8dB 55.4dB 72.5dB 53.2dB 43.8dB 53.5dB 62.9dB 74.5dB 58.3dB 43.3dB 13:34:38 13:35:08 54.8dB 64.0dB 74.5dB 57.9dB 48.6dB 62.4dB 73.1dB 83.7dB 66.5dB 52.7dB 13:35:38 56.0dB 62.9dB 76.8dB 59.9dB 45.9dB 13:36:08 13:36:38 52.0dB 59.9dB 75.4dB 55.3dB 46.3dB 13:37:08 53.2dB 60.8dB 74.0dB 58.6dB 47.2dB 13:37:38 56.8dB 64.2dB 75.9dB 61.7dB 47.3dB 13:38:08 57.3dB 65.0dB 76.9dB 60.5dB 52.9dB 13:38:38 56.9dB 63.5dB 75.3dB 60.8dB 50.8dB 60.4dB 54.5dB 58.4dB 65.4dB 77.4dB 13:39:08 13:39:38 70.2dB 80.7dB 91.9dB 73.9dB 54.6dB 13:40:08 53.0dB 57.8dB 70.6dB 55.1dB 49.1dB 54.9dB 61.4dB 73.2dB 59.3dB 49.2dB 13:40:38 13:41:08 52.0dB 57.8dB 71.0dB 56.2dB 46.5dB 70.0dB 81.6dB 13:41:38 60.2dB 63.9dB 48.7dB 13:42:08 58.5dB 66.9dB 79.6dB 62.8dB 49.7dB 13:42:38 62.7dB 70.8dB 83.2dB 68.2dB 53.2dB 59.3dB 64.6dB 77.2dB 62.6dB 55.2dB 13:43:08

13:43:38	61.6dB	67.1dB	78.2dB	65.0dB	52.4dB
13:44:08	56.8dB	62.1dB	73.8dB	60.6dB	48.1dB
13:44:38	55.7dB	62.6dB	75.5dB	60.3dB	43.7dB
13:45:08	55.1dB	61.7dB	76.6dB	59.6dB	49.1dB
13:45:38	56.4dB	62.3dB	74.4dB	58.7dB	51.2dB
13:46:08	63.0dB	70.4dB	82.5dB	67.9dB	52.9dB
13:46:38	54.5dB	65.8dB	77.9dB	59.6dB	45.9dB
13:47:08	58.6dB	68.1dB	80.6dB	64.6dB	49.6dB
13:47:38	51.2dB	61.8dB	77.9dB	55.6dB	43.5dB
13:48:08	57.3dB	68.9dB	80.6dB	62.7dB	42.4dB
13:48:38	54.1dB	63.1dB	76.3dB	59.0dB	46.0dB
13:49:08	62.4dB	68.6dB	81.7dB	67.3dB	49.7dB
13:49:38	60.8dB	67.6dB	80.9dB	65.8dB	45.7dB
13:50:08	55.8dB	64.1dB	76.2dB	61.6dB	45.3dB
13:50:38	55.3dB	63.1dB	78.1dB	60.0dB	46.9dB
13:51:08	52.0dB	61.4dB	73.3dB	57.7dB	43.7dB

Attachment **C** Traffic Volumes



LOS C Traffic Volumes

LO	S C Traffic Condi	tions	
	LOS C Volume		
Facility	(vphpl)	Speed Limit (mph)	
WDC Mainline	1600	65	Posted
WDC Interchange Ramps	1600	45	Assumed Value
Arterials	700	45	Posted

Information on LOS C	Traffic Conditions was	obtained from WDC Pro	pject Memos and Correspondance
	Trainic Conditions was		

Traffi	c Fleet Mix (vphpl):			
Туре	%	WDC Mainline	WDC On & Off Ramps	Arterials
Cars	92	1472	1472	644
M Trucks	5	80	80	35
H Trucks	3	48	48	21
Buses	0			
MC	0			
	Tota	1600	1600	700

From: Jerry Chaney [mailto:jchaney@utah.gov]

Sent: Tuesday, April 24, 2012 2:41 PM

To: Overcast, Curt

Cc: Kilpatrick, Kevin; Brandon Weston; Randy Jefferies **Subject:** Re: WDC Link Volumes

Curt:

Thanks for the spreadsheet. Interesting info.

The Noise Policy states that we need to use worst case (LOS C) volumes for the analysis, we don't want to deviate from this standard.

For the WDC noise analysis we need to use LOS C traffic volumes consistent with the Highway Capacity Manual.

According to my documentation LOS C conditions are as follows:

Highway segments: 1600 vphpl at the posted speed limit

Arterial segments: 700 vphpl at the posted speed limit

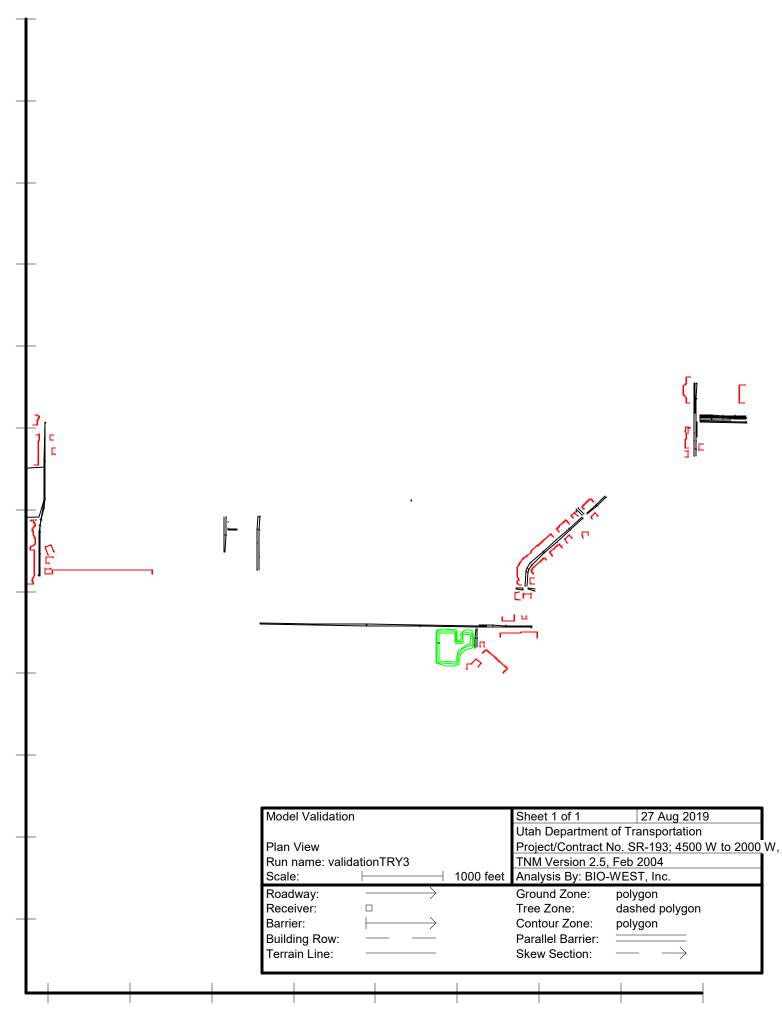
Thanks,

Jerry

Attachment **D**

Traffic Noise Model

Sound Level Results Tables



									-			
Utah Department of Transportation							27 August	2019				
BIO-WEST, Inc.							TNM 2.5					
							Calculated	l with TN	M 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		SR-193	; 4500 W to	2000 W, PIN	16518							
RUN:		Model \	/alidation									
BARRIER DESIGN:		INPUT	HEIGHTS					Average	pavement type	shall be use	d unless	
								a State h	nighway agency	/ substantiate	es the use	
ATMOSPHERICS:		88 deg	F, 28% RH					of a diffe	erent type with	approval of F	HWA.	
Receiver					-						-	
Name	No.	#DUs	Existing	No Barrier					With Barrier			
		ĺ	LAeq1h	LAeq1h		Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc				-	minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Site 3	31	1	43.1	41.7	66	6 -1.4	10		41.7	0.0	8	-8
Site 5	88	1	43.1	39.8	66	-3.3	10		39.8	0.0	8	-8
Site 1	89	1	56.0	53.9	66	6 -2.1	10		53.9	0.0	8	-8
Site 2	90	1	41.9	34.6	66	6 -7.3	10		34.6	0.0	8	-8
Site 4	91	1	43.3	26.9	66	6 -16.4	10		26.9	0.0	8	
Site 6	122	1	59.3	60.2	66	6 0.9	10		60.2	0.0	8	-8
Dwelling Units		# DUs	Noise Ree	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0	D						
All that meet NR Goal		0	0.0	0.0	0.0)						

SR-193; 4500 W to 2000 W, PIN 16518

		-		1		1	,		, .			1
Utah Department of Transportation							19 Septen	abor 2010				
BIO-WEST, Inc.							TNM 2.5					
BIO-WEST, IIIC.							-	d with TNN	105			
							Calculate		/1 2.5			
		00 400	. 4500 \4/4		40540							
PROJECT/CONTRACT:				2000 W, PIN	16518							
RUN:			g Conditio	ns				_				
BARRIER DESIGN:		INPUT	HEIGHTS						pavement type			
				-					ighway agenc			e
ATMOSPHERICS:		86 deg	F, 28% RH					of a diffe	rent type with	approval of F	HWA.	
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Site 3	31	1	43.1	45.8	3 66	6 2.7	10)	45.8	B 0.0		7 -7
Site 5	88	1	43.1	40.8	66	6 -2.3	s 10)	40.8	B 0.0		7 -7
Site 1	89	1	56.0	59.6	66	3.6	i 10)	59.6	6 O.C		7 -7
Site 2	90	1	41.9	37.3	66	-4.6	i 10)	37.3	B 0.0		7 -7
Site 4	91	1	43.3	32.3	66	-11.0	10)	32.3	8 0.0		7 -7
Site 6	122	1	59.3	66.3	66	6 7.0	10	Snd Lvl	66.3	8 0.0		7 -7
549 S SR-110	123	1	0.0	44.0) 66	6 44.0	10)	44.0	0.0		7 -7
530 S 4500 WEST	124	1	0.0	50.1	60	50.1	10)	50.1	0.0		7 -7
538 S 4500 WEST	125	1	0.0	47.2	2 66	6 47.2	2 10)	47.2	2 0.0		7 -7
560 South 4500 West	126	1	0.0	50.1	66	5 50.1	10)	50.1	0.0		7 -7
572 S 4500 WEST	127	1	0.0	48.6	66	6 48.6	i 10)	48.6	0.0		7 -7
571 South 4500 West	128	1	0.0	41.7	7 60	6 41.7	· 10)	41.7	0.0		7 -7
614 S 4500 WEST	129	1	0.0	50.4	6	50.4	10)	50.4	0.0		7 -7
638 S 4500 WEST	130	1	0.0	45.0) 66	6 45.0	10)	45.0	0.0		7 -7
326 S 4500 WEST	131	1	0.0	48.6	66	6 48.6	i 10)	48.6	0.0		7 -7
314 S 4500 WEST	132	1	0.0	48.1	6	6 48.1	10)	48.1	0.0		7 -7
295 S 4500 WEST	133	1	0.0	48.5	5 60	6 48.5	5 10)	48.5	5 O.C		7 -7
226 South 4500 West	134	1	0.0	45.4	6	6 45.4	10)	45.4	0.0		7 -7
463 S 4100 WEST	135	1	0.0	32.7	6	32.7	10)	32.7	0.0		7 -7
4452 W 625 SOUTH	136	1	0.0	41.4	66	6 41.4	10)	41.4	0.0		7 -7
321 S 4500 WEST	137	1	0.0	47.6	6 6	6 47.6	i 10)	47.6	6 O.C		7 -7
4468 W 625 SOUTH	138	1	0.0	44.9	9 60	6 44.9	10)	44.9	0.0		7 -7
4484 W 625 SOUTH	139		0.0						50.1			7 -7
4436 W 625 SOUTH	140	1	0.0	39.9	6	39.9	10)	39.9	0.0		7 -7

SR-193; 4500 W to 2000 W, PIN 16518

							00, 4000	11 10 2000	11, 1 111 10010			
4418 W 625 SOUTH	141	1	0.0	38.6	66	38.6	10		38.6	0.0	7	-7.0
4402 W 625 SOUTH	142	1	0.0	37.2	66	37.2	10		37.2	0.0	7	-7.0
4386 W 625 SOUTH	143	1	0.0	36.5	66	36.5	10		36.5	0.0	7	-7.0
4370 W 625 SOUTH	144	1	0.0	35.7	66	35.7	10		35.7	0.0	7	-7.0
4352 W 625 SOUTH	145	1	0.0	34.9	66	34.9	10		34.9	0.0	7	-7.0
4336 W 625 SOUTH	146	1	0.0	34.4	66	34.4	10		34.4	0.0	7	-7.0
4320 W 625 SOUTH	147	1	0.0	33.4	66	33.4	10		33.4	0.0	7	-7.0
4302 W 625 SOUTH	148	1	0.0	33.1	66	33.1	10		33.1	0.0	7	-7.0
4286 W 625 SOUTH	149	1	0.0	32.5	66	32.5	10		32.5	0.0	7	-7.0
4268 W 625 SOUTH	150	1	0.0	32.5	66	32.5	10		32.5	0.0	7	-7.0
4040 W 475 SOUTH	151	1	0.0	32.5	66	32.5	10		32.5	0.0	7	-7.0
741 S ST ANDREWS	152	1	0.0	46.5	66	46.5	10		46.5	0.0	7	-7.0
3449 West 700 South	153	1	0.0	48.8	66	48.8	10		48.8	0.0	7	-7.0
3427 West 700 South	154	1	0.0	49.2	66	49.2	10		49.2	0.0	7	-7.0
3405 West 700 South	155	1	0.0	49.3	66	49.3	10		49.3	0.0	7	-7.0
3383 West 700 South	156	1	0.0	49.3	66	49.3	10		49.3	0.0	7	-7.0
3361 West 700 South	157	1	0.0	49.5	66	49.5	10		49.5	0.0	7	-7.0
3378 West 700 South	158	7	0.0	47.0	66	47.0	10		47.0	0.0	7	-7.0
3370 West 700 South	159	1	0.0	46.8	66	46.8	10		46.8	0.0	7	-7.0
765 S ST ANDREWS	160	1	0.0	42.8	66	42.8	10		42.8	0.0	7	-7.0
777 S ST ANDREWS	161	1	0.0	40.9	66	40.9	10		40.9	0.0	7	-7.0
791 S ST ANDREWS	162	1	0.0	39.9	66	39.9	10		39.9	0.0	7	-7.0
803 S ST ANDREWS	163	1	0.0	39.0	66	39.0	10		39.0	0.0	7	-7.0
766 S ST ANDREWS	164	1	0.0	33.5	66	33.5	10		33.5	0.0	7	-7.0
795 S 3525 WEST	167	1	0.0	30.1	66	30.1	10		30.1	0.0	7	-7.0
696 S 3300 WEST	168	1	0.0	49.2	66	49.2	10		49.2	0.0	7	-7.0
3353 W 625 SOUTH	169	1	0.0	35.3	66	35.3	10		35.3	0.0	7	-7.0
662 S 3300 WEST	170	1	0.0	46.4	66	46.4	10		46.4	0.0	7	-7.0
622 S 3350 WEST	171	1	0.0	35.3	66	35.3	10		35.3	0.0	7	-7.0
624 S 3300 WEST	172	1	0.0	34.9	66	34.9	10		34.9	0.0	7	-7.0
618 S 3350 WEST	173	1	0.0	35.3	66	35.3	10		35.3	0.0	7	-7.0
592 S 3350 WEST	174	1	0.0	34.4	66	34.4	10		34.4	0.0	7	-7.0
564 S 3350 WEST	175	1	0.0	33.8	66	33.8	10		33.8	0.0	7	-7.0
542 S 3350 WEST	176	1	0.0	34.0	66	34.0	10		34.0	0.0	7	-7.0
536 S 3350 WEST	177	1	0.0	34.4	66	34.4	10		34.4	0.0	7	-7.0
524 S 3350 WEST	178	1	0.0	34.5	66	34.5	10		34.5	0.0	7	-7.0
506 S 3350 WEST	179	1	0.0	34.0	66	34.0	10		34.0	0.0	7	-7.0
498 S 3350 WEST	180	1	0.0	33.9	66	33.9	10		33.9	0.0	7	-7.0
583 S 3350 WEST	181	1	0.0	37.9	66	37.9	10		37.9	0.0	7	-7.0
571 S 3350 WEST	182	1	0.0	37.7	66	37.7	10		37.7	0.0	7	-7.0
539 S 3350 WEST	183	1	0.0	37.7	66	37.7	10		37.7	0.0	7	-7.0

SR-193; 4500 W to 2000 W, PIN 16518

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519 S 3350 WEST	184	1 0.0	37.2	66	37.2	10	 37.2	0.0	7	-7.0
501 S 3350 WEST	185	1 0.0	37.6	66	37.6	10	 37.6	0.0	7	-7.0
479 S 3350 WEST	186	1 0.0	36.6	66	36.6	10	 36.6	0.0	7	-7.0
479 S 3350 WEST	187	1 0.0	32.4	66	32.4	10	 32.4	0.0	7	-7.0
458 S 3350 WEST	188	1 0.0	33.8	66	33.8	10	 33.8	0.0	7	-7.0
436 S 3200 WEST	189	1 0.0	35.5	66	35.5	10	 35.5	0.0	7	-7.0
428 S 3350 WEST	190	1 0.0	36.5	66	36.5	10	 36.5	0.0	7	-7.0
416 S 3350 WEST	191	1 0.0	36.8	66	36.8	10	 36.8	0.0	7	-7.0
482 S 3200 WEST	192	1 0.0	34.1	66	34.1	10	 34.1	0.0	7	-7.0
431 S 3350 WEST	193	1 0.0	37.9	66	37.9	10	 37.9	0.0	7	-7.0
290 S 3000 WEST	194	1 0.0	46.6	66	46.6	10	 46.6	0.0		-7.0
277 S 3000 WEST	195	1 0.0	55.3	66	55.3	10	 55.3	0.0	7	-7.0
270 S 3000 WEST	196	1 0.0	53.7	66	53.7	10	 53.7	0.0	7	-7.0
258 S 3000 WEST	197	1 0.0	55.5	66	55.5	10	 55.5	0.0	7	-7.0
246 S 3000 WEST	198	1 0.0	53.8	66	53.8	10	 53.8	0.0	7	-7.0
172 S 3000 WEST	199	1 0.0	60.1	66	60.1	10	 60.1	0.0	7	-7.0
136 S 3000 WEST	200	1 0.0	57.9	66	57.9	10	 57.9	0.0	7	-7.0
112 S 3000 WEST	201	1 0.0	57.1	66	57.1	10	 57.1	0.0		-7.0
172 S 2875 WEST	202	1 0.0	49.5	66	49.5	10	 49.5	0.0	7	-7.0
168 S 2875 WEST	203	1 0.0	49.5	66	49.5	10	 49.5	0.0	7	-7.0
164 S 2875 WEST	204	1 0.0	49.5	66	49.5	10	 49.5	0.0		-7.0
160 S 2875 WEST	205	1 0.0	49.5	66	49.5	10	 49.5	0.0	7	-7.0
148 S 2875 WEST	206	1 0.0	49.3	66	49.3	10	 49.3	0.0	7	-7.0
144 S 2875 WEST	207	1 0.0	49.2	66	49.2	10	 49.2	0.0	7	-7.0
140 S 2875 WEST	208	1 0.0	49.1	66	49.1	10	 49.1	0.0		-7.0
136 S 2875 WEST	209	1 0.0	49.0	66	49.0	10	 49.0	0.0	7	-7.0
300 N 3500 W	210	1 0.0	32.2	66	32.2	10	 32.2	0.0	7	-7.0
300 N 3500 W	211	1 0.0	32.8	66	32.8	10	 32.8	0.0	7	-7.0
300 N 3500 W	212	1 0.0	33.0	66	33.0	10	 33.0	0.0	7	-7.0
300 N 3500 W	213	1 0.0	33.4	66	33.4	10	 33.4	0.0		-7.0
300 N 3500 W	214	1 0.0	32.0	66	32.0	10	 32.0	0.0		-7.0
4018 W 475 SOUTH	215	1 0.0	35.8	66	35.8	10	 35.8	0.0		-7.0
4045 W 475 SOUTH	216	1 0.0	34.3	66	34.3	10	 34.3	0.0	7	-7.0
503 S 4100 WEST	217	1 0.0	35.3	66	35.3	10	 35.3	0.0	7	-7.0
460 S 4100 WEST	218	1 0.0	32.3	66	32.3	10	 32.3	0.0	7	-7.0
478 S 4100 WEST	219	1 0.0	32.4	66	32.4	10	 32.4	0.0		-7.0
512 S 4100 WEST	220	1 0.0	32.5	66	32.5	10	 32.5	0.0		-7.0
4020 W 550 SOUTH	221	1 0.0	37.9	66	37.9	10	 37.9	0.0	7	-7.0
4048 W 550 SOUTH	222	1 0.0	33.2	66	33.2	10	 33.2	0.0	7	-7.0
529 S 4100 WEST	223	1 0.0	33.2	66	33.2	10	 33.2	0.0	7	-7.0
4023 W 550 SOUTH	224	1 0.0	36.4	66	36.4	10	 36.4	0.0	7	-7.0

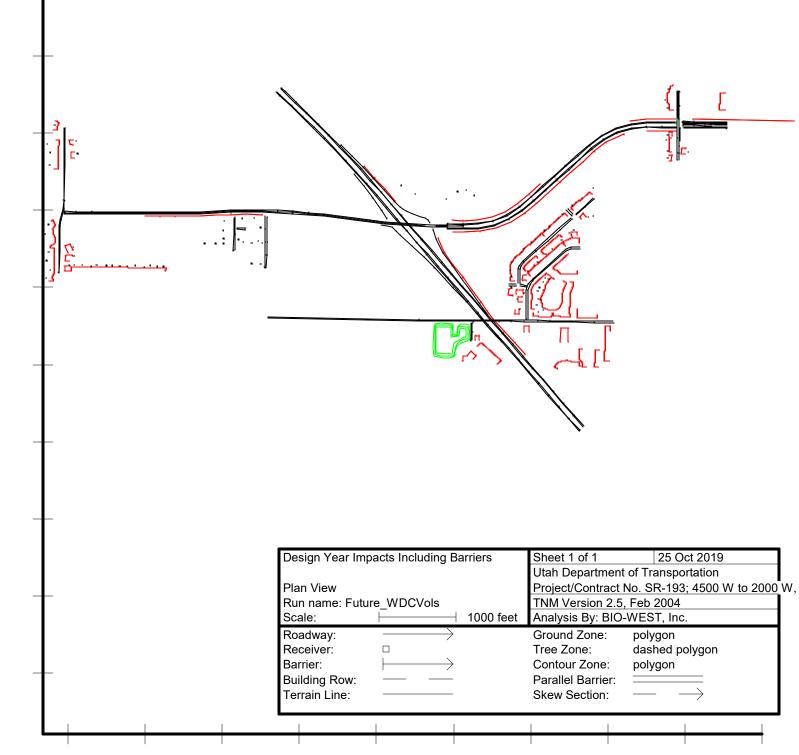
SR-193; 4500 W to 2000 W, PIN 16518

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4116 W 550 SOUTH	225	1	0.0	32.4	66	32.4	10	 32.4	0.0	7	-7.0
4140 W 550 SOUTH	226	1	0.0	32.1	66	32.1	10	 32.1	0.0	7	-7.0
4164 W 550 SOUTH	227	1	0.0	31.9	66	31.9	10	 31.9	0.0	7	-7.0
4051 W 550 SOUTH	228	1	0.0	33.4	66	33.4	10	 33.4	0.0	7	-7.0
3850 W 700 S	229	1	0.0	45.0	66	45.0	10	 45.0	0.0	7	-7.0
534 South 4500 West	230	1	0.0	48.2	66	48.2	10	 48.2	0.0	7	-7.0
446 S 3350 WEST	231	1	0.0	35.1	66	35.1	10	 35.1	0.0	7	-7.0
449 S 3350 WEST	232	1	0.0	36.9	66	36.9	10	 36.9	0.0	7	-7.0
438 S 3200 WEST	233	1	0.0	35.2	66	35.2	10	 35.2	0.0	7	-7.0
413 S 3350 WEST	234	1	0.0	38.1	66	38.1	10	 38.1	0.0	7	-7.0
404 S 3350 WEST	235	1	0.0	38.6	66	38.6	10	 38.6	0.0	7	-7.0
396 S 3350 WEST	237	1	0.0	39.3	66	39.3	10	 39.3	0.0	7	-7.0
296 S 4500 WEST	238	1	0.0	46.6	66	46.6	10	 46.6	0.0	7	-7.0
674 S 3300 WEST	240	1	0.0	44.4	66	44.4	10	 44.4	0.0	7	-7.0
651 S 3300 WEST	241	1	0.0	41.0	66	41.0	10	 41.0	0.0	7	-7.0
623 S 3300 WEST	242	1	0.0	40.5	66	40.5	10	 40.5	0.0	7	-7.0
611 S 3300 WEST	243	1	0.0	39.7	66	39.7	10	 39.7	0.0	7	-7.0
642 S 3275 WEST	244	1	0.0	40.0	66	40.0	10	 40.0	0.0	7	-7.0
667 S 3300 WEST	245	1	0.0	43.0	66	43.0	10	 43.0	0.0	7	-7.0
658 S 3275 WEST	246	1	0.0	43.4	66	43.4	10	 43.4	0.0	7	-7.0
681 S 3300 WEST	247	1	0.0	47.0	66	47.0	10	 47.0	0.0	7	-7.0
676 S 3275 WEST	248	1	0.0	48.5	66	48.5	10	 48.5	0.0	7	-7.0
676 S 3275 WEST	249	1	0.0	49.6	66	49.6	10	 49.6	0.0	7	-7.0
693 S 3300 WEST	250	1	0.0	50.8	66	50.8	10	 50.8	0.0	7	-7.0
673 S 3275 WEST	251	1	0.0	48.4	66	48.4	10	 48.4	0.0	7	-7.0
3264 W 700 SOUTH	252	1	0.0	50.0	66	50.0	10	 50.0	0.0	7	-7.0
696 S 3250 WEST	253	1	0.0	56.3	66	56.3	10	 56.3	0.0	7	-7.0
678 S 3250 WEST	254	1	0.0	47.6	66	47.6	10	 47.6	0.0	7	-7.0
662 S 3250 WEST	255	1	0.0	45.0	66	45.0	10	 45.0	0.0	7	-7.0
657 S 3275 WEST	256	1	0.0	43.1	66	43.1	10	 43.1	0.0	7	-7.0
644 S 3250 WEST	257	1	0.0	42.3	66	42.3	10	 42.3	0.0	7	-7.0
629 S 3275 WEST	258	1	0.0	38.9	66	38.9	10	 38.9	0.0	7	-7.0
628 S 3250 WEST	259	1	0.0	40.0	66	40.0	10	 40.0	0.0	7	-7.0
612 S THURGOOD	260	1	0.0	38.9	66	38.9	10	 38.9	0.0	7	-7.0
3267 W 700 SOUTH	261	1	0.0	60.3	66	60.3	10	 60.3	0.0	7	-7.0
3214 W 700 SOUTH	262	1	0.0	52.4	66	52.4	10	 52.4	0.0	7	-7.0
3196 W 700 SOUTH	263	1	0.0	50.2	66	50.2	10	 50.2	0.0	7	-7.0
716 S 3175 WEST	264	1	0.0	55.7	66	55.7	10	 55.7	0.0	7	-7.0
732 S 3175 WEST	265	1	0.0	49.9	66	49.9	10	 49.9	0.0	7	-7.0
748 S 3175 WEST	266	1	0.0	46.2	66	46.2	10	 46.2	0.0	7	-7.0
764 S 3175 WEST	267	1	0.0	42.5	66	42.5	10	 42.5	0.0	7	-7.0

SR-193; 4500 W to 2000 W, PIN 16518

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765 S 3225 WEST	268	1	0.0	41.0	66	41.0	10	 41.0	0.0	7	-7.0
766 S 3225 WEST	269	1	0.0	41.0	66	41.0	10	 41.0	0.0	7	-7.0
782 S 3175 WEST	270	1	0.0	39.9	66	39.9	10	 39.9	0.0	7	-7.0
783 S 3225 WEST	271	1	0.0	38.8	66	38.8	10	 38.8	0.0	7	-7.0
797 S 3225 WEST	272	1	0.0	37.6	66	37.6	10	 37.6	0.0	7	-7.0
3302 W 800 SOUTH	273	1	0.0	39.5	66	39.5	10	 39.5	0.0	7	-7.0
3284 W 800 SOUTH	274	1	0.0	40.6	66	40.6	10	 40.6	0.0	7	-7.0
3267 W 700 SOUTH	275	1	0.0	41.9	66	41.9	10	 41.9	0.0	7	-7.0
3262 W 800 SOUTH	276	1	0.0	40.1	66	40.1	10	 40.1	0.0	7	-7.0
3246 W 800 SOUTH	277	1	0.0	39.2	66	39.2	10	 39.2	0.0	7	-7.0
784 S 3225 WEST	278	1	0.0	39.2	66	39.2	10	 39.2	0.0	7	-7.0
798 S 3225 WEST	279	1	0.0	37.3	66	37.3	10	 37.3	0.0	7	-7.0
603 S 3300 WEST	280	1	0.0	40.1	66	40.1	10	 40.1	0.0	7	-7.0
608 S 3275 WEST	283	1	0.0	38.4	66	38.4	10	 38.4	0.0	7	-7.0
3260 W 600 SOUTH	284	1	0.0	37.8	66	37.8	10	 37.8	0.0	7	-7.0
765 S ST ANDREWS	285	1	0.0	43.9	66	43.9	10	 43.9	0.0	7	-7.0
SR 193 Trail 1	286	1	0.0	34.5	66	34.5	10	 34.5	0.0	8	-8.0
SR 193 Trail 3	288	1	0.0	34.5	66	34.5	10	 34.5	0.0	8	-8.0
SR 193 Trail 5	290	1	0.0	34.5	66	34.5	10	 34.5	0.0	8	-8.0
SR 193 Trail 7	292	1	0.0	34.1	66	34.1	10	 34.1	0.0	8	-8.0
SR 193 Trail 9	294	1	0.0	34.0	66	34.0	10	 34.0	0.0	8	-8.0
SR 193 Trail 10	295	1	0.0	34.1	66	34.1	10	 34.1	0.0	8	-8.0
SR 193 Trail 11	296	1	0.0	34.1	66	34.1	10	 34.1	0.0	8	-8.0
SR 193 Trail 12	297	1	0.0	34.0	66	34.0	10	 34.0	0.0	8	-8.0
SR 193 Trail 14	299	1	0.0	33.6	66	33.6	10	 33.6	0.0	8	-8.0
SR 193 Trail 16	301	1	0.0	33.3	66	33.3	10	 33.3	0.0	8	-8.0
SR 193 Trail 18	303	1	0.0	32.9	66	32.9	10	 32.9	0.0	8	-8.0
SR 193 Trail 20	305	1	0.0	32.7	66	32.7	10	 32.7	0.0	8	-8.0
SR 193 Trail 22	307	1	0.0	32.4	66	32.4	10	 32.4	0.0	8	-8.0
SR 193 Trail 24	309	1	0.0	32.1	66	32.1	10	 32.1	0.0	8	-8.0
Syracuse Trail 5	315	1	0.0	32.2	66	32.2	10	 32.2	0.0	8	-8.0
Syracuse Trail 7	317	1	0.0	31.8	66	31.8	10	 31.8	0.0	8	-8.0
Syracuse Trail 9	319	1	0.0	31.5	66	31.5	10	 31.5	0.0	8	-8.0
Syracuse Trail 11	321	1	0.0	31.3	66	31.3	10	 31.3	0.0	8	-8.0
Syracuse Trail 13	323	1	0.0	31.0	66	31.0	10	 31.0	0.0	8	-8.0
Syracuse Trail 15	325	1	0.0	30.7	66	30.7	10	 30.7	0.0	8	-8.0
Syracuse Trail 17	327	1	0.0	30.4	66	30.4	10	 30.4	0.0	8	-8.0
Syracuse Trail 19	329	1	0.0	30.2	66	30.2	10	 30.2	0.0	8	-8.0
Syracuse Trail 21	331	1	0.0	30.0	66	30.0	10	 30.0	0.0	8	-8.0
3454 W 700 SOUTH	332	1	0.0	50.6	66	50.6	10	 50.6	0.0	8	-8.0
SR 193 Trail 25	333	1	0.0	54.4	66	54.4	10	 54.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Red	duction			
		Min	Avg	Max		
		dB	dB	dB		
All Selected	188	0.0	0.0	0.0		
All Impacted	1	0.0	0.0	0.0		
All that meet NR Goal	0	0.0	0.0	0.0		



 SR-193; 4500 W to 2000 W, PIN 16518

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Utah Department of Transportation							24 Octob	er 2019				
BIO-WEST, Inc.							TNM 2.5					
							_	d with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		SR-193	3: 4500 W to	2000 W, PIN	16518							
RUN:			-	cts Including								
BARRIER DESIGN:			HEIGHTS	j				Average r	oavement typ	e shall be use	d unless	
										y substantiate		
ATMOSPHERICS:		86 dec	J F, 28% RH	1						approval of F		
Receiver			• ·				_				1	
Name	No.	#DUs	Existing	No Barrier				_	With Barrier	•		
Name	110.	#203	LAeq1h	LAeq1h		Increase over	ovistina	Туре	Calculated	Noise Reduc	tion	
			LACYIII	Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
				Jaroulatou	5111	Saloulatou	Sub'l Inc	Inpaor	-00400	Salcalated		minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
549 S SR-110	123		1 44.0						51.4			
530 S 4500 WEST	123		1 44.0						53.4			7 -6
538 S 4500 WEST	124		1 30.						49.7			7 -7
560 South 4500 West	125		1 47.2	-					51.0			7 -7
572 S 4500 WEST	120		1 30. 1 48.6						49.4			7 -6
571 South 4500 West	127		1 40.0 1 41.7						49.2		,	7 -0
614 S 4500 WEST	120		1 41.7						51.0			7 -7
638 S 4500 WEST	120		1 45.0						46.7		, 	7 -6
326 S 4500 WEST	130		1 48.6						50.3)	7 -7
314 S 4500 WEST	132		1 48.1						49.4			7 -7
295 S 4500 WEST	133		1 48.5						50.3			7 -
226 South 4500 West	134		1 45.4						47.2			7 -7
463 S 4100 WEST	135		1 41.9									7 -
4452 W 625 SOUTH	136		1 41.9						48.4			7 -6
321 S 4500 WEST	137		1 47.6						50.2			7 -
4468 W 625 SOUTH	138		1 44.9						49.0			7 -6
4484 W 625 SOUTH	139		1 50.1						51.4			7 -6
4436 W 625 SOUTH	140		1 41.9						48.2			7 -6
4418 W 625 SOUTH	141		1 41.9		-	-			48.4			7 -6
4402 W 625 SOUTH	142		1 41.9						48.4			7 -6
4386 W 625 SOUTH	143		1 41.9	48.9	6	6 7.0) 1()	48.5	5 0.4		7 -6
4370 W 625 SOUTH	144		1 41.9						48.5			7 -6
4352 W 625 SOUTH	145		1 41.9	49.5	6)	48.6	6 0.9		7 -6
4336 W 625 SOUTH	146		1 41.9	49.8	6	6 7.9) 10)	48.7	7 1.1	1	7 -{

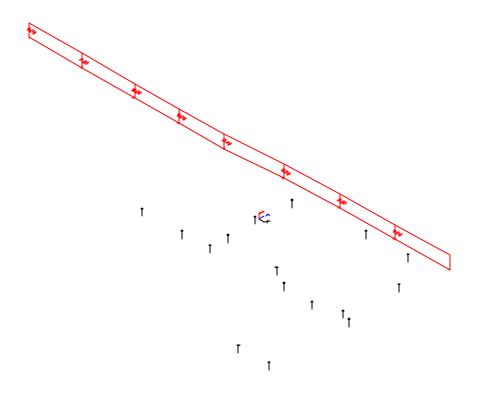
SR-193; 4500 W to 2000 W, PIN 16518

					01	(-130, 400	0 11 10 200				
4320 W 625 SOUTH	147	1 41.9	49.9	66	8.0	10		48.6	1.3	7	-5.7
4302 W 625 SOUTH	148	1 41.9	49.9	66	8.0	10		48.9	1.0	7	-6.0
4286 W 625 SOUTH	149	1 41.9	50.4	66	8.5	10		48.8	1.6	7	-5.4
4268 W 625 SOUTH	150	1 41.9	50.6	66	8.7	10		49.0	1.6	7	-5.4
4040 W 475 SOUTH	151	1 41.9	65.4	66	23.5	10	Sub'l Inc	60.0	5.4	7	-1.6
696 S 3300 WEST	168	1 41.9	58.4	66	16.5	10	Sub'l Inc	56.1	2.3	7	-4.7
3353 W 625 SOUTH	169	1 41.9	57.1	66	15.2	10	Sub'l Inc	52.0	5.1	7	-1.9
662 S 3300 WEST	170	1 41.9	53.8	66	11.9	10	Sub'l Inc	51.0	2.8	7	-4.2
622 S 3350 WEST	171	1 41.9	58.1	66	16.2	10	Sub'l Inc	53.8	4.3	7	-2.7
624 S 3300 WEST	172	1 41.9	53.4	66	11.5	10	Sub'l Inc	50.1	3.3	7	-3.7
618 S 3350 WEST	173	1 41.9	59.3	66	17.4	10	Sub'l Inc	55.8	3.5	7	-3.5
592 S 3350 WEST	174	1 41.9	58.4	66	16.5	10	Sub'l Inc	53.9	4.5	7	-2.5
564 S 3350 WEST	175	1 41.9	58.3	66	16.4	10	Sub'l Inc	53.2	5.1	7	-1.9
542 S 3350 WEST	176	1 41.9	57.5	66	15.6	10	Sub'l Inc	52.5	5.0	7	-2.0
536 S 3350 WEST	177	1 41.9	57.9	66	16.0	10	Sub'l Inc	52.6	5.3	7	-1.7
524 S 3350 WEST	178	1 41.9	57.9	66	16.0	10	Sub'l Inc	52.3	5.6	7	-1.4
506 S 3350 WEST	179	1 41.9	57.7	66	15.8	10	Sub'l Inc	51.9	5.8	7	-1.2
498 S 3350 WEST	180	1 41.9	57.8	66	15.9	10	Sub'l Inc	51.9	5.9	7	-1.1
583 S 3350 WEST	181	1 41.9	54.4	66	12.5	10	Sub'l Inc	50.0	4.4	7	-2.6
571 S 3350 WEST	182	1 41.9	52.9	66	11.0	10	Sub'l Inc	48.9	4.0	7	-3.0
539 S 3350 WEST	183	1 41.9	53.3	66	11.4	10	Sub'l Inc	48.9	4.4	7	-2.6
519 S 3350 WEST	184	1 41.9	52.9	66	11.0	10	Sub'l Inc	48.5	4.4	7	-2.6
501 S 3350 WEST	185	1 41.9	52.3	66	10.4	10	Sub'l Inc	48.3	4.0	7	-3.0
479 S 3350 WEST	186	1 41.9	52.4	66	10.5	10	Sub'l Inc	47.7	4.7	7	-2.3
464 S 3350 WEST	187	1 41.9	57.9	66	16.0	10	Sub'l Inc	51.6	6.3	7	-0.7
458 S 3350 WEST	188	1 41.9	57.9	66	16.0	10	Sub'l Inc	51.6	6.3	7	-0.7
436 S 3200 WEST	189	1 41.9	58.0	66	16.1	10	Sub'l Inc	52.0	6.0	7	-1.0
428 S 3350 WEST	190	1 41.9	57.9	66	16.0	10	Sub'l Inc	51.7	6.2	7	-0.8
416 S 3350 WEST	191	1 41.9	57.9	66	16.0	10	Sub'l Inc	51.7	6.2	7	-0.8
431 S 3350 WEST	193	1 41.9	51.2	66	9.3	10		47.6	3.6	7	-3.4
290 S 3000 WEST	194	1 46.6	55.5	66	8.9	10		53.1	2.4	7	-4.6
277 S 3000 WEST	195	1 53.3	59.1	66	5.8	10		59.0	0.1	7	-6.9
270 S 3000 WEST	196	1 53.7	58.5	66	4.8	10		57.0	1.5	7	-5.5
258 S 3000 WEST	197	1 55.5	63.9	66	8.4	10		59.8	4.1	7	-2.9
246 S 3000 WEST	198	1 53.8	67.2	66	13.4	10	Both	58.8	8.4	7	1.4
172 S 3000 WEST	199	1 54.0	64.8	66	10.8	10	Sub'l Inc	62.6	2.2	7	-4.8
136 S 3000 WEST	200	1 53.9	60.8	66	6.9	10		59.8	1.0	7	-6.0
112 S 3000 WEST	201	1 60.1	57.5	66	-2.6	10		57.2	0.3	7	-6.7
Golf Course - Hole 12 Green	210	1 41.9	66.3	66	24.4	10	Both	65.6	0.7	7	-6.3
Golf Course - Hole 7 Tee	211	1 41.9	63.9	66	22.0	10	Sub'l Inc	62.6	1.3	7	-5.7
Golf Course - Hole 6 Green	212	1 41.9	61.8	66	19.9	10	Sub'l Inc	59.7	2.1	7	-4.9

SR-193; 4500 W to 2000 W, PIN 16518

			Min	Avg	Max							
Dwelling Units		# DUs	Noise Rec	luction								
Golf Course - Hole 4 Tee	345	1	41.9	61.2	2 66	19.3	10	Sub'l Inc	58.3	2.9	7	-4.1
482 S 3350 WEST	341	1	41.9	58.	0 66	16.1	10	Sub'l Inc	51.9	6.1	7	-0.9
608 S 3275 WEST	283	1	41.9	53.9	9 66	12.0	10	Sub'l Inc	49.3	4.6	7	-2.4
603 S 3300 WEST	280	1	41.9	54.2	2 66	12.3	10	Sub'l Inc	49.8	4.4	7	-2.6
693 S 3300 WEST	250	1	41.9	57.	7 66	15.8	10	Sub'l Inc	55.5	2.2	7	-4.8
676 S 3275 WEST	249		41.9	57.			10		55.2	1.9	7	-5.1
676 S 3275 WEST	248	1	41.9	57.2			10		54.9	2.3	7	-4.7
681 S 3300 WEST	247	1	41.9	56.			10	Sub'l Inc	53.8	2.8	7	-4.2
658 S 3275 WEST	246		41.9	56.			10		53.3	2.8	7	-4.2
667 S 3300 WEST	245	1	41.9	55.9		_	10		53.0	2.9	7	-4.1
642 S 3275 WEST	244	1	41.9	55.0			10		51.1	4.5	7	-2.5
611 S 3300 WEST	243		41.9	54.9			10	Sub'l Inc	50.5	4.4	7	-2.6
623 S 3300 WEST	242	1	41.9	55.8			10		51.8	4.0	7	-3.0
651 S 3300 WEST	241	1	41.9	55.8			10	Sub'l Inc	52.2	3.6	7	-3.4
674 S 3300 WEST	240		41.9	59.8			10	Sub'l Inc	57.2	2.6	7	-4.4
296 S 4500 WEST	238	1	41.9	48.3	3 66		10		48.3	0.0	7	-7.0
396 S 3350 WEST	237	1	41.9	57.	7 66	15.8	10	Sub'l Inc	51.8	5.9	7	-1.1
404 S 3350 WEST	235	1	41.9	57.	66 66	15.7	10	Sub'l Inc	51.4	6.2	7	-0.8
413 S 3350 WEST	234	1	41.9	52.	1 66	10.2	10	Sub'l Inc	48.1	4.0	7	-3.0
438 S 3200 WEST	233	1	41.9	53.	1 66	11.2	10	Sub'l Inc	48.5	4.6	7	-2.4
449 S 3350 WEST	232	1	41.9	53.	5 66	11.6	10	Sub'l Inc	50.9	2.6	7	-4.4
446 S 3350 WEST	231	1	41.9	57.9	9 66	16.0	10	Sub'l Inc	51.6	6.3	7	-0.7
534 South 4500 West	230	1	41.9	51.3	3 66	9.4	10		51.3	0.0	7	-7.0
4051 W 550 SOUTH	228	1	41.9	52.4	4 66	10.5	10	Sub'l Inc	51.8	0.6	7	-6.4
4164 W 550 SOUTH	227	1	41.9	54.0	66 66	12.7	10	Sub'l Inc	52.1	2.5	7	-4.5
4140 W 550 SOUTH	226	1	41.9	55.	0 66	13.1	10	Sub'l Inc	52.1	2.9	7	-4.1
4116 W 550 SOUTH	225	1	41.9	54.	66 66	12.7	10	Sub'l Inc	52.4	2.2	7	-4.8
4023 W 550 SOUTH	224	1	41.9	52.	7 66	10.8	10	Sub'l Inc	52.3	0.4	7	-6.6
529 S 4100 WEST	223	1	41.9	54.9	9 66	13.0	10	Sub'l Inc	53.9	1.0	7	-6.0
4048 W 550 SOUTH	222	1	41.9	55.	1 66	13.2	10	Sub'l Inc	54.1	1.0	7	-6.0
4020 W 550 SOUTH	221	1	41.9	55.9	9 66	14.0	10	Sub'l Inc	55.3	0.6	7	-6.4
512 S 4100 WEST	220	1	41.9	55.	7 66	13.8	10	Sub'l Inc	53.2	2.5	7	-4.5
478 S 4100 WEST	219	1	41.9	58.8	3 66	16.9	10	Sub'l Inc	55.0	3.8	7	-3.2
460 S 4100 WEST	218	1	41.9	63.2	2 66	21.3	10	Sub'l Inc	58.2	5.0	7	-2.0
503 S 4100 WEST	217	1	41.9	55.	5 66	13.6	10	Sub'l Inc	54.3	1.2	7	-5.8
4045 W 475 SOUTH	216	1	41.9	55.	3 66	13.9	10	Sub'l Inc	55.0	0.8	7	-6.2
4018 W 475 SOUTH	215	1	41.9	60.4	4 66	18.5	10	Sub'l Inc	58.9	1.5	7	-5.5
Golf Course - Hole 13 Tee	214	1	41.9	67.3	2 66	25.3	10	Both	64.6	2.6	7	-4.4
Golf Course - Hole 3 Green	213	1	41.9	61.	5 66	19.6	10	Sub'l Inc	57.8	3.7	7	-3.3

		dB	dB	dB
All Selected	104	0.0	2.7	8.4
All Impacted	68	0.4	3.7	8.4
All that meet NR Goal	1	8.4	8.4	8.4

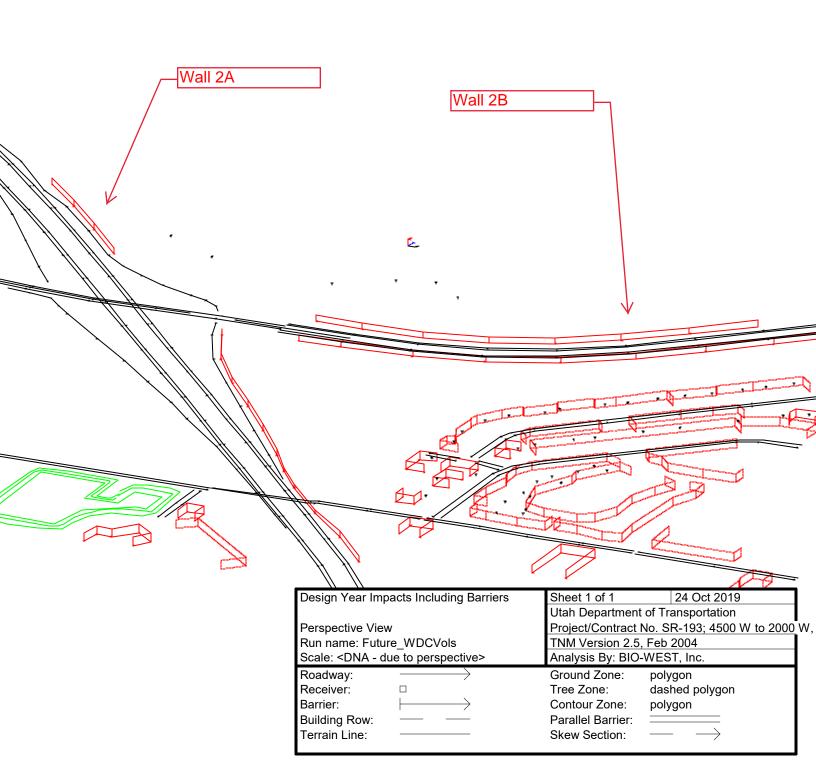


Design Year Im	pacts Including Barriers	Sheet 1 of 1	25 Oct 2019	
-		Utah Departmen	t of Transportation	
Barrier View-Wa	all 1	Project/Contract	No. SR-193; 4500 W to 2000	<u></u> w
Run name: Futu	re_WDCVols	TNM Version 2.5	5, Feb 2004	
Scale: <dna -="" c<="" td=""><td>ue to perspective></td><td>Analysis By: BIO</td><td>-WEST, Inc.</td><td></td></dna>	ue to perspective>	Analysis By: BIO	-WEST, Inc.	
Roadway:	\longrightarrow	Ground Zone:	polygon	
Receiver:		Tree Zone:	dashed polygon	
Barrier:	\vdash	Contour Zone:	polygon	
Building Row:		Parallel Barrier:		
Terrain Line:		Skew Section:	\longrightarrow	

RESULTS: BARRIER-SEGMENT DESCRIPTIONS

Utah Department of Transportation										25 October 20	19	
BIO-WEST, Inc.										TNM 2.5		
RESULTS: BARRIER-SEGMENT DES	CRIPTIO	NS										
PROJECT/CONTRACT:	SR-19	3; 4500 W to 2	2000 W,	PIN 16518								
RUN:	Desig	n Year Impac	s Inclu	ding Barriers								
BARRIER DESIGN:	Wall 1											
Barriers		Segments										
Name	Туре	Name	No.	Heights			Length	If Wall			If Berm	Cost
		İ.		First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	\$
Wall 1	W	point103	103	9.00	9.00	9.00	191	1722				
		point104	104	9.00	9.00	9.00	191	1721				
		point105	105	9.00	9.00	9.00	162	1454				
		point106	106	9.00	9.00	9.00	162	1454				
		point107	107	9.00	9.00	9.00	203	1827				
		point108	108	9.00	9.00	9.00	196	1763				
		point109	109				_	1775				
		point110	110	9.00	9.00	9.00	201	1811				

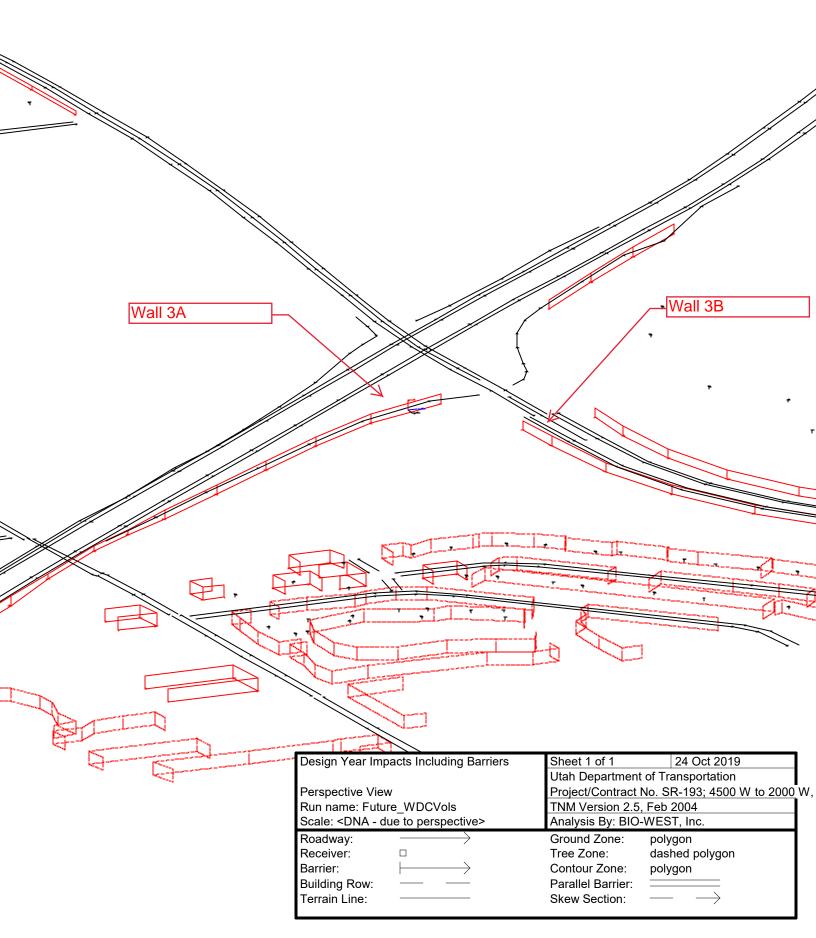
		1		1			,		- ,		1	-
Utah Department of Transportation							24 Octobe	r 2019				
BIO-WEST, Inc.							TNM 2.5	1 2013				
								with TNN	125			
RESULTS: SOUND LEVELS							Galoalatot		1 2.0			
PROJECT/CONTRACT:		SR-193	: 4500 W to	2000 W, PIN	16518							
RUN:				cts Including								
BARRIER DESIGN:		unsave		g				Average r	pavement type	e shall be use	d unless	
									••	y substantiate		•
ATMOSPHERICS:		86 dea	F, 28% RH							, approval of F		
Receiver		J	,									
Name	No.	#DUs	Existing	No Barrier					With Barrier			
	110.		LAeq1h	LAeq1h		Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
4164 W 550 SOUTH	227	1	41.9	54.6	66	6 12.7	7 10	Sub'l Inc	52.0	2.6		7 -4
4140 W 550 SOUTH	226	1	41.9	55.0	66	6 13.1	10	Sub'l Inc	52.1	2.9		7 -4
4116 W 550 SOUTH	225	1	41.9	54.6	66	6 12.7	7 10	Sub'l Inc	52.3	3 2.3		7 -4
512 S 4100 WEST	220	1	41.9	55.7	66	6 13.8	3 10	Sub'l Inc	53.1	2.6		7 -4
478 S 4100 WEST	219	1	41.9	58.8	66	6 16.9) 10	Sub'l Inc	54.8	8 4.0		7 -3
460 S 4100 WEST	218	1	41.9	63.2	66	6 21.3	3 10	Sub'l Inc	57.5	5.7		7 -1.
463 S 4100 WEST	135	1	41.9	65.1	66	6 23.2	2 10	Sub'l Inc	58.8	6.3		7 -0.
4040 W 475 SOUTH	151	1	41.9	65.4	. 66	6 23.5	5 10	Sub'l Inc	59.2	2 6.2		7 -0.
4018 W 475 SOUTH	215	1	41.9	60.4	. 66	6 18.5	5 10	Sub'l Inc	58.9	1.5		7 -5.
4045 W 475 SOUTH	216	1	41.9	55.8			9 10		54.9			7 -6
503 S 4100 WEST	217	1	41.9	55.5	66	6 13.6	6 10	Sub'l Inc	54.2	2 1.3		7 -5.
4020 W 550 SOUTH	221	1	41.9	55.9	66	i 14.0) 10		55.3	8 0.6		7 -6
4048 W 550 SOUTH	222		41.9	55.1	66	-		Sub'l Inc	54.1	1.0		7 -6
529 S 4100 WEST	223	1	41.9						53.9			7 -6
4023 W 550 SOUTH	224		41.9						52.3	8 0.4		7 -6
4051 W 550 SOUTH	228	1	41.9	52.4	. 66	5 10.5	5 10	Sub'l Inc	51.8	8 0.6		7 -6
Dwelling Units		# DUs	Noise Re	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		16	0.4	2.5	6.3	3						
All Impacted		16	0.4	2.5	6.3	3						
All that meet NR Goal		0	0.0	0.0	0.0)						



RESULTS: BARRIER-SEGMENT DESCRIPTIONS

Utah Department of Transportation										24 October 20	19	
BIO-WEST, Inc.										TNM 2.5		
RESULTS: BARRIER-SEGMENT DES	CRIPTIO	NS									_	
PROJECT/CONTRACT:	SR-19	3; 4500 W to	2000 W,	PIN 16518								
RUN:	Desig	n Year Impac	ts Inclu	ding Barriers								
BARRIER DESIGN:	unsav	ed										
Barriers		Segments										
Name	Туре	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	\$
Wall 2A	W	point241	241	22.00	22.00	22.00	200	4407				
		point242	242	22.00	22.00	22.00	198	4357				
		point243	243	22.00	22.00	22.00	201	4416				
Wall 2B	W	point164	164	22.00	22.00	22.00	198	4361				
		point165	165	22.00	22.00	22.00	196	4317				
		point166	166	22.00	22.00	22.00	186	4102				
		point167	167	22.00	22.00	22.00	183	4026				
		point168	168	22.00	22.00	22.00	188	4138				
		point169	169	22.00	22.00	22.00	185	4072				
		point170	170	22.00	22.00	22.00	143	3145				

Utah Department of Transportation							24 Octobe	r 2019				
BIO-WEST, Inc.							TNM 2.5					
							Calculated	with TNN	1 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		SR-193	; 4500 W to	2000 W, PIN	16518							
RUN:		Design	Year Impa	cts Including	Barriers							
BARRIER DESIGN:		unsave	d					Average p	avement type	shall be use	d unless	
								a State hig	ghway agency	/ substantiate	es the use	
ATMOSPHERICS:		86 deg	F, 28% RH					of a differ	ent type with	approval of F	HWA.	
Receiver		1			-							
Name	No.	#DUs	Existing	No Barrier					With Barrier	-		
			LAeq1h	LAeq1h		Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Golf Course - Hole 3 Green	213	1	41.9	61.5	66	6 19.6	6 10	Sub'l Inc	58.9	2.6	7	-4
Golf Course - Hole 4 Tee	345	1	41.9	61.2	. 66	6 19.3	3 10	Sub'l Inc	59.5	1.7	7	-5
Golf Course - Hole 6 Green	212	1	41.9	61.8	66	6 19.9) 10	Sub'l Inc	60.6	1.2	. 7	-5
Golf Course - Hole 7 Tee	211	1	41.9	63.9	66	6 22.0) 10	Sub'l Inc	63.3	0.6	7	-6
Golf Course - Hole 12 Green	210	1	41.9			õ 24.4	10	Both	65.5	0.8	7	-
Golf Course - Hole 13 Tee	214	1	41.9	67.2	66	5 25.3	3 10	Both	64.4	2.8	7	-4
Dwelling Units		#DUs	Noise Ree	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		6	0.6	1.6	2.8	3						
All Impacted		6	0.6	1.6	2.8	3						
All that meet NR Goal		0	0.0	0.0	0.0)						



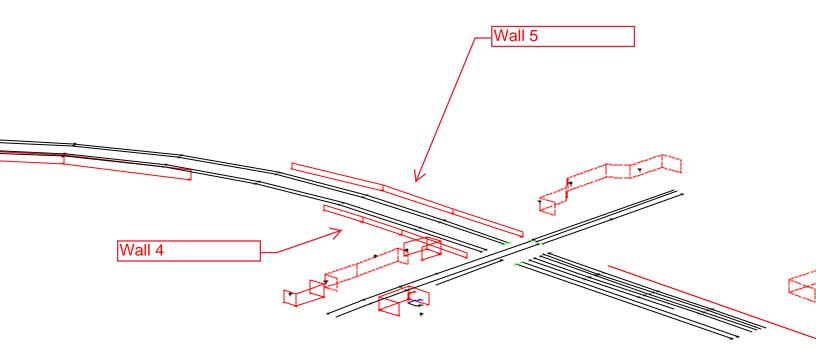
RESULTS: BARRIER-SEGMENT DESCRIPTIONS

ECCETC. BARREN CECIMENT DEC												
Utah Department of Transportation										24 October 20	19	
BIO-WEST, Inc.										TNM 2.5		
											_	
PROJECT/CONTRACT:		3; 4500 W to	-									
RUN:		-	cts Inclu	ding Barriers								
BARRIER DESIGN:	unsav											
Barriers		Segments										
Name	Туре	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	\$
Wall 3A	W	point226	226	18.00	18.00	18.00	199	3589				
		point227	227	18.00	14.00	10.00	202	2834				
		point228	228	10.00	10.00	10.00	210	2102	Y			
		point229	229	10.00	10.00	10.00	135	1347	Y			
		point230	230	10.00	14.00	18.00	132	1848				
		point231	231	18.00	18.00	18.00	200	3609				
		point232	232	18.00	18.00	18.00	200	3591				
		point233	233	18.00	18.00	18.00	200	3605				
		point234	234	18.00	18.00	18.00	200	3607				
		point235	235	18.00	18.00	18.00	202	3630				
Wall 3B	W	point133	133	18.00	18.00	18.00	129	2329				
		point134	134	18.00	18.00	18.00	217	3903				
		point135	135	18.00	18.00	18.00	207	3720				
		point136	136	18.00	18.00	18.00	210	3777				
		point137	137	18.00	18.00	18.00	210	3780				
		point138	138			18.00						
		point139	139			18.00	197					
		point140	140			18.00	204					
		point141	141			18.00		3610				
		point142	142			18.00						
		point143	143			18.00						
		point144	144			18.00						
		point145	145	18.00	18.00	18.00	247	4447				

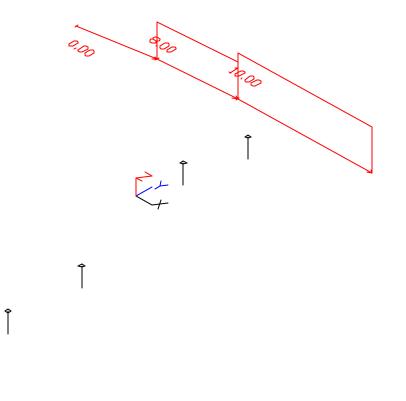
SR-193; 4500 W to 2000 W, PIN 16518

Utah Department of Transportation							24 Octobe	er 2019				
BIO-WEST, Inc.							TNM 2.5					
							Calculate	d with TNM	2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		SR-193	; 4500 W to	2000 W, PIN	16518							
RUN:		Design	Year Impa	cts Including	Barriers							
BARRIER DESIGN:		Wall 3						Average p	avement type	e shall be use	d unless	
								a State hig	hway agenc	y substantiate	es the use	e
ATMOSPHERICS:		86 deg	F, 28% RH					of a differ	ent type with	approval of F	HWA.	
Receiver]			-							
Name	No.	#DUs	Existing	No Barrier	_				With Barrier			
			LAeq1h	LAeq1h		Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc	-				minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
662 S 3300 WEST	170) 1	41.9	53.8	3 66	5 11.9	9 10	Sub'l Inc	50.8	3 3.0)	7 -4.
413 S 3350 WEST	234	1	41.9					Sub'l Inc	47.6			7 -2.
431 S 3350 WEST	193		41.9						47.2			7 -3.
438 S 3200 WEST	233		41.9						47.9			7 -1.
449 S 3350 WEST	232	2 1	41.9	53.5	5 66	6 11.6	6 10	Sub'l Inc	50.8	3 2.7	,	7 -4.
479 S 3350 WEST	186	6 1	41.9	52.4	66	6 10.5	5 10	Sub'l Inc	47.4	5.0		7 -2.
501 S 3350 WEST	185	5 1	41.9	52.3	66	6 10.4	4 10	Sub'l Inc	48.0	4.3	5	7 -2.
519 S 3350 WEST	184	1	41.9	52.9	66	6 11.0) 10	Sub'l Inc	48.1	4.8	5	7 -2.
539 S 3350 WEST	183	5 1	41.9	53.3	66	6 11.4	4 10	Sub'l Inc	48.4	4.9)	7 -2.
571 S 3350 WEST	182	2 1	41.9	52.9	66	6 11.0) 10	Sub'l Inc	48.6	6 4.3	5	7 -2.
583 S 3350 WEST	181	1	41.9	54.4	66	6 12.5	5 10	Sub'l Inc	49.5	5 4.9)	7 -2.
624 S 3300 WEST	172	2 1	41.9	53.4	66	5 11.5	5 10) Sub'l Inc	49.6	3.8	8	7 -3.
608 S 3275 WEST	283	3 1	41.9	53.9	66	6 12.0) 10) Sub'l Inc	48.9	9 5.0)	7 -2.
603 S 3300 WEST	280) 1	41.9	54.2	2 66	6 12.3	3 10	Sub'l Inc	49.3	3 4.9		7 -2.
611 S 3300 WEST	243	5 1	41.9	54.9	66	6 13.0) 10	Sub'l Inc	50.0	4.9)	7 -2.
623 S 3300 WEST	242	2 1	41.9	55.8	66	i 13.9	9 10) Sub'l Inc	51.4	4.4	Ļ	7 -2.
642 S 3275 WEST	244	1	41.9	55.6	66	i 13.7		Sub'l Inc	50.4	5.2	2	7 -1.
651 S 3300 WEST	241		41.9					Sub'l Inc	52.0			7 -3.
667 S 3300 WEST	245		41.9	55.9	9 66	6 14.0	10	Sub'l Inc	52.8	3.1		7 -3.
658 S 3275 WEST	246	6 1	41.9	56.1	66	6 14.2	2 10	Sub'l Inc	53.0) 3.1		7 -3.
681 S 3300 WEST	247		41.9			6 14. 7	7 10	Sub'l Inc	53.6	3.0		7 -4.
676 S 3275 WEST	248		41.9	57.2			3 10) Sub'l Inc	54.7	2.5	5	7 -4.
676 S 3275 WEST	249	1	41.9	57.1	66	6 15.2	2 10	Sub'l Inc	55.0) 2.1		7 -4.
693 S 3300 WEST	250	1 1	41.9	57.7	66	5 15.8	3 10	Sub'l Inc	55.3	3 2.4	-	7 -4.

						-	,		, ,			
396 S 3350 WEST	237	1	41.9	57.7	66	15.8	10	Sub'l Inc	51.4	6.3	7	-0.7
404 S 3350 WEST	235	1	41.9	57.6	66	15.7	10	Sub'l Inc	50.8	6.8	7	-0.2
416 S 3350 WEST	191	1	41.9	57.9	66	16.0	10	Sub'l Inc	51.0	6.9	7	-0.1
428 S 3350 WEST	190	1	41.9	57.9	66	16.0	10	Sub'l Inc	51.0	6.9	7	-0.1
436 S 3200 WEST	189	1	41.9	58.0	66	16.1	10	Sub'l Inc	51.1	6.9	7	-0.1
446 S 3350 WEST	231	1	41.9				-		51.0	6.9		-0.1
458 S 3350 WEST	188	1	41.9	57.9	66	16.0	10	Sub'l Inc	51.0	6.9	7	-0.1
464 S 3350 WEST	187	1	41.9	57.9	66	16.0	10	Sub'l Inc	51.0	6.9	7	-0.1
482 S 3350 WEST	341	1	41.9	58.0			10	Sub'l Inc	51.4	6.6		-0.4
498 S 3350 WEST	180	1	41.9	57.8	66	15.9	10	Sub'l Inc	51.4	6.4	7	-0.6
506 S 3350 WEST	179	1	41.9	57.7	66	15.8	10	Sub'l Inc	51.4	6.3	7	-0.7
524 S 3350 WEST	178	1	41.9	57.9	66	16.0	10	Sub'l Inc	51.9	6.0	7	-1.0
536 S 3350 WEST	177	1	41.9	57.9	66	16.0	10	Sub'l Inc	52.3	5.6	7	-1.4
542 S 3350 WEST	176	1	41.9	57.5			10	Sub'l Inc	52.1	5.4	7	-1.6
564 S 3350 WEST	175	1	41.9	58.3	66	16.4	10	Sub'l Inc	52.8	5.5	7	-1.5
592 S 3350 WEST	174	1	41.9	58.4	66	16.5	10		53.6	4.8	7	-2.2
618 S 3350 WEST	173	1	41.9	59.3	66	17.4	10	Sub'l Inc	55.6	3.7	7	-3.3
622 S 3350 WEST	171	1	41.9	58.1	66	16.2	10	Sub'l Inc	53.6	4.5	7	-2.5
3353 W 625 SOUTH	169	1	41.9	57.1	66	15.2	10	Sub'l Inc	51.6	5.5	7	-1.5
674 S 3300 WEST	240	1	41.9	59.8	66	17.9	10	Sub'l Inc	56.9	2.9		-4.1
696 S 3300 WEST	168	1	41.9	58.4	66	16.5	10	Sub'l Inc	55.9	2.5	7	-4.5
Dwelling Units		# DUs	Noise Rec	duction								
			Min	Avg	Max							
			dB	dB	dB							
All Selected		45	2.1	4.8	6.9							
All Impacted		44	2.1	4.8	6.9							
All that meet NR Goal		0	0.0	0.0	0.0							



Design Year Imp	acts Including Barriers	Sheet 1 of 1	24 Oct 2019
		Utah Department	t of Transportation
Perspective View	1	Project/Contract	No. SR-193; 4500 W to 2000
Run name: Futur	e_WDCVols	TNM Version 2.5	, Feb 2004
Scale: <dna -="" du<="" td=""><td>ue to perspective></td><td>Analysis By: BIO</td><td>-WEST, Inc.</td></dna>	ue to perspective>	Analysis By: BIO	-WEST, Inc.
Roadway:	\longrightarrow	Ground Zone:	polygon
Roadway: Receiver:	\longrightarrow	Ground Zone: Tree Zone:	polygon dashed polygon
,	$\xrightarrow{\square}$	-	, , , , , , , , , , , , , , , , , , , ,
Receiver:		Tree Zone:	dashed polygon



Design Year Im	pacts Including Barriers	Sheet 1 of 1	25 Oct 2019
-		Utah Department	t of Transportation
Barrier View-Wa	all4	Project/Contract	No. SR-193; 4500 W to 2000 W
Run name: Futu	ire_WDCVols	TNM Version 2.5	, Feb 2004
Scale: <dna -="" d<="" td=""><td>lue to perspective></td><td>Analysis By: BIO</td><td>-WEST, Inc.</td></dna>	lue to perspective>	Analysis By: BIO	-WEST, Inc.
Roadway:	\longrightarrow	Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:	\longmapsto	Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	\longrightarrow

RESULTS: BARRIER-SEGMENT DESCRIPTIONS

Utah Department of Transportation										24 October 201	19	
BIO-WEST, Inc.										TNM 2.5		
RESULTS: BARRIER-SEGMENT DES	RIPTIO	NS										
PROJECT/CONTRACT:	SR-19	3; 4500 W to 2	2000 W,	PIN 16518		1						
RUN:	Desig	n Year Impact	ts Inclu	ding Barriers								
BARRIER DESIGN:	unsav	ed										
Barriers		Segments										
Name	Туре	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	\$
Wall 4	W	point193	193	0.00	8.00	0.00	0	0				
		point194	194	8.00	8.00	8.00	101	810				
		point195	195	10.00	10.00	10.00	172	1720				

				1			· · ·	1				
Utah Department of Transportation							24 Octobe	er 2019				
BIO-WEST, Inc.							TNM 2.5					
							Calculated	d with TN	M 2.5			
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		SR-193	; 4500 W to	2000 W, PIN	16518							
RUN:		Design	Year Impa	cts Including	Barriers							
BARRIER DESIGN:		unsave	d					Average	pavement typ	e shall be use	d unless	
								a State h	ighway agenc	y substantiate	es the use	
ATMOSPHERICS:		86 deg	F, 28% RH					of a diffe	rent type with	approval of F	HWA.	
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier	<u>.</u>		
			LAeq1h	LAeq1h	_!	Increase over	existing	Туре	Calculated	Noise Reduc	tion	
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
290 S 3000 WEST	194	1	46.6	55.5	66	8.9	10		54.7	0.8	· ·	7 -6.
270 S 3000 WEST	196	1	53.7	58.5	66	6 4.8	10		57.8	3 0.7		7 -6.
258 S 3000 WEST	197	1	55.5	63.9	66	8.4	10		60.8	3.1	-	7 -3.
246 S 3000 WEST	198	1	53.8	67.2	2 66	3 13.4	. 10	Both	59.8	3 7.4	-	7 0.
Dwelling Units		# DUs	Noise Ree	duction								
			Min	Avg	Max	_						
			dB	dB	dB	_						
All Selected		4	0.7	3.0) 7.4	1						
All Impacted		1	7.4									
All that meet NR Goal		1	7.4		7.4	1						_

P				
Design Year Im	pacts Including Barriers	Sheet 1 of 1	25 Oct 2019	
-		Utah Department	t of Transportation	
Barrier View-Wa	all 5	Project/Contract	No. SR-193; 4500 W to 2000	<u>w</u> ,
Run name: Futu	re_WDCVols	TNM Version 2.5	, Feb 2004	
Scale: <dna -="" c<="" td=""><td>lue to perspective></td><td>Analysis By: BIO</td><td>-WEST, Inc.</td><td></td></dna>	lue to perspective>	Analysis By: BIO	-WEST, Inc.	
Roadway:	\longrightarrow	Ground Zone:	polygon	
Receiver:		Tree Zone:	dashed polygon	
Barrier:	\longmapsto	Contour Zone:	polygon	
Building Row:		Parallel Barrier:		
Terrain Line:		Skew Section:	\longrightarrow	

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RESULTS: BARRIER-SEGMENT DESCRIPTIONS

Utah Department of Transportation										24 October 201	19	
BIO-WEST, Inc.										TNM 2.5		
RESULTS: BARRIER-SEGMENT DES	CRIPTIO	NS										
PROJECT/CONTRACT:	SR-19	3; 4500 W to 2	2000 W,	PIN 16518								
RUN:	Desig	n Year Impact	ts Inclu	ding Barriers								
BARRIER DESIGN:	unsav	ed										
Barriers		Segments										
Name	Туре	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	\$
Wall 5	W	point237	237	12.00	12.00	12.00	215	2578				
		point238	238	12.00	12.00	12.00	182	2184				
		point239	239	12.00	12.00	12.00	182	2184				

Utah Department of Transportation								24	4 Octob	er 2019					
BIO-WEST, Inc.								T	NM 2.5						
								C	alculate	d with TNN	1 2.5				
RESULTS: SOUND LEVELS															
PROJECT/CONTRACT:		SR-193	; 4500 W to	2000 W, PII	16518										
RUN:		Design	Year Impa	cts Including	g Barrier	s									
BARRIER DESIGN:		unsave	d							Average p	pavement type	e shall be use	d unless		
										a State hi	ghway agenc	y substantiate	es the use		
ATMOSPHERICS:		86 deg	F, 28% RH							of a differ	ent type with	approval of F	HWA.		
Receiver															
Name	No.	#DUs	Existing	No Barrier							With Barrier				
			LAeq1h	LAeq1h			Increase over	r ex	isting	Туре	Calculated	Noise Reduc	tion		
				Calculated	Crit'n		Calculated	С	rit'n	Impact	LAeq1h	Calculated	Goal	Calculate	эd
								Sı	ub'l Inc					minus	
														Goal	
			dBA	dBA	dBA		dB	dE	В		dBA	dB	dB	dB	
112 S 3000 WEST	201	1	60.1	57.	5	66	-2.6	6	1()	57.1	0.4		7	-6
136 S 3000 WEST	200	1	53.9	60.	8	66	6.9	9	1()	59.6	1.2		7	-5
172 S 3000 WEST	199	1	54.0	64.	8	66	10.8	8	1(Sub'l Inc	62.1	2.7		7	-4
Dwelling Units		# DUs	Noise Ree	duction											
			Min	Avg	Max										
			dB	dB	dB										
All Selected		3	0.4	1.	4	2.7									
All Impacted		1	2.7	2.	7	2.7									
All that meet NR Goal		0	0.0	0.	0	0.0									



Appendix C: Cultural and Paleontological Clearances







State of Utah

GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

September 9, 2019

Mr. Cory Jensen Senior Historic Preservation Specialist Utah Division of State History 300 Rio Grande Salt Lake City, UT 84101-1182

RE: UDOT Project No. S-R199(245)2; SR-193, 700 South to 3000 West, Davis County, Utah (PIN 16518). Determination of Eligibility and Finding of No Adverse Effect.

Dear Mr. Jensen:

The Utah Department of Transportation (UDOT) is preparing to undertake the subject state-aid project. In accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), the UDOT has taken into account the effects of this undertaking on historic properties and is affording the Utah State Historic Preservation Officer (SHPO) an opportunity to comment on the undertaking.

PROJECT DESCRIPTION

UDOT is proposing to extend SR-193 from its current western terminus at 3000 West to 4500 West (SR-110) and construct a diamond interchange at the future West Davis Corridor. Between 3000 West and the West Davis Corridor, UDOT proposes to continue the configuration of SR-193 that currently exists between 2000 West and 3000 West, which consists of two travel-lanes in each direction separated by a median swale; the typical width of this section would be 150 feet-wide. Between West Davis Corridor and 4500 West, the proposed typical cross section would have one travel lane in each direction separated by a continuous two-way left-turn lane. Shoulders would be provided on both sides, lined with gutter, curb, park strip, and sidewalk; the typical width of this section would be 84 feet-wide.

The APE for cultural resources included the proposed footprint of all active alternatives as well as all adjoining parcels. However, after initial alternative selection, a smaller survey area was established based on the preferred alternative. The APE has been surveyed for archaeology by Certus Environmental Solutions, under State Antiquities Project Number U19HY0003, and the results are reported in *An Archaeological Resource Assessment for the SR-193 Extension; 4500 West to 3000 West, Davis County, Utah* (see enclosed report). An intensive level pedestrian survey was also conducted to record architectural properties, and the results are reported in *A Selective Reconnaissance-Level Historic Structures Inventory for the SR-193 Extension; 4500 West to 3000 West, Davis County for the SR-193 Extension; 4500 West, Davis County, Utah* (see enclosed report).

The survey has resulted in the identification of 4 archaeological sites and 4 architectural properties. Of these, 1 archaeological site and 1 architectural property are eligible to the National Register of Historic Places (NRHP). No known traditional cultural properties or paleontological resources are located in the APE. The Determinations of

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment Eligibility and Findings of Effects are provided in Table 1 for archaeological resources and in Table 2 for architectural properties.

ARCHAEOLOGICAL RESOURCES

Site	Name or Description	NRHP Eligibility	Finding of Effect		
42DV158	Hooper Canal System	Eligible (Criterion A)	No Adverse Effect		
42DV172	Unnamed Drainage Ditch	Not Eligible	No Historic Properties Affected		
42DV178	Stevenson Ditch System	Not Eligible	No Historic Properties Affected		
42DV182	Layton Canal	Not Eligible	No Historic Properties Affected		

Table 1. Determinations of Eligibility and Findings of Effect for Archaeological Resources

Description of Effect to Site 42DV158: The proposed project will move the piped East-West lateral and it's modern diversion to accommodate the new road alignment. Aerial imagery indicates that this lateral was piped in 2010 along the same alignment as a previous open channel. The western 640 feet of this lateral has been added in modern times and the lateral appears to only supply the adjacent fields; it does not connect with the rest of the system on 4500 West. The open channel on 4500 West will be piped for approximately 80 feet under the new intersection of 4500 West and SR-193. The currently piped main canal along Cold Springs Road will not be impacted. The project will affect a relatively small portion of the canal system and will not substantially impact or alter any contributing elements of the site or any of the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of No Adverse Effect for this property.

ARCHITECTURAL PROPERTIES

Address	Date	Style	NRHP Eligibility/ SHPO Rating	Finding of Effect
222 S. 3000 West, West Point	1965	Outbuildings	Not Eligible/NC	No Historic Properties Affected
246 S. 3000 West, West Point	1967	Ranch/ Rambler	Eligible/EC	No Adverse Effect
3444 W. 700 South, West Point	1910	Cross-wing	Not Eligible/NC	No Historic Properties Affected
3454 W. 700 South, West Point	1936	Other: Minimal Traditional	Not Eligible/NC	No Historic Properties Affected

Table 2. Determinations of Eligibility and Findings of Effect for Architectural Properties

Description of Effect to 246S. 3000 West: This proposed project requires right of way acquisitions of approximately 0.15 acres (of 0.93 acre parcel) along the side of the property. The acquisitions and associated construction affect a relatively small portion of this property and will not substantially impact or alter any contributing elements of the property or any of the character-defining features for which it was determined eligible for the NRHP.

CONSULTATION EFFORTS

Native American consultation was initiated through letters sent to the Confederated Tribes of the Goshute Reservation, Skull Valley Band of Goshutes, Northwestern Band of Shoshone Nation, Shoshone-Bannock Tribes, Eastern Shoshone Tribe of the Wind River Reservation, Uintah and Ouray Ute Tribes, and the Cedar and Shivwits

Bands of the Paiute Indians (sent March 4, 2019). Letters were also sent to the Syracuse Certified Local Government representative (sent March 6, 2019). No responses or comments were received from the tribes or CLG. The public will be notified of the impacts to cultural resources during a project open house.

SUMMARY

To summarize, the project will result in a finding of **No Adverse Effect** for 1 archaeological site and 1 architectural property, and a finding of **No Historic Properties Affected** for all remaining architectural properties and archaeological sites. Therefore, the Finding of Effect for the proposed UDOT Project No. S-R199(245)2; SR-193, 700 South to 3000 West, Davis County, Utah, is **No Adverse Effect**.

Please review this document and, providing you agree with the findings contained herein, provide written concurrence. Should you have any questions or need additional information, please feel free to contact Liz Robinson at 801-910-2035 or lizrobinson@utah.gov; or Elizabeth Giraud at 801-965-4917 or egiraud@utah.gov.

Sincerely,

Liz Robinson

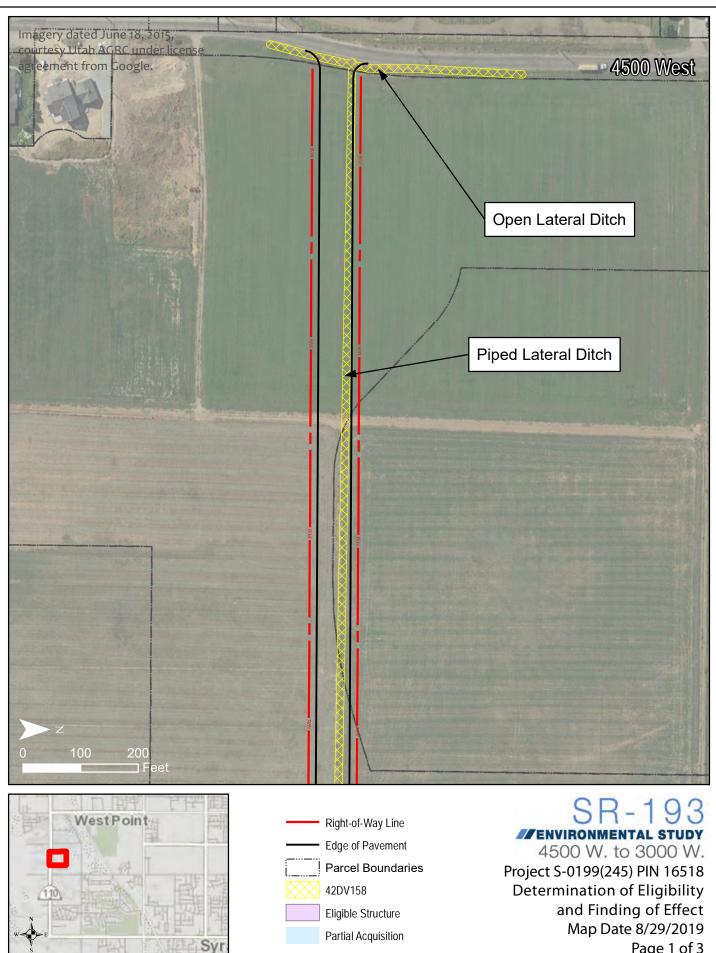
Liz Robinson, M.A., RPA Cultural Resources Program Manager UDOT Environmental Services

Enclosures

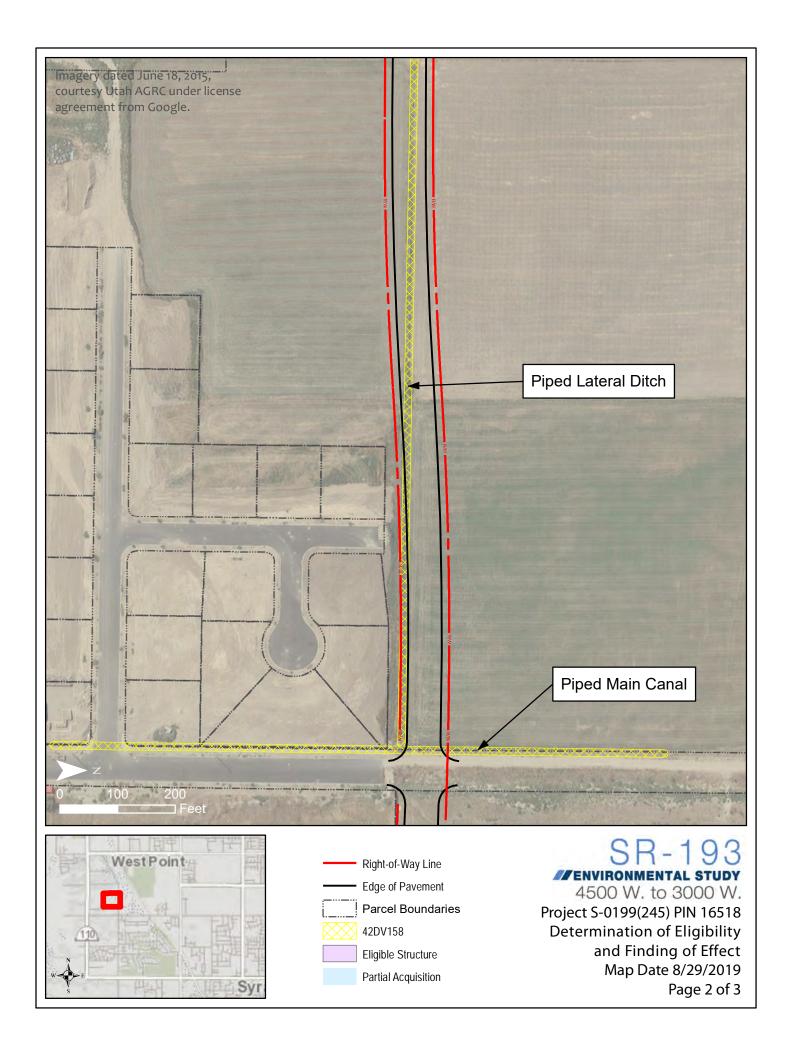
lizabeth Giraud Elizabeth Giraud, AICP

Elizabeth Giraud, AICP Architectural Historian UDOT Environmental Services

cc: Dan Young, Project Manager Elisa Albury, Environmental Manager



Page 1 of 3





4500 W. to 3000 W. Project S-0199(245) PIN 16518 Determination of Eligibility and Finding of Effect Map Date 8/29/2019 Page 3 of 3

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Parcel Boundaries 42DV158 Eligible Structure Partial Acquisition



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

Jill Remington Love Executive Director Department of Heritage & Arts



Don Hartley Director State Historic Preservation Officer

September 11, 2019

Liz Robinson Cultural Resources Program Manager Utah Dept of Transportation (UDOT) 4501 Constitution Blvd Salt Lake City, UT 84119

RE: PIN 16518_SR-193, 700 South to 3000 West, Davis County_S-R199(245)2

For future correspondence, please reference Case No. 19-1973

Dear Ms Robinson,

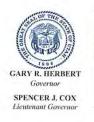
The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced project on September 10, 2019. Based on the information provided to our office, we concur with your determination of eligibility and finding of No Adverse Effect for the proposed undertaking.

This information is provided to assist with Section 106 responsibilities as per §36CFR800. If you have questions, please contact me at (801) 245-7242 or by email at coryjensen@utah.gov.

Sincerely,

Cory Jensen National Register & Survey Coordinator





DEPARTMENT OF NATURAL RESOURCES MICHAEL R. STYLER

Executive Director Utah Geological Survey R. William Keach II State Geologist/Division Director

July 11, 2019

Sheri Murray Ellis CERTUS Environmental Solutions, LLC 655 7th Avenue Salt Lake City UT 84103

RE: Paleontological File Search and Recommendations for UDOT Project S-R199(245); PIN 16518: SR-193 Extension; 700 South to 2000 West, Davis County, Utah U.C.A. 79-3-508 (Paleontological) Compliance; Request for Confirmation of Literature Search according to the UDOT/UGS Memorandum of Understanding.

Dear Sheri:

I have conducted a paleontological file search for the SR-193 Extension Project in response to your letter of July 11, 2019. This project qualifies for treatment under the UDOT/UGS executed Memorandum of Understanding.

There are no paleontological localities recorded in our files within this project area. Quaternary and Recent alluvial and lacustrine deposits that are exposed along this project right-of-way have a low potential for yielding significant fossil localities (PFYC 2). Unless fossils are discovered as a result of construction activities, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

Martha Hayden — Paleontological Assistant



1594 West North Temple, Suite 3110, PO Box 146100, Salt Lake City, UT 84114-6100 telephone (801) 537-3300 • facsimile (801) 537-3400 • TTY (801) 538-7458 • geology.utah.gov



Appendix D: Public Outreach Reports







SCOPING REPORT

SR-193 State Environmental Study

Project No. S-R199(245)

PIN 16518

May 2019

Prepared for: Utah Department of Transportation

Prepared by: H.W. Lochner | 3995 South 700 East, Suite 450 | Salt Lake City, UT 84107

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1.0	Project Overview	4
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	Public Scoping Advertisement	4
	Public Scoping Meeting	5
3.0	Comment Summary	5
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App	endix D: Public Scoping Comments1	02

1.0 Project Overview

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate a potential extension of SR-193 in Syracuse and West Point, Utah. SR-193 currently terminates at 3000 west. Through this study, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West. In preparing the SES, UDOT will evaluate the environmental and social impacts of the proposed extension.

UDOT conducted an agency and public scoping phase for the SR-193 SES. This report documents the work that took place during the scoping phase, a summary of the public scoping meeting, and comments received.

2.0 Scoping Phase

The formal scoping phase began on March 19, 2019, with a public scoping meeting followed by a 30-day public comment period continuing through April 18, 2019. The purpose of this phase was to share information about the SR-193 SES process, and listen to and learn from the agencies and public regarding issues, concerns, goals, and solutions.

Agency and Tribal Scoping

The project team conducted scoping with agencies that could have an interest in the project due to presence of resources or land under their jurisdiction within the study area. Scoping was also conducted with tribes that could have an interest in the project due to cultural affiliation. Letters were mailed on March 8, 2019, soliciting input and inviting agency representatives to attend to the public meeting on March 19, 2019 or to schedule an individual meeting with the project team.

An Agency scoping meeting was held on March 19, 2019 prior to the public meeting. The goal of this meeting was to inform agencies about the SR-193 SES process, answer their questions, and gather their input before the public meeting began later in the evening. Representatives from the Syracuse Arts Academy, West Point City, and the Wasatch Front Regional Council attended. **See Appendix A for a copy of the letters and the agency sign in sheet.**

Scoping Advertisement

The project team advertised the public scoping meeting and comment period to the community through the following methods:

- Postcard invitations as well as an email notification were sent to residents adjacent to the corridor on March 8, 2019
- UDOT Region One posted meeting invitation reminders on its official Twitter account on March 17, March 18, 2019, and March 19, 2019
- A press release was sent on March 8, 2019
- A project specific website was created (<u>utah.udot.gov/sr193extension</u>), which included information on the scoping meeting

See Appendix B for copies of these meeting advertisements.

Public Scoping Meeting

A public scoping meeting was held on March 19, 2019, at Syracuse Arts Academy, which is located on the Antelope Drive corridor. The meeting was held in an open house format and 57 people signed-in at the meeting. This meeting was held in conjunction with the Antelope Drive (SR-127) scoping meeting. Display boards and a scroll plot provided information about both projects. The project team and West Davis Corridor (WDC) representatives were available to answer questions one-on-one and listen to concerns. Attendees were encouraged to submit comments on forms provided at the meeting or mail their comments before the end of the comment period. A large map of the study area was available and attendees provided comments on the maps indicating areas where they had concerns.

Meeting information shown at the public open house was also available on the website, allowing individuals unable to attend the meeting to be engaged. An online comment form and the project email were available on the website for members of the public to submit comments electronically.

See Appendix C for sign-in sheets, meeting display boards, Frequently Asked Questions handout, scroll plot, blank comment forms, and content from the website.

3.0 Comment Summary

A 30-day official public scoping comment period began on March 19, 2019, and ended on April 18, 2019. Comments were gathered through the following methods:

- Comment form available at the open house
- Email to sr193extension@utah.gov
- Online comment form and web map on project site: udot.utah.gov/sr193extension
- Mailed to SR-193 SES Project Team, c/o Lochner, 3995 South 700 East, # 450, SLC, UT 84107

A total of 19 comment forms for SR-193 were completed by attendees at the public scoping meeting, along with 3 individuals commenting on the scroll plot. In addition, 3 individuals commented via email, and 1 individual commented utilizing the online comment form. No comments were submitted via the online comment map.

The following is a summary of common themes (and number of comments associated with each theme) from comments collected during the scoping phase:

- Feel that the SR-193 Corridor should go <u>through (6)</u> or <u>around (5)</u> the golf course.
- Feel that the WDC interchange should be located at SR-193 (5)
- Concerned with traffic and congestion increase due to future WDC traffic (5)
- Concerned about property impacts and land values (7)
- Comments in support of improvements but concerned about routing (1)
- Comments not in support of improvements (2)
- Connect SR-193 at 200 S., not 700 S. (2)
- Misc. Comments
 - WDC should be built on surface level (2), with frontage road connecting SR-193 to Antelope Dr. (1)
 - Would prefer full takes versus partial (2)
 - Concerned about bike trail impacts (1)

- Concerned about safety of school children (1)
- Concerned about compensation during ROW (1), and ROW timeline (1)
- Concerned about barriers along neighborhoods and homes near corridor, would like to see noise barriers put up (1)

At the end of the public comment period, the project team sent an email to members of the public who provided contact information or comments during the scoping period. The purpose of the email was to provide a summary and general response to comments received. **Comments and the email sent following the comment period are available in Appendix D.**

Appendix A

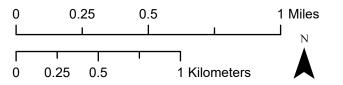
Agency and Tribal Scoping Letters and Comments



SR-193 #ENVIRONMENTAL STUDY 4500 W. to 3000 W.

Study Area UDOT Project S-R199(245) PIN 16518

Map Date: 2/27/2019







GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Jason Gipson, Chief Utah Regulatory Branch U.S. Army Corps of Engineers, Bountiful Field Office 533 West 2600 South, Suite 150 Bountiful, UT 84010-7744

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Gipson:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

UDOT is interested in understanding issues and concerns about the project location from the expertise of your agency. You are invited to attend an agency scoping meeting, to be held on <u>Tuesday, March 19, 2019 from 3:30 - 4:30 p.m. at the Syracuse Arts Academy, Antelope Campus Junior High, 2893 West 1700 South, Syracuse, UT 84075.</u>

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 ealbury@utah.gov

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Andrew Gruber, Executive Director Wasatch Front Regional Council 295 North Jimmy Doolittle Road Salt Lake City, UT 84116

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Gruber:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

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Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

March 1, 2019

Mr.Kyle Laws, City Manager West Point City 3200 West 300 North West Point, UT 84015

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Laws:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

UDOT is interested in understanding issues and concerns about the project location from the expertise of your agency. You are invited to attend an agency scoping meeting, to be held on <u>Tuesday, March 19, 2019 from 3:30 - 4:30 p.m. at the Syracuse Arts Academy, Antelope Campus Junior High, 2893 West 1700 South, Syracuse, UT 84075.</u>

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 ealbury@utah.gov

Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Brett Schneiter, Schneiter's Bluff Golf Course 300 North 3500 West West Point, UT 84015

Subject: State Route 127 (Antelope Drive) State Environmental Study, Davis County, Utah UDOT Project No. S-0127(7)2, PIN 16717 Initiation of Environmental Scoping

Dear Mr. Schneiter:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential improvements to S.R. 127 (Antelope Drive) in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

The future West Davis Corridor will intersect S.R. 127 between Bluff Road and 3000 West, near the Syracuse Arts Academy. In the SES, UDOT will be evaluating capacity, connectivity, and safety needs for the segments of S.R. 127 near the new interchange with the West Davis Corridor. Updated traffic data is being collected to help define these needs. Additionally, the preliminary design of the West Davis Corridor/S.R. 127 interchange may also be reevaluated as part of the State Environmental Study. Based on previous studies, cultural resources—primarily historic structures—are the main environmental concern along the project corridor. A public hearing on the draft SES is expected in fall 2019.

Scoping

UDOT is interested in understanding issues and concerns about the project location from the expertise of your agency. You are invited to attend an agency scoping meeting, to be held on <u>Tuesday</u>, <u>March 19</u>, 2019 from 3:30 - 4:30 p.m. at the Syracuse Arts Academy, <u>Antelope Campus Junior High</u>, 2893 West 1700 South, Syracuse, UT 84075.

A public open house will also be held on Tuesday, March 19, 2019 from 5:30 - 7:30 p.m. at the Syracuse Arts Academy, Antelope Campus Junior High, 2893 West 1700 South, Syracuse, UT 84075. The public is invited to comment regarding potential issues to be evaluated in the Study. Agency representatives are welcome to attend the open house.

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>ealbury@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Brett Schneiter, Schneiter's Bluff Golf Course 300 North 3500 West West Point, UT 84015

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Schneiter:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

UDOT is interested in understanding issues and concerns about the project location from the expertise of your agency. You are invited to attend an agency scoping meeting, to be held on <u>Tuesday</u>, <u>March 19</u>, 2019 from 3:30 - 4:30 p.m. at the Syracuse Arts Academy, <u>Antelope Campus Junior High</u>, 2893 West 1700 South, Syracuse, UT 84075.

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 ealbury@utah.gov

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Ms.Sindy Smith, RDCC Coordinator Resource Development Coordinating Committee Public Lands Policy Coordinating Office 5110 State Office Building P.O. Box 141107 Salt Lake City, UT 84114-1107

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Smith:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

UDOT is interested in understanding issues and concerns about the project location from the expertise of your agency. You are invited to attend an agency scoping meeting, to be held on <u>Tuesday</u>, <u>March 19</u>, 2019 from 3:30 - 4:30 p.m. at the Syracuse Arts Academy, <u>Antelope Campus Junior High</u>, 2893 West 1700 South, Syracuse, UT 84075.

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 ealbury@utah.gov

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

March 1, 2019

Mr.Grey Turner, Sr. Program Manager Utah Transit Authority P.O. Box 30810 Salt Lake City, UT 84130

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Turner:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

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DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Elisa Albury Environmental Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 ealbury@utah.gov

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Brad Westwood, State Historic Preservation Officer State Historic Preservation Office 300 S. Rio Grande Street (450 West) Salt Lake City, UT 84101

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Westwood:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

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Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 1, 2019

Mr.Brody Bovero, City Manager Syracuse City 1979 West 1900 South Syracuse, UT 84075

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Laws:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Study Background

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Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Shi Si ay

Elisa Sims Albury Environmental Program Manager Environmental Services Division



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Rupert Steele, Chairman Confederated Tribes of the Goshute Reservation P.O. BOX 6104/195 Tribal Center Rd. Ibapah, UT 84034

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Rupert:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Mary Pete-Freeman, Tribal Transportation Planning Confederated Tribes of the Goshute Reservation P.O. BOX 6104/195 Tribal Center Rd. Ibapah, UT 84034

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Pete-Freeman:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Scoping

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Candace Bear, Chairwoman Skull Valley Band of Goshute Indians 407 Skull Valley Rd. Skull Valley, UT 84029

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Bear:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

The official thirty (30) day scoping comment period will run from March 19, 2019 through April 18, 2019.

If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Darren Parry, Chairman Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Parry:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Patty Timbimboo-Madsen, Cultural and Natural Resource Manager Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Timbimboo-Madsen:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

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Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Blaine Edmo, Chairman Shoshone-Bannock Tribes of the Fort Hall Reservation P.O. Box 306 Pima Drive Fort Hall, ID 83203

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Edmo:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Carolyn Smith, Cultural Resources/Heritage Tribal Office (HeTO) Shoshone-Bannock Tribes of the Fort Hall Reservation P.O. Box 306 Pima Drive Fort Hall, ID 83203

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Smith:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

S.R. 193 currently terminates at 3000 West. In the SES, UDOT will evaluate alternatives for extending S.R. 193 to the west, providing connectivity to the future West Davis Corridor and potentially connecting with S.R. 110 (4500 West). UDOT will develop and evaluate alternative alignments for the extension of S.R. 193. A public hearing on the draft SES is expected in fall 2019.

Scoping

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If you have any questions or would like to discuss in more detail the project or your agency's respective roles and responsibilities during the preparation of this SES and you are unable to attend the agency scoping meeting, please contact me at:

Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Darwin St. Clair, Jr., Chairman Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. St. Clair, Jr.:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Glenda Trosper, Director, Cultural Center Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Trosper:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Joshua Mann, Tribal Historic Presevation Officer Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Mann:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Luke Dunkin, Chairperson Ute Indian Tribe of the Uintah & Ouray Reservation P.O. Box 190 Fort Duchesne, UT 84026

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Dunkin:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

Your agency has been identified as one that may have an interest in the project, or expertise and/or jurisdiction regarding issues pertaining to this study. With this letter, we invite input and recommendations in the development of the State Environmental Study.

Study Background

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Liz Robinson Cultural Resources Program Manager Utah Department of Transportation 4501 South 2700 West Salt Lake City, UT 84114 <u>lizrobinson@utah.gov</u>

Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Betsy Chapoose, Director, Cultural Rights & Protection Ute Indian Tribe of the Uintah & Ouray Reservation P.O. Box 190 Fort Duchesne, UT 84026

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Chapoose:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Mertin Bow, Band Chairman Cedar Band of Paiute Indians 600 North 100 East/ PO Box 235 Cedar City, UT 84721

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Bow:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Robert Pete, Cultural Resources Representative Cedar Band of Paiute Indians 601 North 100 East/ PO Box 235 Cedar City, UT 84721

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Pete:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Please copy your request to:

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Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Mr. Patrick Charles, Band Chairman Shivwits Band of Paiute Indians 6060 West 3650 North Ivins, UT 84738

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Mr. Charles:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager



GARY R. HERBERT Governor

SPENCER J. COX Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E. Executive Director

JASON E. DAVIS, P.E. Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E. Deputy Director of Planning and Investment

March 4, 2019

Ms. Sabrina Redfoot, Cultural Resource Director Shivwits Band of Paiute Indians 6060 West 3650 North Ivins, UT 84738

Subject: State Route 193 State Environmental Study, Davis County, Utah UDOT Project No. S-0199(245), PIN 16518 Initiation of Environmental Scoping

Dear Ms. Redfoot:

The Utah Department of Transportation (UDOT) is initiating a State Environmental Study (SES), evaluating potential extension of S.R. 193 in Syracuse City, Davis County, Utah.

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Study Background

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Please copy your request to:

Andrea Moser BIO-WEST, Inc. 1063 West 1400 North Logan, UT 84321 amoser@bio-west.com

Thank you for your cooperation and interest in this project.

Sincerely,

Elijat Min

Liz Robinson Cultural Resources Program Manager





Key Stakeholder Scoping Meeting Agenda

March 19, 2019

Introductions and Project Overview (5 min) – Rex Harris

Environmental Study Process (5 min) – Elisa Albury

Use study process graphic

Project Details – Andrea Moser

Antelope Drive (5 min) – use slides showing boards

SR-193 (5 min) – use slides showing boards

Issues and Concerns from the Group (30 min) – HG Kunzler

We will use a kmz file that shows both study areas and includes a layer for wetlands and WDC alignment. These will be turned off unless we need to show them.

Tiffany and Laura will keep separate notes for each project for documentation.

Wrap up/How to Comment (5 min) – Tiffany Carlson



Project: SR-193 and Antelope Drive

Meeting Time/Date: March 19, 2019 3:30 pm – 4:30 pm



Meeting Purpose: Key Stakeholder Meeting

Location: Syracuse Arts Academy

Name:	Representing:	Phone:	Email:
Tiffann Carlson	Lochner PI		tearlsone hwochner. Com
Laura Ingersoll	Lochner PI	801-664-1447	lingesoll @ hwlochnel. com connor. roberts @ hw lochner. com
Connor CRoberts	Lochar PI	385-333-5603	
Boyd Davis	West Point	801-776-0970	bdavis a west pointe ity org
Troy Mover Kip Billings	En Wost Point	901-614-5256	tmoyes@ westpointcity.org
Kip Billings	WFRC	601-363-4250	Kipe wfre.org
Dake Hister	Syracuse arts academy	801-784-5211	defister & saa charter, org
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Appendix B

Public Scoping Meeting Advertisement

UDOT to Hold Public Open House for State Environmental Studies (SES's) on SR-193 and Antelope Drive

Studies beginning to evaluate SR-193 and Antelope Drive near the future West Davis Corridor

OGDEN (March 15, 2019) — The Utah Department of Transportation (UDOT) will host a public scoping meeting to provide information about two State Environmental Studies (SES) that are being prepared in West Point and Syracuse, Utah. One study will evaluate a potential extension of SR-193 and the other will evaluate potential improvements to Antelope Drive (SR-127).

The public scoping meeting will be held Tuesday, March 19 from 5:30 to 7:30 p.m. at Syracuse Arts Academy, Antelope Campus Junior High (2893 West 1700 South, Syracuse, UT 84075). The public is invited to visit at any time during the meeting to speak with project representatives, learn about the environmental studies, and provide written comments on the studies. There are two studies being prepared:

- In the SR-193 SES, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor (WDC) and potentially connecting to 4500 West.
- The Antelope Drive SES will evaluate the capacity, connectivity, and safety needs for Antelope Drive near the future WDC interchange. As part of the Antelope Drive study, the preliminary design of the WDC/Antelope Drive interchange may also be reevaluated.

The official public scoping comment period for these two studies run from March 19 to April 18, 2019. Official comments regarding the respective studies may be submitted by email or on the study websites.

- For SR-193, submit comments to: sr193extension@utah.gov, or at http://www.udot.utah.gov/sr193extension
- For Antelope Drive, submit comments to: <u>antelopedriveimproved@utah.gov</u>, or at <u>www.udot.utah.gov/antelopedriveimproved</u>.

For any other questions or concerns, please contact the study hotline at (385) 275-2887

-UDOT-

Media Contact: Rex Harris UDOT Project Manager rexharris@utah.gov Phone: (801) 791-3926 Subscribe

Past Issues

03/08/19

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Antelope Drive

SR-127; 4500 W. to 2000 W.

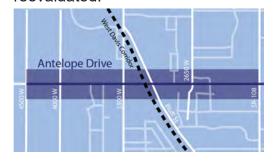
ENVIRONMENTAL STUDY

SR-193 // ENVIRONMENTAL STUDY 4500 W. to 3000 W.

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate a potential extension of SR-193 in Syracuse. SR-193 currently ends at 3000 West. Through this study, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West.



UDOT is preparing а SES to evaluate potential improvements to SR-127 (Antelope Drive) in Syracuse. The future West Davis Corridor (WDC) will intersect Antelope Drive near the Syracuse Arts Academy. The SES will evaluate the capacity, connectivity, and safety needs for Antelope Drive near this new interchange. The preliminary design of the WDC/Antelope Drive interchange may also be reevaluated.



UDOT will hold a combined public scoping meeting for both projects to gather input from the community and provide details about the environmental study process.

Subscribe

Past Issues

YOU'RE INVITED

OPEN HOUSE

Tuesday, March 19, 2019 Come anytime between 5:30 PM and 7:30 PM

Syracuse Arts Academy (Antelope Campus) Jr. High 2893 W 1700 S, Syracuse, UT 84075

The open house will be accessible according to the requirements of the Americans with Disabilities Act (ADA). If you have any special language, audio or visual needs please contact the project team at least 72 hours prior to the meeting so that accommodations can be provided.

Comments will be accepted at the public meeting. You may also comment from March 19 to April 18, 2019 on the project websites or via email (see details below).

Contact Our Public Involvement Team

Hotline: (385) 275-2887

Email: <u>sr193extension@utah.gov</u> <u>antelopedriveimproved@utah.gov</u>

Website: <u>udot.utah.gov/sr193extension</u> <u>udot.utah.gov/antelopedriveimproved</u>

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SR-193 **#ENVIRONMENTAL STUDY** 4500 W. to 3000 W.

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate a potential extension of SR-193 in Syracuse. SR-193 currently ends at 3000 West. Through this study, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West.

Antelope Drive **ENVIRONMENTAL STUDY** SR-127; 4500 W. to 2000 W.

UDOT is preparing a SES to evaluate potential improvements to SR-127 (Antelope Drive) in Syracuse. The future West Davis Corridor (WDC) will intersect Antelope Drive near the Syracuse Arts Academy. The SES will evaluate the capacity, connectivity, and safety needs for Antelope Drive near this new interchange. The preliminary design of the WDC/Antelope Drive interchange may also be reevaluated.

 SR-193
 Antelope Drive

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SR-193 Extension Team Phone: 385-275-2887 Email: sr193extension@utah.gov Website: udot.utah.gov/sr193extension

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Antelope Drive Improved Team Phone: 385-275-2887 Email: antelopedriveimproved@utah.gov Website: udot.utah.gov/antelopedrimproved Return To: H.W. Lochner, 3995 South 700 East, Suite 450 Salt Lake City, UT 84107

UDOT will hold a combined public scoping meeting for both projects to gather input from the community and provide details about the environmental study process.

YOU'RE INVITED

OPEN HOUSE

Tuesday, March 19, 2019 Come anytime between 5:30 PM and 7:30 PM

Syracuse Arts Academy (Antelope Campus) Jr. High 2893 W 1700 S, Syracuse, UT 84075

The open house will be accessible according to the requirements of the Americans with Disabilities Act (ADA). If you have any special language, audio or visual needs please contact the project team at least 72 hours prior to the meeting so that accommodations can be provided.

Comments will be accepted at the public meeting. You may also comment from March 19 to April 18, 2019 on the project websites or via email (details on other side).

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March 18 at 2:04 PM - 🕄

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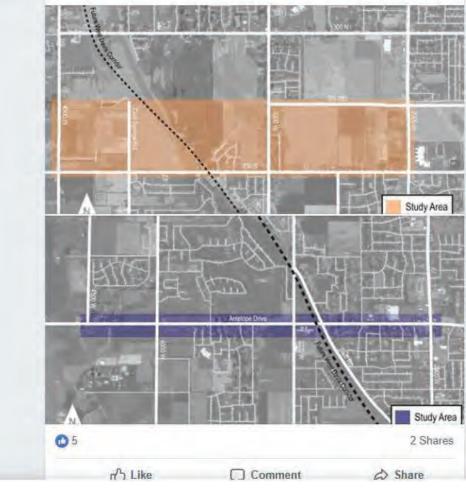
Davis County residents:

UDOT will hold a public scoping meeting for potential improvements to S.R. 193 and Antelope Drive, near the future West Davis Corridor. The meeting will be held on Tuesday, March 19 from 5:30 to 7:30 p.m. at the Syracuse Arts Academy - Antelope Campus (2893 West 1700 South, Syracuse, UT 84075).

Send Message

4.04

Come visit the open house at any time during the meeting to speak with project representatives, learn about the environmental studies, and provide written comme... See More



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LIDOT

UDOT Region One @UDOTRegionOne · Mar 19

TONIGHT: UDOT holding public scoping meeting for potential improvements to SR-193 and Antelope Dr. from 5:30 to 7:30 p.m., Syracuse Arts Academy, 2893 W. 1700 S., Syracuse. Speak with the project teams and provide your comments. INFO? Call 385-275-2887.



UDOT Region One @UDOTRegionOne · Mar 18

TOMORROW, MAR 19: UDOT holding public scoping meeting for potential improvements to SR-193 and Antelope Dr. from 5:30 to 7:30 p.m., Syracuse Arts Academy, 2893 W. 1700 S., Syracuse. Speak with the project teams and provide your comments. INFO? Call 385-275-2887.

Q DI OZ M

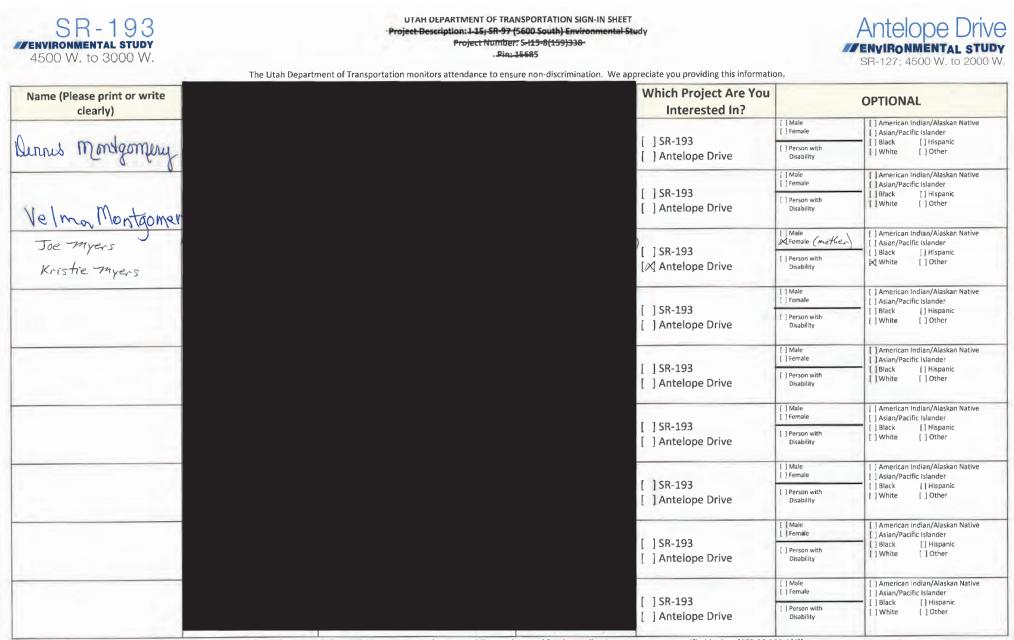


UDOT Region One @UDOTRegionOne · Mar 17 TUESDAY, MAR 19: UDOT holding public scoping meeting for potential improvements to SR-193 and Antelope Dr. from 5:30 to 7:30 p.m., Syracuse Arts Academy, 2893 W. 1700 S., Syracuse, Speak with the project teams and provide your comments. INFO? Call 385-275-2887.

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Appendix C

Public Scoping Meeting Materials



This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: 1-15; SR-97 (5600 South) Environmental Study

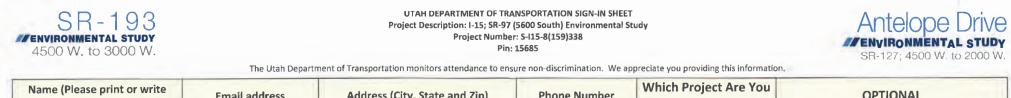
Project Number: S-I15-8(159)338-

-Pin: 15685



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Angeila Ball				[J SR-193	[] Male [J-fémale	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jon (Detti				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []W hite []Other
e1:				[/ SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
essica Oliverson				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jeff Davis Phil Cook				[}SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Discal				[1] SR-193	[¥Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Phil Cook				[X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic
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Muhua Ahelp Dan Phelp				Antelope Drive	[] Person with Disability	
151 1				[X] SR-193	Male [] Female	American Indian/Afaskan Native
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11,				[/-] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
Alfany A				[] SR-193 [] Antelope Drive purposes, as specified by law (CFR 23 20	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
101101					[] Person with Disability	[]Black []Hispanic []White []Other



Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Charlotte Wright				[] SR-193 [4] Antelope Drive	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
0	-		-		Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Brian Torgeson	-			[] SR-193 [L] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
1		FMale []Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander			
Borg-10 Hanse			^	SR-193	[] Person with Disability	[]Black []Hispanic
V				₩ SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
NAKK SANDERG	n			[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
MARK SANDERRY Lanny Hallwook					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
			l	[] SR-193	[] Person with Disability	[] Black [] Hispanic White [] Other
Jay & Susan Stuart	-		-	[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Stuart	Ē			[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
Bruce Redd	-			[1]SR-193	[] Male [] Female	American Indian/Alaskan Native Aslan/Pacific Islander Aslan/Pacific Islander
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Sen + NORMa Patterson	ř.			[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
Donelan	2				[] Male [] Female	[] American Indian/Alaskan Native [] Aslan/Pacific Islander
	[/] SR-193 [/] Antelope Drive		[] Person with Disability	[]Black []Hispanic []White []Other		

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15; SR-97 (5600 South) Environmental Study Project Number: S-I15-8(159)338 Pin: 15685



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
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IVIN LAND				[] SR-193 [yc] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Robert Adams				[X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
(2)				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Robert Adams (2) Michael Smyers				Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
BRADY HAWS				[X] SR-193	N Male [] Female	American Indian/Alaskan Native
DRABY ITAUS				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
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			-	[] SR-193	[/]Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Kenneth Hellewill				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic [-]W hite []Other
al trans			-	[🖌] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
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Mille Gailor] Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Mile Caulor		ly be used to mon itor atte ndance at public meetin		[Antelope Drive	[] Person with Disability	

on will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: 1-15; SR 97 (5600 South) Environmental Study. Project Number: 5-115-8(159)338-





The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL		
Cindy Hellevell		1		bd cp 400	[] Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
Cintag trellauti				SR-193	[] Person with Disability	[]Black []Hispanic PNWhite []Other		
10-R-11/	·B·III			[X] SR-193	[] Male [X] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
Por Brinkishaff Nicole Bigela Robert Rave				Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other		
*1, Biglar				[八SR-193	[] Male DEgnale	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
Nicole 13 gene				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic		
Repet Rave				L 100 100	Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
-Inette Hilton				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other		
inette thiton				[∱] SR-193	[] Male XI Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
1				Antelope Drive	[] Person with Disability	[] Black [] Hispanic X] White [] Other		
_						[x] SR-193	[] Male [] Female	[] Black [] Hispanic P.White [] Other [] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic NWhite [] Other [] American Indian/Alaskan Native [] American Indian/Alaskan Native [] American Indian/Alaskan Native [] Black [] American Indian/Alaskan Native [] American Indian/Alaskan Native [] Jamerican Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] Mmerican Indian/Alaskan Native [] Asian/Pacific Islander [] Jamerican Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] Jamerican Indian/Alaskan Native [] Black [] Black [] Hispanic [] Black [] Hispanic [] Jamerican Indian/Alaskan Native [] Black [] Black [] Hispanic
FERN FREEMAN				Antelope Drive	[] Person with Disability			
				[}\$R-193	Male [] Female	[] Asian/Pacific Islander		
BRETT JENSEN				[X] Antelope Drive	[] Person with Disability			
				[] SR-193	[] Male [] Female	[] Asian/Pacific Islander		
icky B. Hanson				[X Antelope Drive	[] Person with Disability			
icky B. Hansen				[X] SR-193	[] Male [] Female	[] Asian/Pacific Islander		
Kichal Looch				Antelope Drive	[] Person with Disability			

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: 1-15; SR-97 (5600 South) Environmental Study Project Number: S-115-8(159)338

Pin: 15685



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
				No.	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Vru Thomas			-	X] SR-193 [] Antelope Drive	[] Person with Disability	I Black [] Hispanic White [] Other
1				[r]SR-193	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
(irant Tanner				[4] Antelope Drive	U Person with Disability	[] Black [] Hispanic [] White MOther Fundrick
n alla			đ	27][] SR-193	[] Male [] Female	American Indian/Alaskan Native
Brug Selfer				Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
At				[] SR-193	[] Male [] Female	American Indian/Alaskan Native Asian/Pacific Islander
140 M				[1] SR-193 [1] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
A				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Dennis Boyer				X Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
0				[] SR-193	[1 Male 1 Female	American Indian/Alaskan Native Asian/Pacific Islander
Ferry & Sally Pietsch				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Robe Jodie Shadbolf				[] SR-193	I∕Male M Female	American Indian/Alaskan Native Asian/Pacific Islander
Kober Judic Shadboff				[X] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
Traver Ellip					[] Male [X] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Terry Ellis				[X] Antelope Drive	[] Person with Disability	[]Black []Hispanic [X]White []Other
BartPriest				[≫] SR-193	KI Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Dart (riest				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15; SR 97 (5600 South) Environmental Study <u>Project Number: S-I15-8(159)</u>338 <u>Pin: 15685-</u>



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Pat Hale Bosta				[X] SR-193	[] Male [] Female [] Person with	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Debbie Bencel			92	[] Antelope Drive [[]SR-193 [] Antelope Drive	Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic] White [] Other
thuck Weight			- -	[] SR-193 [-] Antelope Drive	竹 Male [] Female (ノアerson with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Nina Rizer FRANK Smith	,		6	[-] SR-193 [4] Antelope Drive	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Steve & Linda Gates	£		, , 2	[X] SR-193 [] Antelope Drive	Male AFemale Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Jennie Carbine				[] SR-193 [)Antelope Drive	[] Male Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
Shawn Bennett	_			[∦SR-193 [] Antelope Drive	 Female Person with Disability 	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [[] White [] Other
Jendy Thompson	v			[]] SR-193 Antelope Drive	[] Male I Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic N White [] Other
Tay Erim Hokm	-				Male Female Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)).

Sign In sheet will become part of the public record for this project,



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15; SR-97 (5600 South) Environmental Study Project Number: S-115-8(159)338 -Pin: 15685



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
D. Christian		· · · · · · · · · · · · · · · · · · ·	[] CD 402	[-] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
Date Chaney				[] SR-193 [L]Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
A 81				[JSR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Terry Palmer				[V] Antelope Drive	[] Person with Disability	[]Black []Hispanic
BRIGHAN MELLA				PTSR-193	Pt Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
SRIGHAM MELCUR				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
				[~] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
GERALD STRUMS				[] SK-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic [-}White []Other
atrick Olivers 21				[/] SR -193	KI Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
ATTICA CTUR				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic
PRADELIN SMITH F				₩ SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White Hispanic
				[] SR-193	[] Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Karen Waite				X Antelope Drive] Person with Disability	[]Black []Hispanic
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Dire Col				Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
isa Binghan					[] Male N Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
A A				X Antelope Drive] Person with Disability	[] Black [] Hispanic White [] Other

tion will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15; SR-97 (5600 South) Environmental Study Project Number: 5-115-8(159)338 Pin: 15685



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The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information,

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
CAVETER HANALKE				[-+ \$\$R-193	[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
/ 1040 -				Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
			6	₹ ×	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
ZMITH DOW				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic White []Other
JORDAN SAVAGE				[作SR-193	[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
JORDAN JAVAGE				[X] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
1. Bt.				[+5R-193	[] Male [] Female	American Indian/Alaskan Native Asian/Pacific Islander
Larry Parter MILEMOBRIDE				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
				[c+SR-193	[4] M ale [4] Fem ale	American Indian/Alaskan Native Asian/Pacific Islander
MIKENNETTRIPE				[] Antelope Drive	[] Person with Disability] Black [] Hispanic
				[]SR-193	[] Male Female	[] American Indian/Alaskan Native] Asian/Pacific Islander
Jana Trove				[X] Antelope Drive	[] Person with Disability	White [] Hispanic
n).					[] Female	[] American Indian/Alaskan Native [] Aslan/Pacific Islander
-onn Aunthr				[4] Antelope Drive] Person with Disability	[] Black [] Hispanic
Van Nelson				[≫] SR-193	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Dana Sove Loinn Huntur Ken Nelson George & Heikke Bell				[] Antelope Drive) Person with Disability	[] Black [] Hispanic White [] Other
zeorge & Heike] Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Beu !!			-	Antelope Drive] Person with Disability	[] Black [] Hispanic

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15; SR 97 (5600 South) Environmental Study Project Number: S-115-8(159)338...

Pin: 15685



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
				1 6 50 100	[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Dale Marymon				[1] SR-193 [4] Antelope Drive	[] Person with Disability	[]Black []Hispanic F]White []Other
				[⁴] SR-193	[Male [+] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jisti Parker				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
1.			-	[V/SR-193	ICL Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
relistmike Meehan F				[]Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
0				[YSR-193	YMale [] Female	American Indian/Alaskan Native Asian/Pacific Islander
TETHEN ESANAH BURTOW				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
			-	[∳ 5R-193	Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Lobert Browning a			ŝ	Antelope Drive	[] Person with Disability	[] Black [] Hispanic [
					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Donald Holley				[4]Antelope Drive] Person with Disability	[]Black []Hispanic
arm & Elabo laven			-	[🖋 SR-193] Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
taron & Glady Largen				[] Antelope Drive) Person with Disability	[] Black [] Hispanic [] White [] Other
A. I. Broch] Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Endy Gooch] Person with Disability	[] Black [] Hispanic [] White [] Other
shirley waite] Male (Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
- /			[1] 3K-193 [X] Antelope Drive) Person with Disability	[] Black [] Hispanic [] White [] Other

on will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.



UTAH DEPARTMENT OF TRANSPORTATION SIGN-IN SHEET Project Description: I-15: SR-97 (5600 South) Environmental Study Project Number: 5-15-8(159)338 <u>Pin: 1568</u>5



The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Corey Wilcox				B 1 CB 402	[] Male [] Female] American Indian/Alaskan Native [] Asian/Pacific Islander
				$[\mathcal{F}]$ SR-193 $[\mathcal{F}]$ Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
Beverly Williamson] [] SR-193	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Corey Williamson Beverly Williamson	_		7	[] Antelope Drive	[] Person with Disability	[Black []Hispanic
the Ayers	e		-	[^X] SR-193	(k) Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
			ł	LAI Antelope Drive	Disability	[]Black []Hispanic
lary Elizabeth Qavis				L TSR-193	[] Male	American Indian/Alaskan Native Asian/Pacific Islander
Qavis				Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
spencer Davis	Ş		-	[X] SR-193	Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
4				[Antelope Drive	[] Person with Disability	[] Black [] Hispanic
			-] Male] Female] American Indian/Alaskan Native] Asian/Pacific Islander
				[] Antelope Drive] Person with Disability] Black [] Hispanic] White [] Other
] Male] Female	[] American Indian/Alaskan Native [] Aslan/Pacific Islander
	<u>.</u>) Person with Disability	[]Black []Hispanic []White []Other
] Male] Female	American Indian/Alaskan Native
				[] Antelope Drive] Person with Disability	[]Black []Hispanic []White []Other
] Male] Female	American Indian/Alaskan Native Asian/Pacific Islander
				[] Antelope Drive] Person with Disability	[] Black [] Hispanic [] White [] Other

be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.





WELCOME









Evaluate potential extension of SR-193, providing connectivity to the future West Davis Corridor and possible connection to 4500 West.





Antelope Drive SR-127; 4500 W. to 2000 W.



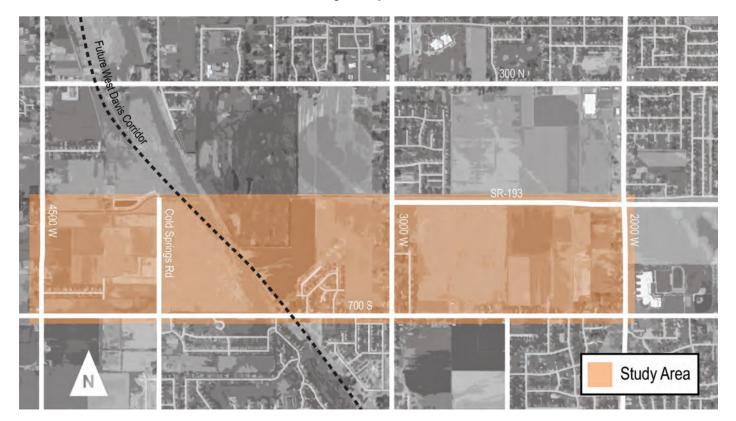
Evaluate potential improvements to Antelope Drive for capacity, connectivity, and safety near the new West Davis Corridor interchange.





STUDY AREA

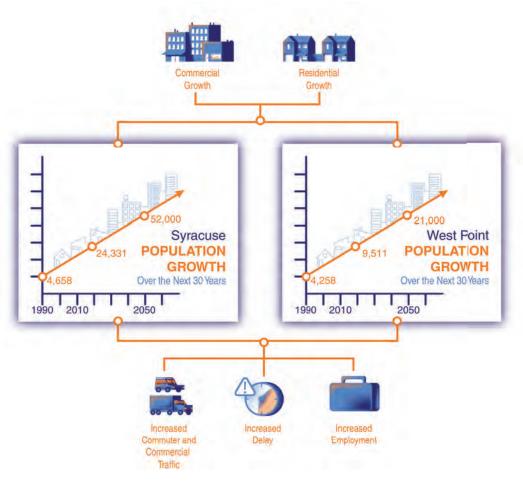
UDOT will evaluate social, economic, and natural environmental factors as part of the State Environmental Study Process. Proposed improvements will be evaluated within the following study area:







WHY IS THIS PROJECT NEEDED?



Over the next 30 years, residential and commercial growth is projected to increase by over 100%

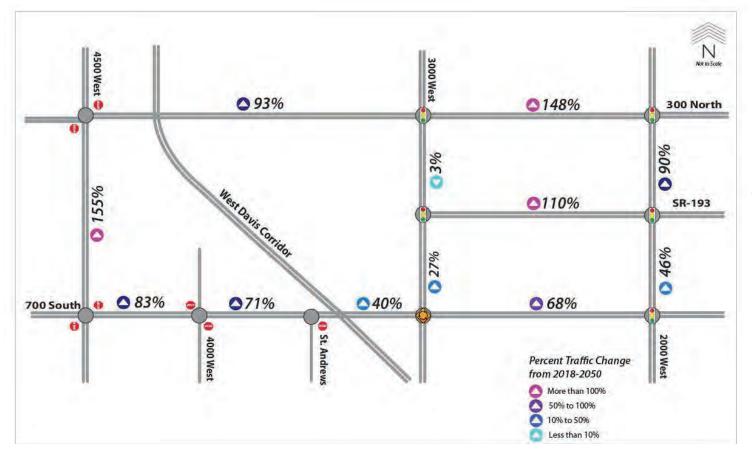
This growth will lead to an increase in:

- Traffic
- Travel Delay
- Employment





WHY IS THIS PROJECT NEEDED?

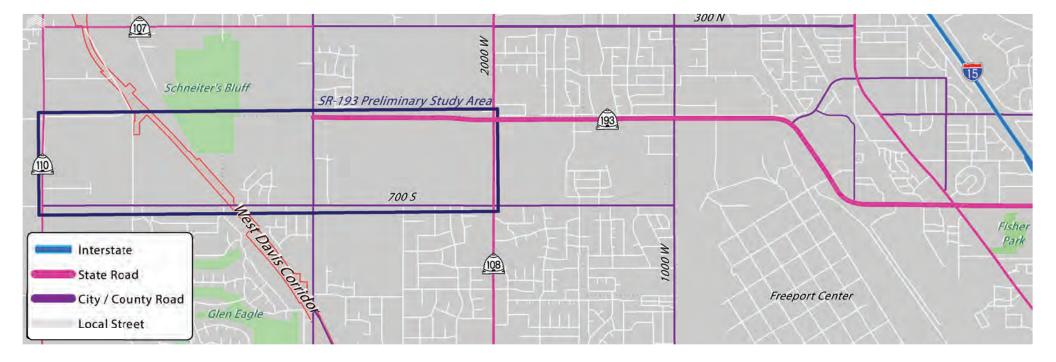


By the year 2050 the traffic on the existing arterial roadways is expected to increase



WHAT TRANSPORTATION PROBLEMS EXIST?

UDOT manages arterial roadways in the area (designated state routes). Connectivity of arterials provides efficient mobility. This study is focused on improving connectivity of state routes.





HOW IS THIS STUDY DIFFERENT FROM WEST DAVIS CORRIDOR?

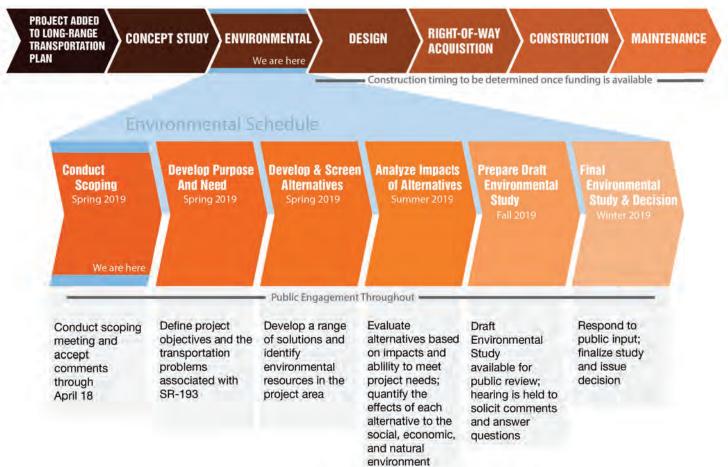
	SR-193 Environmental Study	West Davis Corridor EIS
Purpose	Roadway Extension Evaluating extension of SR-193 to connect with other state routes	20 Mile Corridor Developing a system-to-system network that would connect I-15 with the west side of Davis County
Schedule	One Year (12 Months)	Seven Years
Alternatives	Likely to have narrower range of alternatives due to focused study area and project purpose	Broader range of alternatives due to larger study area and broader project purpose
Public Involvement	Focused Outreach - Two Municipalities - Fewer Stakeholders - 2 Public Meetings Planned	Intensive Outreach - Multiple Public municipalities - Many Stakeholders - Multiple public meetings



SR-



WHAT IS THE PROJECT PROCESS?







HOW DO I COMMENT?

The official public comment period is from March 19 through April 18, 2019. Comments must be postmarked or emailed to the project team by midnight on April 18, 2019 in order to be included in the official transcript for the public scoping period.

Written comments may be submitted by:

	1
	H
L	

COMMENT FORMS Fill out and turn in at the public scoping meeting



WEBSITE Submit online at www.udot.utah.gov/ sr193Extension



EMAIL sr193extension@utah.gov



MAIL Send to SR-193 Team, c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084





WHAT ISSUES ARE IMPORTANT TO YOU?

Traffic Congestion

School Crossing Safety

Land Use

Property Impacts and Relocations

Economics

Air Quality

Community Character and Cohesion

Low Income and Minority Populations

Historic Properties

Visual Resources

Noise

Hazardous Materials

Parks and Open Space

Trails

Wetlands and Water

Wildlife

Threatened and Endangered Species

Other Issues





COMMENT FORM

CONTACT INFORMATION (Optional)

Name	
Phone	
Email	
Address	

Would you like to receive email updates? $\ \ \, \textbf{Yes} \ \, \text{or} \ \, \textbf{No}$

COMMENTS

What issues related to SR-193 are important to you?

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension







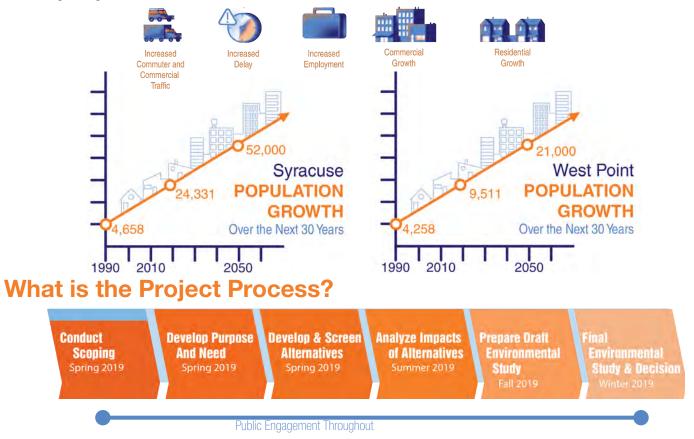
About the Project

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate a potential extension of SR-193 in Syracuse and West Point. SR-193 currently ends at 3000 West. Through this study, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West.



Why is this Project Needed?

Planning for growth and increased demand.



Frequently Asked Questions

What is this project studying? How is this different from West Davis Corridor?

This study is focused on evaluating a potential extension of SR-193 in Syracuse and West Point, which currently terminates at 3000 West. The purpose of this study is to connect SR-193 to other state roads, including providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West.

The WDC EIS was a more extensive study that looked at developing a 20-mile long system-to-system network to connect I-15 with the west side of Davis County. The EIS identified an alignment west of Schneiter's Bluff Golf Course. This study will examine a potential connection to the future WDC.

How will my input be used? Will you respond to my comments?

The project team will use comments provided during the scoping phase to identify issues and resources along the corridor and develop solutions to address those issues. We will not provide a direct response to comments received during this phase but a project team member will contact you if we need additional information. There will be another public meeting and comment period when the Draft Environmental Study is published in fall 2019.

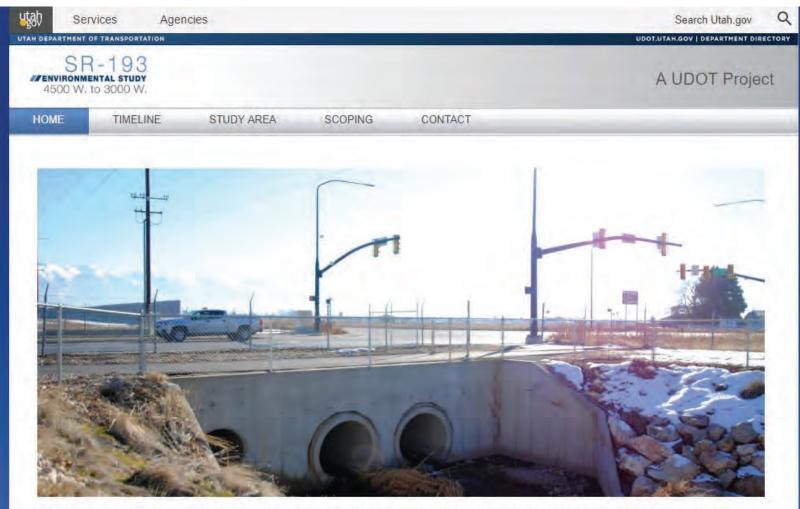
Will my property be impacted?

UDOT will not know details of specific property impacts until a preliminary roadway concept is completed in fall 2019. Property impacts will be identified in the Draft Environmental Study. The project team will meet with impacted property owners after the Draft is published to help them understand the specific impact to their property and provide details about UDOT's right-of-way acquisition process.

When will this be constructed?

Construction funding is not currently available. If funding becomes available, the project could be constructed by late 2020 at the earliest.





The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate a potential extension of SR-193 in Syracuse and West Point, Utah. SR-193 currently terminates at 3000 West. Through this study, UDOT will evaluate alternatives for extending the road to the west, providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West. In preparing the SES, UDOT will evaluate the environmental and social impacts of the proposed extension.

Public Scoping

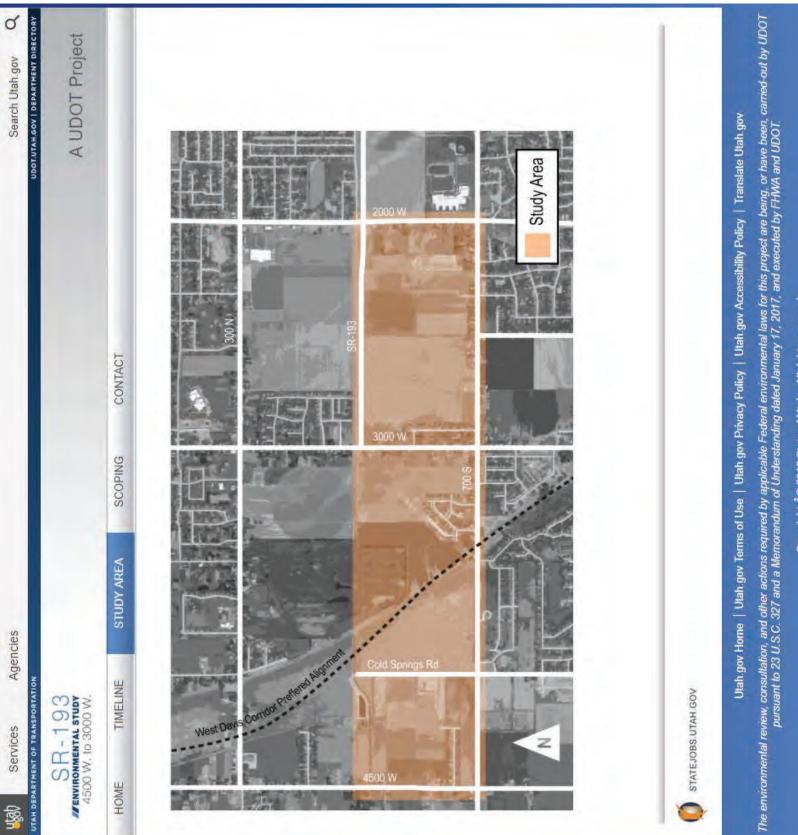
UDOT will hold a combined public scoping meeting for the SR-193 SES and the Antelope Drive SES (more information about that project is available here). The meeting will be in an open house format to gather input from the community and provide details about the environmental study process.

PUBLIC SCOPING MEETING

- Tuesday, March 19, 2019 | 5:30 to 7:30 p.m
- Syracuse Arts Academy | Antelope Campus Junior High
- 2893 West 1700 South, Syracuse, UT 84075

The open house will be accessible according to the requirements of the Americans with Disabilities Act (ADA). If you have any special language, audio or visual needs please contact the project team at least 72 hours prior to the meeting so that accommodations can be provided.





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utah se	ervices Age	encies			Search Utah.gov Q
UTAH DEPARTMENT	OF TRANSPORTATION				UDOT, UTAH. GOV DEPARTMENT DIRECTORY
4500 W	R - 1 9 3 IENTAL STUDY to 3000 W.				A UDOT Project
HOME	TIMELINE	STUDY AREA	SCOPING	CONTACT	

Scoping Meeting Materials

UDOT held a public scoping meeting on Tuesday, March 19, at the Syracuse Arts Academy to gather input on a potential extension of SR-193 in Syracuse and West Point to extend the road to the west. Public comments will be accepted from March 19 through April 18, 2019.

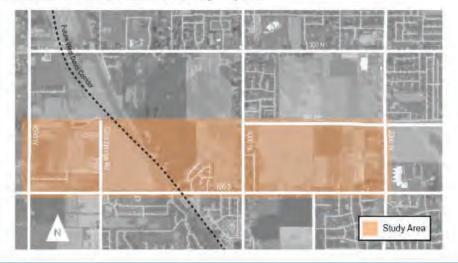
Online commenting is available on the Contact tab. Copies of all materials presented at the meeting are available view and download below:

Meeting Boards Download Here

Click the dots to navigate the meeting boards.



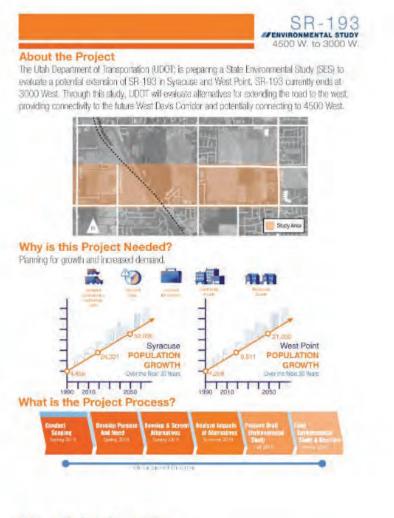
UDOT will evaluate social, economic, and natural environmental factors as part of the State Environmental Study Process. Proposed improvements will be evaluated within the following study area:



.........

Meeting Handout and FAQ

Download Here



Frequently Asked Questions

What is this project studying? How is this different from West Davis Corridor?

This study is focused on evaluating a potential extension of SR-193 in Syracuse and West Point, which currently terminates at 3000 West. The purpose of this study is to connect SR-193 to other state roads, including providing connectivity to the future West Davis Corridor and potentially connecting to 4500 West.

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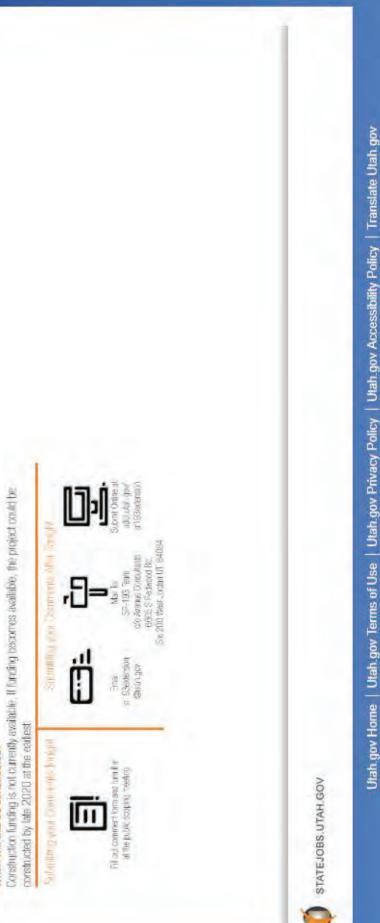
How will my input be used? Will you respond to my comments?

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When will this be constructed?



The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by UDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated January 17, 2017, and executed by FHWA and UDOT. Copyright © 2018 State of Utah - All rights reserved.

utah se	rvices Ag	jencies			Search Utah.gov	Q
and the second se	OF TRANSPORTATION				UDOT.UTAH.GOV DEPARTMENT DIR	ECTORY
ENVIRONM	R-193				A UDOT Proje	ct
HOME	TIMELINE	STUDY AREA	SCOPING	CONTACT		

Contact information

Please contact our Public Involvement Team if you have any questions or concerns

Phone: (385) 275-2887 Email: sr193extension@utah.gov

Online Commenting

Please use either the Comment Map or the Comment Form below to submit your online comments.

Comment Map

Please select a location on the map to submit your comments.

Add a map comment	by clicking on the "Tell us what you think" link, "Add a Comment" link, drop a pin on the map and type your comments.	
	Tell us what you think	

Comment Form

Please fill out the form below to submit your com	iments.
---	---------

Email Address	Phone Number	
Would you like to subscribe to	email updates?	
D No		
What issues related to SR-193	are important to you?*	
	Con mile conclusion i co	
	<u> </u>	
	Submit	

Comments provided to the project team will be reviewed and considered by UDOT as it develops the project. All comments received will be documented in the project record. The study team will contact you if they need additional information or clarification.

Comments made during the scoping period will be considered as UDOT prepares the Draft SES. Comments provided during the environmental process to UDOT are a matter of public record and subject to public release, if requested. For more information, see the Terms of Use at the bottom of the Utah.gov website.

Appendix D

Public Scoping Comments





CONTACT INFORMATION (Optional)	
Name Jessica Oliverson	
Would you like to receive email updates? (Yes) or No	

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

to stay clear of the golf course.
It is a short term fix what happens when you
want to extend 193 to 4500 W? It would be simple and a straight road to go through the Golf course.
GO STRAIGHT





CONTACT INFORMATION (Optional)
Name Glady Larsen
would you like to receive email updates Yes or No

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

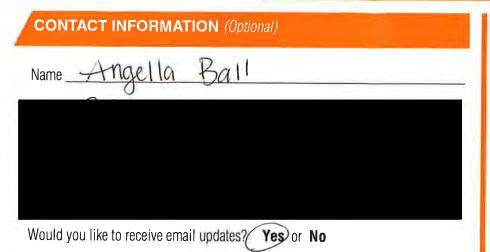
- E: SR193extension@utah.gov
- W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you? I am very interested in keeping bike trails in the area. Also, pleage do not use our nerghborhood as a major exit.







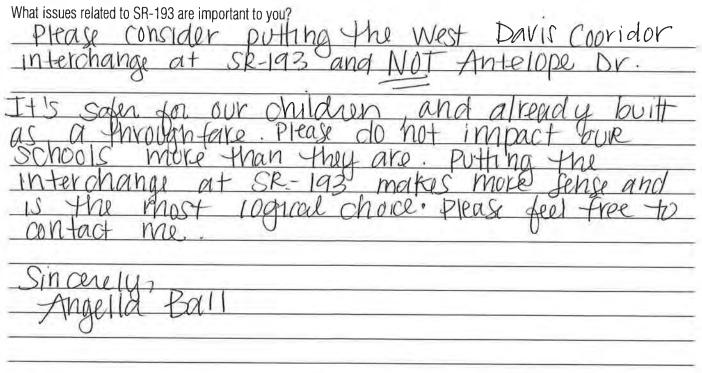
Mail To:

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- W: udot.utah.gov/SR193extension

COMMENTS







Varne	STEPHEN	BURTON	

Mail To:

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Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you?

LOOKING AT THE DIFFICULTY OF CANNALS & WETLANDS AND ROCK CREEK
PARK THE MOST LOGICAL CHOICE FOR LONG TERM GROWTH AND ALLESS TO OUR
GROWING COMMUNITY WONLD BE TO BUILD THE ROAD STRAIGHT THROUGH
THE GOLF COURSE AND KEEP THE ROAD AT SO MPH. ALSO THERE IS NOTHING
KEEPING THE GOLF COURSE FROM SELUNG IN THE FUTURE SINCE IT IS PRIVATE
SO THAT SEEMS TO MAKE THE MOST SENCE.
THIS WOULD BE A GREAT OPPORTUNITY TO PROVE THAT PEOPLE AND
THE LOCKL COMMUNITY ARE MORE IMPORTANT THAN A PRIVATE GOLF COURSE.
ANY LAND THAT HAS BEEN PURCHUSED FOR OTHER PLANS IN THE AREA COULD
EASLY BE SOLD TO DEVELOPERS FOR HOMES AND A GREAT PROFIT COULD
BE MADE FOR THE STATE.
THIS LEAVES THE WET LAWDS ALONE, REDUCES TRAFFIC ON 700 S.
DOES ANOT DISTURB THE PARK THAT IS PROTECTED AND ALLOWS INTO

DISTURB THE BARK THAT NOT D PLOIECIEY AND ALLOWS 400 KEEV WEST DAVIS CORRIDOR BULL LOWER AND THAT WILL AND BE SAFER THAN CUTTING AROUND MONEY THE GOLF COURSE.





would you like to receive email updates

COMMENT FORM

2	CONTACT INFORMATION (Optional)
	Name Jeanette Jensen

Yes Ør No

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Biner Ways to Comment:

E: SR193extension@utah.gov

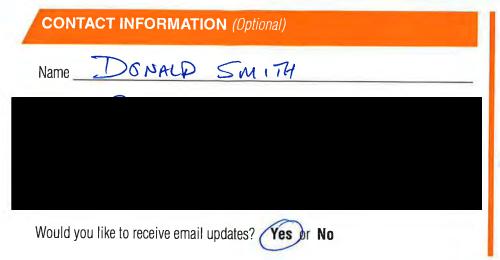
W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you? UDU







<u>Mail To:</u>

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

- E: SR193extension@utah.gov
- W: udot.utah.gov/SR193extension

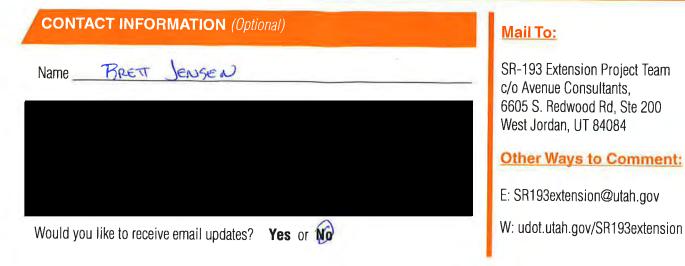
COMMENTS

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Acso	MA	KE	FRON	TAGE	RO.	ALDI	NG	WEST	SIDI	EOF	W.D.C
FOR	ST.	ANDR	rews	PRIVE	70	CON	NECT	TOI	93		









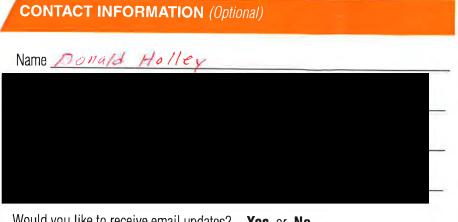
COMMENTS

What issues related to SR-193 are important to you?

H I WOULD LIVE TO SEE AN INTERCHANCE WITH THE WEST DAVIS CODENDOR - RUT INTO HWY 193 TO EASE ALCESS TO I-15.







Would you like to receive email updates? Yes or No

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

- E: SR193extension@utah.gov
- W: udot.utah.gov/SR193extension

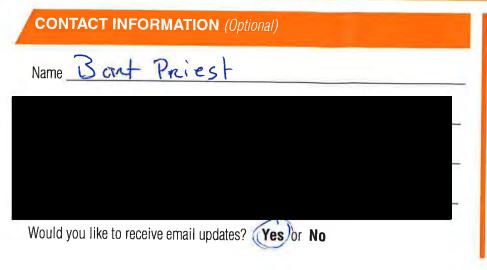
COMMENTS

SR193 needs To connect with the WAC at least, it would
be great if it could go all the way To 4500 W.









COMMENTS

What issues related to SR-193 are important to you?

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

I'm	Conc	exned a	bout 7	00 S	and	what	happens
+0	that	Roal Roa	nd and	the	New	High way	14
Court	erened	about	201-0	- Clea	r to	11500	11
to	get	to	going SR-193.			4500 Son thunk abo	
to	link	up to	SR-193				





1	CONTACT INFORMATION (Optional)
	Name BRADT HAWS
	Would you like to receive email undates?

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you?

IN FAUOR AM OF THE EXPANSION. BUT AS POTENIAL HOMBOWNER HAVING SR-193 WITH THE LITERALY OF ROWTING. IN Mu BACK YARD T AM CONCERNED WITH THE HIGHWAY WOULD PREFER THE FAR Ac AWAY STAY RESIDENCES EXISTING FROM POSSIBLE WITH 1 HE AS POTENIAL GROWTH 3,000 WEST WEST OF IF WONDER 7 LANE HIGHWAY WOUL SUFFICE, HOWENER, IF CONNERS TO WEST 193 DAVIS, THIS WON'T WORK



SR-193 **#**ENVIRONMENTAL STUDY 4500 W. to 3000 W.

CONTACT INFORMATION (Optional)
Name Darla Love
a . 0.11 72.110
Would you like to receive email updates? Yes or No

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

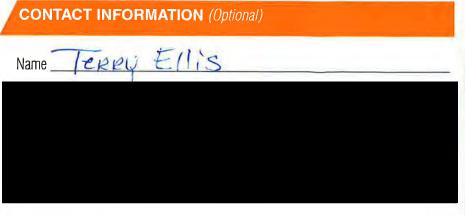
E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

on SK 193 - Hitelense N W Jalano GUIN 4.e not 01 GIU 20 0. n 100 00





Would you like to receive email updates? Yes or No

<u>Mail To:</u>

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

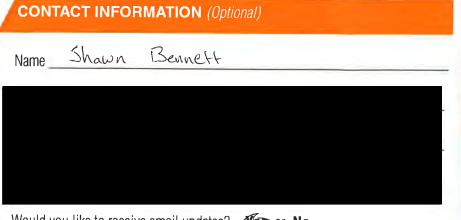
W: udot.utah.gov/SR193extension

COMMENTS

land & the new homes not touch my eino 2020 10 rout hee 201,10 1120 100 M cour outh 077 developsinant CU 0 5A 2 500 10 02m 3000







Would you like to receive email updates? (Yes) or No

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

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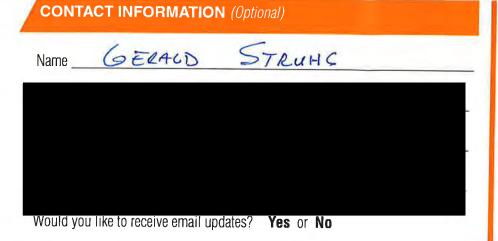
COMMENTS

that locate related to one roo are important to you:
The concision will help relieve traffic on 1-15, However
a fear that some subdivisions have near me are
where the offramps will be I live right off 700s. and
4,000w. There was a potential plan for an offramp
to go into the intersection of 4005 700s/4000w, this
would be a lot of traffic for an intersection that
will have houses feet away from the intersection.
Having an intersection night connecting to the corridor
will do a lot of the resaile damage to the value of
all the homes in the older subdivisions as well as
all the new houses being built on TODS and Cold Springs
Koad. I think an overpass over 7005/BISAF Would
be best and have offramps at Antelope/Bloff and
have 193 goingo straight at Sneiters isluff goil course
the south and around it to apper 3500 w.









Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

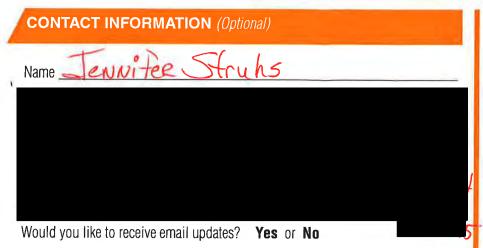
W: udot.utah.gov/SR193extension

COMMENTS

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SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

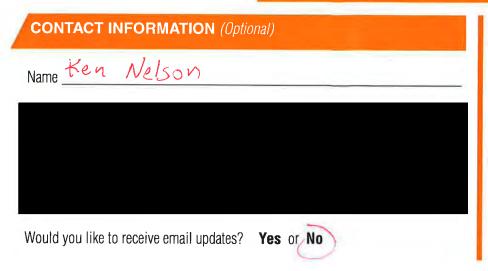
W: udot.utah.gov/SR193extension

COMMENTS

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Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you?

how SR-193 would affect our home and property.

-







Name CONTACT INFORMATION (Optional) Name CONTACT INFORMATION SMITH Would you like to receive email updates? Yes No

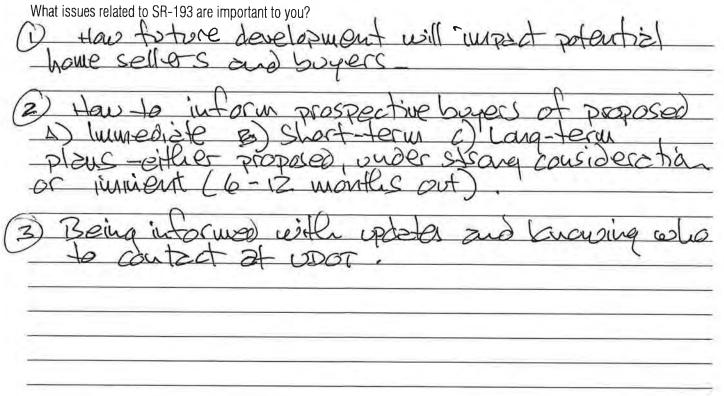
Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

- E: SR193extension@utah.gov
- W: udot.utah.gov/SR193extension

COMMENTS







CONTACT INFORMATION (Optional)				
Name	Steven +	Linda	Gates	
Would you	like to receive email upda	tes Yes or N	0	

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

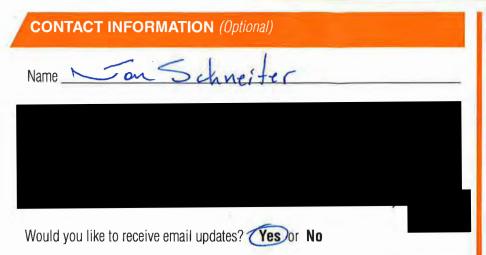
- E: SR193extension@utah.gov
- W: udot.utah.gov/SR193extension

COMMENTS

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Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension

COMMENTS

What issues related to SR-193 are important to you? 193 PX ension TAKES OL msp Dia PA Vale. 01 Couve IND Jeve eans MGD iv M arow is More outr Inse an 20 JSC 10 JAAI (5 ponus e open space an 1 219 CON 57 120 Imeteris Bluff ouse Subscribe

Past Issues

03/08/19

View this email in your browser

SR-193 // ENVIRONMENTAL STUDY 4500 W. to 3000 W.

Antelope Drive

ENVIRONMENTAL STUDY

SR-127; 4500 W. to 2000 W.

Thank you for your interest in the SR-193 State Environmental Study (SES). The official thirty-day comment period for this study ended on April 18, 2019. All comments received during the official comment period will be considered in development of the Draft SES, which will be available this fall. We will have a public hearing in conjunction with the publication of the Draft SES.

Below is information related to the most frequently mentioned concerns the project team received during the comment period:

1. Corridor Alignment and Property Impacts

Primary concerns voiced at the Public Scoping meeting and via public comments focused on property impacts as they relate to corridor alignment along the adjacent golf course, Rock Creek Park, residential, future commercial, agricultural and wetland areas. The configuration of SR-193 in relation to the West Davis Corridor (WDC) were also voiced as an area of interest.

The project team will not know details of specific property impacts or specific corridor alignments until a preliminary roadway concept is completed. The project team will meet with impacted property owners after the draft document is published in fall of 2019 to help those impacted understand the specific impacts to their property as well as provide details about UDOT's right-of-way acquisition process.

2. Pedestrian Safety

As part of this project, the project team will identify and address other safety concerns including: school and pedestrian crossings (current and future), traffic and congestion, intersections, turn lanes, trails, bike paths and corridor speed.

3. Environmental Impacts

The project team received other various comments concerning impacts to water resources, noise impacts, and planned aesthetic treatments. All of these issues will be studied and addressed as part of the Draft SES.

Study Schedule and Timelines

- The project team will continue to evaluate traffic conditions and develop potential roadway concepts through summer 2019.
- A preferred alternative will be identified in the Draft SES, which will be published in fall 2019. We will hold a public hearing following publication of the document.
- The Final SES is scheduled to be completed in late 2019.

Thank you again for your interest in this project. Please contact us via email or phone if you have any questions.

SR-193 SES Public Involvement Team sr193extension@utah.gov 385-275-2887

Contact Our Public Involvement Team

Hotline: (385) 275-2887

Email: <u>sr193extension@utah.gov</u>

Website: <u>udot.utah.gov/sr193extension</u> <u>udot.utah.gov/antelopedriveimproved</u>

Follow us on Twitter <u>@UDOTRegionOne</u>

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This email was sent to <<Email Address>> why did I get this? unsubscribe from this list update subscription preferences HW Lochner · 1245 E Brickyard Rd · Salt Lake City, UT 84106-2559 · USA





SR-193 STATE ENVIRONMENTAL STUDY

PUBLIC HEARING REPORT

JANUARY 2020

Prepared for

Utah Department of Transportation

Project No. S-R199(245)

PIN 16518

Table of Contents

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Appendix C: Public Comments

Public Hearing

The public hearing for the State Route 193 (SR-193) State Environmental Study (SES) project in Syracuse and West Point, Utah, was held on December 3, 2019. The hearing was held in coordination with the public release of the Draft SES on November 18, 2019, and was accompanied with a 30-day public comment period which closed on December 17, 2019. The meeting was held at the Syracuse Arts Academy, and was attended by 158 people.

The purpose of the hearing was to:

- Inform and gather input from the public.
- Introduce the four build alternatives analyzed.
- Highlight the Preferred Alternative and discuss the associated benefits and impacts.
- Provide opportunity for the public to comment.

The hearing was held in conjunction with a hearing for another nearby project (SR-127/Antelope Drive), and information was also also available regarding the West Davis Corridor project. Representatives of all three projects were available to answer questions.

Advertisement and Outreach

The project team advertised the public hearing meeting and comment period to the community through the following methods (see Appendix A):

- Public Notices were published in the Standard Examiner, Salt Lake Tribune, and Deseret News on November 18, 2019 and November 25, 2019.
- Email notifications were sent out to individuals listed in the project database on November 18, 2019.
- Hearing information was posted on the Syracuse City Facebook page and the Syracuse City Newsletter (Syracuse Connection).
- Postcard invitations were mailed to approximately 700 residents along and near the corridor on November 26, 2019.
- UDOT Region One posted a meeting invitation and meeting reminders on its official Twitter account the last week of November 2019.
- The project-specific website, <u>www.utah.udot.gov/sr193extension</u>, was updated and included information about the public hearing.

Public Hearing Format

The hearing was held in an open house style. Participants reviewed project boards, which included information on the project goals, project overview (process and schedule), a detailed description of the Preferred Alternative, and the results of the environmental analysis (a copy of the Draft SES was also available for review).

Participants also viewed a scroll plot of the proposed design and project representatives were available to answer questions one-on-one. Meeting attendees were encouraged to submit comments on the comment forms that were provided at the meeting or, had the option to record their comment with a court reporter. In addition, attendees could mail or email their comment cards in before the end of the comment period.

Information that was shown at the public hearing was also available on the project website—so that those unable to attend the meeting could still be engaged. An online comment form and the project

email were made available on the project website—providing the public an opportunity to submit comments electronically.

For more information, refer to Appendix B, which includes the public hearing sign-in sheets, "Frequently Asked Questions" meeting handout, hearing display boards, blank comment forms, and project website content.

Comment Summary

The 30-day official public comment period began on November 18, 2019, and ended on December 17, 2019. Comments could be submitted through various methods, as outlined below.

- Comment form was available at the public hearing
- Email comments to sr193extension@utah.gov
- Online comment form and web map on the following project website: <u>www.udot.utah.gov/sr193extension</u>
- Mailed to: SR-193 SES Project Team, c/o Lochner, 3995 South 700 East, Suite 450, Salt Lake City, UT 84107

A total of seven comment forms for SR-193 were submitted by public hearing attendees. In addition, two individuals submitted comments via email, and one person submitted a comment via the webbased comment form on the project website.

Listed below is a summary of common themes, and the number of comments associated with each theme—received from the comments collected during the comment period. Submitted comments are found in Appendix C.

- Right-of-way (5)
- Design (2)
- Noise abatement (2)
- Traffic and Safety (1)
- General (1)

Appendix A

Hearing Invitations & Notifications

4770 S. 5600 W.			Utah
WEST VALLEY CITY, UTAH 84118 FED.TAX 1.D.# 87-0217663	Deser	et Ne	SR-127 & SR-193 Public Hearing Notice
801-204-6910			The Utah Department of Transportation (UDOT) is preparing Note Studies (SES) to evaluate the following proposed transportation improvements in Syracuse and West Point Cities: Widening of SR-127 (Antelope Drive) at various locations west of SR-108 (2000 West).
PROOF OF BUBLICATION CUSTOMEDIC	CODV		 Widening of SR-127 (Antelope Drive) at various locations west of SR-108 (2000)
PROOF OF PUBLICATION CUSTOMER'S	СОРУ	-	 Wathing or Sk-127 (Antelope Drive) at various locations west of Sk-108 (2000 West). Extending Sk-193 from 3000 West to Sk-110 (4500 West) and 3000 West, with a new interchange on the future West Davis Corridor. The Sk-127 project goals include: Improving local connectivity along Antelope Drive to the future West Davis Corridor. Accommodeting active transportation (e.g., bicycle and pedestrian trails or side- memodeting active transportation (e.g., bicycle and pedestrian trails or side- memodeting active transportation (e.g., bicycle and pedestrian trails or side- memodeting active transportation (e.g., bicycle and pedestrian trails or side- memodeting active transportation (e.g., bicycle and pedestrian trails or side- memodeting active transportation (e.g., bicycle and pedestrian trails or side- inglonal routes, including the West Davis Corridor. Community Imput remains critical to the success of both projects. Each project's goals, objectives, Build Alternatives, and impacts will be explained and project team uDDDT right-of-way agents will also be available at the hearing to meet with com- mercial property owners who may be impacted by the proposed project. SR-127 & SR-193 Public Hearing
CUSTOMER NAME AND ADDRESS	A	CCOL	 Improving local connectivity along Antelope Drive to the future West Davis Corridor /Antelope Drive Interchange and
LOCHNER,		900	 Accommodating active transportation (e.g., bicycle and pedestrian trails or side- walks along Antelope Drive).
ACCOUNTS PAYABLE			"improve local connectivity to existing regional routes, such as I-15, and future re-
3995 S 700 E STE 450			Community input remains critical to the success of both projects. Each project's goals, objectives, Build Alternatives and tenants of both projects.
			members will be available for questions. UDOT right-of-way agents will also be available at the baseles to
SALT LAKE CITY UT 84107			mercial property owners who may be impacted by the proposed project.
		-	SR-127 & SR-193 Public Hearing Tuesday December 3, 2019
ACCOUNT NAME			SR-127 & SR-193 Public Hearing Tuesday December 3, 2019 5:00 p.m. to 7:00 p.m. Syracuse Arts Academy, Cafeteria 2893 West 1700 South, Syracuse, UT
LOCHNER,			auditorium the same evention
TELEPHONE	ORDER # / I	INVO.	No formal presentations will be given. Please arrive any time during the two-hour timeframe to view project materials and speak with project from members.
8014155800	0001273760 / 10	012737	No formal presentations will be given. Please arrive any time during the two-hour timeframe to view project materials and speak with project team members. The meeting will be accessible according to the requirements set forth in the Ameri- can with bisobilities ACT (ADA). In compliance with the ADA, individuals who require special accommodations (including auxiliary communicative aids and services) during the meeting should notify the project team beforehand. If you require a translator, please notify the project team 3-5 days before the hearing.
PUBLICATION SCHEDULE			please notify the project team beforehand. If you require a translator,
FOBEICATION SCHEDULE			Historic Properties The proposed SR-127 project is expected to result in an ordered action to a second
START 11/18/2019 END 11/25/2019			cs. Details regarding these impacts will be available at the public open house.
CUSTOMER REFERENCE NUMBER			Historic Properties The proposed SR-127 project is expected to result in an adverse effect on 10 his- toric buildings that are eligible to be listed on the National Register of Historic Pla- public Comment Period will last 30 days, starting November 18, 2019. Letters must be postmarked by December 17, 2019 to submit your comments before the close of the public comment period. Demments can be submitted in different ways as shown below.
SR-127 & SR-193			R-127 Comment form on the project website
CAPTION			ttp://www.udot.utch.gov/antelopedrive/improved
			Postal mail to: Antelope Dr. Team, 3995 South 700 East, Suite 450, Salt Lake
SR-127 & SR-193 Public Hearing Notice The Uta	ah Department of T	rans.	R-193 Comment form on the project website: http://www.idet.utoh.cov/cr103
SR-127 & SR-193 CAPTION SR-127 & SR-193 Public Hearing Notice The Utah Department of Trans SIZE 71 LINES 2 COLUMN(S)			Email: sr193extension/outpl.gov Postal mail to 59
71 LINES 3 COLUMN(S)			tah 84107 taun, 3995 South 700 East, Suite 450, Salt Lake City,
		n	Vest Davis Corridor Project Team will also be available during this public certing to share updated information on the project alignment, design, and antici- ted construction schedule.
TIMES TOTAL COST		P	and antici- ted construction schedule.
6 645.00		en sr T	technic to stare updated information on the project alignment, design, and antici- ted contruction schedule. In SR-127 (Antelope Drive) and SR-193 project team is available to answer your astions at 385-275-2887, or via email at <u>antelopedrive/improved@utah.gov</u> , 193extension@utah.gov, 273760
			UPAXLP .
A	AFFIDAVIT OF PUBL	ICATI	ON
AS NEWSPAPER AGENCY COMPANY LLC dba L	TAH MEDIA GROU	UP LI	EGAL BOOKER, I CERTIFY THAT THE ATTACHED
			partment of Transportation (UDOT) is preparing State
Environmental Studies (SES) to evaluate the following pr	o FOR LOCHNER,	WAS I	PUBLISHED BY THE NEWSPAPER AGENCY COMPANY,
LLC dba UTAH MEDIA GROUP, AGENT FOR DESERE	F NEWS AND THE SA	ALT L	AKE TRIBUNE, DAILY NEWSPAPERS PRINTED IN THE

LLC dba UTAH MEDIA GROUP, AGENT FOR DESERET NEWS AND THE SALT LAKE TRIBUNE, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINITELY. COMPLIES WITH UTAH DIGITAL SIGNATURE ACT UTAH CODE 46-2-101; 46-3-104.

PUBLISHED ON Start 11/18/2019 End 11/25/2019	Sudmundson
DATE11/25/2019	SIGNATURE
STATE OF UTAH)	
COUNTY OF SALT LAKE)	
SUBSCRIBED AND SWORN TO BEFORE ME ON THIS 25TH	DAY OF NOVEMBER IN THE YEAR 2019
BY_LORAINE GUDMUNDSON.	
	JAE LEVI Y PUBLIC -STATE OF UTAH mm. Exp 05/29/2022 NOTARY PUBLIC SIGNATURE

Commission # 700608

7415

SS

AFFIDAVIT OF PUBLICATION IN THE STANDARD-EXAMINER

State of Utah **County of Weber**

Denise Mailo, being duly sworn, says:

That she is the Legals Billing Clerk of the Standard-Examiner, which is, and was at the times of publication, hereinafter mentioned, a newspaper of general circulation in the counties of Weber, Davis, Box Elder and Morgan, State of Utah: that the copy, a copy of which is attached hereto, was published in the said newspaper on the dates listed below.

PUBLIC HEARING NOTICE

Was published in said newspaper First, on 11/18/2019

TIMES 2 and last on 11/25/2019

That said nespaper was regularly issued and circulated on those dates. Same was also published online at utahlegals.com, according to Section 45-1-101 -Utah Code Annotated, beginning on the first date of publication, for at least 30 days thereafter and a minimum of 30 days prior to the date of scheduled.

Legals Billing Clerk

Subscribed and sworn to before me on this date

11/25/2019

Jayne Dunn, Notary Public, Weber County, Utah My Commission Expires: September 10, 2022



HW LOCHNER 3995 S 700 E Ste 450 SALT LAKE CITY UT 84107 PUBLIC HEARING NOTICE SR-127 and SR-193

The Utah Department of Transportation (UDOT) is preparing State Environmental Studies (SES) to evaluate the following proposed transportation improvements in Syracuse and West Point cities:

Widening of SR-127 (Antelope Drive) at various locations west of SR-108 (2000 West).

Extending SR-193 from 3000 West to SR-110 (4500 West) and 3000 West, with a new interchange on the future West Davis Corridor.

The SR-127 project goals include:

Improving local connectivity along Antelope Drive to the future West Davis Corridor/Antelope Drive interchange; and Accommodating active transportation (e.g., bicycle and pedestrian trails or sidewalks along Antelope Drive).

The SR-193 project goal is to: improve local connectivity to existing regional routes, such as I-15, and future regional routes, including the West Davis Corridor.

Community input remains critical to the success of both projects. Each project's goals, objectives, Build Alternatives, and impacts will be explained and project team members will be available for questions.

UDOT right-of-way agents will also be available at the hearing to meet with commercial property owners who may be impacted by the proposed project.

SR-127 and SR-193 Public Hearing Tuesday December 3, 2019 5:00 p.m. to 7:00 p.m. Syracuse Arts Academy, Cafeteria 2893 West 1700 South, Syracuse, UT

Please park on the north side of the building as another event is scheduled in the auditorium the same evening.

No formal presentations will be given. Please arrive any time during the twohour timeframe to view project materials and speak with project team members.

The meeting will be accessible according to the requirements set forth in the American with Disabilities ACT (ADA). In compliance with the ADA, individuals who require special accommodations (including auxiliary communicative aids and services) during the meeting should notify the project team beforehand. If you require a translator, please notify the project team 3-5 days before the hearing.

Historic Properties

The proposed SR-127 project is expected to result in an adverse effect on 10 historic buildings that are eligible to be listed on the National Register of Historic Places. Details regarding these impacts will be available at the public open house.

Public Comment Period

The public comment period will last 30 days, starting November 18, 2019. Letters must be postmarked by December 17, 2019 to submit your comments before the close of the public comment period. Comments can be submitted in different ways as shown below.

SR-127

Comment form on the project website: http://www.udot.utah.gov/antelopedrive improved Verbally to the court reporter, or in writing at the public hearing Email: antelopedriveimproved@utah.gov Postal mail to: Antelope Dr. Team, 3995 South 700 East, Suite 450, Salt Lake City, Utah 84107 SR-193 Comment form on the project website: http://www.udot.utah.gov/sr193extension Verbally to the court reporter, or in writing at the public hearing Email: sr193extension@utah.gov Postal mail to: SR-193 Team, 3995 South 700 East, Suite 450, Salt Lake City, 11tah 8/107

1957686 PUBLIC HEARING NOTICE PG 2

Utan 04107

West Davis Corridor Project The West Davis Corridor Project Team will also be available during this public meeting to share updated information on the project alignment, design, and anticipated construction schedule.

The SR-127 (Antelope Drive) and SR-193 project team is available to answer your questions at 385-275-2887, or via email at antelopedriveimproved@utah.gov, sr193extension@utah.gov.

Pub.: Nov. 18, 25, 2019.

1957686

View this email in your browser

SR-193 // Environmental study 4500 W. to 3000 W.

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate extending SR-193 from 3000 West to SR-110 (4500 West) and 3000 West, with a new interchange on the future West Davis Corridor.

The SR-193 project goal is to:

• Improve local connectivity to existing regional routes, such as I-15, and future regional routes, including the West Davis Corridor.

Community input remains critical to the success of the SR-193 project. The projects goals, objectives, Build Alternatives, and impacts will be explained and project team members will be available for questions.



No formal presentations will be given. Please arrive any time during the two hour block to view project materials and speak with team members. Project members will also be in attendance to discuss the proposed SR-127 improvements and the future highway on the West Davis Corridor.

Stay informed: The SES is available for review on the project website: <u>http://www.udot.utah.gov/sr193extension</u>

American with Disabilities ACT (ADA). If you have any special language, audio or visual needs please contact us at least 72 hours prior to the meeting so that accommodations can be provided.

Public Comment

The public comment period will last 30 days, starting November 18, 2019. Letters must be postmarked by December 17, 2019 to submit your comments before the close of the public comment period.

Comments can be submitted in different ways as follows:

- Comment form on the project website: <u>http://www.udot.utah.gov/sr193extension</u>
- · Verbally to the court reporter, or in writing at the public hearing
- Email: sr193extension@utah.gov
- Postal mail to: SR-193 Team, 3995 South 700 East, Suite 450, Salt Lake City, UT 84107

CONTACT OUR PUBLIC INVOLVEMENT TEAM

Phone 385-275-3887 E-mail: <u>sr193extension@utah.gov</u>



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 HW Lochner · 1245 E Brickyard Rd · Salt Lake City, UT 84106-2559 · USA





PUBLIC HEARING

The Utah Department of Transportation (UDOT) is preparing a State Environmental Study (SES) to evaluate the potential extension of SR-193 in Syracuse and West Point, Utah. This project is intended to improve connectivity to the future West Davis Corridor, and to 4500 West. The SES will describe the transportation and environmental impacts associated with the proposed improvements.

No formal presentations will be given. Please arrive anytime during the two-hour timeframe to view project materials and to speak with project team members.

TUESDAY DECEMBER 3, 2019

5:00 p.m. to 7:00 p.m. , Syracuse Arts Academy, Cafeteria, 2893 West 1700 South, Syracuse, UT

The hearing will be accessible according to the requirements of the Americans with Disabilities Act (ADA). If you have any special language, audio, or visual needs, please contact us at least 72 hours before the meeting so that accommodations can be provided.



HOTLINE: 385-275-2887 Email: sr193extension@utah.gov



STAY INFORMED

Stay up-to-date on the project by signing up for email updates. Simply send an email to:

sr193extension@utah.gov Subject: "Updates"

The project team will send updates as the project moves forward. You may also contact us at: 385-275-2887



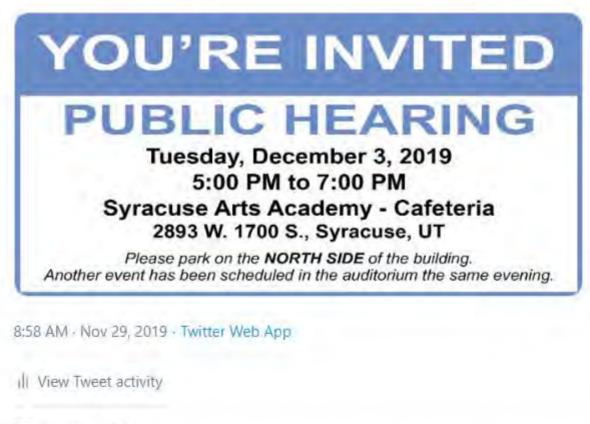
3995 South 700 East Salt Lake City UT 84107



5

@UDOTRegionOne

ICYMI: UDOT is hosting a Dec. 3, public hearing at the Syracuse Arts Academy on its newly published SR-127 Widening (Antelope Dr.); and SR-193 Extension from 3000 W. to West Davis environmental studies. Get questions answered, and comment on these new documents!



1 Retweet 1 Like



+ CITY NEWS



Arts Council Update

Disney's Frozen Jr

The Junior Theatre will perform Disney's Frozen Jr. four times from November 21-23 at the Syracuse Arts Academy it. High Auditorium Saturday, November 23, 2019 has a malinee performance in the afternoon and the final performance in the evening. This is a beautiful story full of family love, magic, friendship, and laughter. Join the Princesses Elsa and Anna in their tale of two sisters' adventures in the kingdom of Arendelle! Come see a talented cast of over 70 children ages 7 to 17.



Novembur 17-23 Disney's Trozen JI

December 2 - A Holly Jolly Combined Christmas Concert, 7 p.m., Syracuse High School.

A Holly Jolly Christmas Concert A Holly Joing Children and jazz band are preparing for a combiner Our orchestra, choin and anday, December 2nd at 7 p.m. in the Christmas concert on Monday, December 2nd at 7 p.m. in the Christmas concert on Auditorium. This will be the perfect kides syracuse high season so bring the whole family! Admission is to your nonday search in participating in any of these groups please email info@syracuseutaharts.org.

Big Fish1 The Musical

Our 2020 summer musical is Big Fish! Performances will be held July 16-20. Auditions will be held April 17-18. We are currently accepting letters of interest for our production team. Visit our website and Facebook page for more Information.



Don't miss Disney's Frozen Jr!

Please visit our website, www.syracuseutaharts.org, for tickets.

Public Hearing for UDOT

Utah Department of Transportation will be hosting a public hearing to review the West Davis Highway, Antelope Drive widening, and 193 extension with the public. Come join the conversation for the future improvements of the City. When: December 3rd

Time: 5 - 7 p.m.

Where: Syracuse Arts Academy South Campus (2893 West 1700 S, Syracuse, UT) Park on the north side of the parking lot.

Employee Spotlight- Joyce Olsen

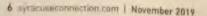
Post Office

The City would like to recognize Joyce Olsen and the outstanding work that she does in the Post Office. Joyce is known for always having an upbeat and positive attitude and has always excelled in the post office. She has recently taken over inventory, cleaned and organized her workplace and makes the post office pleasant and professional.

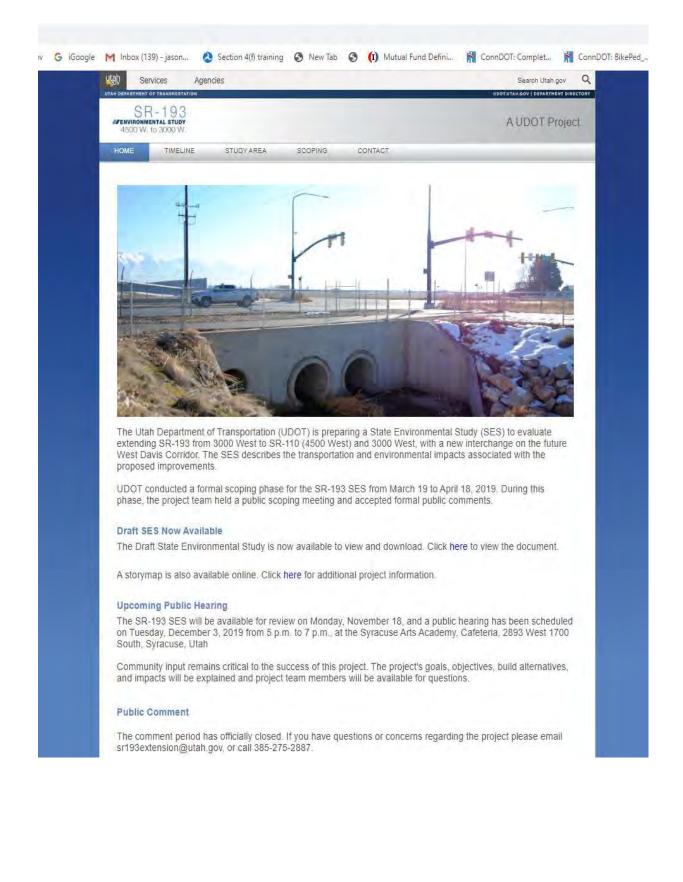
Thanks, Joyce, for all you do!

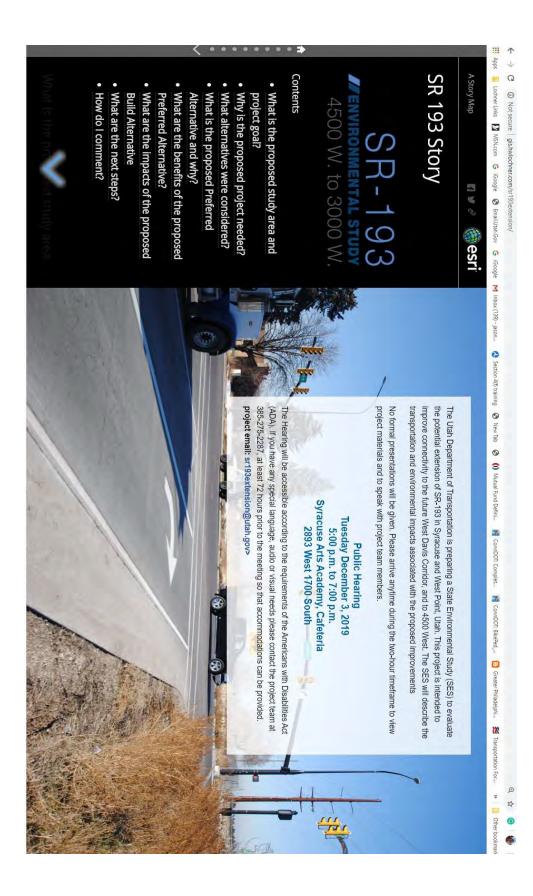
600

THANK YOU for your hard work and dedication to our City residents!









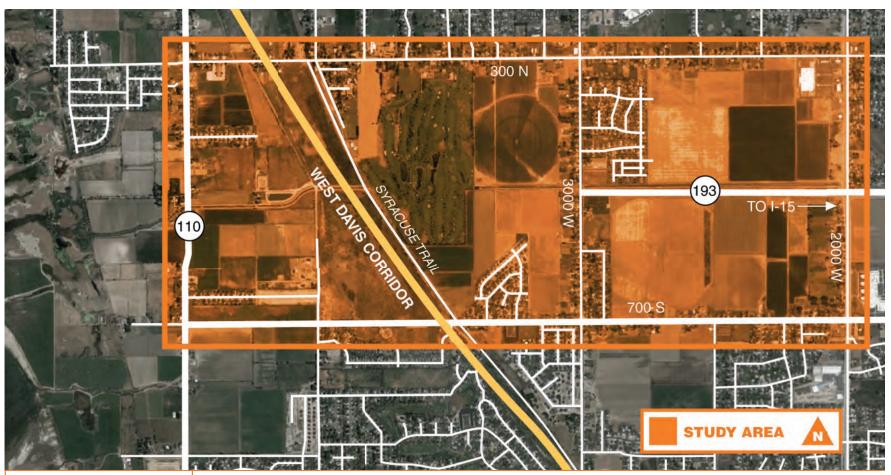
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Online	Comment					
		below to submit y	our comment or	n the SR-193 p	project.	
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	First Name		Last Name			
	Email Address	s	Phone Number			
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	Comments relat	ed to SR-193*				
	Connencircite					
			Submit			
STATE.	OBS UTAH GOV					

Appendix B

Hearing Materials

STUDY AREA & GOAL





GOAL

Improve local connectivity to existing regional routes, such as I-15, and future regional routes, including the West Davis Corridor.



WHY IS THIS PROJECT NEEDED?



Without a direct connection to I-15 and West Davis Corridor, indirect travel to regional destinations, such as I-15, is predicted to lead the following transportation issues by 2050:

- Local road network is over-utilized and the regional SR-193 route is underutilized
- Longer commute times to I-15



TRAVEL TIME FROM 4500 WEST & 200 SOUTH



PREFERRED ALTERNATIVE





UDOT selected the 400 South Build Alternative as the Preferred Alternative because it would:

- Avoid Rock Creek Park, Schneiters Bluff Golf Course, and existing residences.
- Meets UDOT interchange spacing design standards between the proposed West Davis Corridor interchanges at Antelope Drive and SR-193, and between SR-193 and nearby intersections (e.g. 4000 West).



West of West Davis Corridor



East of West Davis Corridor

12'

26"

TRAVEL

LANE

ALTERNATIVES



UDOT developed four alternatives to address connectivity to existing and future regional transportation routes. These are referred to as "build alternatives" because they include proposed construction and modification to the transportation system. In addition, UDOT evaluated a No-Build Alternative, which serves as a baseline for comparison to the build alternatives.

- Each alternative extends SR-193 between 3000 West and 4500 West.
- Alternatives were named based on their intersecting point with West Davis Corridor: 700 South, 600 South, 400 South, and 200 South.
- All alternatives included a diamond interchange at the future West Davis Corridor.



Note: A 300 North Alternative was inadvertently shown on the board at the public hearing. A 300 North Alternative was not evaluated in the SR-193 SES.



PREFERRED ALTERNATIVE SR-193 **TRAFFIC BENEFITS**



- · Local road network volumes decrease because the regional route SR-193 carries more traffic
- Shorter commute times to I-15 and Legacy Parkway





RESOURCE IMPACTS

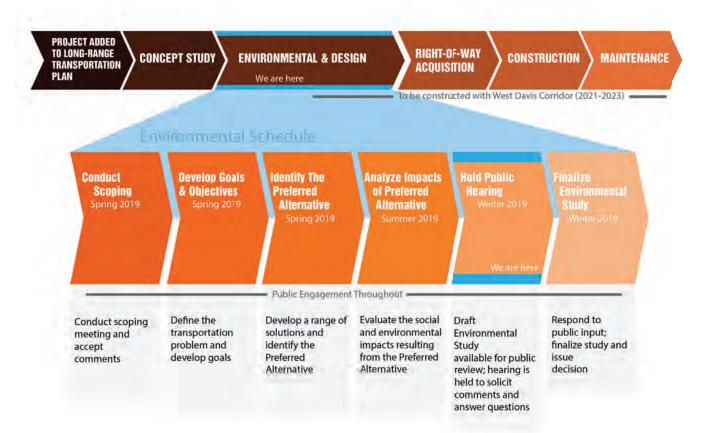


ISSUE	PREFERRED ALTERNATIVE	NO ACTION ALTERNATIVE
Land Use	Project has been anticipated in local land use plans and is compatible with future land use planning.	Would not support local planning, but development would be expected to be similar to a Build Alternative.
Farmlands	 No designated Agricultural Protection Areas impacted. Temporary construction disturbance. 	No impact
Right-of-Way	 Partial acquisition from 18 parcels totaling 34.5 acres. No relocations. Partial acquisition of Layton Aqueduct right-of-way (Federally owned). Temporary construction easements and staging areas during construction. 	No right-of-way impacts
Pedestrians and Bicyclists	 Syracuse Trail affected by intersection design; addressed by rerouting segment of the trail. Sidewalks between 4500 West and 4000 West included. Temporary trail closures during construction. 	No benefit of adding pedestrian facilities
Economics	 Reduction in agricultural production as a result of bisected properties. No business impacts, including: relocations, property acquisition, or access changes. Compatible with commercial development/local land use planning. 	No impact
Noise	 68 properties impacted by substantial increase (10 dBA or greater) Three noise walls analyzed; neither meets feasible reasonable criteria of the UDOT Noise Abatement Policy No walls recommended for balloting. Temporary construction noise. 	No impact
Visual Resources	 Visual impact of linear, highway feature and interchange. Additional street lighting at interchange. Temporary visual impact of construction 	No impact
Cultural Resources	 One eligible archaeological resource (Hooper Canal System) - No Adverse Effect One eligible residential structure (246 S 3000 W) - No Adverse Effect 	No impact
Wetlands & Other Waters of the U.S.	 10.6 acres of permanent wetland impact anticipated in project footprint, including interchange ramps. Temporary wetland impacts to be determined in permitting/final design. 	No impact
Water Resources	 No floodplains impacted. No water right point of diversion impacts. Relocation of an irrigation pipeline required. No stream crossings or alteration. Increased storm water and pollutant runoff volumes; however, storm detention basins have capacity to treat increased storm water. 	
Threatened and Endangered Species	No Effect	No impact
Wildlife	Potential effects to migratory birds during construction.	No impact



NEXT STEPS







HOW TO COMMENT



The official 30-day public comment period began on November 18 and ends on December 17, 2019. Comments must be postmarked or emailed to the project team by midnight December 17, 2019 in order to be included in the official transcript for the public hearing. All comments will be taken into consideration and responded to in the final study.



COMMENT FORM Fill out from and submit it at the public hearing.



MAIL Send to SR-193 Team, c/o Lochner, 3995 S. 700 E, STE 450 SLC, UT 84107





WEBSITE Submit online at www.udot.utah.gov/ sr193extension



SR-193 #ENVIRONMENTAL STUDY 4500 W. to 3000 W.

What is the project goal of the proposed project?

Improve local connectivity to existing regional routes, such as I-15, and future regional routes, including the West Davis Corridor.

Why is the proposed project needed?

Without a direct connection to I-15 and West Davis Corridor, indirect travel time to regional destinations, such as I-15, is predicted to lead to the following transportation issues by 2050: (1) the local road network is over-utilized and the regional SR-193 route is underutilized; and (2) longer commute times to I-15 and Legacy Parkway.

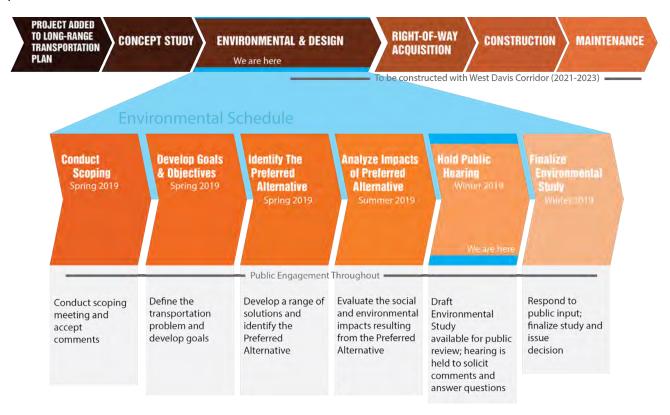
What are the proposed project benefits?

The proposed project would result in a decrease in local road network volumes because SR-193 would carry more traffic; and shorter commute times to I-15 and Legacy Parkway.

Where are we in the process?

As part of the formal scoping process a public meeting was held on March 19, 2019, followed by a 30-day public comment period. Comments during the scoping process were considered in the development of the project goals and objectives—which informed the development of the conceptual alternatives. Analysis of the conceptual alternatives led to the recommendation of the Preferred Alternative as part of this State Environmental Study (SES).

The purpose of this hearing is to inform the public of the proposed improvements, answer questions, and provide opportunity for the public to comment. Comments will be addressed in the final report, anticipated to be completed this winter.



How were the impacts determined?

Based on the proposed design, environmental and social resources were analyzed to determine the potential impacts that would result from the implementation of the proposed Preferred Alternative.

What is the project timeline?

- 11/14 Right-of-way Workshop
- 11/18 Publish State Environmental Study (SES) and comment period begins
- 12/3 Public Hearing
- 12/17 Public Comment period ends (midnight)
- Winter 2019/20 Submit Final SES with response to comments
- Winter 2019/20 UDOT will select a Preferred Alternative and prepare for final design
- Late Winter/Spring 2020 Begin right-of-way acquisition
- Fall/Winter 2020 Contractor will be given Notice to Proceed
- 2023 Construction is anticipated to be completed
- **2024** Corridor Maintenance

We want to hear from you!

You are welcome to share your comments this evening by filling out a comment form, or via the court reporter. You may also provide your comments at a later time via:

Project website: <u>www.udot.utah.gov/sr193extension</u>, or Email: <u>sr193extension@utah.gov</u>.

Comments will be accepted until midnight December 17, 2019.

The SR-193 Project Team is available to answer your questions at 385-275-2887.





COMMENT FORM

CONTACT INFORMATION (Optional)

Name	
Phone	
Email	
Address	

Would you like to receive email updates? $\ \ \, \textbf{Yes} \ \, \text{or} \ \, \textbf{No}$

COMMENTS

What issues related to SR-193 are important to you?

Mail To:

SR-193 Extension Project Team c/o Avenue Consultants, 6605 S. Redwood Rd, Ste 200 West Jordan, UT 84084

Other Ways to Comment:

E: SR193extension@utah.gov

W: udot.utah.gov/SR193extension





Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor.

Project Number: S-0199(245), S-0127(7)2

Pin: 16518, 16717

The Utah Department of Transportation monitors attendance to ensure non-discrimination. We appreciate you providing this information.

Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?
Bentonfishes				[] SR-193 [] Antelope Drive
SR-193 VENVIRONMENTAL STUDY 4500 W. to 3000 W.	Project Description: to evaluate propose between SR-110 (4500 West) and	d transportation improvements, shoulder enhancements and additional lanes on segments SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse ar tend SR-193 to 4500 West, and would construct an interchange at the future West Davis Co Project Number: S-0199(245), S-0127(7)2 Pin: 16518, 16717	d West Point, Utah,	Antelope Driv SR-127; 4500 W to 2000 V

SR-193

MENVIRONMENTAL STUDY

4500 W. to 3000 W.

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
					[] Male [] Female	American Indian/Alaskan Native
Chese Ster				[] SR-193 [] Antelope Drive	[] Person with Disability	[Black [] Hispanic [White [] Other
					[] Male [] Female	American Indian/Alaskan Native
				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
					[] Male [] Female	American Indian/Alaskan Native
				[] SR-193 [] Antelope Drive	[] Person with Disability	[Black [] Hispanic [White [] Other
				[] SR-193 [] Antelope Drive	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
		-			[] Person with Disability	
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
					[] Male [] Female	[] American Indian/Alaskan Native
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
					[] Male [] Female] American Indian/Alaskan Native
			[] SR-193 [] Antelope Drive	[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other

Antelope Drive MENVIRONMENTAL STUDY

SR-127; 4500 W to 2000 W.

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e Y	[] Black [] Hispanic [] White [] Other				
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Rob Shadbolt			-		Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[] SR-193 [X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic X White [] Other	
(())				[≯]_SR-193	Male	[] American Indian/Alaskan Nati [] Asian/Pacific Islander	
Von Schmeiter				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic	
Dave Corte o					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
Paneconc				[] SR-193	[] Person with Disability	[] Black [] Hispanic [] White [] Other	
CAPI CONT	RC COOK	[] Male [] Female	[] American Indian/Alaskan Nativ [] Asian/Pacific Islander				
				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other	
avid 4. Sanders				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
a 10,01 10,000 a				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other	
					[] Małe [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other	
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other	
				[]	{] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other	
] Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[] SR-193 [] Antelope Drive] Person with Disability	[]Black []Hispanic []White []Other	

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Antelope Drive

SR-127; 4500 W. to 2000 W.

MENVIRONMENTAL STUDY



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Jordan Peterson				[🕅 SR-193 [K] Antelope Drive	Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic Muhite [] Other
J Lynn Kneedy				SR-193	Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [✔White [] Other
Michael Smyers ([] SR-193 ∱∕ Antelope Drive	Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
David Aste				[누] SR-193 [사] Antelope Drive	Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
WILLE Goodf					Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic Hispanic
Wilk Goodt " Kyle Harmon					Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
Katie Perry (Jared Perry)				[<i>x</i>] SR-193	Male Female Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [/ White [] Other
James Hansen				XI SR-193	义] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Rodd Hewlett -				[] SR-193	Male Female Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are Yo Interested In?
Row & Shellay Willims				[🖍] SR-193 [🖌 Antelope Drive
Courg Hatch				[SR-193 [Antelope Drive
Lynn Craythorn				[/]-SR-193 [] Antelope Drive
Dan Jones				[너 SR-193 [사 Antelope Drive
Jan m Escargon				[] SR-193
DOND NICKY GALLAGHER				[X] SR-193 [] Antelope Drive
Chris Gauger.				[1] SR-193 [1] Antelope Drive
Jim F. Gallegos				[] SR-193 [Antelope Drive
LANNY HOLBROOK				[] SR-193 [4] Antelope Drive

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You	OPTIONAL					
	Male Eemale	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other				
	Premale [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other				
	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other				
	[]-Male [] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [-]-White [] Other				
	[] Male Female M [*] Person with Disability - Come	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic Mite [] Other				
	Male Male Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other				
	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [r] White [] Other				
	Male Female Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black Mispanic [] White [] Other				
	[UMale [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other				



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Name (Please print or write clearly)	rite Email address Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?	OPTIONAL		
					[] Male [X Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
TERRY ENIS				[X] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					[)} Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Barrett Walling				[X] SR-193 [≯] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [X White [] Other
				P 700 100	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Alan Mollenhauer				SR-193	[XPerson with Disability	[] Black [] Hispanic White [] Other
. 0.					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jerrad Pullum				[∕͡^] SR-193 [৵] Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
P . P.J.					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
bruce Darber	Lice Barber [] SR-193 [] Antelope Drive		[] Person with Disability	[] Black [] Hispanic [] White [] Other		
TEACY BATY					[】 [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
STEVE BATY				[] SR-193 [X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [🗶 White [] Other
Steve +					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Steve + Linch Gates				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Varath				[/] SP 102	[µ4 Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Kenneth Hellewell States				[✔] SR-193 [⚠] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [White [] Other
States				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Cart and a start and a start a				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other

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0					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Rob Schofield				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Stevan Sterd				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
John + Erma Kible					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
0				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				1 162 102	[UMale [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Robert Brinton				SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
A Tall					Male Female	[] American Indian/Alaskan Native
Gary Taft, Yingjin Wang Ackerman				[] SR-193 [Antelope Drive	Person with Disability	[]Black []Hispanic
Ackerman					[🎢] Male [🎢] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
David & Candi				[𝕂] SR-193 [𝕂] Antelope Drive	V Person with Disability	[] Black [] Hispanic [] White [] Other
VINCE WERB					H Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
VINCE WERB SYRACLISE W. TOWN CAR. Jerenny Sorenconi				[] SR-193 [廾] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
leverny Sorenson				[] SR-193 -	Hale [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
,				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Saral Bay Y. tos					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Sarah Gay-Yates				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other

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Antelope Drive **MENVIRONMENTAL STUDY**

SR-127; 4500 W. to 2000 W.



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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Densip PArken				. 4	[] M ale [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[🕅 SR-193 [🖄 Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
TRACY FIFIECD				[⊮] SR-193	*Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				$[\chi]$ Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
repold Struhs				[X]_SR-193	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
EALD STRUGS [] Antelope Drive		[] Person with Disability	[] Black [] Hispanic White [] Other			
Zennis Fox	ENNIS FOX		Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
				[X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [White [] Other
Broque				[\4 _SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Broake Nowthomery				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
en + Nancy Velson				[¥] SP 102	₩ Male ₩ Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Velson				[X] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
ruce					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
ruce Schofield				[] SR-193	[] Person with Disability	[] Black [] Hispanic [] White [] Other
had to cool				[] SR-193	[] Małe [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
)endy Thompson (EE MANYMON				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
LE HAMMON				KSR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Kelly Barrett				[/] SR-193 [] Antelope Drive	F Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Daug MGa				[] SR-193	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
MIRIAM WOLFLEIf				[X] SR-193 Antelope Drive	[] Male Memale [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
Terry Palmer				[~] SR-193 [식] Antelope Drive	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Jourd Dower				[ʎ] SR-193 [&] Antelope Drive	Male] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Tim Ellis					 Female Female Person with Disability 	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Rick Smith	-				 [y] Male [] Female [] Person with Disability 	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Jal Hinse				[# SR-193	TMale [] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
SILCLARK	6				Male] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White Other

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Antelope Drive

SR-127; 4500 W. to 2000 W.

MENVIRONMENTAL STUDY



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

Pin: 16518, 16717

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Dee Anna Montgomery			2	[⁄] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				[~] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Colleen Hinze			p	[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Ben & Robin Nielson				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Brad Beiler					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Brad Beiley Titteny Beiley Adam Griffiths				[] SR-193 [Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Adam Griffiths					Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] SR-193	[] Person with Disability	[]Black []Hispanic [X White []Other
					[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Nary Caner				[] SR-193 [X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
					bkMale Die Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Carloine				SR-193	[] Person with Disability	[] Black [] Hispanic
- Boyce				N/ SP 102	D Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				SR-193 Antelope Drive	[] Person with Disability	[]Black [] Hispanic
In Blumenkamp					Male []Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[// SR-193 [/] Antelope Drive	[] Person with Disability	[] Black [] Hispanic

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Antelope Drive

SR-127; 4500 W. to 2000 W.

MENVIRONMENTAL STUDY



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
					[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jennifer Struchs				[X] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Edward Redd					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Zdward Kedg				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				[h(2) 102	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Lory Artch				SR-193	[] Person with Disability	[] Black [] Hispanic [] White [] Other
1 2					[] Male M Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jen Bahn				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic] White [] Other
ANTER GINDY				Nep 102	[Male Hemale	[] American Indian/Alaskan Native [] Asian/Pacific Islander
1-horaect				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Jason,				N 700 400	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Bluene				CX SR-193 CX Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				[¥ cp 102	[/] Male [] Female	[] American Indian/Alaskan Native ,[] Asian/Pacific Islander
ROBERT				[/\$SR-193 [/{] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
BRADY HALLYS				[[×]] SR-193	k y* Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [X] White [] Other
CANT WATCHICK				[] Female [] Asian/Pari	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
				[ܐ] SR-193 [ܐ] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
					AtMale [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Ken Sessions				[✔\$ SR-193 [↓] Antelope Drive	[] Person with Disability	[] Black [] Hispanic
				[4] SR-193	M Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Theron Eberhave				[1] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				₽́~\\$R-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Brudy Boyero				Antelope Drive	[] Person with Disability	[] Black [] Hispanic [White [] Other
				[] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Collby Anderson				Antelope Drive	[] Person with Disability	[] Black [] Hispanic
Morie Jeasen				[] SR-193	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
VEULE JEASEN			,([] SR-193 [<u>Antelope</u> Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				L ASP 102	[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Blake Adams				[] SR-193 [L] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					- ←] Male ↓ ↓ Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
wrey & Cathy Wilcox				[才SR-193 [/] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
1 0 1 1				[ʎ] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Landon Webb				[X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic Structure [] Other
					🖌] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
CAPLCHRISter 2				SR-193	Person with Disability	

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Antelope Drive

SR-127; 4500 W. to 2000 W.

MENVIRONMENTAL STUDY



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Chris Miske					[⁺ Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Juis Miske				[-}SR-193 [-}Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				J SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
JASN CROXFORD				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					[1]-Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
MEROST			;	[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [/] White [] Other
					[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Chelsea Toung				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic
Α				[] SP 102	[4]-Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Tyler Lloyd				[] SR-193 [JAntelope Drive	[] Person with Disability	[] Black [] Hispanic [》/ White [] Other
					Male] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
)avid Zidon				[] SR-193 [X] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
orbett Hansen				[〉] SR-193 [〉] Antelope Drive	[] Person with Disability	[] Black [] Hispanic
Jonald Sendbary				[// SP 102	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Sindput				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
1 0				[] Equals	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
JOHN PEREZ				[X] SR-193 [V] Antelope Drive	[] Person with Disability	[] Black [] Hispanic

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
10,01,11					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
KRISHNA AVANTUNI				[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Ronald Hampton				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Hampton				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
Patrick Carroll					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
,	[≻] Antelope Drive		[] Person with Disability	[] Black [] Hispanic White [] Other		
Mike & Jeanie McBride				L 750 102	[₊-]-Male [↓Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[·] SR-193 [·] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [
				[[▶]] SR-193	M Male M Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
nark & Dense Pitt				[1] Antelope Drive	[] Person with Disability	[] Black [] Hispanic
Kenin Nance				LU 5D 102	[*] Male [*] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[SR-193 [Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
				[fcp 102	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Lonin Tenney Hay Cook				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other
				[/] SR-193	[] Male V Female	Marerican Indian/Alaskan Native
they Look				Antelope Drive	[] Person with Disability	[]Black []Hispanic
				[] [] [] [] [] [] [] [] [] [] [] [] [] [[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				[] SR-193 [] Antelope Drive	[] Person with Disability	[]Black []Hispanic []White []Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
Scott Anderson			1		Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
				SR-193 Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
LYNN BOYNTON				[] SR-193	[] Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
General Deportere				Antelope Drive	[] Person with Disability	[] Black [] Hispanic
				[]] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
George Bell			[] SR-193 [X Antelope Drive		[] Person with Disability	[] Black [] Hispanic [White [] Other
Data				[≻ \$R-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
GREG HIGUEN				[] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other
2112				[X] SR-193	[XMale [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Robert Browning				[/ Antelope Drive	[] Person with Disability	[] Black [] Hispanic [White [] Other
0.0				[X] CP 102	[Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Cheri Browning				[/͡͡sR-193 [/ː] Antelope Drive	Person with Disability	[] Black [] Hispanic
				[] SR-193	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Michael Frahm				Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
				[] SR-193	Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
DAN WERTON Andrea Vega				[차] Antelope Drive	[] Person with Disability	[] Black [] Hispanic (M) White [] Other
				Female [] Asian/Pacific	[] American Indian/Alaskan Native [] Asian/Pacific Islander	
Andrea Vega				SR-193	[] Person with Disability	[]Black MHispanic []White []Other

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Antelope Drive

SR-127; 4500 W. to 2000 W.

MENVIRONMENTAL STUDY



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?		OPTIONAL
					Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
JACE': SUSAN Elbrader				SR-193	[] Person with Disability	[] Black [] Hispanic
0.0				[×] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Gary Oscarson				[Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
				[₩] SR-193	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Set Teague				Antelope Drive	[] Person with Disability	[] Black [] Hispanic
ß				1 102	[+] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
KERZY LEE				[-] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [-] Wh ite [] Other
with Roundy				MICP 102	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Winn . surray				SR-193	[] Person with Disability	[] Black [] Hispanic [] White [] Other
teike Bell				[] [] [] [] [] [] [] [] [] []	{] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
1				[] SR-193 Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
Villish McGowan					Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jathie Mibour				X] SR-193 Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other
Jory Johner				PX1 SP 102	J Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Jer 7 Januar				FXI SR-193	[] Person with Disability	[] Black [] Hispanic
Alika Ral		(1. 2. S.C.) =	A Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
Mike Brady				[V] SR-193 [Antelope Drive	[] Person with Disability	[] Black [] Hispanic White [] Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In?	,	OPTIONAL
Johng Carrie Taylor				[v] SR-193 [v] Antelope Drive	M Male M Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
MANETY ASAY				[4] SR-193 [-] Antelope Drive	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
MAUK JONES				[X] SR-193 [] Antelope Drive	Male Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
Mila Gadey				[XSR-193 1 Antelope Drive	Male Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
Chet Naser				[/ SR-193 [] Antelope Drive	Male I Female Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
STEVE BAVIS				[x] SR-193 [x] Antelope Drive	Male [] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
KURT NIELSON				[X] SR-193 [V] Antelope Drive	X Male Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
sale McCrary				[] SR-193 [X] Antelope Drive	Male DFemale] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other
Jolene Nance				[] SR-193 [X] Antelope Drive	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] Wiffite [] Other

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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are Yo Interested In?
SAL GUTIERREZ				[15R-193 [] Antelope Drive
Kyle & Brooke Carpenter				[V] SR-193 [V] Antelope Drive
Brian Knewy				[-] SR-193 [-] Antelope Drive
Erin Hokum				[] SR-193 [→【Antelope Drive
Juny Proston,	ş -			H J SR-193 [] Antelope Drive
DANIA JONES S				[녿] SR-193 [ː <] Antelope Drive
Lisa Bingham				[X] SR-193 [X] Antelope Drive
Chuld Wryd				[] SR-193 [X Antelope Drive
Jou abbot		ill only be used to monitor attendance at public meeting		[²]-SR- 193 [-] Antelope Drive

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You	OPTIONAL							
	[] Female [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
	Male Vemale [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic NWhite [] Other						
	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
	[] Male Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
	Male [] Female] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic White [] Other						
	[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
	[] Male [X] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
-	Female Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						
-	[] Male [] Eemale [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other						



Project Description: to evaluate proposed transportation improvements, shoulder enhancements and additional lanes on segments of SR-127 (Antelope Drive) between SR-110 (4500 West) and SR-108 (2000 West) in Syracuse. As well as, the potential extension of SR-193 in Syracuse and West Point, Utah, which would also extend SR-193 to 4500 West, and would construct an interchange at the future West Davis Corridor. Project Number: S-0199(245), S-0127(7)2

Pin: 16518, 16717

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Name (Please print or write clearly) MICHAEL LASKO	Email address	Address (City, State and Zip)	Phone Number	Which Project Are You Interested In? ['] SR-193 [-] Antelope Drive	OPTIONAL	
					[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
					[] Person with Disability	[] Black [] Hispanic [] White [] Other
STEPHEN BURTON				[∱\$R-193 [∱Antelope Drive	[¶ Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] Ŵhite [] Other
					[] Person with Disability	
			[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
older Barrett			[-} SR-193 [-} Antelope Drive		[] Person with Disability	[] Black [] Hispanic [] W hite [] Other
3. Steed				[] SR-193 [] Antelope Drive	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
3. Steed W. Bourgeous					[] Person with Disability	
DUNCAN BARLOW				[X] SR-193] Antelope Drive	/ Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
					[] Person with Disability	
				6 cp 402	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
ORDAN SAULGE				J SR-193 J Antelope Drive	[] Person with Disability	
] SR-193 >] Antelope Drive	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [X] White [] Other
Karen Waite					[] Person with Disability	
		1 50 102	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
Amenda Weston] SR-193 🖓 Antelope Drive	[] Person with Disability	[] Black [] Hispanic S-White [] Other
					[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
		[] SR-193 [] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other		

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Antelope Drive **SR-127; 4500 W- to 2000 W.**



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Name (Please print or write clearly)	Email address	Address (City, State and Zip)	Phone Number	Which Project Are Yo Interested In?	u	OPTIONAL
$\partial \Omega$					Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
Keith Bourgeons			ſ	[] SR-193 [X Antelope Drive	[] Person with Disability	[] Black [] Hispanic [XWhite [] Other
LYNDON SCHANSON				[] SR-193	[] Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
LANDON SCHARDIN				[] Antelope Drive	[] Person with Disability	
BEVERLY WILLIAMSON				[] SP 102	[] Male	[] American Indian/Alaskan Native [] Asian/Pacific Islander
		Antelope Drive	[] Person with Disability	[] Black [] Hispanic [] White [] Other		
Matt Blackson &				[] SR-193 [7] Antelope Drive	Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
					[] Person with Disability	
Fran Targusan j				[] SR-193 [x]-Antelope Drive	Male []Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic DWWhite [] Other
11an 121309011 1					[] Person with Disability	
Lonnie Weston				[XPD 102	[] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander [] Black [] Hispanic [] White [] Other
				[3R-193 [] Antelope Drive	[] Person with Disability	
Jake Schneiter				[N] SP 102	b⊈ Male []Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander
where schne, iv	Le Schneiter [NSR-193 []Antelope Drive		[] Person with Disability	[] Black [] Hispanic [\] White [] Other		
Joe fisher		[] SR-193	- Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander		
				[<u>X</u>] Antelope Drive	[] Person with Disability	[] Black [] Hispanic [)] White [] Other
	[/[] SR-193	[≱ Male []Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander			
				Antelope Drive	[] Person with Disability	[]Black []Hispanic

This information will only be used to monitor attendance at public meetings and for data collection purposes, as specified by law (CFR 23 200.9(4)). Sign In sheet will become part of the public record for this project.

	Antelope Drive SR-127; 4500 W. to 2000 W.			
ion.	٤			
4	OPTIONAL			
Male [] Female	[] American Indian/Alaskan Native [] Asian/Pacific Islander			
[] Person with Disability	[] Black [] Hispanic [White [] Other			
[] Male [] Female [] Person with Disability	[] American Indian/Alaskan Native [] Asian/Pacific Islander			
	[] Black [] Hispanic [] White [] Other			



Public Comments

ONLINE COMMENT FORM

Reference #	First Name	Last Name	Comments related to SR-193
13215327	Jennifer	Struhs	If West Point is centering all business around 300 north, why wouldn't it merge that way?
13208039	James	Gallegos	Who is over the antelope project. I need a number or email address. Thank you. Jim Gallegos

Ryan Christensen <ryan@gecivil.com>

to me

We are the Hooper Water Improvement District's Consultant Engineer. I was asked to reach out and gather information on the proposed construction schedule for this project. I understand that it is in the Environmental Study Stage but wondered if there is funding available for a certain timeframe. Any information you can provide would be appreciated.

Thanks

Ryan Christensen, PE

Gardner Engineering 5150 S 375 E - Ogden, Utah 84405 <u>yyan@gecivil.com</u> O: (801) 476-0202 #236 C: (435) 730-1523 F: (801) 476-0066

Terry Ellis <tellis@utah-inter.net>

to me

Please include me on updates to the development of the highway. Thanks.

Taylor Bryan Leavitt <LeavittT@pripd.com>

Mon, Dec 2,

Tue, Dec 3, 2019. 1:20

PM

2019, 10:40 AM

to me

Hello,

My name is Taylor Leavitt and I am with Property Reserve, Inc. We own property that will be affected by the SR-193 extension. I will not be able to attend the meeting at the Syracuse Arts Academy tomorrow, but would like to stay informed. Are there any other duplicate meetings that I could try to attend? Otherwise, could you please send me any materials from the meeting?

Thank you,

Taylor Leavitt | Asset Manager | PROPERTY RESERVE, INC.



COMMENT FORM

1

CONTACT INFORMATION (Optional)	Mail To:
Name Kelly Barrett	SR-193 Extension Project Team 3995 South 700 East, Suite 450 Salt
Phone	Lake City, UT 84107
Email	Other Ways to Comment:
Address	E: SR193extension@utah.gov
Would you like to receive email updates? (Yes or No	W:udot.utah.gov/SR193extension

The official thirty (30) day comment period for the SR-193 State Environmental Study (SES) began with publication of the SES on November 18, 2019 and will extend through December 17, 2019. Comments on the SES must be postmarked or emailed by midnight December 17, 2019. Comments can also be submitted via an online comment form available at http://www.udot.utah.gov/sr193extension@utah.gov.

COMMENTS

comments
My home is under construction and the preferred 193 will run
directly behind our home. We moved from next to 3500 W in Roy to
get away from road noise. I also work from home with the
ITS and record nerration for IRS training videos and I require
or request 173 not run behind my home or the steed limit to be
35 mph and there be a sound wall created to help mitigate any
future road nuise.

the sound Study lase re-evaluate taking into allount Schools clong that road as certain'y increase and road noise. frat We request a Sound Well be erec any road noise

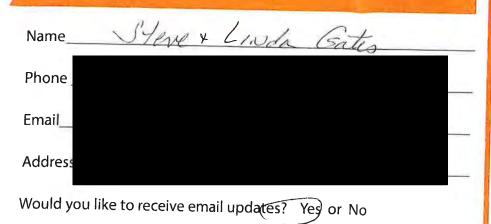
Also, Please make the intersection of 193 and 4000 W around-about.





COMMENT FORM

CONTACT INFORMATION	Ontions
	Optiona



Mail To:

SR-193 Extension Project Team 3995South700East,Suite450Salt Lake City, UT 84107

Other Ways to Comment:

E: SR193extension@utah.gov

W:udot.utah.gov/SR193extension

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COMMENTS How will our be able tel you gut he west will we lour property will be acquired





COMMENT FORM

CONTACT INFORMATION (Optional)	
Name EOWARD H. REDD	
Phone	-
Email	
Address_	
Would you need to receive email updates: / restor No	

Mail To:

SR-193 Extension Project Team 3995South700East,Suite450Salt Lake City, UT 84107

Other Ways to Comment:

E: SR193extension@utah.gov

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map Realt Vevalee Redd COMMENTS My Parent have both passed area n their es FISON estati Induded es -3700 West 400 S ang loute -038-0000 -0067 Mar te Decent dued The ya



SR - 193 MENVIRONMENTAL STUDY 4500 W. to 3000 W.	COMMENT FORM	
CONTACT INFORMATION (Optional)	Mail To:	
Name CREATENS	SR-193 Extension Project Team 3995South700East,Suite450Salt Lake City, UT 84107	
Email	<u>Other Ways to Comment:</u>	
Address_	E: SR193extension@utah.gov	
Would you like to receive email updates? Ye	W:udot.utah.gov/SR193extension	

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COMMENTS CONT 10



Would you like to receive email updates? Yes or No

SR-193 MENVIRONMENTAL STUDY 4500 W. to 3000 W.	COMME	NT FORM
CONTACT INFORMATION (Optional) Name Candi Acker Phone	man	Mail To: SR-193 Extension Project Team 3995South700East,Suite450Salt Lake City, UT 84107
Email(Address Would you like to receive email updates?	Yes or No	Other Ways to Comment: E: SR193extension@utah.gov W:udot.utah.gov/SR193extension

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COMMENTS

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GENERAL COMMENTS

have S grandchildren & 4 dogs am concerned about their safety aluring al ne construction and after his was suppose struction . nt home to enjoy tegethers. etirement ring construction is going to be unreal 7979 and 9D 18Vel ur property value is doing all constru n each d is doing on. 91/ nssed Jave Dard. ne treps NANAVI 0 Horrocks Engineering that by of our yard and the at our the back He will be forn up because of the He well + the comals. All of our trees will have to come up because of this construction WOrk am asking that our house and s location be reassessed in every way. Le are senior difizens, our house is a 4 for us to have finances apreciate, not de prieciate -am beart broken, Our dreams and our truly being affected over all ifestule is mored to Syracuse construction the country lifestyle and the people. YOUR HIME, NOW acternan I PO

SR-193 MENVIRONMENTAL STUDY 4500 W. to 3000 W.

COMMENT FORM

CONTACT INFORMATION (Optional)	
Name Robin Nielson	
Phone _	-
Email	-
Address	-
Would you like to receive email updates? Yes or No	

Mail To:

SR-193 Extension Project Team 3995South700East,Suite450Salt Lake City, UT 84107

Other Ways to Comment:

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COMMENTS acent Dosen au 9 nInor 50

GENERAL COMMENTS the fear about the sound wall that the property and rejected. The measured existing lovels and it was proposed sound stre minus experience did not Lig lin at ? road bound is Lase once. es mfrall is opene there 3000 West. sound addition in being moreached Le upon and Jan rear reade (west Le stud 0 what and ab affecting all area Shown

GENERAL COMMENTS

3000, Concerned with taking part A live C yard. Aront 00 m