

SANTA CLARA CITY

Transportation Master Plan Update 2024

PREPARED BY

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Introduction

Introduction to Santa Clara

The City of Santa Clara is in Washington County, Utah. It is bounded between the cities of St. George and Ivins. It was settled in 1854 and is one of the oldest cities in the area. Recently, Santa Clara, like many of the cities in the area, has grown commercially and residentially.

Study Purpose

The purpose of this study is to update the Santa Clara Transportation Master Plan from 2015. The primary objective to establish a stable transportation network that can guide future development in Santa Clara and surrounding cities. As a part of the update to this report, the goal is to produce a Capital Improvement Plan that identifies short-, mid-, and long-term projects and to update the transportation impact fees.

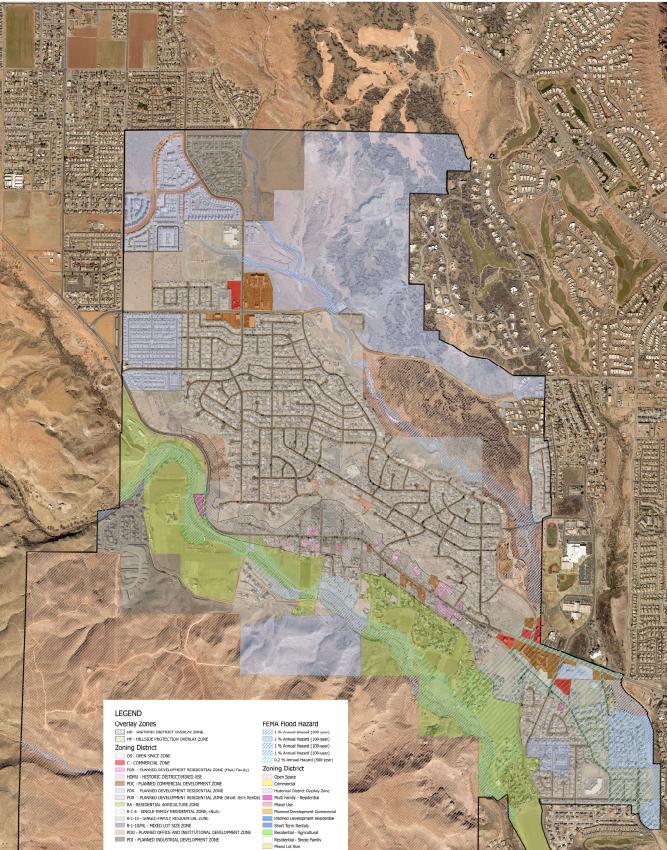
Vicinity and Zoning Map

As Santa Clara continues to grow, land use planning will provide the framework for growth. It describes the locations and types of density anticipated for housing and employment. The Santa Clara City Boundary and Zoning Map are shown at the link below.

Santa Clara City Zoning Map: See Page (2)



ZONING DISTRICTS



Open Space Commercial Historical District Overlay Z Multi Family - Residential Mixed Use Planned Development Com Manned Development Kess Short Term Rentals Residential - Agricultural Residential - Sincle Family Mixed Lot Size Utytouncary ict Overlag

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Socioeconomic Data

Historical population and employment data is used to forecast future population and employment data. Historical data is usually a reliable indication of growth. The data below comes from the Kem Gardner Institute.

i di	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060
State of Utah	695,900	900,000	1,066,000	1,474,000	1,729,227	2,246,468	2,772,667	3,284,823	3,879,161	4,440,560	4,969,929	5,450,598
% Growth								18%	18%	13%	12%	10%
Washington County	9,800	10,400	13,900	26,400	48,560	90,354	138,435	182,111	265,865	337,326	401,757	464,528
% Growth						86%	53%	32%	46%	27%	19%	16%
Santa Clara City					2,322	4,630	6,003	7,553				
% Growth						99%	30%	26%				

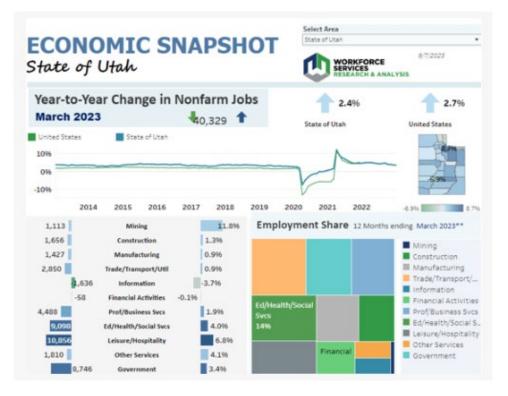
Population Data by Decade

Employment

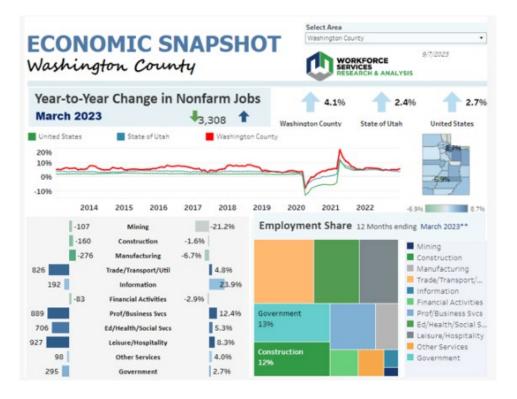
Employment data for the State of Utah and Washington County is provided by the department of workforce services. Data from the state is not available for the City of Santa Clara.

	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060
State of Utah					822,207	1,142,044	1,620,802	2,111,604	2,573,957	2,871,064	3,199,703	3,448,350
% Growth								30%	22%	12%	11%	8%
Washington County					19,312	39,358	70,274	104,979	143,157	172,488	196,373	214,794
% Growth								49%	36%	20%	14%	9%
Santa Clara City												
% Growth												

Employment Data by Decade



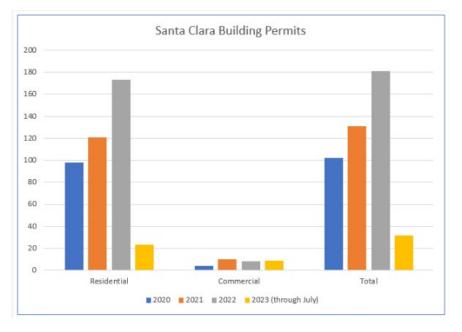
Utah Employment Share (top) and Washington County Employment Share (bottom)



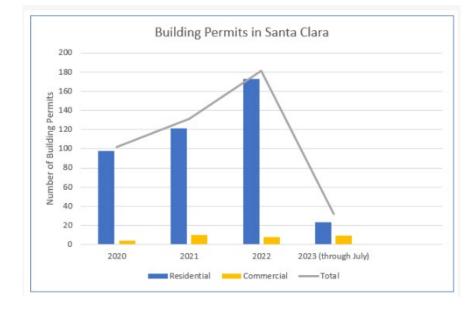
Growth in Santa Clara - Building Permits

Building Permits by Year and Type									
	2020	2021	2022	2023					
Residential	98	121	173	64					
Commercial	4	10	8	12					
Total	102	131	181	32					

Santa Clara Building Permits

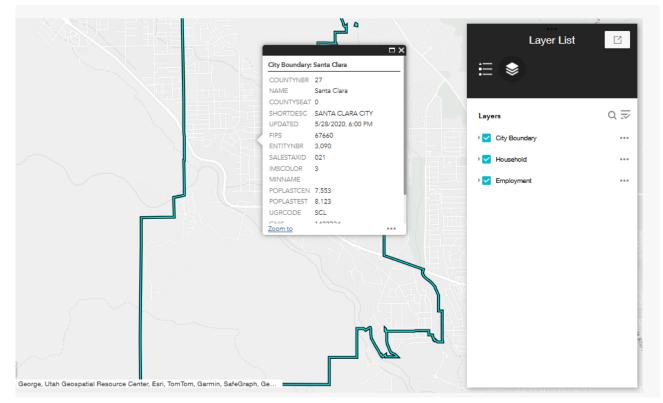


Santa Clara Building Permits (top) and Trends in Building Permits in Santa Clara (bottom)



Dot Density Maps

The Dot Density Maps show the change in population and employment between 2019 and 2050. Each dot represents 10 people. The population and employment data are provided by the regional travel demand model. The model uses historical data and land use and zoning plans to project the future population and employment numbers.



For interactive viewing, visit the following:

https://portal.horrocks.com/arcgis/apps/storymaps/collections/d497415b6f2f47c0b74e48e4a 45d30a1?item=2

Roadway Data

Introduction

To evaluate Santa Clara's existing transportation system and develop a plan that addresses the City's existing and future transportation needs, a thorough evaluation of the existing transportation conditions has been conducted and continually updated. This process was last completed in Santa Clara in 2015 by Sunrise Engineering. The 2015 report serves as a baseline to the changes that have taken place during the past five years.

Roadway Jurisdiction

All the public roadways in Santa Clara are owned and maintained by the City of Santa Clara. None of them have shared jurisdiction with Washington County or UDOT.

Existing Functional Class

Functional classification is used to identify types of roadways and connect them to cross-sections for the road type. In Santa Clara, the cross-sections for the functional classifications were recently updated.

UDOT also identifies functional classifications across the state for regional significant roadways. Functional classifications identified by the city can be added to the UDOT functional classification map.

Facility Type-Right of Way Width

Residential Local-44'

Residential Alternative-50'

Residential Standard-50'

Minor Collector-60'

Major Collector-66'

Minor Arterial-80'

Minor Arterial Alternative-80'

Major Arterial-95'

Santa Clara Roadway Widths by Functional Class

The DMPO and UDOT Functional Classification maps identify the major roadways in Santa Clara. Major Arterials

• Old Highway 91

Major Collectors

- Pioneer Parkway
- Canyon View Drive
- Rachel Drive (Gubler Drive to Pioneer Parkway)
- · Gubler Drive (Canyon View Drive to Rachel Drive)

Minor Collectors

- Rachel Drive (Old Highway 91 to Gubler Drive)
- Country Lane

Functional Classification: See Page (9)

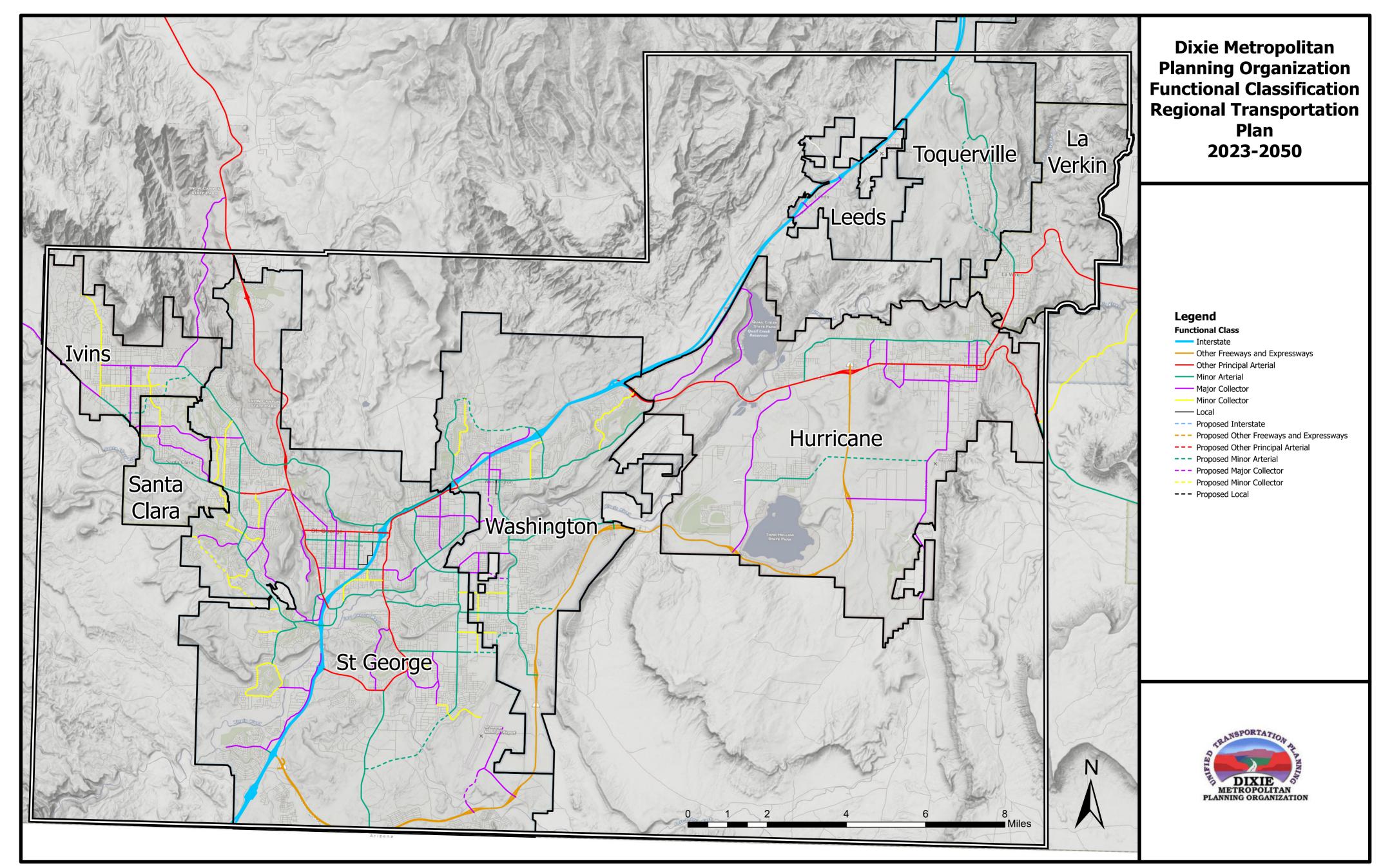
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Cross-Sections

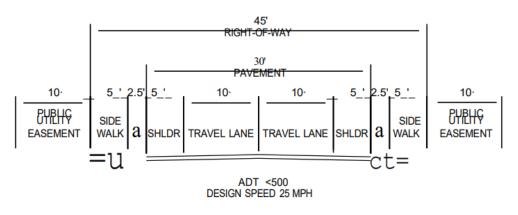
Cross-section standards for the City of Santa Clara are defined in the *Santa Clara City Construction Design Standards (2023 Update)* to establish consistency in roadway design across the city. The defined sections are the minimum required standards.

Santa Clara City Construction Design Standards (2023 Update):

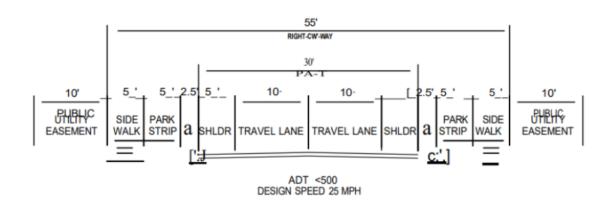
Visit City website: https://www.santaclarautah.gov/public-works



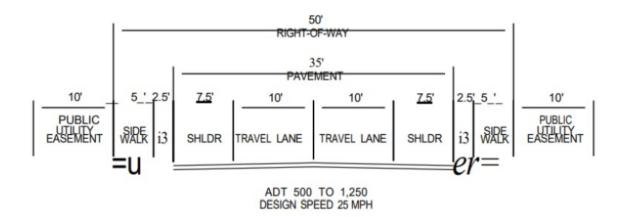
RESIDENTIAL LOCAL



RESIDENTIAL LOCAL ALTERNATIVE

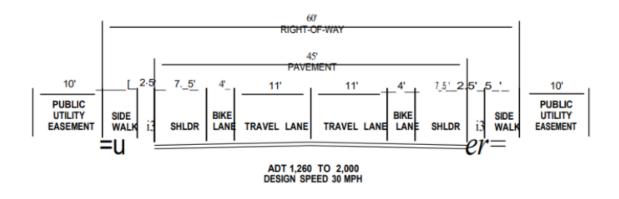


RESIDENTIAL STANDARD

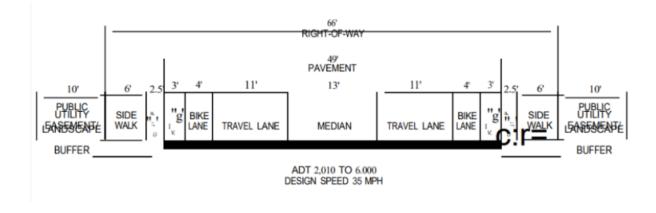


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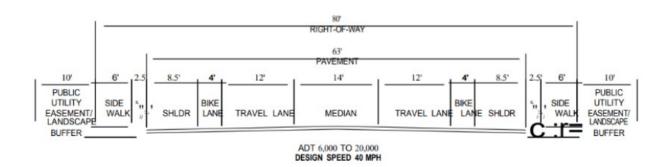
MINOR COLLECTOR



MAJOR COLLECTOR

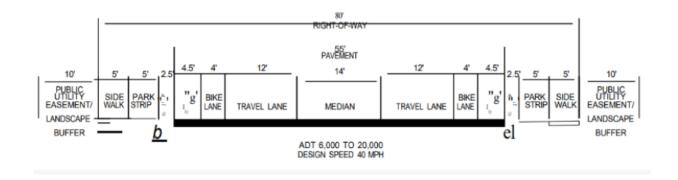


MINOR ARTERIAL

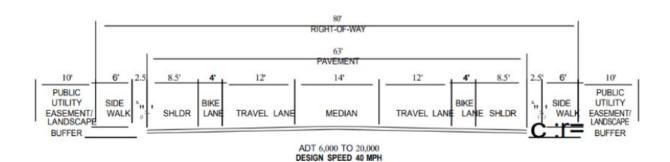


[11]

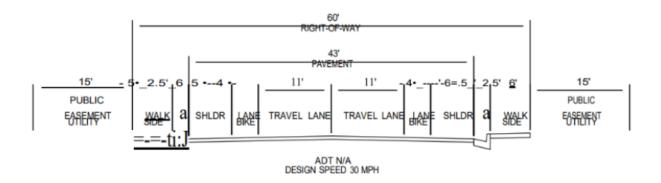
MINOR ARTERIAL ALTERNATIVE



MAJOR ARTERIAL

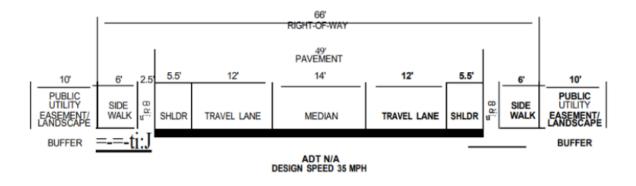


COMMERCIAL LOCAL



[12]

INDUSTRIAL LOCAL



Bridge Ratings

Bridges longer than 20 feet are inspected by the State every two years and are prescribed a rating based on a 100-point index. The Gates Lane's bridge scored a 76.98 in 2023.



Gates Lane Bridge, Constructed 2008

[13]

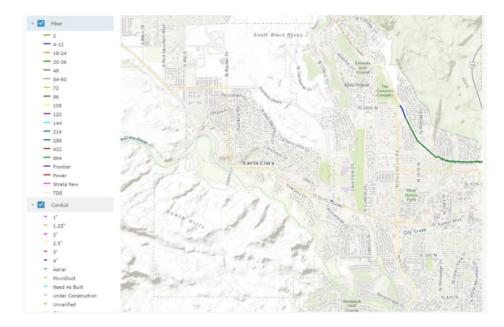
The Chapel Street Bridge was constructed in 2020 and has not been inspected.



Chapel Street Bridge, Constructed 2023

UDOT Fiber Map

UDOT installs fiber all over the state to connect the state traffic signals. There is not currently any UDOT Fiber in Santa Clara. The fiber shown in the UDOT Fiber Map in Santa Clara is owned by TDS.



Safety

Crash Data

To evaluate the safety of Santa Clara City's roadway network, crash data were collected from UDOT's Numeric Crash Query tool. Between September 2018 and September 2023, 172 crashes were reported in the Santa Clara city limits. The greatest percentage of crashes (41%) were intersection related. The majority of the crashes (55%) were property damage only and none of the crashes were fatal in the time period reviewed.

UDOT Crash Summary		Crashes
Total Crashes	170	100.00%
Intersection Related	70	41.18%
Roadway Departure	39	22.94%
Distracted Driving	31	18.24%
DUI	11	6.47%
Speed Related	6	3.53%
Pedestrian Involved	5	2.94%
Pedalcycle Involved	4	2.35%
CMV Involved	2	1.18%
Drowsy Driving	2	1.18%
Motorcycle Involved	2	1.18%
Animal Related	1	0.59%
Fatal Grashes	0	0.00%

Santa Clara City Crash Summary, 2018-2023



High Crash Area-Santa Clara Drive Canyon View Drive to Country Lane



[16]



High Crash Area-Pioneer Parkway

Another high crash area occurs on Pioneer Parkway between Red Mountain Road and Rachel Drive. At this location, the most common crashes are rear-end crashes and mid block crashes. These are likely due to the signal at Rachel Drive and the commercial accesses in this area. Until recently, there were not turn lanes on Pioneer Parkway to turn onto Red Mountain Drive.



Traffic Analysis

Traffic Volumes and Capacity

Transportation Model

Computer traffic models aid community planners to help forecast what growth can do to the current public transportation system. These models help to define what traffic pressures can be expected in the future and help to justify projects that enhance capacity. A transportation planning model was developed for the study area to facilitate the forecasting of future traffic volumes.

The model is a mathematical representation of travel behavior and utilizes land use data, observed travel behavior, and roadway network information to forecast future traffic volumes along selected roadways.

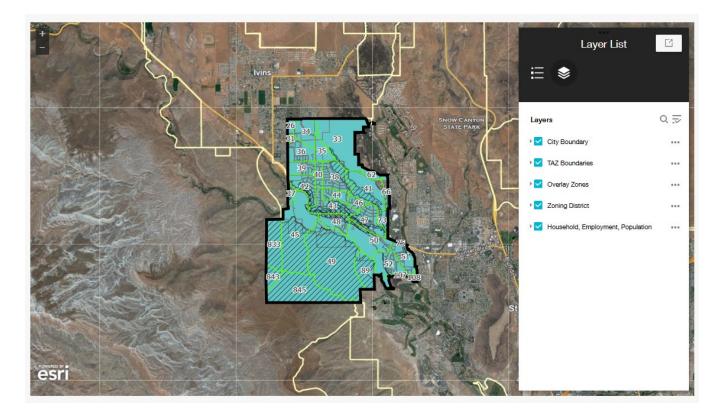
Modeling Procedure

The Dixie Metropolitan Planning Organization (DMPO) has prepared a calibrated traffic model that covers the urbanized area of Washington County. Horrocks Engineers utilized the DMPO's model and prepared a 2020 traffic model and a future 2050 traffic model. Other years were not modeled because the traffic in Ivins does not begin to cause intersection failures until 2050.

TAZ

Geographic subdivisions are used to combine the population, employment, and land use data for the study area. These subdivisions are termed "traffic analysis zones" or TAZ's and are used as the basis for the travel forecasting model. The employment and population data are assigned by TAZ to the roadway network.

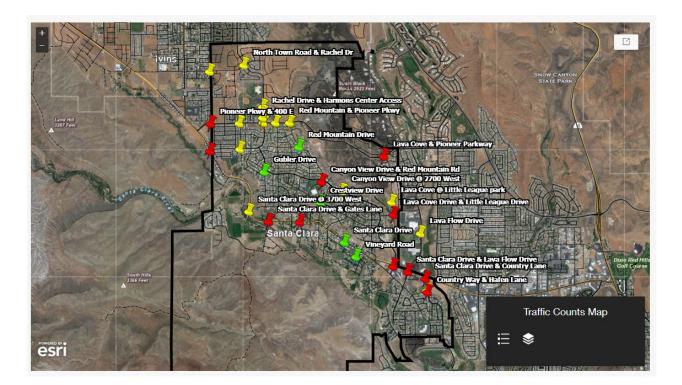
TAZ Map



For interactive viewing, visit the following:

https://portal.horrocks.com/arcgis/apps/storymaps/collections/d497415b6f2f47c0b74e 48e4a45d30a1?item=5

Traffic Counts



For interactive viewing, visit the following:

https://portal.horrocks.com/arcgis/apps/storymaps/collections/d497415b6f2f47c0b74e 48e4a45d30a1?item=5

Turning movement counts were collected at the study intersections marked in red. 24-hour counts were taken on the roadway sections marked in green. The yellow markers show the locations of counts taken before this study.

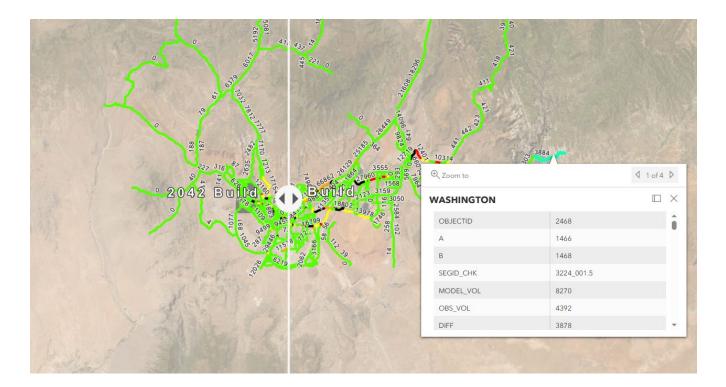
Level of Service

The Level of Service (LOS) was analyzed for each study intersection. LOS is determined by average delay per vehicle at the intersection. Synchro 11 was used to analyze each intersection. LOS D or better is generally considered acceptable. The only intersection that is currently operating poorly is the intersection of Country Lane and Santa Clara Drive during the peak hours.

Intersection (Traffic Control)	Existing Delay (LOS) AM	Existing Delay (LOS) PM	2028 Delay (LOS) AM	2028 Delay (LOS) PM
Pioneer Parkway & 400 East (TWSC)	12.9 (B)	14.8 (B)	14.8 (B)	20.7 (C)
Rachel Drive & Pioneer Parkway (Signalized)	13.3 (B)	13.5 (B)	13.9 (B)	14.5 (B)
Harmons East Access & Pioneer Parkway (TWSC)	11.8 (B)	16.6 (C)	12.4 (B)	19.1 (C)
Pioneer Parkway & Red Mountain Drive (TWSC)	11.8 (B)	17.8 (C)	12.4 (B)	21.3 (C)
Pioneer Parkway & Lava Cove Drive (TWSC)	17.5 (C)	16.9 (C)	18.9 (C)	27.7 (D)
Rachel Drive & Old Highway 91 (TWSC)	11.9 (B)	13.3 (B)	25.3 (D)	16.4 (C)
Canyon View Drive & Red Mountain Drive (AWSC)	8.6 (A)	0.6 (A)	8.8 (A)	8.6 (A)
Lava Cove Drive & Little League Road (TWSC)	10.8 (B)	9.1 (A)	11.1 (B)	9.3 (A)
Gates Lane & Santa Clara Drive (TWSC)	15.1 (C)	13.7 (B)	24.5 (C)	24.9 (C)
Chapel Street & Santa Clara Drive (TWSC)	14.9 (B)	19.0 (C)	18.8 (C)	32.4 (D)
Canyon View Drive & Santa Clara Drive (Signalized)	9.0 (A)	10.3 (B)	9.7 (A)	11.8 (B)
Lava Flow Drive & Santa Clara Drive (Signalized)	24.9 (C)	28.5 (C)	27.3 (C)	37.5 (D)
Country Lane & Santa Clara Drive (TWSC)	57.8 (F)	79.5 (F)	108.8 (F)	170.4 (F)
Country Lane & Hafen Lane (AWSC) [TWSC]	8.2 (A) [B]	7.8 (A) [B]	8.4 (A) [B]	10.6 (B) [B]

2042 Build vs. No-Build Volume Map

The map below compares the daily volumes and volume-to- capacity (V/C) ratios in 2042 with and without the projects identified as a part of the traffic analysis. V/C ratios provide a metric that compares the traffic volumes to the overall capacity of roadway. A V/C ratio of 1 means that the road is at capacity.



For interactive viewing, visit the following:

https://portal.horrocks.com/arcgis/apps/storymaps/collections/d497415b6f2f47c0b74e 48e4a45d30a1?item=5

Transportation Improvement Plan

Transportation Improvement Plan (TIP)

The analysis provided in the Traffic Analysis section allowed for short-term, midterm, and long-term project lists to be developed. Short-term projects are impact fee eligible. The TIP projects allow for cities to require exactions from developers and put money aside to improve city roadways.

Five-Year TIP (2028)

Center turn lane on Santa Clara Drive from Old Farm Road to Chapel Street Chapel Street widening and extension Red Mountain Drive from Pioneer Parkway to North City Boundary (developer funded) Traffic signal at Red Mountain Drive and Pioneer Parkway Traffic signal at Chapel Street OR Gates Lane and Santa Clara Drive Western Corridor / Hamblin Parkway, Phase 1 (local match) New shop space for maintenance vehicles Right-turn deceleration lanes on Santa Clara Drive from Tuweap Drive to Santa Clara Parkway Right-turn deceleration lanes on Pioneer Parkway west of Red Mountain Drive Bike lane and turnouts on south side of Pioneer Parkway Gap Canyon Parkway and Western Corridor from St. George to Old Hwy 91 (local match of preconstruction total) Chapel Street Bridge Bond

Ten-Year TIP (2032)

Western Corridor/ Hamblin Parkway, Phase 1 (construction) Gap Canyon Parkway and Western Corridor from St. George to Old Hwy 91 (construction) Clary Hills Drive collector to future Western Corridor Western Corridor / Hamblin Parkway, Phase II (preconstruction local match)

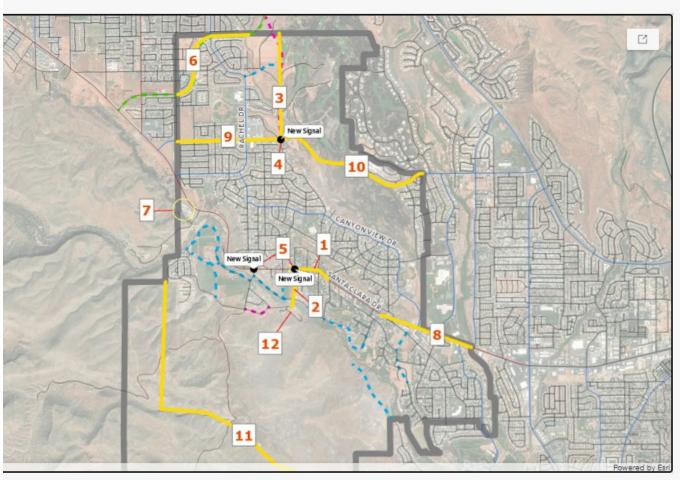
Twenty-Year TIP (2042)

Twenty-Year TIP (2042) South Hills Collector A South Hills Collector B - Clary Hills Drive to Gap Canyon Parkway Clary Hills Drive collector to South Hills Collector B South Hills Collector C to St. George Emeraud Drive Widen Pioneer Parkway to five lanes west of Red Mountain Drive

Roadway Master Plan

The map below shows the projects on the map for the 5-, 10-, and 20-year project timelines.

Project Cost Estimates: See Pages (26-47)



Projects List Map

For interactive viewing, visit the following: <u>https://portal.horrocks.com/arcgis/apps/storymaps/collections/d497415b6f2f47c0</u> <u>b74e48e4a45d30a1?item=6</u>

5 - Year Transportation Improvement Projects

1. Center turn lane on Santa Clara Drive from Old Farm Road to Chapel Street

Description	Unit	Unit Cost	Quantity	Total
Remove Striping	ft	\$2.00	15,500	\$31,000.00
Remove Existing Curbed Planters	each	\$1,100.00	35	\$38,500.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	420	\$882.00
Type II Road Base (0.75" Depth)	sq ft	\$2.21	420	\$928.20
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	420	\$630.00
Signing & striping, Overhead Signs	lump	\$8,000.00	1	\$8,000.00
30" High Back Curb & Gutter	ft	\$35.00	115	\$4,025.00
		ROADWA	Y SUBTOTAL	\$83,965.20
Assumptions: 1. Removal of 35 in-road planters, 22'x10' each 2. Removal of 4 corner chokers 3. Paint removal and re-painting from 2 lanes with bike lanes to 3 4. Parks Dept. to salvage plants before demolition	lanes with bike la	Mobili	SUBTOTAL rainage (5%) zation (10%) ontrol (20%) N SUBTOTAL	\$83,965 \$0 \$8,397 \$16,794 \$109,156
		Construction Contin	gency (10%)	\$10,916
		Bid-Conti	ngency (0%)	\$0
		F	Right-of-Way	\$0
			Subtotal	\$120,072
		Engine	eering (15%)	\$16,374
		(Grand Total	\$137,000

5 - Year Transportation Improvement Projects

2. Chapel Street widening and extension

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	13,000	\$5,850.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	39,100	\$82,110.00
Type II Road Base (0.75 Depth)	sq ft	\$2.21	39,100	\$86,411.00
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	39,100	\$58,650.00
6' Wide Sidewalk	sq ft	\$9.50	1,850	\$17,575.00
30" High Back Curb & Gutter	ft	\$30.00	1,850	\$55,500.00
		ROADWAY	SUBTOTAL	\$306,096.00
		ę	SUBTOTAL	\$306,096
		Dra	inage (5%)	\$15,305
		Mobiliza	ation (10%)	\$30,610
		Traffic Co	ntrol (10%)	\$30,610
		CONSTRUCTION	SUBTOTAL	\$382,621
	Cons	truction Conting	ency (10%)	\$38,263
		Bid-Conting		\$0
		Ri	ght-of-Way	\$0
			Subtotal	\$420,884
		Enginee	ering (15%)	\$57,394
		G	rand Total	\$479,000

Assumptions:

- 1. ROW is already purchased
- 2. Road Length = 0.13 miles
- 3. Future Pavement Width = 65 ft
- 4. Curb & Gutter and Sidewalk on both sides of the road

5 - Year Transportation Improvement Projects

3. Red Mountain Drive from Pioneer Parkway to North City Boundary (developer funded)

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Box Culvert Crossing	lump	\$350,000.00	1	\$350,000.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	201,000	\$422,100.00
Type II Road Base (0.75" Depth)	sq ft	\$2.21	201,000	\$444,210.00
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	201,000	\$301,500.00
6' Wide Sidewalk	sq ft	\$9.50	48,200	\$457,900.00
30" High Back Curb & Gutter	ft	\$30.00	8,050	\$241,500.00
		ROADWAY	SUBTOTAL	\$2,217,210.00
		Dra Mobiliz	SUBTOTAL ainage (5%) ation (10%) ontrol (10%) I SUBTOTAL	\$2,217,210 \$110,861 \$221,721 \$221,721 \$2,771,513
	Cons	Ri Engine	ency (10%) gency (0%) ght-of-Way Subtotal ering (15%) rand Total	\$277,152 \$0 \$3,048,665 \$415,727 \$3,465,000

Assumptions:

- 1. ROW Acquisition = \$400,000/Acre
- 2. Road Length = 0.76 miles
- 3. Future Pavement Width = 50 ft
- 4. Curb & Gutter and Sidewalk on both sides of the road

5. Culvert crossing required

5 - Year Transportation Improvement Projects

4. Traffic signal at Red Mountain Drive and Pioneer Parkway

Description	Unit	Unit Cost	Quantity	Total
Traffic signal	Lump	\$350,000.00	1	\$350,000.00
		ROADWA	Y SUBTOTAL	\$350,000.00
			SUBTOTAL	\$350,000
		D	rainage (5%)	\$0
		Mobi	ization (10%)	\$35,000
		Traffic C	Control (20%)	\$70,000
		CONSTRUCTIO	ON SUBTOTAL	\$455,000
		Construction Contir	ngency (10%)	\$45,500
		Bid-Cont	ingency (0%)	\$0
			Right-of-Way	\$0
			Subtotal	\$500,500
		Engin	eering (15%)	\$68,250
		-	Grand Total	\$569,000

-

5 - Year Transportation Improvement Projects5. Traffic signal at Chapel Street OR Gates Lane and Santa Clara Drive

Description	Unit	Unit Cost	Quantity	Total
Traffic signal	Lump	\$350,000.00	1	\$350,000.00
		ROADWA	Y SUBTOTAL	\$350,000.00
			SUBTOTAL	\$350,000
		D	rainage (5%)	\$0
		Mobili	zation (10%)	\$35,000
		Traffic C	ontrol (20%)	\$70,000
		CONSTRUCTIO	N SUBTOTAL	\$455,000
	Cons	struction Contin	gency (10%)	\$45,500
		Bid-Conti	ngency (0%)	\$0
		F	Right-of-Way	\$0
			Subtotal	\$500,500
		Engine	eering (15%)	\$68,250
		•	Grand Total	\$569,000

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5 - Year Transportation Improvement Projects6. Western Corridor/Hamblin Parkway, Phase I (local match)

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	160,776	\$337,629.60
Type II Road Base (0.75" Depth)	sq ft	\$2.21	160,776	\$355,314.96
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	160,776	\$241,164.00
6' Wide Sidewalk	sq ft	\$9.50	-	\$0.00
30" High Back Curb & Gutter	ft	\$30.00	-	\$0.00
	· · · · ·	ROADWAY	SUBTOTAL	\$934,108.56
		S	UBTOTAL	\$934,109
		inage (5%)	\$46,706	
		ation (10%)	\$93,411	
			ontrol (5%)	\$46,706
		CONSTRUCTION	SUBTOTAL	\$1,120,932
	Cons	truction Conting	encv (10%)	\$112,094
		-	ental (10%)	\$112,094
			ght-of-Way	\$0
			Subtota	\$1,345,120
		\$112,094		
		-	ering (10%) rand Total	\$1,458,000
Assumptions:		Local Match of M	PO funds +	
1. Road Length = 0.9 miles 3. Phase I Pavement Width = 35ft 3. No. Curb & Gutter and Sidewalk in Phase I		remaining unfund		\$1,060,000.00

3.No Curb & Gutter and Sidewalk in Phase I

4. MPO funding of \$1 million available in 2027 for Santa Clara & Ivins, with local match of 20%

5. Santa Clara to receive \$500,000 in MPO funding, which includes 20% local match of \$100,000

5 - Year Transportation Improvement Projects

7. New shop space for maintenance vehicles

Description	Unit	Unit Cost	Quantity	Total
Shop Building	Lump	\$700,000.00	1	\$700,000.00
		Project Total Grand Total		\$700,000.00
				\$700,000
Assumptions: 1. Cost taken from Public Works Department estimate 2. Public Works will pay half and the Power Department will pay half		Public Wo	rks Portion:	\$350,000.00

2. Public Works will pay half and the Power Department will pay half.

5 - Year Transportation Improvement Projects

8. Right-turn deceleration lanes on Santa Clara Drive from Tuweap Drive to Santa Clara Parkway

Description	Unit	Unit Cost	Quantity	Total	
Sandblast striping	ft	\$2.00	18,600	\$37,200.00	
Apply striping	ft	\$0.20	18,600	\$3,720.00	
Pavement markings	ea	\$750.00	6	\$4,500.00	
	ROADWAY SUBTOTAL			\$45,420.00	
	SUBTOTAL	\$45,420			
	\$0				
Drainage (0%) Mobilization (10%)				\$4,542	
	\$2,271				
		CONSTRUCTIO	ON SUBTOTAL	\$52,233	
	\$5,224				
		ingency (0%)	\$0		
	\$0				
	Subtotal Engineering (10%)				
			Grand Total	\$63,000	

Assumptions:

.

1. Right turn lanes at Canyon View Dr, Lava Flow Drive

2. Right turn lane length at Lava Flow Dr is 450 feet WB, 200 feet EB

3. Right turn lane length at Canyon View Dr is 200 feet WB

4. All striping will be removed for 3,200 feet and replaced with new striping with right turn lanes.

5. All striping will be impacted as lanes are narrowed to provide more width in right turn lanes.

5 - Year Transportation Improvement Projects

9. Right-turn deceleration lanes on Pioneer Parkway west of Red Mountain Drive (Sandblasting)

Description	Unit	Unit Cost	Quantity	Total
Sandblast striping	ft	\$2.00	11,756	\$23,512.00
Apply striping	ft	\$0.50	11,756	\$5,878.00
Pavement markings	ea	\$100.00	26	\$2,600.00
-	ROADWAY SUBTOTAL			\$31,990.00
		S	UBTOTAL	\$31,990
		Dra	inage (0%)	\$0
		\$3,199		
		\$1,600		
		CONSTRUCTION	SUBTOTAL	\$36,789
	Cons	struction Conting	ency (10%)	\$3,679
	\$0			
	Rig	ht-of-Way	\$0	
			Subtotal	\$40,468
		Enginee	ering (15%)	\$5,519
		\$46,000		

Assumptions:

1. This consists of removing striping and painting new right-turn lanes within existing shoulder.

2. This will work for a 3-lane section. When 5-lanes are painted in the future, these right-turn lanes will be eliminated.

3. No additional pavement, curb, gutter, or sidewalk is anticipated in this project.

4. Locations are EB Village Pkwy, EB Jacob, EB Sagebrush, EB Rachel, WB Jacob, and WB Patricia.

5 - Year Transportation Improvement Projects

9. Right-turn deceleration lanes on Pioneer Parkway west of Red Mountain Drive (Slurry Seal Coverage)

Description	Unit	Unit Cost	Quantity	Total
Slurry Seal	sf	\$0.80	17,500	\$14,000.00
Apply striping	ft	\$0.50	11,756	\$5,878.00
- Pavement markings	ea	\$100.00	26	\$2,600.00
	•	ROADWAY	SUBTOTAL	\$22,478.00
		S	UBTOTAL	\$22,478
		Dra	inage (0%)	\$0
	Mobilization (10%)			
			ontrol (5%)	\$1,124
		CONSTRUCTION	SUBTOTAL	\$25,850
	Con	struction Continge	ency (10%)	\$2,585
		Bid-Conting	• • •	\$0
			ht-of-Way	\$0
			Subtotal	\$28,435
		Enginee	ering (15%)	\$3,878
		-	and Total	\$33,000

Assumptions:

1. This consists of removing striping and painting new right-turn lanes within existing shoulder.

2. This will work for a 3-lane section. When 5-lanes are painted in the future, these right-turn lanes will be eliminated.

3. No additional pavement, curb, gutter, or sidewalk is anticipated in this project.

4. Locations are EB Village Pkwy, EB Jacob, EB Sagebrush, EB Rachel, WB Jacob, and WB Patricia.

5. Slurry seal 250'x14' areas where right turn lanes need to be applied, at 6 locations.

5 - Year Transportation Improvement Projects10. Bike lane and turnouts on south side of Pioneer Parkway

Description	Unit	Unit Cost	Quantity	Total
Sandblast Striping	ft	\$2.00	18,000	\$36,000.00
Apply striping	ft	\$0.20	6,000	\$1,200.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	35,000	\$73,500.00
Type II Road Base (0.75" Depth)	sq ft	\$2.21	35,000	\$77,350.00
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	35,000	\$52,500.00
6' Wide Sidewalk	sq ft	\$9.50	-	\$0.00
30" High Back Curb & Gutter	ft	\$30.00	-	\$0.00
	· · · · · · · · ·	ROADWAY	SUBTOTAL	\$240,550.00
		Dra Mobiliza	SUBTOTAL iinage (5%) ation (10%) ontrol (5%) SUBTOTAL	\$240,550 \$12,028 \$24,055 \$12,028 \$288,661
	Const	truction Conting Bid-Contin	ency (10%) gency (0%)	\$28,867 \$0
			ght-of-Way	\$0
			Subtotal	\$317,528
		Engine	ering (10%)	\$28,867
		•	rand Total	\$347,000

Assumptions:

1. Road Length = 2.0 miles

2. Sandblast centerline and eastbound shoulder line

3. Reduce travel lanes from 12 feet each to 11 feet, creating eastbound 4-foot bike lane

4. Apply 10 feet of asphalt widening along south side of road from Red Mountain east to bike underpass, about 0.6 mile.

5 - Year Transportation Improvement Projects 11. Gap Canyon Parkway and Western Corridor, from St. George to Old Hwy 91 (Local match of Pre-Construction Total)

Description	Unit	Unit Cost	Quantity	Total
Gap Canyon Parkway and Western Corridor	Lump	\$62,184,000.00	1	\$62,184,000.00
			Project Total	\$62,184,000.00
		C	Grand Total	\$62,184,000
		Pre-Constr	uction Total:	\$2,340,000.00
		2025 M	PO Funding:	\$1,300,000.00
		2027 M	PO Funding:	\$650,000.00
		Local M	latch (7.14%):	\$150,000.00
Local Amount Shortfa	l to be Paid By Impa	ct Fees, Including	Local Match:	\$390,000.00

Assumptions:

Cost taken from 10/14/2022 Western Corridor Concept Estimate by Sunrise Engineering for UDOT

Pre-Construction Total includes Environmental plus P.E. costs

5 - Year Transportation Improvement Projects 12. Chapel Street Bridge Bond

Description	Unit	Unit Cost	Quantity	Total
Bond	Lump	\$1,017,600.00	1	\$1,017,600.00
		Pr	oject Total	\$1,017,600.00
		Gr	and Total	\$1,017,600

Assumptions: 1. Cost taken from 6 years worth of Chapel Street Bridge Bond payments

10 - Year Transportation Improvement Projects 1. Western Corridor/Hamblin Parkway, Phase I (construction)

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	160,776	\$337,629.60
Type II Road Base (0.75" Depth)	sq ft	\$2.21	160,776	\$355,314.96
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	160,776	\$241,164 <u>.</u> 00
6' Wide Sidewalk	sq ft	\$9.50	52,123	\$495,170.40
30" High Back Curb & Gutter	ft	\$30.00	8,687	\$260,616.00
		ROADWAY	SUBTOTAL	\$1,689,894.96

SUBTOTAL	\$1,689,895
Drainage (5%)	\$84,495
Mobilization (10%)	\$168,990
Traffic Control (5%)	\$84,495
CONSTRUCTION SUBTOTAL	\$2,027,875
Construction Contingency (10%)	\$202,788
Environmental (0%)	\$0
Right-of-Way	\$0
Subtotal	\$2,230,663
CM Engineering (10%)	\$202,788
Grand Total	\$2,434,000

Assumptions:

- 1. Road Length = 0.87 miles
- 3. Future Pavement Width = 67ft
- 3. Curb & Gutter and Sidewalk on both sides of the road
- 4. Complete new roadway construction
- 5. Sidewalk and curb and gutter are already in place at Arcadia RV lot.

10 - Year Transportation Improvement Projects

2. Gap Canyon Parkway and Western Corridor, from St. George to Old Hwy 91

(construction)

Description	Unit	Unit Cost	Quantity	Total
Gap Canyon Parkway and Western Corridor	Lump	\$62,184,000.00	1	\$62,184,000.00
		Р	roject Total	\$62,184,000.00
		G	and Total	\$62,184,000
		Pre-Constru	ction Total:	\$2,340,000.00
	Gi	rand Total minus Pre-Construc	tion Total:	\$59,844,000

Assumptions: Cost taken from 10/14/2022 Western Corridor Concept Estimate by Sunrise Engineering for UDOT

Pre-Construction Total includes Environmental plus P.E. costs

10 - Year Transportation Improvement Projects 3. Clary Hills Drive collector to future Western Corridor

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.25	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$22.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	40,500	\$85,050.00
Type II Road Base (0.75" Depth)	sq ft	\$2.21	40,500	\$89,505.00
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	40,500	\$60,750.00
Bridge	sq ft	\$250.00	-	\$0.00
6' Wide Sidewalk	sq ft	\$4.00	10,800	\$43,200.00
30" High Back Curb & Gutter	ft	\$20.00	1,794	\$35,880.00
		ROADWA	Y SUBTOTAL	\$314,385.00
			SUBTOTAL	\$314,385
		Di	rainage (5%)	\$15,720
		Mobili	zation (10%)	\$31,439
		Traffic	Control (5%)	\$15,720
		CONSTRUCTIO	N SUBTOTAL	\$377,264
	Cons	truction Contin	gency (10%)	\$37,727
			ngency (0%)	\$0
		F	Right-of-Way	\$74,380
			Subtotal	\$489,371
		Engine	eering (15%)	\$56,590
		· (Grand Total	\$546,000

Assumptions:

- 1. Road Length = 0.17 mile
- 2. Future Pavement Width = 49
- 3. Curb & Gutter and Sidewalk on both sides of the road
- 4. Right of Way = \$400,000/Acre

10 - Year Transportation Improvement Projects4. Western Corridor/Hamblin Parkway, Phase II (pre-construction local match)

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	146,995	\$308,689.92
Type II Road Base (0.75" Depth)	sq ft	\$2.21	146,995	\$324,859.39
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	146,995	\$220,492.80
6' Wide Sidewalk	sq ft	\$9.50	55,123	\$523,670.40
30" High Back Curb & Gutter	ft	\$30.00	9,187	\$275,616.00
		ROADWAY	SUBTOTAL	\$1,653,328.51
		S	SUBTOTAL	\$1,653,329
		Dra	\$82,667	
		Mobiliz	\$165,333	
		Traffic C	\$82,667	
		CONSTRUCTION	\$1,983,996	
	Cons	struction Conting	encv (10%)	\$198,400
			ental (10%)	\$198,400
			ght-of-Way	\$0
			Subtotal	\$2,380,796
		Engine	ering (10%)	\$198,400
			rand Total	\$2,580,000
Assumptions:				
1. Road Length = 0.9 miles		Pre-Constru	ction Total:	\$400,000.00
3. Future Pavement Width = 67ft				
2. Curb 8. Cuttor and Sidowalk on both sides of the read				

3. Curb & Gutter and Sidewalk on both sides of the road

20 - Year Transportation Improvement Projects

1. South Hills Collector A

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	303,510	\$637,371.00
Type II Road Base (0.75" Depth)	sq ft	\$2.21	303,510	\$670,757.10
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	303,510	\$455,265.00
Bridge	sq ft	\$250.00	-	\$0.00
6' Wide Sidewalk	sq ft	\$9.50	63,360	\$601,920.00
30" High Back Curb & Gutter	ft	\$30.00	10,554	\$316,620.00
		ROADWAY	SUBTOTAL	\$2,681,933.10

SUBTOTAL	\$2,681,933
Drainage (5%)	\$134,097
Mobilization (5%)	\$134,097
Traffic Control (.5%)	\$13,410
CONSTRUCTION SUBTOTAL	\$2,963,537
Construction Contingency (10%)	\$296,354
Environmental (5%)	\$148,177
Right-of-Way	\$436,364
Subtotal	\$3,844,432
Engineering (15%)	\$444,531
Grand Total	\$4,289,000

Assumptions:

- 1. Road Length = 1.00 mile
- 2. Future Pavement Width = 67
- 3. Curb & Gutter and Sidewalk on both sides of the road

4. Right of Way = 10% @ \$150,000/Acre

20 - Year Transportation Improvement Projects 2. South Hills Collector B-Clary Hills Drive to Gap Canyon Parkway

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	403,286	\$846,901.44
Type II Road Base (0.75" Depth)	sq ft	\$2.21	403,286	\$891,262.94
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	403,286	\$604,929 . 60
6' Wide Sidewalk	sq ft	\$9.50	72,230	\$686,188.80
30" High Back Curb & Gutter	ft	\$30.00	12,032	\$360,972.00
		ROADWAY	SUBTOTAL	\$3,390,254.78

SUBTOTAL	\$3,390,255
Drainage (5%)	\$169,513
Mobilization (10%)	\$339,026
Traffic Control (10%)	\$339,026
CONSTRUCTION SUBTOTAL	\$4,237,820
Construction Contingency (10%)	\$423,782
Bid-Contingency (0%)	\$0
Right-of-Way	\$4,974,545
Subtotal	\$9,636,147
Engineering (15%)	\$635,673
Grand Total	\$10,272,000

Assumptions:

- 1. Road Length = 1.14 miles
- 3. Future Pavement Width = 67 ft
- 3. Curb & Gutter and Sidewalk on both sides of the road
- 4. New roadway construction

20 - Year Transportation Improvement Projects3. Clary Hills Drive collector to South Hills Collector B

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	237,019	\$497,740.32
Type II Road Base (0.75" Depth)	sq ft	\$2.21	237,019	\$523,812.43
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	237,019	\$355,528.80
Bridge	sq ft	\$250.00	-	\$0.00
6' Wide Sidewalk	sq ft	\$9.50	42,451	\$403,286.40
30" High Back Curb & Gutter	ft	\$30.00	7,069	\$212,076.00
	ROADWAY SUBTOTAL			\$1,992,443.95
		\$	SUBTOTAL	\$1,992,444
		Dra	inage (5%)	\$99,623
		Mobiliz	ation (10%)	\$199,245
		Traffic C	ontrol (5%)	\$99,623
		\$2,390,935		
	Con	struction Conting	jency (10%)	\$239,094
		Bid-Contin	gency (0%)	\$0
		Ri	ght-of-Way	\$1,827,273

Subtotal	\$4,457,302
Engineering (15%)	\$358,641
Grand Total	\$4,816,000

Assumptions:

- 1. Road Length = 0.67 mile
- 2. Future Pavement Width = 67ft
- 3. Curb & Gutter and Sidewalk on both sides of the road

4. Right of Way Cost = \$400,000/Acre

20 - Year Transportation Improvement Projects4. South Hills Collector C to St. George Emeraud Drive

Description	Unit	Unit Cost	Quantity	Total
Asphalt - REMOVE	sq ft	\$0.45	-	\$0.00
Remove Existing Curb, Gutter, and Sidewalk	ft	\$8.00	-	\$0.00
3" Category I Asphalt (with prime)	sq ft	\$2.10	314,846	\$661,177.44
Type II Road Base (0.75" Depth)	sq ft	\$2.21	314,846	\$695,810.54
8" Thick Class A1a Pit Run Material	sq ft	\$1.50	314,846	\$472,269.60
Bridge	sq ft	\$250.00	-	\$0.00
6' Wide Sidewalk	sq ft	\$9.50	56,390	\$535,708 . 80
30" High Back Curb & Gutter	ft	\$30.00	9,392	\$281,772.00
		ROADWAY	SUBTOTAL	\$2,646,738.38
		S	SUBTOTAL	\$2,646,738
		Dra	inage (5%)	\$132,337
		Mobiliza	ation (10%)	\$264,674
		Traffic Co	ontrol (.5%)	\$13,234
		CONSTRUCTION	SUBTOTAL	\$3,056,983

Construction Contingency (10%)	\$305,699
Bid-Contingency (0%)	\$0
Right-of-Way	\$3,883,636
Subtotal	\$7,246,319
Engineering (15%)	\$458,548
Grand Total	\$7,705,000

Assumptions:

- 1. Road Length = 0.89 mile
- 2. Future Pavement Width = 67ft
- 3. Curb & Gutter and Sidewalk on both sides of the road

4. Right of Way Cost = \$400,000/Acre

20 - Year Transportation Improvement Projects

5. Widen Pioneer Parkway to five lanes east of Red Mountain Drive

Description	Unit	Unit Cost	Quantity	Total
Sandblast striping	ft	\$2.00	18,374	\$36,748.80
Apply striping	ft	\$0.20	24,499	\$4,899.84
Pavement markings	ea	\$750.00	10	\$7,500.00
		ROADWAY	SUBTOTAL	\$49,148.64
		S	UBTOTAL	\$49,149
		Dra	inage (0%)	\$0
		Mobiliza	ation (10%)	\$4,915
		Traffic Co	ontrol (5%)	\$2,458
		CONSTRUCTION	SUBTOTAL	\$56,522
	Con	struction Conting	ency (10%)	\$5,653
		Bid-Conting	gency (0%)	\$0
		Rig	ght-of-Way	\$0
			Subtotal	\$62,175
		Engine	ering (15%)	\$8,479
		-	rand Total	\$71,000

Assumptions:

-

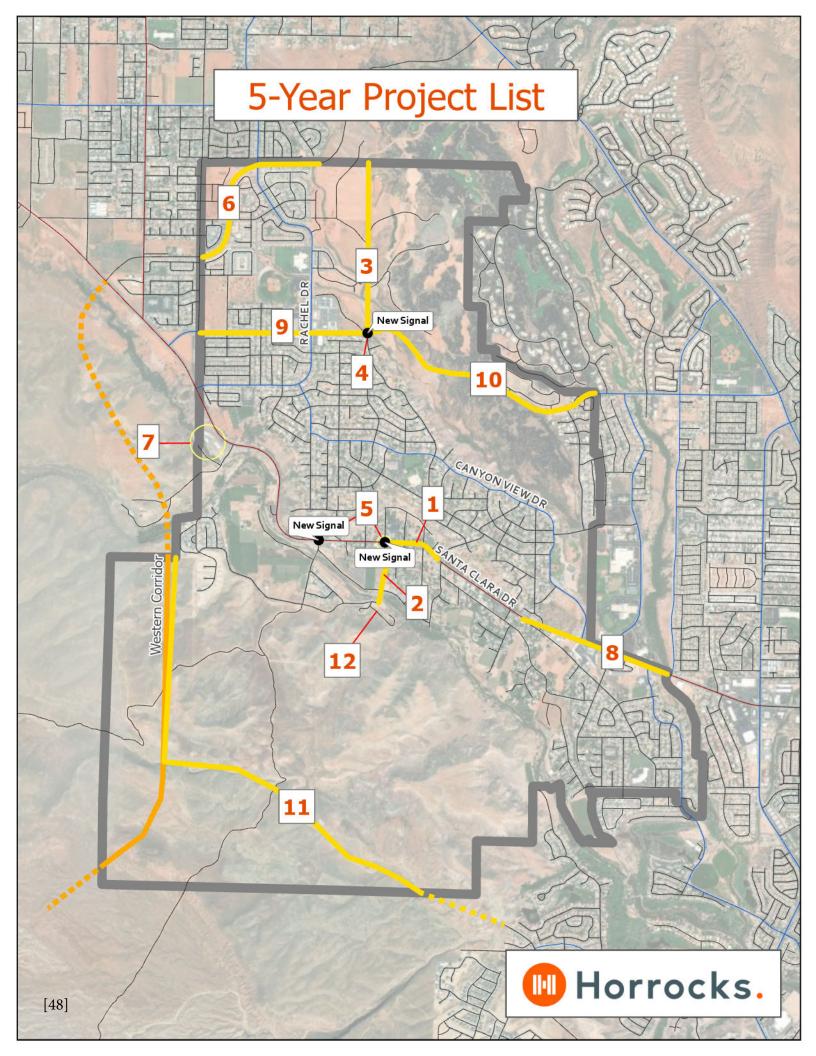
1. This consists of removing striping and painting new lane lines.

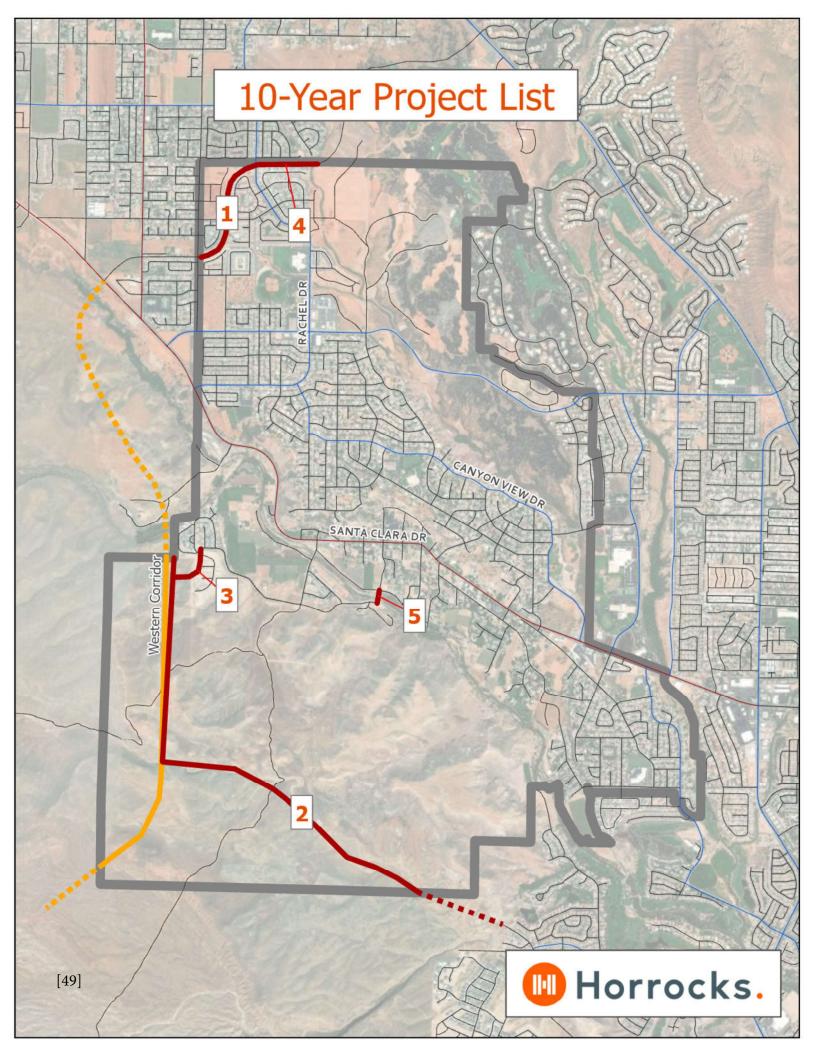
2. To convert from a 3-lanes to 5-lanes, right-turn lanes will be eliminated.

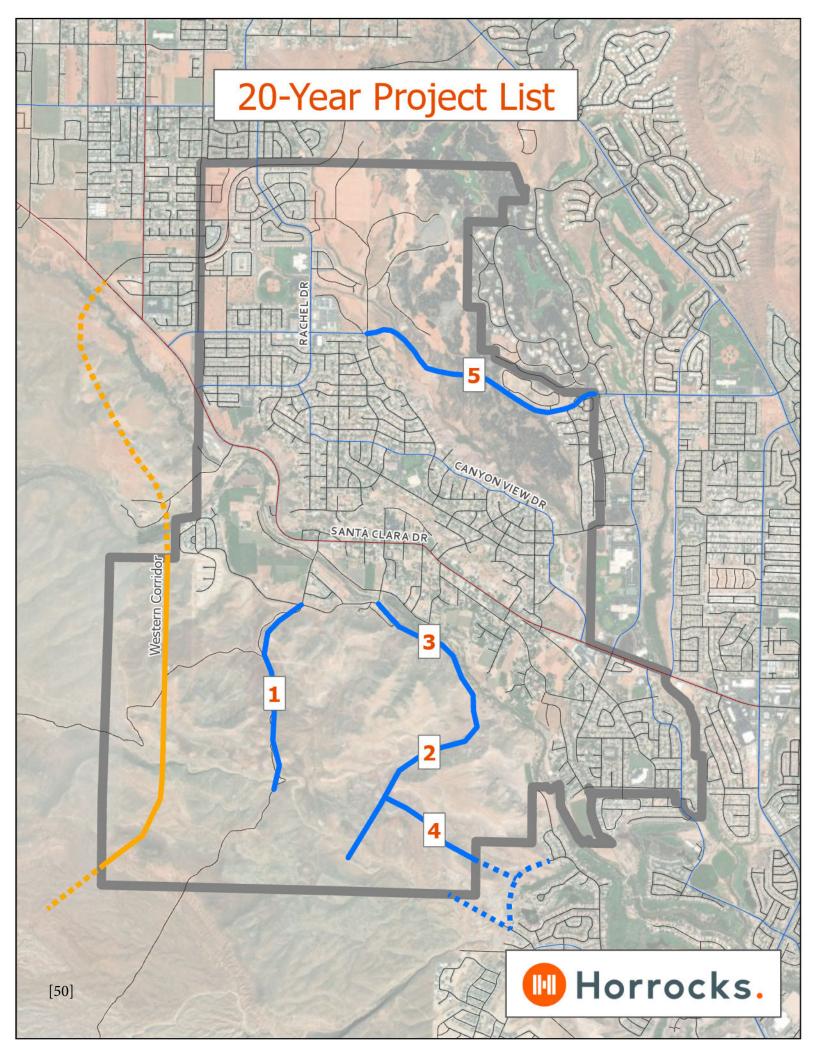
3. No additional pavement, curb, gutter, or sidewalk is anticipated in this project.

4. Road Length = 1.16 mile

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Alternative Transportation

Active transportation is an important consideration in Santa Clara. Santa Clara provides bike paths, sidewalks, shared use trails, and other facilities to promote alternative transportation and recreation. Embracing and planning for active transportation reduces traffic congestion, promotes active lifestyles, lowers carbon emissions, improves quality of life, and enhances recreation.



Shared Use Path in Santa Clara



Bike Lanes on Santa Clara Drive

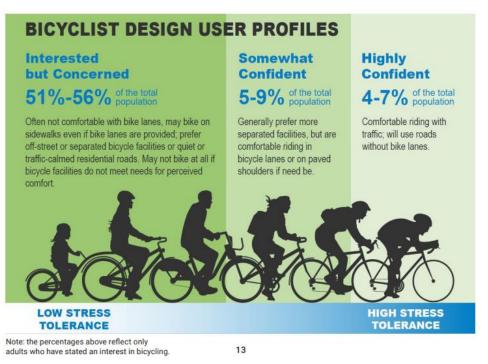
Principles of Active Transportation

Active transportation refers to any form of human-powered travel, such as walking, cycling, scootering, etc. that prioritizes physical activity over motorized vehicles. By prioritizing principles of active transportation, individuals and communities can cultivate healthier, more sustainable lifestyles while fostering a vibrant and accessible environment. The link below identifies a list of the principles of active transportation.

Principles of Active Transportation: See Pages (53-54)

Principles of Active Transportation

- Complete Streets New streets should be planned and designed from the beginning to incorporate appropriate bicycle and pedestrian elements. Any new constructed street should consider bicycle and pedestrian facilities. The National Association of City Transportation Officials has a guide on complete streets: <u>https://atpolicy.org/resources/design-guides/completestreets-complete-networks-design-guide/</u>
- Recognize Different Bike Users Just as there are many different types of vehicles (cars, trucks, buses, semis, etc.) that have different needs that the street system must accommodate, there are different types of bicycle users that have different needs that must be accommodated. The Federal Highway Administration *Bikeway Selection Guide* identifies bicyclist users as "Interested but Confident," "Somewhat Confident," and "Highly Confident" as shown in the figure below. All users should be considered in design of active transportation facilities. Bicycle users can be grouped as:
 - Recreation These users primarily rely on off-street trails that connect recreation areas such as parks, schools, trail heads, etc. They are mostly comprised of families, sightseers, the elderly, and other "non-serious" bikers. They prefer to not ride on streets and in traffic.
 - Commuter These users primarily rely on on-street bike routes and lanes. They are mostly comprised of those people willing to ride in moderate traffic and are using their bikes instead of an automobile to actively commute throughout the community.
 - Training/competition These users rely solely on the streets to fulfill their needs. They
 are the most "serious" group and ride for long distances for exercise, training, and
 competition purposes. They ride almost exclusively in traffic as the street network is the
 only network that provides the long, continuous routes they require.



U.S. Department of Transportation, Federal Highway Administration, February 2019

- Connectivity The bicycle network must be continuous throughout the community and provide connections to other cities and transportation facilities. The bicycle system should connect:
 - Within the city bicycle routes must connect key origin and destination areas within the city such as parks, schools, public facilities, trail heads, employment areas, etc.
 - Between cities bicycle routes should not end at jurisdictional boundaries; they must provide connections to adjacent communities.
 - To transportation facilities bicycle routes must connect to bus stops, park-and-ride lots, and other transportation facilities to function as a viable alternative to the automobile.
- Coordination Bicycle and pedestrian facility planning should be incorporated with other public facilities and infrastructure planning, especially transportation planning. This will allow timely and complementary implementation of bicycle and pedestrian facilities with other public works projects.
- Design The latest city, state and federal design guidelines should be followed when designing bicycle and pedestrian facilities. These would include AASHTO and ADA standards for design and construction and address design issues such as curb cuts, intersection treatments, grades, curves, parking, right-of-way, etc.
 - NACTO has multiple design guides for street and bicycle design. https://nacto.org/publications/#design-guides-design-guidance
 - The American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* also has standards for bikeway design: <u>https://njdotlocalaidrc.com/perch/resources/aashto-gbf-4-2012-bicycle.pdf</u>
- Maintenance In order for bicycle and pedestrian facilities to function safely, they must be maintained on a regular basis. This would include sweeping shoulders and bike lanes to keep them free from rocks and debris that can cause crashes and erratic bicycle maneuvers. It would also include keeping bike trails open and providing safe passage during construction activities on the trail or adjacent to or crossing streets.
- Education Educating both the motoring and the bicycling public should be an important part of any bicycle and pedestrian plan. All users of the roadway need to be educated on the rules of the road, traveling etiquette, and the needs and operating characteristics of the different types of roadway users.
 - See the relevant laws for pedestrians and bicyclists at: <u>https://le.utah.gov/xcode/Title41/Chapter6A/41-6a.html</u>
- Community Involvement In order for a community to be a bicycle and pedestrian "friendly" community, the involvement of as many different elements of the community as possible is important to promote correct bicycle- and pedestrian-safe principles.
- Partnering Partnerships between bicycle groups and public and private agencies and organizations can play an important role in promoting bicycle usage, safety, education, and funding improvements.
 - The Southern Utah Bicycle Alliance is a local group that participates in planning and support for bicycle facilities in Washington County: <u>https://southernutahbicyclealliance.org/about-us/mission/</u>
- Neighborhood Connections When subdivisions are proposed and reviewed for conformance to City standards, there should be a special emphasis on connecting blocks with roadways, pathways, sidewalks, trails, or other methods to encourage walking and biking as opposed to traveling by car.

Active Transportation Potential Projects

The Santa Clara City Park and Trail Locator identifies existing and future bicycle facilities and the parks in the city. Some of the future projects identified include:

- Bike lane on Pioneer Parkway
- Bike lane on Rachel Drive south of Pioneer Parkway
- Bike lane on Gubler Drive from Rachel Drive to Canyon View Drive

Santa Clara City Park and Trail Locator: https://webapps.cloudsmartgis.com/ClientRelated/Utah/WashingtonCounty/Santa Clara/ParkLocator/

The terrain of Santa Clara makes it difficult to connect bicycle facilities north/south through the city. The following are some connections that may be considered:

- Bike lane on Santa Clara View Drive from Crestview Drive to Santa Clara Drive
- Paved path from Snow Canyon Drive to Chapel Street
- Bike lane on Gates Lane
- Bike lane on Chapel Street

Traffic Calming Principles

A common concern is speed on local roadways. Traffic calming principles can be employed to slow down vehicles on the road. The Institute of Transportation Engineers identifies three categories of traffic calming. **Category 1** is the use of Traffic Control Devices such as speed limit signs, stop signs, traffic signals. Stop signs should not be used exclusively for speed control.



Stop Signs on Country Way

Category 2 is Street Modification. This category includes changes to the concrete and asphalt to encourage slower speeds. These changes include bulb outs, speed tables, raised crosswalks, medians, narrowing, entrance features, landscape planters, etc.



Landscape Planters on Santa Clara Drive

Category 3 is Route Modification. This includes implementing one- way streets, turn prohibitions, etc.



Right-In Right-Out Access to the Santa Clara Library

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Suntran

Suntran is the City of St. George's public transit system. Suntran also operates in Ivins, and Washington. There are currently not any Suntran stops in Santa Clara. An expansion of Suntran into Santa Clara would provide an alternative method of transportation to the citizens of Santa Clara. In the future, Santa Clara is planning at least two stops-one downtown and one in the commercial area near Harmons.



Design Standards

Access Management

The Santa Clara City Construction and Design Standards designate the minimum required spacing for new streets and accesses.

Minimum Intersection Spacing

- Street intersects low volume residential street-minimum distance 150 feet.
- Street intersects minor or major collector street-minimum distance 250 feet.
- Generally, the minimum distance will be 650 feet for arterials and 1/4 mile for major arterials.

Minimum distance measurements are centerline-to-centerline. The minimum spacing requirement on arterials shall be as determined by the city representative. Locations shall be based upon several items such as projected volumes, turning and stacking distances, intersection spacing, traffic progression, etc. Access to corner lots should be from the lesser-classified road at the greatest distance possible from the intersection and should not be less than the distance shown in Table 8.

> Minimum Access Spacing from Intersection Corners FACILITY TYPE ACCESS DISTANCE FROM CORNER (IN FEET)

Facility Type	Access distance to edge of driveway
Residential Local	50
Residential Alt.	50
Residential Standard	50
Minor and Major Collector	175
Minor and Major Arterial *	200

*All access points shall be approved by a city representative. Distances shown may be increased as required by the city representative on a caseby-case basis. Exceptions can only be approved by the city representative upon SUBMITTALS of proper traffic justification

Santa Clara City Construction Design Standards (2023 Update): Visit City website: https://www.santaclarautah.gov/public-works

TIS Requirements

The guidelines and specific requirements for the preparation of a Traffic Impact Study (TIS) are found in the Santa Clara City Construction and Design Standards. All studies prepared for submittal to the City shall follow these guidelines unless otherwise approved.

Category I (100-500 new trips)

• Analysis for opening year and buildout year

Category II (500 -1000 new trips)

• Analysis for opening year, buildout year, and five years after completion

Category III (more than 1000 new trips)

• Analysis for opening year, buildout year, five years after completion, and ten years after completion

Where the road will operate at Level of Service C or better without the development, the traffic impact of the development on the roadways, and intersections within the study area shall be mitigated to Level of Service C.

Mitigation to Level of Service D may be acceptable with the concurrence of the city.

Impact Fees

Impact Fee Analysis

The purpose of this report is to present the impact fee calculation methodology for the planned roadway facilities in Santa Clara City. The proposed impact fee was calculated based upon the future roadway improvements identified in the Santa Clara Transportation Master Plan (TMP) that can be attributed to projected future development over the next six years. The projected future development growth was determined by evaluating residential and commercial building permits issued in the last four years. The permits for the various developments were converted to a single-family equivalent (SFE) in terms of trips generated in the PM peak hour (see Table 3 for further details). For the purposes of this study, it was assumed that Santa Clara will continue to experience similar type growth over the next six years as development continues.

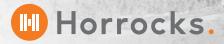
The SFE impact fee was calculated by dividing the city-responsible roadway improvement costs by the projected SFE development units over the next six years.

The recommended single-family detached housing street impact fee of \$3,610 represents a 4.4% decrease from the current impact fee of \$3,778.

Traffic Impact Fee Analysis: See Pages (62-71)



TRAFFIC IMPACT FEE ANALYSIS APRIL 2024



Print and a state

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EXECUTIVE SUMMARY

The purpose of this report is to present the impact fee calculation methodology for the planned roadway facilities in Santa Clara City. The proposed impact fee was calculated based upon the future roadway improvements identified in the Santa Clara Transportation Master Plan (TMP) that can be attributed to projected future development over the next six years. The projected future development growth was determined by evaluating residential and commercial building permits issued in the last four years. The permits for the various developments were converted to a single-family equivalent (SFE) in terms of trips generated in the PM peak hour (see Table 3 for further details). For the purposes of this study it was assumed that Santa Clara will continue to experience similar type growth over the next six years as development continues.

The SFE impact fee was calculated by dividing the City-responsible roadway improvement costs by the projected SFE development units over the next six years.

The recommended single-family detached housing street impact fee of \$3,610 represents a 4.4% decrease from the current impact fee of \$3,778.

Table 1 identifies the recommended impact fee schedule for various land-uses.

Table 1: Proposed Land Use Impact Fees

ITE	LAND	UNITS	DEMAND INDEX	IMPACT FEE		
CODE	USE		(single family	COST	PER UNIT	
			equivalent)*			
020		A	4.07	¢	0.754	
	Truck Terminal	Acres	1.87	\$	6,751	
110	RIAL (Land Uses 100-199)	TSF Gross	0.65	¢	2 2 4 7	
130	General Light Industrial Industrial Park	TSF Gross	0.65	\$ \$	2,347	
130	Manufacturing	TSF Gross	0.34	ծ \$	2.671	
140	Warehousing	TSF Gross	0.74	ъ \$	650	
150	Mini Warehouse	TSF Gross	0.15	\$	542	
160	Data Center	TSF Gross	0.09	\$	325	
170	Utility	TSF Gross	2.16	\$	7,798	
	NTIAL (Land Uses 200-299)	131 01055	2.10	Ψ	7,790	
210	Single-Family Detached Homes	DU	0.94	\$	3,610	
215	Single-Family Attached Homes	DU	0.57	\$	2,058	
213	Multifamily Housing (Low-Rise)	DU	0.51	\$	1,841	
220	Multifamily Housing (Mid-Rise)	DU	0.39	\$	1,408	
225	Off-Campus Student Apartment	Bedrooms	0.39	φ \$	866	
231	Mid-Rise Residential 1st-Floor Comm	DU	0.17	\$	614	
240	Mobile Home Park	DU	0.58	\$	2,094	
251	Senior Adult Housing-Detached	DU	0.3	\$	1,083	
252	Senior Adult Housing-Attached	DU	0.25	\$	903	
253	Congregate Care	DU	0.18	\$	650	
254	Assisted Living	Beds	0.24	\$	866	
260	Recreational Homes	DU	0.29	\$	1,047	
265	Timeshare	DU	0.63	\$	2,274	
270	Residential PUD	DU	0.69	\$	2,491	
	IG (Land Uses 300-399)	80	0.00	Ψ	2,401	
310	Hotel	Rooms	0.59	\$	2,130	
311	All Suites Hotel	Rooms	0.36	\$	1,300	
312	Business Hotel	Rooms	0.31	\$	1,119	
320	Motel	Rooms	0.36	\$	1,300	
330	Resort Hotel	Rooms	0.41	\$	1,480	
	ATIONAL (Land Uses 400-499)			Ŧ	.,	
416	Campground/RV Park	Camp Sites	0.27	\$	975	
430	Golf Course	Holes	2.91	\$	10,505	
437	Bowling Alley	Lanes	1.3	\$	4,693	
445	Multiplex Movie Theater	TSF Gross	6.17	\$	22,274	
490	Tennis Courts	Courts	4.21	\$	15,198	
492	Health/Fitness Club	TSF Gross	3.45	\$	12,455	
495	Recreational Community Center	TSF Gross	2.50	\$	9,025	
INSTITU	TIONAL (Land Uses 500-599)					
520	Elementary School	Students	0.16	\$	578	
522	Middle/Juniour High School	Students	0.15	\$	542	
530	High School	Students	0.26	\$	939	
534	Private School (K-8)	Students	0.19	\$	686	
536	Charter Elementary School	Students	0.16	\$	578	
538	Charter School (K-12) (Peak hour of	Students	0.73	\$	2,635	
560	Church	TSF Gross	0.49	\$	1,769	
565	Daycare Center	TSF Gross	11.12	\$	40,143	
	L (Land Uses 600-699)					
610	Hospital	TSF Gross	0.86	\$	3,105	
620	Nursing Home	Beds	0.14	\$	505	
630	Clinic	TSF Gross	3.69	\$	13,321	

* TSF: Thousand Square Feet

* DU: Dwelling Unit

		LAND UNITS					
ITE		UNITS					
CODE	USE		(single family	COST PER UNIT			
			equivalent)*				
OFFICE	(Land Uses 700-799)						
710	General Office	TSF Gross	1.44	\$ 5,198			
712	Small Office Building	TSF Gross	2.16	\$ 7,798			
715	Single Tennant Office Building	TSF Gross	1.76	\$ 6,354			
720	Medical/Dental Office	TSF Gross	3.93	\$ 14,187			
730	Government Office Building	TSF Gross	1.71	\$ 6,173			
732	Post Office	TSF Gross	11.21	\$ 40,468			
750	Office Park	TSF Gross	1.30	\$ 4,693			
770	Business Park	TSF Gross	0.61	\$ 2,202			
RETAIL	(LAND USES 800-899)						
812	Building Materials/Lumber	TSF Gross	1.91	\$ 6,895			
813	Free Standing Discount Superstore	TSF Gross	3.12	\$ 11,263			
814	Variety Store	TSF Gross	5.70	\$ 20,577			
816	Hardware/Paint Store	TSF Gross	2.21	\$ 7,978			
817	Nursery (Garden Center)	TSF Gross	5.9	\$ 21,299			
820	Shopping Center (Rate)	TSF Gross	2.24	\$ 8,086			
822	Strip Retail Plaza	TSF Gross	5.93	\$ 21,407			
840	New Car Sales	TSF Gross	2.42	\$ 8,736			
841	Used Car Sales	TSF Gross	3.75	\$ 13,538			
842	RV Sales	TSF Gross	0.77	\$ 2,780			
843	Auto Parts Sales	TSF Gross	2.79	\$ 10,072			
848	Tire Store	Service Bays	2.7	\$ 9,747			
850	Supermarket (stand alone stores)	TSF Gross	5.73	\$ 20,685			
851	Convenien. Mkt. (Open 24 hrs)	TSF Gross	19.15	\$ 69,132			
857	Discount Club	TSF Gross	3.77	\$ 13,610			
862	Home Improvement Superstore	TSF Gross	1.19	\$ 4,296			
863	Electronics Super Store	TSF Gross	2.55	\$ 9,206			
867	Office Supply Superstore	TSF Gross	2.49	\$ 8,989			
876	Apparel Store	TSF Gross	3.5	\$ 12,635			
881	Pharmacy/Drugstore w/ Drive-thru	TSF Gross	5.23	\$ 18,880			
882	Marijuana Dispensory	TSF Gross	18.92	\$ 68,301			
890	Furniture Store	TSF Gross	0.24	\$ 866			
899	Liquor Store	TSF Gross	14.96	\$ 54,006			
SERVIC	ES (LAND USES 900-999)						
911	Walk-in Bank	TSF Gross	9.1	\$ 32,851			
912	Drive-in Bank	TSF Gross	11.14	\$ 40,215			
931	Quality Restaurant (not national chair	TSF Gross	4.37	\$ 15,776			
932	High Turnover/Sit Down Rest	TSF Gross	5.16	\$ 18,628			
933	Fast Food w/o Drive Thru	TSF Gross	19.93	\$ 71,947			
934	Fast Food with Drive Thru	TSF Gross	16.52	\$ 59,637			
935	Fast Food with Drive Thru and no sea	Drive Lanes	35.70	\$ 128,877			
937	Coffee/Donut Shop with Drive Thru	TSF Gross	19.5	\$ 70,395			
941	Quick Lubrication Vehicle Shop	Service Bays	6.53	\$ 23,573			
942	Auto Care Center	Service Bays	2.17	\$ 7,834			
944	Service Station	Fuel Position	8.07	\$ 29,133			
945	Serv.Station w/ Conven.Mkt	Fuel Position	8.1	\$ 29,241			
947	Self Serve Car Wash	Wash Bays	4.43	\$ 15,992			
948	Automated Car Wash	Wash Tunnels	54.25	\$ 195,843			

Table 1: Proposed Land Use Impact Fees (continued)

* TSF: Thousand Square Feet

* DU: Dwelling Unit

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INTRODUCTION

Impact fees are a way for a community to obtain funds to assist in the construction of infrastructure improvements that are needed to serve new growth. The premise behind impact fees is that if no new development was allowed, the existing infrastructure would adequately serve the existing level of development in the city. Therefore, new development should pay for the fraction of improvements that are required because of new growth. Impact fees are assessed for many types of infrastructure and facilities that are provided by a community such as roads, sewer, water, parks and trails.

According to state law, impact fees cannot be used to correct existing deficiencies in a system, only to fund growth-related capital improvements.

There are many ways to quantify the impact of new growth on the transportation system in Santa Clara City. The method used in this study to assess the impact is to consider all the needed transportation improvements identified in the Transportation Master Plan (TMP) and then eliminate the cost of those improvements that are necessary to correct existing deficiencies.

Santa Clara presently assesses transportation impact fees from new development. This allows transportation-related costs to be assessed to new development based on the proportional impact of new development.

In calculating the impact fees, the PM peak hour is used as it typically includes larger background/commuter traffic volumes. The typical residential unit is then assigned as a base factor for the other types of development. During the average PM peak hour a residential unit will account for approximately one trip on the roadway network.

PROJECTED FUTURE GROWTH

To determine the amount of development that will occur in Santa Clara over the next six years the following steps were followed:

- Obtain the record of permits issued for various developments from January 2020 to March 2024. Impact fee studies will often establish a future growth trend based on the recent history of issued building permits. The past four years, the City has experienced a strong trend of building that has consisted of both residential and commercial growth activity such as retail, services and restaurant space. Much has been done in the nightly residential zones. Building permit information is shown in Table 3.
- Determine the PM peak hour trip generation rate for each land-use type using the Institute of Transportation Engineers' (ITE) *ITE Trip Generation Manual 11th Edition*.
- Adjust the trip generation rate in terms of heavy vehicles percentage (it was assumed that one heavy vehicle would be equivalent to two passenger vehicles based on information obtained from the Transportation Research Board's *Highway Capacity Manual*) and primary trips. The primary trip adjustment eliminates trips to various land-uses that are pass-by trips or diverted trips. A typical trip that is not adjusted with an adjustment factor

assumes that a trip is made from one destination to another, with the intent that the destination is the reason for the trip. In an adjusted trip, an intermediate stop is made before the final destination is reached, such as a bank, car wash, fast food, gasoline, etc. These adjustments are called pass-by trip adjustments and are represented in the primary trip adjustment. The primary trip adjustment also contains internal capture adjustments. When primary trip percentages are taken, they are generally derived from the ITE *Trip Generation Handbook*.

- To compare how vehicle trips from each land use impact the roadway system, each land use is measured next to a single-family home to determine how many effective single-family homes equate to a given type of land use. For instance, the trips generated by a 5,000 sq. ft. medical building is equivalent to the trips generated by 18 single-family homes. Therefore, we calculate a demand index factor for each land use based on the single-family unit as the base factor by dividing the effective trip end for the land-use by the single-family unit effective trip end, which is 1.0 per single-family home, according to the *Trip Generation Handbook*, cited above. This produces the Single-Family Equivalent unit, or SFE unit.
- Multiply the demand index for each land-use by the number of permits issued on an average year for the land use. The sum of the SFE units for the various land uses is then multiplied by six to determine the projected number of SFE units expected over the next six years in Santa Clara City when calculating the cost for six years of projects.

Based upon the methodology used above it is projected that Santa Clara City will experience approximately 1,389 SFE units of growth over the next six years.

ROADWAY IMPROVEMENT PROJECTS

A list of roadway improvement projects was taken from the Santa Clara City TMP completed in 2024. Recommended improvements are separated into 0 to 5 year improvements, 6 to 10 year improvements and 11 to 20 year improvements. A detailed cost estimate for each project was performed and can be found in the appendix of the Plan, along with a determination of what portion or percentage would be eligible for impact fees.

Table 2: SINGLE FAMILY EQUIVALENT (SFE) DEMAND INDEX

APPLICABLI ITE CODE		UNITS	ITE TRIPS ENDS PER UNIT (PM peak hour)	PASS-BY TRIPS %	PASS-BY TRIP ADJUSTMENT	PRIMARY TRIP ADJUSTMENT	EFFECTIVE TRIP ENDS PER UNIT	DEMAND INDEX (single family equivalent)	APPLICABLE ITE CODE	LAND USE	UNITS	ITE TRIPS ENDS PER UNIT (PM peak hour)	PASS-BY TRIPS %	PASS-BY TRIP ADJUSTMENT	PRIMARY TRIP ADJUSTMENT	EFFECTIVE TRIP ENDS PER UNIT	DEMAND INDEX (single family equivalent)
PORT & TER	RMINAL (Land Uses 000-099)									d Uses 600-699)							
030	Truck Terminal	Acres	1.87	0%	1.00	1.00	1.87	1.87	610	Hospital	TSF Gross	0.86	0%	1.00	1.00	0.86	0.86
INDUSTRIAL	_ (Land Uses 100-199)								620	Nursing Home	Beds	0.14	0%	1.00	1.00	0.14	0.14
110	General Light Industrial	TSF Gross	0.65	0%	1.00	1.00	0.65	0.65	630	Clinic	TSF Gross	3.69	0%	1.00	1.00	3.69	3.69
130	Industrial Park	TSF Gross	0.34	0%	1.00	1.00	0.34	0.34		Uses 700-799)	705.0			4.00	1.00		<u> </u>
140	Manufacturing	TSF Gross	0.74	0%	1.00	1.00	0.74	0.74	710	General Office	TSF Gross	1.44	0%	1.00	1.00	1.44	1.44
150	Warehousing	TSF Gross	0.18	0%	1.00	1.00	0.18	0.18	712	Small Office Building	TSF Gross	2.16	0%	1.00	1.00	2.16	2.16
151	Mini Warehouse	TSF Gross	0.15	0%	1.00	1.00	0.15	0.15	715	Single Tennant Office Building	TSF Gross	1.76	0%	1.00	1.00	1.76	1.76
160	Data Center	TSF Gross	0.09	0%	1.00	1.00	0.09	0.09	720	Medical/Dental Office	TSF Gross	3.93	0%	1.00	1.00	3.93	3.93
170	Utility	TSF Gross	2.16	0%	1.00	1.00	2.16	2.16	730	Government Office Building	TSF Gross	1.71 11.21	0%	1.00	1.00	1.71	1.71
RESIDENTIA	AL (Land Uses 200-299)								732	Post Office	TSF Gross		0%		1.00	11.21	11.21
210	Single-Family Detached Homes	DU	0.94	0%	1.00	1.00	0.94	0.94	750	Office Park Business Park	TSF Gross TSF Gross	1.30 1.22	0% 50%	1.00 0.50	1.00 1.00	1.30 0.61	1.30 0.61
215	Single-Family Attached Homes	DU	0.57	0%	1.00	1.00	0.57	0.57		D USES 800-899)	15F Gross	1.22	50%	0.50	1.00	0.61	0.01
220	Multifamily Housing (Low-Rise)	DU	0.51	0%	1.00	1.00	0.51	0.51	812	Building Materials/Lumber	TSF Gross	2.25	15%	0.85	1.00	1.91	1.91
221	Multifamily Housing (Mid-Rise)	DU	0.39	0%	1.00	1.00	0.39	0.39	813	Free Standing Discount Superstore	TSF Gross	4.33	28%	0.00	1.00	3.12	3.12
225	Off-Campus Student Apartment	Bedrooms	0.24	0%	1.00	1.00	0.24	0.24	814	Variety Store	TSF Gross	6.70	15%	0.85	1.00	5.70	5.70
231	Mid-Rise Residential 1st-Floor Commercial	DU	0.17	0%	1.00	1.00	0.17	0.17	816	Hardware/Paint Store	TSF Gross	2.98	26%	0.74	1.00	2.21	2.21
240	Mobile Home Park	DU	0.58	0%	1.00	1.00	0.58	0.58	817	Nursery (Garden Center)	TSF Gross	6.94	15%	0.85	1.00	5.90	5.90
251	Senior Adult Housing-Detached	DU	0.3	0%	1.00	1.00	0.30	0.30	820	Shopping Center (Rate)	TSF Gross	3.40	34%	0.66	1.00	2.24	2.24
252	Senior Adult Housing-Attached	DU	0.25	0%	1.00	1.00	0.25	0.25	822	Strip Retail Plaza	TSF Gross	6.59	10%	0.90	1.00	5.93	5.93
253	Congregate Care	DU	0.18	0%	1.00	1.00	0.18	0.18	840	New Car Sales	TSF Gross	2.42	0%	1.00	1.00	2.42	2.42
254	Assisted Living	Beds	0.24	0%	1.00	1.00	0.24	0.24	841	Used Car Sales	TSF Gross	3.75	0%	1.00	1.00	3.75	3.75
260	Recreational Homes	DU	0.29	0%	1.00	1.00	0.29	0.29	842	RV Sales	TSF Gross	0.77	0%	1.00	1.00	0.77	0.77
265	Timeshare	DU	0.63	0%	1.00	1.00	0.63	0.63	843	Auto Parts Sales	TSF Gross	4.90	43%	0.57	1.00	2.79	2.79
270	Residential PUD	DU	0.69	0%	1.00	1.00	0.69	0.69	848	Tire Store	Service Bays	3.75	28%	0.72	1.00	2.70	2.70
	and Uses 300-399)		0.00	0,0	1.00	1.00	0.00	0.00	850	Supermarket (stand alone stores)	TSF Gross	8.95	36%	0.64	1.00	5.73	5.73
310	Hotel	Rooms	0.59	0%	1.00	1.00	0.59	0.59	851	Convenien. Mkt. (Open 24 hrs)	TSF Gross	49.11	61%	0.39	1.00	19.15	19.15
311	All Suites Hotel	Rooms	0.36	0%	1.00	1.00	0.36	0.36	857	Discount Club	TSF Gross	4.19	10%	0.90	1.00	3.77	3.77
312	Business Hotel	Rooms	0.31	0%	1.00	1.00	0.31	0.31	862	Home Improvement Superstore	TSF Gross	2.29	48%	0.52	1.00	1.19	1.19
320	Motel	Rooms	0.36	0%	1.00	1.00	0.36	0.36	863	Electronics Super Store	TSF Gross	4.25	40%	0.60	1.00	2.55	2.55
330	Resort Hotel	Rooms	0.41	0%	1.00	1.00	0.00	0.41	867	Office Supply Superstore	TSF Gross	2.77	10%	0.90	1.00	2.49	2.49
	NAL (Land Uses 400-499)	100113	0.41	070	1.00	1.00	0.41	0.11	876	Apparel Store	TSF Gross	4.12	15%	0.85	1.00	3.50	3.50
416	Campground/RV Park	Camp Sites	0.27	0%	1.00	1.00	0.27	0.27	881	Pharmacy/Drugstore w/ Drive-thru	TSF Gross	10.25	49%	0.51	1.00	5.23	5.23
430	Golf Course	Holes	2.91	0%	1.00	1.00	2.91	2.91	882	Marijuana Dispensory	TSF Gross	18.92	0%	1.00	1.00	18.92	18.92
437	Bowling Alley	Lanes	1.3	0%	1.00	1.00	1.30	1.30	890	Furniture Store	TSF Gross	0.52	53%	0.47	1.00	0.24	0.24
437	Multiplex Movie Theater	TSF Gross	6.17	0%	1.00	1.00	6.17	6.17	899	Liquor Store	TSF Gross	16.62	10%	0.90	1.00	14.96	14.96
490	Tennis Courts	Courts	4.21	0%	1.00	1.00	4.21	4.21		ND USES 900-999)							
490	Health/Fitness Club	TSF Gross	3.45	0%	1.00	1.00	3.45	3.45	911	Walk-in Bank	TSF Gross	12.13	25%	0.75	1.00	9.10	9.10
492	Recreational Community Center	TSF Gross	2.50	0%	1.00	1.00	2.50	3.45 2.50	912	Drive-in Bank	TSF Gross	21.01	47%	0.53	1.00	11.14	11.14
	NAL (Land Uses 500-599)	TSF Gloss	2.50	0%	1.00	1.00	2.50	2.50	931	Quality Restaurant (not national chain)	TSF Gross	7.80	44%	0.56	1.00	4.37	4.37
520	Elementary School	Students	0.16	0%	1.00	1.00	0.16	0.16	932	High Turnover/Sit Down Rest	TSF Gross	9.05	43%	0.57	1.00	5.16	5.16
				-		1.00			933	Fast Food w/o Drive Thru	TSF Gross	33.21	40%	0.60	1.00	19.93	19.93
522 530	Middle/Juniour High School	Students Students	0.15	0% 0%	1.00	1.00	0.15	0.15 0.26	934	Fast Food with Drive Thru	TSF Gross	33.03	50%	0.50	1.00	16.52	16.52
	High School			-					935	Fast Food with Drive Thru and no seating	Drive Lanes	59.50	40%	0.60	1.00	35.70	35.70
534	Private School (K-8)	Students	0.19	0%	1.00	1.00	0.19	0.19	937	Coffee/Donut Shop with Drive Thru	TSF Gross	38.99	50%	0.50	1.00	19.50	19.50
536	Charter Elementary School	Students	0.16	0%	1.00	1.00	0.16	0.16	941	Quick Lubrication Vehicle Shop	Service Bays	8.70	25%	0.75	1.00	6.53	6.53
538	Charter School (K-12) (Peak hour of generator)	Students	0.73	0%	1.00	1.00	0.73	0.73	942	Auto Care Center	Service Bays	2.17	0%	1.00	1.00	2.17	2.17
560	Church	TSF Gross	0.49	0%	1.00	1.00	0.49	0.49	944	Service Station	Fuel Position	13.91	42%	0.58	1.00	8.07	8.07
565	Daycare Center	TSF Gross	11.12	0%	1.00	1.00	11.12	11.12	945	Serv.Station w/ Conven.Mkt	Fuel Position	18.42	56%	0.44	1.00	8.10	8.10
									947	Self Serve Car Wash	Wash Bays	5.54	20%	0.80	1.00	4.43	4.43

* TSF: Thousand Square Feet

* DU: Dwelling Unit

It was assumed, based on City practices, that developers will typically pay for improvements on the outside twenty-eight feet of right-of-way on each side of the road (one lane of asphalt plus curb, gutter, and sidewalk) while the City would be responsible for the remainder. Based upon the cost estimate it is anticipated that the cost to complete the projected roadway improvements over the next six years is \$8,479,600 with \$5,014,600 (59%) being eligible for impact fees. The current State impact fee law only allows the collection of impact fees for the projects that are anticipated to be built during the next six years, so these eligible costs will be spread among the SFE's that are projected for the next six years.

Category	Land Use	Unit	Demand Index (single family equivalent)	# of Units for Permits Issued *	Average # of Units/Year	Average # of SFE Units/Year
a	Single Family Detached	Dw elling Units	0.94	130	31	29
entia	Single Family Attached	Dw elling Units	0.57	337	81	46
side	Assisted Living Center	Beds	0.24	59	14	3
	Multifamily Housing (Low -Rise)	Unit (single family equivalent) Permits Issued* of Units/Year Units/Year Dw elling Units 0.94 130 31 1 Dw elling Units 0.57 337 81 1 Beds 0.24 59 14 1 Dw elling Units 0.51 104 25 1 1,000 sq. ft. 1.44 0 0 1 1,000 sq. ft. 1.91 11 3 1 1,000 sq. ft. 2.21 25.3 6 1 1,000 sq. ft. 5.93 7 2 1 1,000 sq. ft. 5.93 7 2 1 1,000 sq. ft. 19.93 6.3 2 1 1,000 sq. ft. 16.52 9.9 2 1 odw 1,000 sq. ft. 5.23 0 0 1 1,000 sq. ft. 5.4.25 1 0 1 1 0dow 1,000 sq. ft. 0.15 12 3	13			
ice	Office Building	1,000 sq. ft.	1.44	0	0	0
Off	ategoryLand UseUnit(single family equivalent)Permits Issued*Single Family DetachedDw elling Units0.94130Single Family AttachedDw elling Units0.577337Assisted Living CenterBeds0.24459Multifamily Housing (Low -Rise)Dw elling Units0.511104Office Building1,000 sq. ft.1.4440Medical Office Building1,000 sq. ft.3.93311.8Less Intensive Retail1,000 sq. ft.1.91111Hardw are Store1,000 sq. ft.5.9337Intensive Retail1,000 sq. ft.5.9337Intensive Retail1,000 sq. ft.5.9337Intensive Retail1,000 sq. ft.5.709.4Duality Restaurant1,000 sq. ft.19.936.3Fast Food w/o Drive Through1,000 sq. ft.19.936.3Fast Food with Drive Through1,000 sq. ft.16.529.9Convenience Market w/ Gas PumpsPump Stations19.150Pharmacy with Drive-Through Window1,000 sq. ft.5.4251Auto Parts1,000 sq. ft.0.1512Mutifacturing1,000 sq. ft.0.1512Mutifacturing1,000 sq. ft.0.160Mutifacturing1,000 sq. ft.0.160Mutifacturing1,000 sq. ft.0.160Mutifacturing1,000 sq. ft.0.160Mutifacturing1,000 sq. ft.0.160	3	11			
	Less Intensive Retail	1,000 sq. ft.	1.91	11	3	5
Lodge Institutional Industrial Services Retail Office Residential	Hardw are Store	1,000 sq. ft.	2.21	25.3	6	13
	Strip Retail Plaza	1,000 sq. ft.	5.93	7	2	10
	Intensive Retail	1,000 sq. ft.	5.70	9.4	2	13
	Quality Restaurant	1,000 sq. ft.	4.37	0	0	0
Services	Fast Food w /o Drive Through	1,000 sq. ft.	19.93	6.3	2	30
	Fast Food with Drive Through	1,000 sq. ft.	16.52	9.9	2	39
	Convenience Market w / Gas Pumps	Pump Stations	19.15	0	0	0
	Pharmacy with Drive-Through Window	1,000 sq. ft.	5.23	0	0	0
	Auto Parts	1,0000 sq. ft.	2.79	6.6	2	4
	Automated Car Wash	Wash Tunnels	54.25	1	0	13
	Bank	1,000 sq. ft.	11.14	0	0	0
_	Industrial	1,000 sq. ft.	0.34	0	0	0
stria	Single Family Attached Dw elling Uhits 0.57 337 81 Assisted Living Center Beds 0.24 59 14 Multifamily Housing (Low -Rise) Dw elling Uhits 0.51 104 25 Office Building 1,000 sq. ft. 1.44 0 0 Medical Office Building 1,000 sq. ft. 3.93 11.8 3 Less Intensive Retail 1,000 sq. ft. 2.21 25.3 66 Strip Retail Plaza 1,000 sq. ft. 5.93 7 2 Intensive Retail 1,000 sq. ft. 5.70 9.4 2 Quality Restaurant 1,000 sq. ft. 19.93 6.3 2 Fast Food w /o Drive Through 1,000 sq. ft. 16.52 9.9 2 Convenience Market w / Gas Pumps Pump Stations 19.15 0 0 Pharmacy with Drive-Through Window 1,000 sq. ft. 5.23 0 0 Auto Parts 1,000 sq. ft. 0.15 12 3 Maufacturing 1,000 sq. ft.	0				
snpu	Manufacturing	1,000 sq. ft.	0.18	5.4	1	0
-	Warehousing	1,000 sq. ft.	0.18	Valent) Issued * Units/Year I .94 130 31	0	
	Elementary School	Students	0.16	0	0	0
	Middle/Junior School	Students	0.15	0	0	0
onal	High School	Students	0.26	0	0	0
tutic	Private School (K-8)	Students	0.19	0	0	0
nsti	Charter School (K-12)	Students	0.73	0	0	0
_	Day Care	1,000 sq. ft.	11.12	0	0	0
	Church	1,000 sq. ft.	0.49	0	0	0
Lodge	Hotel/Motel	rooms	0.59	0	0	0
Total # of Si	ngle Family Equivalent Units/Year					231
Total # of Si	ngle Family Equivalent Units Over the Next	6 Years				1,389

Table 3: FUTURE GROWTH IN SANTA CLARA CITY

* Demand Index from ITE's Trip Generation Manual, 11th Edition

Table 4: 0 to 5 Year Roadway Projects Cost Estimate

Location	Current Cost	% City Responsibility	Eligible for Impact Fees
0-5 Year Improvements			
1. Center turn lane on Santa Clara Drive from Old Farm Road to Chapel Street	\$137,000	100%	\$137,000
2. Chapel Street widening and extension	\$479,000	100%	\$479,000
3. Red Mountain Drive from Pioneer Parkway to North City Boundary (developer funded)	\$3,465,000	0%	\$0
4. Traffic signal at Red Mountain Drive and Pioneer Parkway	\$569,000	100%	\$569,000
5. Traffic signal at Chapel Street OR Gates Lane and Santa Clara Drive	\$569,000	100%	\$569,000
6. Western Corridor/Hamblin Parkway, Phase I (local match)	\$1,060,000	100%	\$1,060,000
7. New shop space for maintenance vehicles	\$350,000	100%	\$350,000
8. Right-turn deceleration lanes on Santa Clara Drive from Tuweap Drive to Santa Clara Parkway	\$63,000	100%	\$63,000
9. Right-turn deceleration lanes on Pioneer Parkway west of Red Mountain Drive	\$33,000	100%	\$33,000
10. Bike lane and turnouts on south side of Pioneer Parkway	\$347,000	100%	\$347,000
11. Gap Canyon Parkway and Western Corridor, from St. George to Old Hwy 91 (local match)	\$390,000	100%	\$390,000
12. Chapel Street Bridge Bond	\$1,017,600	100%	\$1,017,600
0-5 Year Improvement Totals	\$8,479,600	59%	\$5,014,600

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PROPOSED IMPACT FEE POLICY

In calculating the SFE impact fee, all 0 to 5 year impact fee eligible roadway costs are divided by the projected SFE units over the next six years. The fee is derived by using SFE's calculated by ITE rates and primary trip adjustments as stated in the *ITE Trip Generation Manual*.

Table 5 summarizes the result of this calculation:

Table 5: Recommended Impact Fee Cost

Impact Fee Alternatives	Impact Fee Eligible Amount	SFE's	Impact Fee	
All Projects in the 0 to 5 year timeframe, six years in total, divided by adjusted SFE rates	\$5,014,600	1,389	\$3,610	

This fee represents the maximum SFE impact fee that can be charged. However, the actual fee assessment may be set at a lower rate, as determined by the City Council.

COMPARISON OF OLD FEES TO PROPOSED FEES

The prior Santa Clara City Traffic Impact Fee Study recommended an impact fee of \$3,778 per single family residential unit. This study proposes \$3,610, a decrease of 4.4% of the current fee.

EXAMPLE CALCULATION

The following equation is to be used in calculating the impact fee:

Number of Land Use Units * Impact Fee Cost per Unit (taken from Table 1: Proposed Land Use Impact Fees) = Assessed Transportation Impact Fee

For example, using Table 1 and the value for General Office (ITE Code 710), the transportation impact fee for a 3,890 sq. ft. office building would be calculated in the following way:

(3,890/1,000) * \$5,198 = \$20,220

CONCLUSION

Santa Clara City presently assesses transportation impact fees from new development. This allows transportation related costs to be assessed to the new development based on the proportional impact. It is important that the assessed impact fees are regularly updated to ensure that the required roadway improvement costs attributed to growth and development can be met.

The recommended SFE impact fee of \$3,610 will fully fund the City portion of roadway projects attributed to growth. However, it is appropriate to charge impact fees to correspond to what is decided to be funded.

CERTIFICATION

According to state law, this report has been prepared in accordance with Utah Code Title 11 Chapter 36 titled "Impact Fees Act". This report relies upon the planning, engineering, land use and other source data provided by the City and their designees, and all results and projections are founded upon this information.

In accordance with Utah Code Annotate, 11-36a-306(1), Horrocks Engineers, certifies that this impact fee analysis:

- 1. Includes only the cost of public facilities that are:
 - a. Allowed under the Impact Fees Act; and
 - b. Actually incurred; or
 - c. Are projected to be incurred or encumbered within six years of the day on which each impact fee is paid;
- 2. Does not include:
 - a. Costs of operation and maintenance of public facilities
 - b. Cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service supported by existing residents;
 - c. An expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
- 3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following limitations:

- 1. All of the recommendations for implementing this IFA are followed in their entirety by the City.
- 2. If any portion of the IFA is modified or amended in any way, this certification is no longer valid.

All information presented and used in the creation of this IFA is assumed to be complete and correct, including any information received from the City of other outside sources.

Impact Fee Facilities Plan

The purpose of an Impact Fee Facilities Plan (IFFP) is to identify public facilities that are needed to accommodate development and to determine which projects may be fund with impact fees.

Utah law requires communities to prepare an IFFP prior to preparing an impact fee analysis and establishing an impact fee. According to Title 11, Chapter 36a-302 of the Utah Code, the IFFP is required to identify the following:

- The existing level of service.
- A proposed level of service.
- Any excess capacity to accommodate future growth at the proposed level of service.
- The demands placed on existing public facilities by new development.
- A proposed means by which the local political subdivision will meet those demands.
- A general consideration of all potential revenue sources to finance the impact on system improvements.

Level of Service (LOS) is defined as "the defined performance standard or unit of demand for each capital component of a public facility within a service area." The LOS of a roadway segment or intersection is used to determine if capacity improvements are necessary. The proposed level of service provides a standard for future roadway conditions to be evaluated against. This standard will determine whether a roadway will need improvement or not.

There are many ways to quantify the impact of new growth on the transportation system in Santa Clara City. The method used in this study to assess the impact is to consider all the transportation improvements needed identified in the Transportation Improvement Plan (TIP) and then eliminate the cost of those improvements that are necessary to correct existing deficiencies. This study used a history of building permits and projected the number of Single-Family Equivalent (SFE) permits to be expected in the next six years to determine what pressures will be placed on the transportation system due to development. Based upon the methodology described in this study it is projected that Santa Clara City will experience approximately 1,389 SFE units of growth over the next six years.

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The projects required to maintain the desired level of service for the roadway network in 2050 were derived in the Transportation Master Plan (TMP) and outlined in the TIP. These projects will need to be constructed at various times from the present through 2050. However, for the purposes of this IFFP, only projects that will be completed within the next six years will be considered. The IFFP shows the projects that are forecasted to be needed in the next six years and includes all of the projects regardless of their eligibility for impact fee expenditure. The portion of the project, which is impact fee eligible is indicated in the % Impact Fee and Impact Fee Total columns. LOS capacity of roadways and intersections has been calculated in the TMP and have indicated where capacity is needed in the future.

By projecting the trips that will be generated by new development and dividing these trips by the impact fee eligible costs, the fee per trip can be calculated and is shown in the IFA. All possible revenue sources have been considered as a means of financing transportation capital improvements needed because of new growth. Potential revenue sources that could be used to fund transportation needs because of new development are discussed.

Traffic Impact Fee Facilities Plan: See Pages (76-93)



TRAFFIC IMPACT FEE FACILITIES PLAN APRIL 2024





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Executive Summary

The purpose of an Impact Fee Facilities Plan (IFFP) is to identify public facilities that are needed to accommodate development and to determine which projects may be funded with impact fees. Utah law requires communities to prepare an IFFP prior to preparing an impact fee analysis and establishing an impact fee. According to Title 11, Chapter 36a-302 of the Utah Code, the IFFP is required to identify the following:

- The existing level of service
- ✤ A proposed level of service
- Any excess capacity to accommodate future growth at the proposed level of service
- The demands placed on existing public facilities by new development
- * A proposed means by which the local political subdivision will meet those demands
- ✤ A general consideration of all potential revenue sources to finance the impacts on system improvements

Level of Service (LOS) is defined as "the defined performance standard or unit of demand for each capital component of a public facility within a service area." The LOS of a roadway segment or intersection is used to determine if capacity improvements are necessary. The proposed level of service provides a standard for future roadway conditions to be evaluated against. This standard will determine whether or not a roadway will need improvements or not.

There are many ways to quantify the impact of new growth on the transportation system in Santa Clara City. The method used in this study to assess the impact is to consider all the needed transportation improvements identified in the Transportation Improvement Plan (TIP) and then eliminate the cost of those improvements that are necessary to correct existing deficiencies. This study used a history of building permits and projected the number of Single-Family Equivalent (SFE) permits to be expected in the next six years to determine what pressures will be placed on the transportation system due to development. Based upon the methodology described in this study it is projected that Santa Clara City will experience approximately 1,389 SFE units of growth over the next six years, as shown in <u>Table 4</u>.

The projects required to maintain the desired level of service for the roadway network in 2050 were derived in the Transportation Master Plan (TMP) and outlined in the TIP. These projects will need to be constructed at various times from the present through 2050. However, for the purposes of this IFFP, only projects that will be completed within the next six years will be considered. Table 3 shows the projects that are forecasted to be needed in the next six years. This table includes all of the projects regardless of their eligibility for impact fee expenditure. The portion of the project, which is impact fee eligible is indicated in the <u>% Impact Fee</u> and Impact Fee Total columns. LOS capacity of roadways and intersections has been calculated in the TMP and have indicated where capacity is needed in the future. By projecting the trips that will be generated by new development and dividing these trips by the impact fee eligible costs, the fee per trip can be calculated and is shown in the IFA. All possible revenue sources have been considered as a means of financing transportation capital improvements needed as a result of new growth. Potential revenue sources that could be used to fund transportation needs as a result of new development are discussed.

Introduction

The purpose of an Impact Fee Facilities Plan (IFFP) is to identify public facilities that are needed to accommodate development and to determine which projects may be funded with impact fees. Utah law requires communities to prepare an IFFP prior to preparing an impact fee analysis and establishing an impact fee. According to Title 11, Chapter 36a-302 of the Utah Code, the IFFP is required to identify the following:

- The existing level of service
- ✤ A proposed level of service
- Any excess capacity to accommodate future growth at the proposed level of service
- The demands placed on existing public facilities by new development
- * A proposed means by which the local political subdivision will meet those demands
- ✤ A general consideration of all potential revenue sources to finance the impacts on system improvements

This analysis incorporates the information provided in the Transportation Master Plan (TMP) regarding the upcoming demands on the existing infrastructure facilities that will require improvements to accommodate future growth and provide an acceptable Level of Service (LOS). Reference should be made to the TMP for additional information on the evaluation methodology and how the projections were made.

This section focuses on the improvements that are projected to be needed over the next six years. Utah law requires that any impact fees collected for those improvements be spent within six years of being collected. Only capital improvements are included in this plan; all other maintenance and operation costs are assumed to be covered through the City's General Fund as tax revenues increase as a result of additional development.

Existing Level of Service (11-36a-302.1.a.i)

According to the Impact Fee Act, level of service is defined as "the defined performance standard or unit of demand for each capital component of a public facility within a service area." The LOS of a roadway segment or intersection is used to determine if capacity improvements are necessary. LOS is measured on a roadway segment using its daily traffic volume and at an intersection based on the average delay per vehicle. A standard of LOS C for roadways is the acceptable LOS for Santa Clara City. This allows for speeds at or near free-flow speeds, but with less freedom to maneuver. <u>Table 2</u>, below, compares LOS with volume-to-capacity ratios (v/c), which is how the TMP reports LOS. At intersections, LOS C means that vehicles should not have to wait more than one cycle to proceed through the intersection and experience delays less than 35 seconds, according to the Highway Capacity Manual 2010. <u>Table 2</u> below summarizes the maximum capacities used by Santa Clara City.

Table 1: LOS C Capacity Criteria in Vehicles per Day

CMP Level of Service Criteria for Arterials^a Based on Volume-to-Capacity Ratios

Level of Service	Description	V/C ^b
А	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersection is minimal.	0.00 to 0.60
В	Reasonably unimpeded operations with slightly restricted maneuverability. Stopped delays are not bothersome.	0.61 to 0.70
С	Stable operations with somewhat more restrictions in making mid-block lane changes than LOS B. Motorists will experience appreciable tension while driving.	0.71 to 0.80
D	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.	0.81 to 0.90
E	Operations with significant intersection approach delays and low average speeds.	0.91 to 1.00
F	Operations with extremely low speeds caused by intersection congestion, high delay, and adverse signal progression.	Greater Than 1.00

^a For arterials that are multilane divided or undivided with some parking, a signalized intersec-

tion density of four to eight per mile, and moderate roadside development.

Volume-to-capacity ratio.

greater than or equal to.

< less than.

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209* (Washington, D.C., 1994).

LOS C Cape	icity criteria	in venicies p	
Lanes	Arterial	Collector	
2	NA	5,000	
3	11,500	10,000	
5	26,500	NA	
7	40,000	NA	

Table 2: LOS C Capacity Criteria in Vehicles per Day

Intersection Standards

The performance of intersections has a large effect on the Level of Service of the roadway network. In Santa Clara, intersections can have no control, be stop controlled, roundabouts, traffic signals, or be controlled in another way. The level of service for each type of intersection is calculated in a different way. Intersection improvements will be necessary in order to maintain the desired level of service. Planning ahead by coordinating the placement of intersection features, reserving rights-of-way for roundabouts with roadway construction before the placement of the actual roundabout, and other

elements, is a way to mitigate the costs of these intersection improvements. The costs of these intersection improvements have been included in the roadway network cost estimates included in <u>Table</u> <u>3</u>.

The total costs for the full installation of these intersection improvements may be postponed depending on the specific needs of the intersections in the future based on on-going analysis.

Trips

The unit of demand for transportation impact is the PM peak hour trip. A PM peak hour trip is defined by the Institute of Transportation Engineers (ITE) as a single or one-directional vehicle movement to or from a site between the hours of 4 PM and 6 PM. The total traffic impact of a new development can be determined by the sum of the total number of trips generated by a development during the PM peak hour. This trip generation number or impact can be estimated for an individual development using the *ITE Trip Generation Manual* (currently 11th Edition). This publication uses national data studied over decades to assist traffic engineering professionals to determine the likely impact of new development on transportation infrastructure.

There is a minor discrepancy in the way ITE calculates trips and the way trips or roadway volumes are calculated in the travel demand modelling used in the Santa Clara TMP. This discrepancy is explained by the model roadway volumes and capacities being calculated using daily traffic volumes rather than trips on the roadway. Essentially this means that a travel demand model "trip" or unit of volume is counted once as a vehicle leaves home, travels on the road network and then arrives at work. This vehicle will only be counted as it travels on the roadway network. The ITE Trip Generation method uses driveway counts as its measure of a trip. Therefore, a vehicle making the same journey will be counted once as it leaves home and once again as it arrives at work for a total of two trips. This can be rectified simply by adjusting the ITE Trip Generation rates by one half.

April 2024

Table 3: 0 to 5-Year Roadway Project Cost Estimates

Location	Current Cost	% City Responsibility	Eligible for Impact Fees
0-5 Year Improvements			
1. Center turn lane on Santa Clara Drive from Old Farm Road to Chapel Street	\$137,000	100%	\$137,000
2. Chapel Street widening and extension	\$479,000	100%	\$479,000
3. Red Mountain Drive from Pioneer Parkway to North City Boundary (developer funded)	\$3,465,000	0%	\$0
4. Traffic signal at Red Mountain Drive and Pioneer Parkway	\$569,000	100%	\$569,000
5. Traffic signal at Chapel Street OR Gates Lane and Santa Clara Drive	\$569,000	100%	\$569,000
6. Western Corridor/Hamblin Parkway, Phase I (local match)	\$1,060,000	100%	\$1,060,000
7. New shop space for maintenance vehicles	\$350,000	100%	\$350,000
8. Right-turn deceleration lanes on Santa Clara Drive from Tuweap Drive to Santa Clara Parkway	\$63,000	100%	\$63,000
9. Right-turn deceleration lanes on Pioneer Parkway west of Red Mountain Drive	\$33,000	100%	\$33,000
10. Bike lane and turnouts on south side of Pioneer Parkway	\$347,000	100%	\$347,000
11. Gap Canyon Parkway and Western Corridor, from St. George to Old Hwy 91 (local match)	\$390,000	100%	\$390,000
12. Chapel Street Bridge Bond	\$1,017,600	100%	\$1,017,600
0-5 Year Improvement Totals	\$8,479,600	59%	\$5,014,600

System Improvements and Project Improvements

As described in the TMP, there are four primary classifications of roads, including local streets, collectors, arterials, and expressways. Santa Clara City classifies street facilities based on the relative amounts of through and land-access service they provide. Local streets primarily serve land-access functions, while expressways are primarily meant for mobility. Each classification may have a variable number of lanes, which is a function of the expected traffic volume and serves as the greatest measure of roadway capacity.

Improvements to collectors and arterials are considered "system improvements" according to the Utah Impact Fee Law, as these streets serve users from multiple developments. System improvements include anything from back of curb to back of curb, including curb and gutter, asphalt, road base, and subsurface storm water drain utilities, as well as lighting, signing, and noise walls for collectors and arterials. These projects are eligible to be funded with impact fees and are included in this IFFP.

Proposed Level of Service (11-36a-302.1.a.ii)

The proposed level of service provides a standard for future roadway conditions to be evaluated against. This standard will determine whether or not a roadway will need improvements or not. According to the Utah Impact Fee Law, the proposed level of service may:

- 1. Diminish or equal the existing level of service
- Exceed the existing level of service if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service; or
- 3. Establish a new public facility if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

This IFFP will not make any changes to the existing level of service, and LOS C will be the standard by which future growth will be evaluated.

Existing Capacity to Accommodate Future Growth (11-36a-302.1.a.iii)

There are many ways to quantify the impact of new growth on the transportation system in Santa Clara. The method used in this study to assess the impact is to consider all the needed transportation improvements identified in the Transportation Improvement Plan and then eliminate the cost of those improvements that are necessary to correct existing deficiencies.

To determine the amount of development that will occur in Santa Clara over the next six years the following steps were followed:

• Obtain the record of permits issued for various developments from January 2020 to March 2024. Impact fee studies will often establish a future growth trend based on the recent history of issued building permits. The past four years, the City has experienced a strong trend of building that has consisted of both residential and commercial growth activity such as retail, services, and restaurants. Building permit information is shown in <u>Table 4.</u>

- Determine the PM peak hour trip generation rate for each land-use type using the *ITE Trip Generation Manual* 11th Edition.
- Adjust the trip generation rate in terms of heavy vehicles percentage (it was assumed that one heavy vehicle would be equivalent to two passenger vehicles based on information obtained from the Transportation Research Board's *Highway Capacity Manual*) and primary trips. The primary trip adjustment eliminates trips to various land-uses that are pass-by trips or diverted trips. A typical trip that is not adjusted with an adjustment factor assumes that a trip is made from one destination to another, with the intent that the destination is the reason for the trip. In an adjusted trip, an intermediate stop is made before the final destination is reached, such as a bank, post office, fast food, gasoline, etc. These adjustments are called pass-by trip adjustment also contains internal capture adjustments. When primary trip percentages are taken, they are generally derived from the Institute of Transportation Engineers' *Trip Generation Handbook*.
- To compare how vehicle trips from each land use impact the roadway system, each land use is measured next to a single-family home to determine how many effective single-family homes equate to a given type of land use. For instance, the trips generated by a 5,000 sq. ft. medical building is equivalent to the trips generated by 18 single-family homes. Therefore, we calculate a demand index factor for each land use based on the single-family unit as the base factor by dividing the effective trip end for the land-use by the single family unit effective trip end, which is 1.0 per single-family home, according to the *Trip Generation Handbook*, cited above. This produces the Single-Family Equivalent unit, or SFE unit. See <u>Table 4.</u>
- Multiply the demand index for each land-use by the number of permits issued on an average year for the land use. The sum of the SFE units for the various land-uses is then multiplied by six to determine the projected number of SFE units expected over the next six years in Santa Clara when calculating the cost for six years of projects, shown in <u>Table 4.</u>

Based upon the methodology used above it is projected that Santa Clara will experience approximately 1,389 SFE units of growth over the next six years.

[84]

ss Fas Fas Fas Fas Fas Fas Fas Fas Fas F		Demand Index # of Units for Average # Average											
Interest and the second and the seco	Land Use	Unit	Demand Index (single family equivalent)	# of Units for Permits Issued *	Average # of Units/Year	Average # of SFE Units/Year							
Milice Off Mew Less Han Stri Fas Fas	ngle Family Detached	Dw elling Units	0.94	130	31	29							
Milice Offi Mew Less Han Stri Fas Fas	ngle Family Attached	Dw elling Units	0.57	337	81	46							
Milice Offi Mew Less Han Stri Fas Fas	ssisted Living Center	Beds	0.24	59	14	3							
Les Har Stri Inte Gua Fas	ultifamily Housing (Low -Rise)	Dw elling Units	0.51	104	25	13							
Les Har Stri Inte Gua Fas	ffice Building	1,000 sq. ft.	1.44	0	0	0							
Har Bar Stri Inte Fas Fas	edical Office Building	1,000 sq. ft.	3.93	11.8	3	11							
Inte Qua Fas	ess Intensive Retail	1,000 sq. ft.	1.91	11	3	5							
Inte Qua Fas	ardw are Store	1,000 sq. ft.	2.21	25.3	6	13							
Qua Fas Fas	rip Retail Plaza	1,000 sq. ft.	5.93	7	2	10							
Fas	tensive Retail	1,000 sq. ft.	5.70	9.4	2	13							
Fas	uality Restaurant	1,000 sq. ft.	4.37	0	0	0							
Se Cor	ast Food w /o Drive Through	1,000 sq. ft.	19.93	6.3	2	30							
io) lices	ast Food with Drive Through	1,000 sq. ft.	16.52	9.9	2	39							
	onvenience Market w / Gas Pumps	Pump Stations	19.15	0	0	0							
De Pha	narmacy with Drive-Through Window	1,000 sq. ft.	5.23	0	0	0							
	uto Parts	1,0000 sq. ft.	2.79	6.6	2	4							
Aut	utomated Car Wash	Wash Tunnels	54.25	1	0	13							
Bar	ank	1,000 sq. ft.	11.14	0	0	0							
_ Ind	dustrial	1,000 sq. ft.	0.34	0	0	0							
itria Min	ni-Warehouse	1,000 sq. ft.	0.15	12	3	0							
Industrial War	anufacturing	1,000 sq. ft.	0.18	5.4	1	0							
<u>–</u> Wa	arehousing	1,000 sq. ft.	0.18	0	0 0								
Ee	ementary School	Students	0.16	0	0	0							
Mid	ddle/Junior School	Students	0.15	0	0	0							
Hig	gh School	Students	0.26	0	0	0							
irA tt	ivate School (K-8)	Students	0.19	0	0	0							
Hinstitutional بنط Bit	narter School (K-12)	Students	0.73	0	0	0							
	av Coro	1,000 sq. ft.	11.12	0	0	0							
Chu	ay Care		0.40	0	0	0							
Hot Lodge	nurch	1,000 sq. ft.	0.49	0	0	0							
Total # of Single		1,000 sq. ft. rooms	0.49	0	0	0							
Total # of Single	hurch												

* Demand Index from ITE's Trip Generation Manual, 11th Edition

April 2024

Table 5: Single-Family Equivalent (SFE) Demand Index

APPLICABLE ITE CODE	LAND USE	UNITS	ITE TRIPS ENDS PER UNIT (PM peak hour)	PASS-BY TRIPS %	PASS-BY TRIP ADJUSTMENT	PRIMARY TRIP ADJUSTMENT	EFFECTIVE TRIP ENDS PER UNIT	DEMAND INDEX (single family equivalent)	APPLICABLE ITE CODE	LAND USE	UNITS	ITE TRIPS ENDS PER UNIT (PM peak hour)	PASS-BY TRIPS %	PASS-BY TRIP ADJUSTMENT	PRIMARY TRIP ADJUSTMENT	EFFECTIVE TRIP ENDS PER UNIT	DEMAND INDEX (single family equivalent)
PORT & TERM	INAL (Land Uses 000-099)								MEDICAL (La	nd Uses 600-699)							
030	Truck Terminal	Acres	1.87	0%	1.00	1.00	1.87	1.87	610	Hospital	TSF Gross	0.86	0%	1.00	1.00	0.86	0.86
	Land Uses 100-199)								620	Nursing Home	Beds	0.14	0%	1.00	1.00	0.14	0.14
110	General Light Industrial	TSF Gross	0.65	0%	1.00	1.00	0.65	0.65	630	Clinic	TSF Gross	3.69	0%	1.00	1.00	3.69	3.69
130	Industrial Park	TSF Gross	0.34	0%	1.00	1.00	0.34	0.34	OFFICE (Land	I Uses 700-799)							
140	Manufacturing	TSF Gross	0.74	0%	1.00	1.00	0.74	0.74	710	General Office	TSF Gross	1.44	0%	1.00	1.00	1.44	1.44
	Warehousing	TSF Gross	0.18	0%	1.00	1.00	0.18	0.18	712	Small Office Building	TSF Gross	2.16	0%	1.00	1.00	2.16	2.16
	Mini Warehouse	TSF Gross	0.15	0%	1.00	1.00	0.15	0.15	715	Single Tennant Office Building	TSF Gross	1.76	0%	1.00	1.00	1.76	1.76
160	Data Center	TSF Gross	0.09	0%	1.00	1.00	0.09	0.09	720	Medical/Dental Office	TSF Gross	3.93	0%	1.00	1.00	3.93	3.93
170	Utility	TSF Gross	2.16	0%	1.00	1.00	2.16	2.16	730	Government Office Building	TSF Gross	1.71	0%	1.00	1.00	1.71	1.71
	(Land Uses 200-299)								732	Post Office	TSF Gross	11.21	0%	1.00	1.00	11.21	11.21
210	Single-Family Detached Homes	DU	0.94	0%	1.00	1.00	0.94	0.94	750	Office Park	TSF Gross	1.30	0%	1.00	1.00	1.30	1.30
215 220	Single-Family Attached Homes Multifamily Housing (Low-Rise)	DU	0.57	0%	1.00	1.00	0.57	0.57	770	Business Park	TSF Gross	1.22	50%	0.50	1.00	0.61	0.61
220	Multifamily Housing (Low-Rise) Multifamily Housing (Mid-Rise)	DU	0.51	0%	1.00	1.00	0.51	0.51		D USES 800-899)	101 01000	1.66	5070	0.00	1.00	0.01	0.01
225	Off-Campus Student Apartment	Bedrooms	0.39	0%	1.00	1.00	0.39	0.39	812	Building Materials/Lumber	TSF Gross	2.25	15%	0.85	1.00	1.91	1.91
223	Mid-Rise Residential 1st-Floor Commercial	DU	0.17	0%	1.00	1.00	0.24	0.24	813	Free Standing Discount Superstore	TSF Gross	4.33	28%	0.72	1.00	3.12	3.12
240	Mobile Home Park	DU	0.58	0%	1.00	1.00	0.58	0.58	814	Variety Store	TSF Gross	6.70	15%	0.85	1.00	5.70	5.70
251	Senior Adult Housing-Detached	DU	0.3	0%	1.00	1.00	0.30	0.30	816	Hardware/Paint Store	TSF Gross	2.98	26%	0.74	1.00	2.21	2.21
252	Senior Adult Housing-Attached	DU	0.25	0%	1.00	1.00	0.25	0.25	817	Nursery (Garden Center)	TSF Gloss	6.94	20%	0.85	1.00	5.90	5.90
253	Congregate Care	DU	0.18	0%	1.00	1.00	0.18	0.18									
254	Assisted Living	Beds	0.24	0%	1.00	1.00	0.24	0.24	820	Shopping Center (Rate)	TSF Gross	3.40	34%	0.66	1.00	2.24	2.24
260	Recreational Homes	DU	0.29	0%	1.00	1.00	0.29	0.29	822	Strip Retail Plaza	TSF Gross	6.59	10%	0.90	1.00	5.93	5.93
265	Timeshare	DU	0.63	0%	1.00	1.00	0.63	0.63	840	New Car Sales	TSF Gross	2.42	0%	1.00	1.00	2.42	2.42
270	Residential PUD	DU	0.69	0%	1.00	1.00	0.69	0.69	841	Used Car Sales	TSF Gross	3.75	0%	1.00	1.00	3.75	3.75
LODGING (Lan	d Uses 300-399)								842	RV Sales	TSF Gross	0.77	0%	1.00	1.00	0.77	0.77
310	Hotel	Rooms	0.59	0%	1.00	1.00	0.59	0.59	843	Auto Parts Sales	TSF Gross	4.90	43%	0.57	1.00	2.79	2.79
311	All Suites Hotel	Rooms	0.36	0%	1.00	1.00	0.36	0.36	848	Tire Store	Service Bays	3.75	28%	0.72	1.00	2.70	2.70
312	Business Hotel	Rooms	0.31	0%	1.00	1.00	0.31	0.31	850	Supermarket (stand alone stores)	TSF Gross	8.95	36%	0.64	1.00	5.73	5.73
320	Motel	Rooms	0.36	0%	1.00	1.00	0.36	0.36	851	Convenien. Mkt. (Open 24 hrs)	TSF Gross	49.11	61%	0.39	1.00	19.15	19.15
330	Resort Hotel	Rooms	0.41	0%	1.00	1.00	0.41	0.41	857	Discount Club	TSF Gross	4.19	10%	0.90	1.00	3.77	3.77
	AL (Land Uses 400-499)								862	Home Improvement Superstore	TSF Gross	2.29	48%	0.52	1.00	1.19	1.19
416	Campground/RV Park	Camp Sites	0.27	0%	1.00	1.00	0.27	0.27	863	Electronics Super Store	TSF Gross	4.25	40%	0.60	1.00	2.55	2.55
430	Golf Course	Holes	2.91	0%	1.00	1.00	2.91	2.91	867	Office Supply Superstore	TSF Gross	2.77	10%	0.90	1.00	2.49	2.49
437	Bowling Alley	Lanes	1.3	0%	1.00	1.00	1.30	1.30	876	Apparel Store	TSF Gross	4.12	15%	0.85	1.00	3.50	3.50
445	Multiplex Movie Theater	TSF Gross	6.17 4.21	0%	1.00	1.00	6.17 4.21	6.17 4.21	881	Pharmacy/Drugstore w/ Drive-thru	TSF Gross	10.25	49%	0.51	1.00	5.23	5.23
490 492	Tennis Courts Health/Fitness Club	Courts TSF Gross	4.21	0%	1.00	1.00	4.21	4.21	882	Marijuana Dispensory	TSF Gross	18.92	0%	1.00	1.00	18.92	18.92
492	Recreational Community Center	TSF Gross	2.50	0%	1.00	1.00	2.50	2.50	890	Furniture Store	TSF Gross	0.52	53%	0.47	1.00	0.24	0.24
	L (Land Uses 500-599)	13F Gluss	2.50	0%	1.00	1.00	2.50	2.50	899	Liquor Store	TSF Gross	16.62	10%	0.90	1.00	14.96	14.96
520	Elementary School	Students	0.16	0%	1.00	1.00	0.16	0.16	SERVICES (L	AND USES 900-999)							
522	Middle/Juniour High School	Students	0.15	0%	1.00	1.00	0.15	0.15	911	Walk-in Bank	TSF Gross	12.13	25%	0.75	1.00	9.10	9.10
530	High School	Students	0.26	0%	1.00	1.00	0.26	0.26	912	Drive-in Bank	TSF Gross	21.01	47%	0.53	1.00	11.14	11.14
534	Private School (K-8)	Students	0.19	0%	1.00	1.00	0.19	0.19	931	Quality Restaurant (not national chain)	TSF Gross	7.80	44%	0.56	1.00	4.37	4.37
536	Charter Elementary School	Students	0.16	0%	1.00	1.00	0.16	0.16	932	High Turnover/Sit Down Rest	TSF Gross	9.05	43%	0.57	1.00	5.16	5.16
538	Charter School (K-12) (Peak hour of generator)	Students	0.73	0%	1.00	1.00	0.73	0.73	933	Fast Food w/o Drive Thru	TSF Gross	33.21	43%	0.60	1.00	19.93	19.93
560	Church	TSF Gross	0.49	0%	1.00	1.00	0.49	0.49	934	Fast Food with Drive Thru	TSF Gross	33.03	50%	0.50	1.00	16.52	16.52
	Daycare Center	TSF Gross	11.12	0%	1.00	1.00	11.12	11.12	934 935		TSF Gross Drive Lanes	33.03 59.50	50% 40%		1.00	16.52 35.70	16.52 35.70
* TC F. T	cand Squara Faat									Fast Food with Drive Thru and no seating				0.60			
	isand Square Feet								937	Coffee/Donut Shop with Drive Thru	TSF Gross	38.99	50%	0.50	1.00	19.50	19.50
* DU: Dwel	ling Unit								941	Quick Lubrication Vehicle Shop	Service Bays	8.70	25%	0.75	1.00	6.53	6.53
									942	Auto Care Center	Service Bays	2.17	0%	1.00	1.00	2.17	2.17
									944	Service Station	Fuel Position	13.91	42%	0.58	1.00	8.07	8.07
									945	Serv.Station w/ Conven.Mkt	Fuel Position	18.42	56%	0.44	1.00	8.10	8.10
									947	Self Serve Car Wash	Wash Bays	5.54	20%	0.80	1.00	4.43	4.43
									948	Automated Car Wash	Wash Tunnels	77.50	30%	0.70	1.00	54.25	54.25

Demands Placed on Facilities by New Development (11-36a-302.1.a.iv)

To meet the requirements of the Utah Impact Fee law to "identify demands placed upon existing public facilities by new development activity at the proposed level of service" and "identify the means by which the political subdivision or private entity will meet those growth demands", the following steps were completed:

- 1. **Existing Demand-** The traffic demand at the present time was estimated using traffic counts and population data.
- 2. **Existing Capacity** The capacity of the current roadway network was estimated using the calculated LOS using volume to capacity ratios (v/c).
- 3. **Existing Deficiencies-** The deficiencies in the current network were identified by comparing the LOS of the roadways to the LOS standard.
- 4. **Future Demand-** The future demand on the network was estimated using development projections.
- 5. **Future Deficiencies-** The deficiencies in the future network were identified by comparing the calculated future LOS with the LOS standard through capacity maps.
- 6. **Recommended Improvements-** Recommendations that will help meet future demands were made.

These steps were the basis for the TIP and are detailed in the report.

Conversions of Growth and Development Projections to Trip Generations

The basis of the future travel demand was projected using the Dixie Metropolitan Planning Organization Travel Demand Model. The inputs to the model consist of socio-economic and land use data provided by the DMPO and the City. The outputs from the model include peak hour trips and daily traffic volumes on each of the roadways in the network.

Infrastructure Required to Meet Demands of New Development (11-36a-302.1.a.v)

6-Year Improvement Plan

The projects required to maintain the desired level of service for the roadway network in 2050 were outlined in the TMP. These projects will need to be constructed at various times from the present through 2050. However, for the purposes of this IFFP, only projects that will be completed within the next six years will be considered. Table 3 shows the projects that are forecasted to be needed in the next six years. This table includes all of the projects regardless of their eligibility for impact fee expenditure. The portion of the project, which is impact fee eligible is indicated in the <u>% Impact Fee</u> and Impact Fee Total columns.

Project Cost Attributable to Future Growth

<u>Table 3</u> shows the project costs attributable to new growth as a percentage of the total project costs as defined in the previous section. Each project in <u>Table 3</u> exists due to future growth but the cost that should be shared by new development through the assessment of impact fees varies depending on the owner of the road, the funding available, and the roadway classification. Where the project is likely to be completed using MPO funding, the Santa Clara impact fee eligible portion of the project is only the amount of money the City will need to find as their required "matching funds". Road widening projects are considered 100% impact fee eligible as any work on these roads will only be needed as volumes

increase as a result of new development. Cost participation for city-owned roads is variable depending on the road classification and development yet to occur. The cost attributable to new growth and potentially impact fee eligible is defined as the portion of the roadway cross section in excess of the standards for a local road. This is based on the premise that a local road cross section serves the needs of the localized development which directly access the new road. It was assumed, based on City practices, that developers will typically pay for improvements on the outside twenty-eight feet of rightof-way on each side of the road (one lane of asphalt plus curb, gutter, and sidewalk) while the City would be responsible for the remainder. This portion will be paid for by the individual development, which accesses the new road. Any improvements beyond the local street cross section would be considered a capacity improvement for the entire city as a whole and is therefore impact fee eligible. The City responsibility cost for each new road is determined as the percentage of the total project cost beyond a local street classification.

Project Cost Attributable to 6-Year Growth

Using the travel demand model mentioned previously it is possible to estimate the number of PM trips originating or terminating in Santa Clara for the existing and future conditions. The difference between the future PM trips and the existing PM trips (the number of new trips in the City) becomes the denominator in the equation used to calculate the impact fee cost per PM peak hour trip for new development.

Level of service capacity of roadways and intersections has been calculated in the TMP and has indicated where capacity is needed in the future. By projecting the trips that will be generated by new development and dividing these trips by the impact fee eligible costs, the fee per trip can be calculated.

Proposed Means to Meet Demands of New Development (11-36a-302.2)

All possible revenue sources have been considered as a means of financing transportation capital improvements needed as a result of new growth. This section discusses the potential revenue sources that could be used to fund transportation needs as a result of new development.

Transportation routes often span multiple jurisdictions and provide regional significance to the transportation network. As a result, other government jurisdictions or agencies often help pay for such regional benefits. Those jurisdictions and agencies could include the Federal Government, the State Government or UDOT, or the DMPO. The City will need to continue to partner and work with these other jurisdictions to ensure that adequate funds are available for the specific improvements necessary to maintain an acceptable LOS. The City will also need to partner with adjacent communities to ensure corridor continuity across jurisdictional boundaries (i.e., arterials connect with arterials; collectors connect with collectors, etc.).

Funding sources for transportation are essential if City recommended improvements are to be built. The following paragraphs further describe the various transportation funding sources available to the City.

Federal Funding

Federal monies are available to cities and counties through the federal-aid program. UDOT administers the funds. In order to be eligible, a project must be listed on the five-year Statewide Transportation Improvement Program (STIP).

The Surface Transportation Program (STP) funds projects for any roadway with a functional classification of a collector street or higher as established on the Functional Classification Map. STP funds can be used for both rehabilitation and new construction. The Joint Highway Committee programs a portion of the STP funds for projects around the state in urban areas. Another portion of the STP funds can be used for projects in any area of the state at the discretion of the State Transportation Commission. Transportation Enhancement funds are allocated based on a competitive application process. The Transportation Enhancement Committee reviews the applications and then a portion of the application is passed to the State Transportation Commission. Transportation enhancements include twelve categories ranging from historic preservation, bicycle and pedestrian facilities and water runoff mitigation. Other federal and state trail funds are available from the Utah State Parks and Recreation Program.

The DMPO accepts applications for federal funds every November through local and regional government jurisdictions. The DMPO Technical Advisory Committee and Transportation Executive Committee select projects for funding annually. The selected projects form the Transportation Improvement Program (TIP). In order to receive funding, projects should include one or more of the following aspects:

- Congestion Relief spot improvement projects intended to improve Levels of Service and/or reduce average delay along those corridors identified in the Regional Transportation Plan as high congestion areas
- Mode Choice projects improving the diversity and/or usefulness of travel modes other than single occupant vehicles
- Safety improvements to vehicular, pedestrian, and bicyclist safety

State/County Funding

The distribution of State Class B and C Program monies is established by State Legislation and is administered by the State Department of Transportation. Revenues for the program are derived from State fuel taxes, registration fees, driver's license fees, inspection fees, and transportation permits. Seventy-five percent of these funds are kept by UDOT for their construction and maintenance programs. The rest is made available to counties and cities.

Class B and C funds are allocated to each city and county by a formula based on population, centerline miles, and land area. Class B funds are given to counties, and Class C funds are given to cities and towns. Class B and C funds can be used for maintenance and construction projects; however, thirty percent of those funds must be used for construction or maintenance projects that exceed \$40,000. The remainder of these funds can be used for matching federal funds or to pay the principal, interest, premiums, and reserves for issued bonds.

In 2005 the state senate passed a bill providing for the advance acquisition of right-of-way for highways of regional significance. This bill would enable cities in the county to better plan for future transportation needs by acquiring property to be used as future right-of-way before it is fully developed and becomes extremely difficult to acquire. UDOT holds on account the revenue generated by the local corridor preservation fund but the county is responsible to program and control funds. In order to qualify for preservation funds, the City must comply with the Corridor Preservation Process found at the flowing link <u>www.udot.utah.gov/public/ucon</u>. Currently, Santa Clara City uses Class C funding for their transportation projects.

City Funding

Some cities utilize general fund revenues for their transportation programs. Another option for transportation funding is utilizing SB 282 with the creation of Public Infrastructure Districts (PID). This bill grants cities and counties the power to create PIDs to finance public infrastructure for new development and redevelopment These districts are organized for the purpose of funding a single specific project that benefits an identifiable group of properties. Another source of funding used by cities includes revenue bonding for projects intended to benefit the entire community.

Private interests often provide resources for transportation improvements. Developers construct the local streets within subdivisions and often dedicate right-of-way and participate in the construction of collector/arterial streets adjacent to their developments. Developers can also be considered a possible source of funds for projects through the use of impact fees. These fees are assessed as a result of the impacts a particular development will have on the surrounding roadway system, such as the need for traffic signals or street widening.

General fund revenues are typically reserved for operation and maintenance purposes as they relate to transportation. However, general funds could be used if available to fund the expansion or introduction of specific services. Providing a line item in the City budgeted general funds to address roadway improvements, which are not impact fee eligible is a recommended practice to fund transportation projects should other funding options fall short of the needed amount.

General obligation bonds are debt paid for or backed by the City's taxing power. In general, facilities paid for through this revenue stream are in high demand amongst the community. Typically, general obligation bonds are not used to fund facilities that are needed as a result of new growth because existing residents would be paying for the impacts of new growth. As a result, general obligation bonds are not considered a fair means of financing future facilities needed as a result of new growth.

Certain areas might require different needs or methods of funding other than traditional revenue sources. A Special Assessment Area (SAA) can be created for infrastructure needs that benefit or encompass specific areas of the City. Creation of the SAA may be initiated by the municipality by a resolution declaring the public health, convenience, and necessity requiring the creation of a SAA. The boundaries and services provided by the district must be specified and a public hearing held prior to creation of the SAA. Once the SAA is created, funding can be obtained from tax levies, bonds, and fees when approved by the majority of the qualified electors of the SAA. These funding mechanisms allow the costs to be spread out over time. Through the SAA, tax levies and bonding can apply to specific areas in the City needing to benefit from the improvements.

Interfund Loans

Since infrastructure must generally be built ahead of growth, it must sometimes be funded before expected impact fees are collected. Bonds are the solution to this problem in some cases. In other cases, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project. As impact fees are received, they will be reimbursed. Consideration of these loans will be included in the impact fee analysis and should be considered in subsequent accounting of impact fee expenditures.

Developer Dedications and Exactions

Developer dedications and exactions can both be credited against the developer's impact fee analysis. If the value of the developer dedications and/or extractions are less than the developer's impact fee liability, the developer will owe the balance of the liability to the city. If the dedications and/or extractions of the developer are greater than the impact fee liability, the city must reimburse the developer the difference.

Developer Impact Fees

Impact fees are a way for a community to obtain funds to assist in the construction of infrastructure improvements resulting from and needed to serve new growth. The premise behind impact fees is that if no new development occurred, the existing infrastructure would be adequate. Therefore, new developments should pay for the portion of required improvements that result from new growth. Impact fees are assessed for many types of infrastructures and facilities that are provided by a community, such as roadway facilities. According to state law, impact fees can only be used to fund growth related system improvements.

Necessity of Improvements to Maintain Level of Service

According to State statue, impact fees must only be used to fund projects that will serve needs caused by future development. They are not to be used to address present deficiencies. Only projects that address future needs are included in this IFFP. This ensures a fair fee since developers will not be expected to address present deficiencies.

Impact Fee Certification (11-36a-306)

According to state law, this report has been prepared in accordance with Utah Code Title 11 Chapter 36 titled "Impact Fees Act". This report relies upon the planning, engineering, land use and other source data provided by the City and their designees, and all results and projections are founded upon this information.

In accordance with Utah Code Annotate, 11-36a-306(1), Horrocks Engineers, certifies that this impact fee facilities plan:

- 1. Includes only the cost of public facilities that are:
 - a. Allowed under the Impact Fees Act; and
 - b. Actually incurred; or
 - c. Are projected to be incurred or encumbered within six years of the day on which each impact fee is paid;
- 2. Does not include:
 - a. Costs of operation and maintenance of public facilities
 - b. Cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service supported by existing residents;
 - c. An expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
- 3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following limitations:

- 1. All of the recommendations for implementing this IFFP of IFA are followed in their entirety by the City.
- 2. If any portion of the IFFP is modified or amended in any way, this certification is no longer valid.

All information presented and used in the creation of this IFFP is assumed to be complete and correct, including any information received from the City of other outside sources.