Saratoga Springs

IMPACT FEE FACILITIES PLAN

Version #2

2021

CITY OF SARATOGA SPRINGS

avenue CONSULTANTS

IMPACT FEE FACILITIES PLAN CERTIFICATION (11-36A-306)

I certify that the attached impact fee facilities plan:

1. **Includes only the costs of public facilities that are:**
   - **a.** *allowed under the Impact Fees Act; and*
   - **b.** *actually incurred; or*
   - **c.** *projected to be incurred or encumbered within six years after the day on which each impact fee is paid;*
   - **d.** *existing deficiencies documented as such and not meant for inclusion in impact analysis.*
2. **Does not include:**
   - **a.** *costs of operation and maintenance of public facilities;*
   - **b.** *costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is 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 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 **If any portion of the IFFP is modified or amended in any way, this certification is no longer valid.**
3. **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 or other outside source.**

TRANSPORTATION IMPACT FEE FACILITIES PLAN SUMMARY

Introduction

The Impact Fee Facilities Plan (IFFP) was prepared to meet the requirements of Section 11-36a of the Utah State Impact Fee Code. The purpose of the IFFP is to identify master planned roadway infrastructure projects that are eligible for impact fees, estimate the implementation costs associated with those projects that are eligible for impact fees, and estimate the available capacities in the existing roadway network that are eligible for reimbursement through impact fees.

Existing Level of Service

According to the Impact Fee Act, 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. 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 D was chosen as the acceptable LOS for Saratoga Springs City. Based on existing traffic volumes, the following lists existing roadway deficiencies within the City:

- Redwood Road (SR-68): Pioneer Crossing (SR-145) to Pony Express Parkway
- Cory B Wride Memorial Highway (SR-73): West City Border to Mountain View Corridor (SR-85)
- Crossroads Boulevard: Commerce Drive to East City Border

Future Demand

The basis of the future travel demand was determined using the Mountainland Association of Governments (MAG) Travel Demand Model (TDM). The MAG TDM models the entire Wasatch Front from north of Ogden to south of Spanish Fork. The entire region is split into Traffic Analysis Zones (TAZ). Each TAZ includes socio-economic and land use data provided by MAG and the City. The TDM generates future traffic demands based on the socioeconomic data within each TAZ. Since the MAG TDM is a regional model, the TAZ's were updated to better simulate driving conditions within the City boundaries. The TDM was used to project existing and future traffic volumes to determine the roadway projects necessary to maintain adequate LOS.

Project Cost Attributable to Future Demand

Utilizing the TDM projections, a 10 year Capital Facilities Plan was created outlining the projects necessary to maintain adequate LOS throughout the City. This includes existing improvements as well as new roadways based on projected new development. All projects included in the 10 year Capital Facilities Plan were assigned a project year based on expected development. For all impact fee eligible projects, cost reductions were calculated based on existing deficiencies, excess capacity and pass-through traffic. Of the ***$72,159,000*** required from Saratoga Springs to build the expected roadway projects from 2020-2030, ***$17,454,000*** is eligible to be paid using impact fees All project costs included in the IFFP include minimum inflation of 5% based on the expected year of construction. Additionally, Saratoga Springs has spent $***33,191,017*** on existing capacity improvements, and ***$7,991,000*** is eligible to be reimbursed using impact fees. Overall, ***$25,445,000*** is eligible for impact fees from the Capital Facilities Plan Projects and existing capacity projects that are eligible for equity buy-in.

IMPACT FEE FACILITIES PLAN

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
- Existing excess capacity available 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 system improvements

This analysis incorporates the information provided in the Saratoga Springs 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 LOS.

This section focuses on the improvements that are projected to be needed over the next ten 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 D was chosen as the acceptable LOS for Saratoga Springs City. This allows for speeds at or near free-flow speeds, but with less freedom to maneuver. At intersections, LOS D 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, Sixth Edition*. ***Table 1*** summarizes the capacities for roadway segments used by Saratoga Springs City at LOS D.

The 2-Lane Minor Collector cross-section is no longer built in Saratoga Springs. The existing Minor Collector roadways are included in ***Figure 4*** for inventory purposes. The capacity used for the roadways are 10,500 vehicles per day. The local roadway cross-section capacity, as shown in Table 1, was determined based on local knowledge in the Wasatch Front area as well as with assistance from City Staff.

Because roadways throughout the network were built at different times, all roadways do not exactly fit the classifications and capacities shown in ***Figure 4*** and ***Table 1***. For analysis purposes, the existing roadway width and number of lanes are used to best determine the existing capacity of a roadway.

Table 1: Capacity Criteria in Vehicles per Day at LOS D

FUNCTIONAL CLASSIFICATION	LANES	Capacity
Arterial	3	15,100
	5	32,800
	7	50,500
Collector	2	12,100
	3	13,400
Local Road	2	7,500

Intersection Standards

The performance of intersections has a large effect on the level of service of the roadway network. Intersections have different stop controls such as: no control, stop controlled, signal, roundabout, or are 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 LOS D. The costs of these intersection improvements have been included in the roadway network cost estimates included in ***Table 5***.

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 4pm and 6pm. 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 10th edition) (Examples of ITE Trip Generation values are found in ***Appendix A – ITE Trip Generation***). This publication uses national data studied over decades to assist traffic engineering professionals to determine the likely number of new vehicle trips associated with a new development.

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 Saratoga Springs 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 2 trips. This can be rectified simply by adjusting the ITE Trip Generation rates by one half.

An additional consideration is that certain types of developments do not generate primary trips or trips that originated for the sole purpose of visiting that development. An example of a primary trip is a home based work trip where someone leaves their house with the express purpose of going to work. This primary trip has been generated by a combination of the home the trip originated in and the place of occupation where the trip is terminated. Thus it is easily understood that the impact of this trip should be attributed to the housing development and workplace development, without either of these locations, the trip doesn't happen. Some trips are not primary trips, they are defined as pass-by trips. This essentially means that the trip (crossing the driveway of a development) was generated by a driver deciding to make a stop on their way to their primary destination. Good examples of pass-by trips are someone that stops at the gas station on their way to work (a gas station is a pass-by trip) or a driver that is enticed to stop at a fast food restaurant as they drive by because the HOT DONUTS sign is illuminated (the fast food restaurant is a pass-by trip). Pass-by trips do not add traffic to the roadway and therefore do not create additional impact. Each land use type in the ITE Trip Generation Manual has a suggested reduction for pass-by trips where applicable. In each case, the trip reduction rate has been applied to the trip generation rate used in this IFFP.

System Improvements and Project Improvements

As described in the TMP, there are four primary classifications of roads, including local streets, collectors, arterials, and freeways/expressways. Saratoga Springs 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 freeways and expressways are primarily meant for mobility. Each classification may have a variable amount 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 may include anything within the roadway such as curb and gutter, asphalt, road base, lighting, and signing 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
2. 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 D will be the standard by which future growth will be evaluated.

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

Included is the determination of excess capacity on the existing roadway network. Excess capacity is defined as the amount of available capacity on any given street in the roadway network under existing conditions. ***Table 2*** represents the excess capacity for each existing roadway under Saratoga Springs jurisdiction. This represents a buy-in component from the City as the existing residents/property owners/developers are to proportionately reimburse the City for its actual cost of excess capacity in these improvements. The portion of these roadways which are calculated as the buy-in component of the impact fee is included in the Impact Fee Analysis (IFA). For the existing roadway segments with a negative existing excess capacity in ***Table 2*** (existing deficiencies under the Impact Fee Act) will undergo capacity improvements that will not be funded with Impact Fee revenues and the analysis is included in the IFFP.

Table 2: Existing and 2030 Excess Capacity/Deficiency Calculations on Existing Roadways

Road Name	Functional Classification	Existing Capacity	Existing Volume	Excess Capacity/ Deficiency	Excess Capacity/ Deficiency %	2030 Capacity (Projects Included)	2030 Volume	Capacity Consumed	2030 Excess Capacity/ Deficiency	2030 Excess Capacity/ Deficiency %
Pony Express Pkwy	Major Arterial	32,800	20,400	12,400	38%	32,800	26,100	5,700	6,700	20%
Crossroads Blvd (East of Redwood Rd)	Major Arterial	15,100	19,800	-4,700	-31%	32,800	18,600	-1,200	14,200	43%
W Harvest Hills Blvd	Collector	13,400	6,800	6,600	49%	13,400	7,500	700	5,900	44%
Aspen Hills Blvd	Local Collector	12,100	1,700	10,400	86%	12,100	2,400	700	9,700	80%
Commerce Dr.	Local Collector	12,100	2,000	10,100	83%	12,100	2,400	400	9,700	80%
400 East	Major Arterial	7,500	4,400	3,100	41%	32,800	12,600	8,200	20,200	62%
Foothill Blvd (800 West)	Minor Arterial	13,400	6,800	6,600	49%	15,100	12,700	5,900	2,400	16%
1200 North	Local Collector	12,100	200	11,900	98%	12,100	1,200	1,000	10,900	90%
Thunder Blvd.	Collector	13,400	2,600	10,800	81%	13,400	3,700	1,100	9,700	72%
400 South	Collector	13,400	3,400	10,000	75%	13,400	3,800	400	9,600	72%
1400 East: Pioneer to 145 North	Minor Arterial	7,500	1,600	5,900	79%	15,100	11,000	9,400	4,100	27%
Saratoga Rd: 145 North to 400 South	Local	7,500	1,600	5,900	79%	7,500	1,600	0	5,900	79%
Saratoga Rd: 400 South to the South	Collector	13,400	2,500	10,900	81%	13,400	5,300	2,800	8,100	60%
Ring Rd	Local Collector	12,100	2,300	9,800	81%	12,100	2,700	400	9,400	78%
Lariat Blvd	Local Collector	12,100	2,100	10,000	83%	12,100	2,700	600	9,400	78%
Stillwater Dr.	Local Collector	12,100	500	11,600	96%	12,100	1,500	1,000	10,600	88%
Village Pkwy	Collector	13,400	1,100	12,300	92%	13,400	1,700	600	11,700	87%
Wildlife Blvd	Collector	13,400	800	12,600	94%	13,400	3,700	2,900	9,700	72%
Harbor Park Way	Local Collector	12,100	1,600	10,500	87%	12,100	3,800	2,200	8,300	69%
145 North	Major Arterial	7,500	600	6,900	92%	32,800	22,300	21,700	10,500	32%
Riverside Dr (South of Pioneer Crossing)	Collector	13,400	600	12,800	96%	13,400	3,900	3,300	9,500	71%
Market St	Minor Arterial	15,100	200	14,900	99%	15,100	2,600	2,400	12,500	83%
Riverside Dr (North Side)	Collector	13,400	600	12,800	96%	13,400	8,300	7,700	5,100	38%
400 North	Collector	13,400	6,200	7,200	54%	13,400	5,700	-500	7,700	57%
Talus Ridge Dr	Collector	13,400	1,000	12,400	93%	13,400	2,200	1,200	11,200	84%
Grandview Blvd	Collector	13,400	4,600	8,800	66%	13,400	8,200	3,600	5,200	39%
Mt. Saratoga Blvd	Collector	13,400	2,500	10,900	81%	13,400	9,100	6,600	4,300	32%
Fall Harvest Dr	Local Collector	12,100	5,600	6,500	54%	12,100	2,100	-3,500	10,000	83%
400 West	Collector	13,400	600	12,800	96%	13,400	2,200	1,600	11,200	84%
Highpoint Dr	Local Collector	12,100	100	12,000	99%	12,100	1,500	1,400	10,600	88%
School House Rd	Local Collector	12,100	2,100	10,000	83%	12,100	2,700	600	9,400	78%
Old Farm Rd	Major Arterial	32,800	400	32,400	99%	32,800	2,600	2,200	30,200	92%
Founders Blvd	Collector	13,400	400	13,000	97%	13,400	2,700	2,300	10,700	80%
Saratoga Dr	Local Collector	12,100	2,700	9,400	78%	12,100	5,200	2,500	6,900	57%
Parkway Blvd	Collector	13,400	800	12,600	94%	13,400	2,200	1,400	11,200	84%
Centennial Blvd	Local Collector	12,100	300	11,800	98%	12,100	300	0	11,800	98%
Fairway Blvd	Collector	12,100	1,200	10,900	90%	13,400	2,000	800	11,400	85%
Shorewood Dr	Local Collector	12,100	900	11,200	93%	12,100	3,000	2,100	9,100	75%
Colt Dr	Local Collector	12,100	3,800	8,300	69%	12,100	7,000	3,200	5,100	42%
Swainson Ave	Local Collector	12,100	1,000	11,100	92%	12,100	1,500	500	10,600	88%
Medical Dr	Collector	13,400	100	13,300	99%	13,400	2,400	2,300	11,000	82%
Exchange Dr	Collector	13,400	100	13,300	99%	13,400	900	800	12,500	93%
Crossroads Blvd (West of Redwood Rd)	Major Arterial	32,800	20,700	12,100	37%	32,800	24,700	4,000	8,100	25%

Saratoga Springs has been proactive in adding capacity to address future growth. Since data collection was completed for the IFFP in 2019, multiple transportation projects have started construction or have been completed. ***Table 3*** summarizes these projects eligible for buy-in. This table also provides the City's cost to upsize these roadways to meet the functional classification standard. The location of each of these projects is illustrated in ***Figure 1***.

Table 3: Existing Capacity Projects (Equity Buy-in)

Project	Location	Saratoga Springs City Total
E-1	Talus Ridge Dr: Foothill Blvd to west of Grand Tour Dr.	$521,516
E-2	Saratoga Rd: 145 N to Lazaret Ave Pony Express Pkwy: Saratoga Rd to Northshore Dr	$258,712
E-3	Medical Dr: Regent St to Redwood Rd Exchange Dr: Market St to Medical Drive	$659,790
E-4	Exchange Dr: South boundary of Tractor Supply Co. to north boundary of IHC parcel	$44,783
E-5	Redwood Rd: Medical Dr north to northerly parcel boundary line (~340 ft)	$17,293
E-6	Redwood Rd : 400 S to Pony Express	$163,537
E-7	400 South: Patriot Park to Redwood Rd	$109,718
E-8	Riverside Dr : Pioneer Crossing to Dalmore Meadows	$66,722
E-9	Dandelion Dr: Mountain View to Providence Dr	$30,000
E-10	Aster Dr: Chianti St to Mountain View	$214,800
E-11	Wild Blossom Blvd: west of Mountain View	$3,727,680
E-12	Chianti St: Aster Dr to Wild Blossom Blvd	$519,100
E-13	Founders Blvd: Old Farm Rd to Redwood Rd	$516,949
E-14	Grandview: Redwood Rd to Hillside Dr	$358,970
E-15	80 East: Commerce Dr to Jordan Ridge	$32,560
E-16	400 East : Jordan View Landing extents	$112,655
E-17	400 South: Redwood Rd to Legacy Farms	$12,106
E-18	400 North : Mason Ct to 800 W	$59,885
E-19	W Commerce Dr: Redwood Rd to Crossroads Blvd	$191,131
E-20	Talus Ridge Dr: Approximately Grand Tour Dr to Mt. Saratoga Blvd	$384,750
E-21	Mt. Saratoga Blvd: Pony Express to Woodland Rd	$479,700
E-22	Commerce Dr: City Hall Access Road	$34,950
E-23	Saratoga Road Widening: 6800 North	$841,217
E-24	6800 N Widening: Bridge to 7350 N	$545,812
E-25	400 North Canal Bridge	$286,225
E-26	Pony Express Pkwy: Redwood Rd to 200 W	$1,723,323
E-27	Pony Express Pkwy: 200 W to Eagle Mountain	$4,479,663
E-28	800 West Extension: Pony Express to 400 N	$3,228,371
E-29	Redwood Widening Betterments: Hillcrest, Sergeant, Checker, Dalmore	$256,760
E-30	400 North: 540 W to Redwood Rd	$1,065,998
E-31	Pioneer Crossing Betterments: SR-73 to Redwood Rd	$1,297,000
E-32	Pony Express & 800 West: Intersection Widening	$188,549
E-33	Pony Express & 800 West: New Signal	$300,000
E-34	Market Street: Pioneer to Redwood and Riverside Drive: 400 S to Pioneer Crossing	$6,847,753
E-35	400 West Connection: Crossroads Blvd to Aspen Hills	$1,132,963
E-36	Pony Express 5 Lane Widening: Redwood to Eagle Mountain	$232,500
E-37	Redwood Widening Betterments: 400 S to Village Pkwy	$967,582
E-38	Foothill Blvd Widening: Fairfield Rd to Talus Ridge	$278,165
E-39	Saratoga Road Widening	$99,704
E-40	Dalmore Meadows Sidewalk	$53,000
E-41	2015 Transportation Master Plan	$32,924
E-42	2015 Transportation CFP, IFFP, IFA	$15,000
E-43	Foothill Blvd Conceptual Design and Cost Est	$64,901
E-44	2018 Transportation Master Plan	$16,450
E-45	2018 Transportation IFFP Update	$16,450
E-46	Foothill Extension Design: Pony Express to Lariat	$703,401
	Total:	**$33,191,017**

Figure 1:Existing Capacity Projects (Equity Buy-in)

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 to "identify the means by which the political subdivision or private entity will meet those growth demands", the following steps were completed and are explained in further detail in the following sections:

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.
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.
6. Recommended Improvements – Recommendations were made that will help meet future demands.

School Related Infrastructure - Utah Code Annotated 11-36A-302(4)

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee analysis. ***Table 4*** shows the best available information regarding planned schools.

Table 4: Planned Schools

School Name	Locations / Address
Planned Junior High	Parcel 58:023:0274
Harvest Elementary	2105 N Providence Dr
Riverview Elementary	273 Aspen Hills Blvd
Planned Charter School	Wildflower Development: Parcel 58:033:0544
Planned Elementary School	Mt Saratoga Development: Parcel 58:034:0737
Lakeview Academy	527 W 400 N
Thunder Ridge Elementary	264 N 750 W
Horizon Special Needs School	682 W 210 N, Marie Way
Mountain Sunrise Academy	1802 E 145 N
West Lake High School	99 N 200 W
Vista Heights Middle School	484 Pony Express Pkway
Planned Elementary School	Jordan Promenade Development: Parcel 58:035:0112
Springside Elementary	694 S Highpoint Dr
Planned High School	Parcel 58:041:0234
Lake Mountain Middle School	1058 S Old Farm Rd
Saratoga Shores Elementary	1415 S Parkside Dr
Sage Hills Elementary	3033 W Swainson Ave
Harbor Point Elementary	Parcel 16:003:0043

These schools will directly result in the need for additional improvements to public facilities. The cost share attributable to new growth per gross developed area as documented above is based solely on the proportionate share of facility use by new growth. Therefore, impact fees for schools calculated based on gross developed area and will cover only school's proportionate share of the cost of system improvements (Utah Code Annotated 11-36-202(2.a.iii).

Noticing and Adoption Requirements - Utah Code Annotated 11-36A-502

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10-day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

Existing Roadway Network Conditions

Conversions of Growth and Development Projections to Trip Generations

The basis of the future travel demand was projected using the Mountainland Association of Governments (MAG) Travel Demand Model (TDM). The MAG TDM models the entire Wasatch Front from north of Ogden to south of Spanish Fork. The entire region is split into Traffic Analysis Zones (TAZ). Each TAZ includes socio-economic and land use data provided by MAG and the City. Variables included in the model come directly from the Utah Governor's Office of Management and budget such as total population, total households, household size, total employment as well as average income. The existing population in Saratoga Springs is 33,282 and the projected population in 2030 will be 67,000.

The MAG TDM was calibrated to fit existing traffic conditions in Saratoga Springs City. Existing traffic counts were collected throughout the city. Traffic counts were collected from UDOT and include annual average daily traffic (AADT) volumes as defined in Traffic on Utah Highways. On City owned roadways, traffic counts were either provided by Saratoga Springs City or were manually counted as part of the analysis. ***Figure 2*** shows the count locations throughout the City used for model calibration. Once collected, the TDM is updated so the model produces similar traffic patterns within the City.

The TDM generates traffic projects and future traffic demands/impacts based on the socioeconomic data within each TAZ. There are numerous variables within each TAZ, but the two main variables that determine traffic generation are total households and total employment. Since the MAG TDM provides a regional model with large TAZ's, citywide traffic volumes generated in the model are not accurate. In order to calibrate the MAG TDM with the existing local conditions, each TAZ is split into smaller units based on the roadway network in Saratoga Springs. The socioeconomic data within the original TAZ's are then redistributed within the split TAZ's. No data in the model is changed, but redistributed to ensure that the model is calibrated with the existing roadway conditions and better reflects future growth impacts (The TAZ socioeconomic data is included in ***Appendix B – TAZ Socioeconomic Data***). The TAZ structure used for this analysis is shown in ***Figure 3***. The original TAZ's are shown as dark lines and the split TAZ's are shown as lighter lines. For each TAZ, ***Table 5*** shows the total households and total employment for each TAZ in 2020, and 2030 for all TAZ's in Saratoga Springs.

Existing Functional Classification and Level of Service

The existing functional classification used in the MAG Travel Demand Model is shown in ***Figure 4***. The LOS was calculated for each roadway and intersection according to the guidelines explained in the Level of Service section and a LOS map is included in ***Figure 5.***

Table 5: Total Households and Total Employment for Each TAZ in Saratoga Springs

TAZ ID	Total Households		Total Employment	
	2020	2030	2020	2030
1921	3	155	0	0
1922	9	196	0	0
1923	41	367	0	0
1924	96	197	6	24
1925	53	196	0	0
1926	44	191	1	6
1927	29	489	0	0
1928	251	373	0	23
1929	31	33	1	0
1930	351	476	6	17
1931	0	510	0	0
1932	149	347	53	154
1933	163	40	7	786
1934	518	483	0	11
1935	0	339	0	0
1936	0	88	0	0
1937	276	42	0	0
1938	461	447	21	19
1939	123	48	14	1
1940	134	119	60	27
1941	67	194	0	0
1942	0	466	4	4
1943	0	573	0	0
1945	0	256	0	0
1947	0	306	0	0
1950	0	499	0	180
1954	178	180	0	0
1955	365	373	0	0
1956	0	304	0	0
1957	0	217	0	0
1958	1	600	0	0
1959	11	293	0	0
1960	3	438	0	408
1961	0	686	0	27
1962	423	429	0	0
1963	980	873	3	373
1964	0	0	0	628
1965	27	349	21	1664
1966	0	174	67	1265
1967	0	0	0	716
1968	5	25	0	0
1969	9	8	227	510
1970	118	227	290	365
1971	27	143	1	661
1972	163	173	10	283
1973	0	246	0	885
1974	59	431	0	0

TAZ ID	Total Households		Total Employment	
	2020	2030	2020	2030
1975	43	255	0	0
1978	312	312	0	0
1979	211	263	27	30
1980	1	1	0	296
1981	0	157	0	147
1983	102	328	1	43
1984	593	839	1262	1579
1985	0	0	463	235
1986	1	198	0	787
1987	0	159	89	985
1988	0	0	0	1426
1991	0	509	40	627
1992	0	78	0	711
1993	8	21	17	567
1994	1	1	899	913
1995	110	197	201	259
1996	823	935	61	72
1997	717	298	90	131
1998	0	77	0	0
1999	1	101	6	28
2000	0	22	1	39
2001	0	113	0	466
2002	402	452	448	873
2005	6	420	37	935
2013	0	0	0	0
2021	5	1	18	422
2022	0	0	11	86
2901	0	0	8	20
2902	63	43	0	13
2903	0	0	27	77
2904	5	1	3	355
2905	116	45	93	95
2906	0	0	35	16
2907	17	49	0	0
2908	0	0	0	0
2909	0	0	0	0
2910	124	134	0	0
2911	3	352	0	0
2912	3	352	0	0
2913	0	0	8	66
2914	1	0	12	266
2917	0	66	0	0
2918	0	139	0	130
2919	28	165	0	0
2921	0	73	0	670
2922	223	293	28	41

Figure 2: Traffic Count Locations

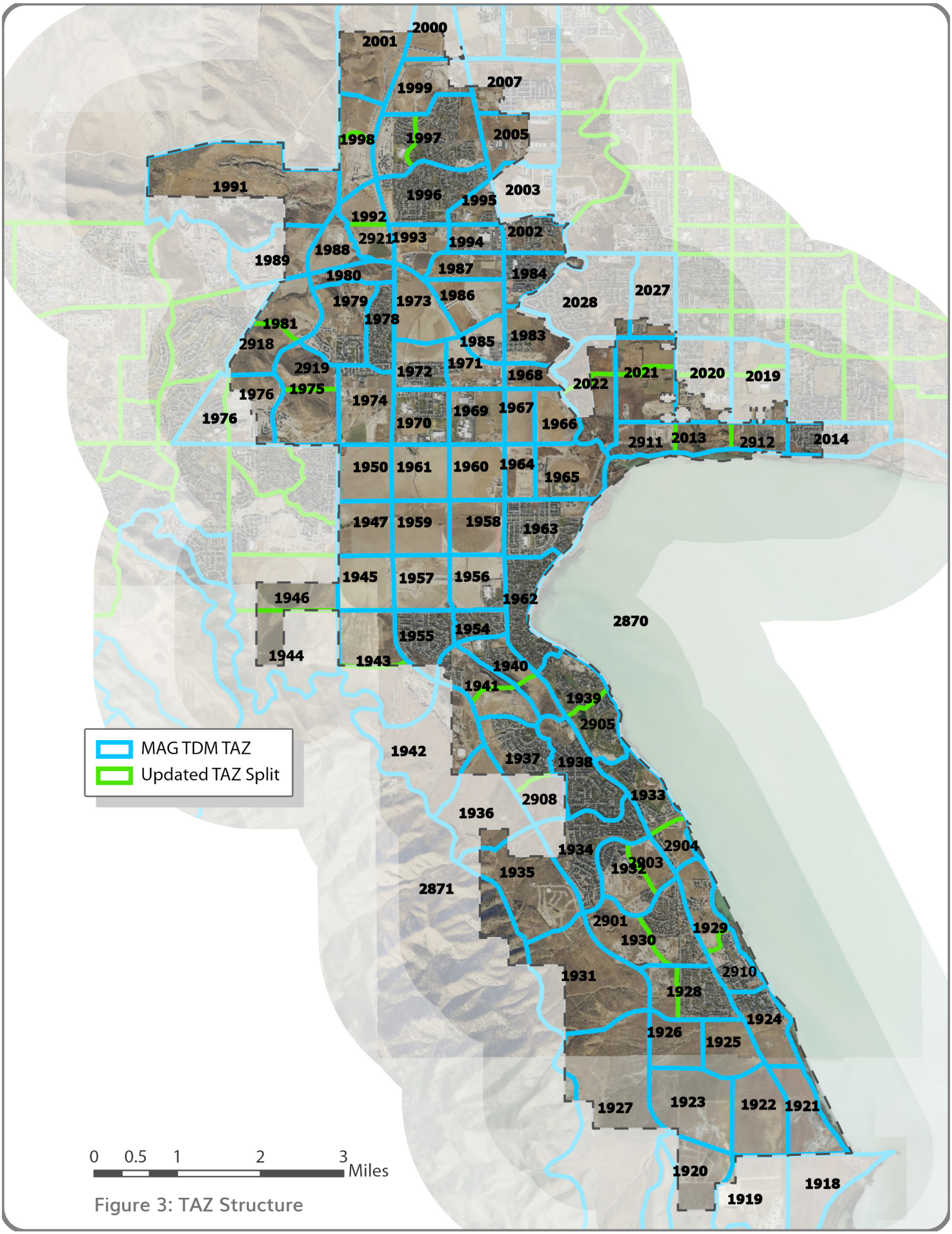

Figure 3: TAZ Structure

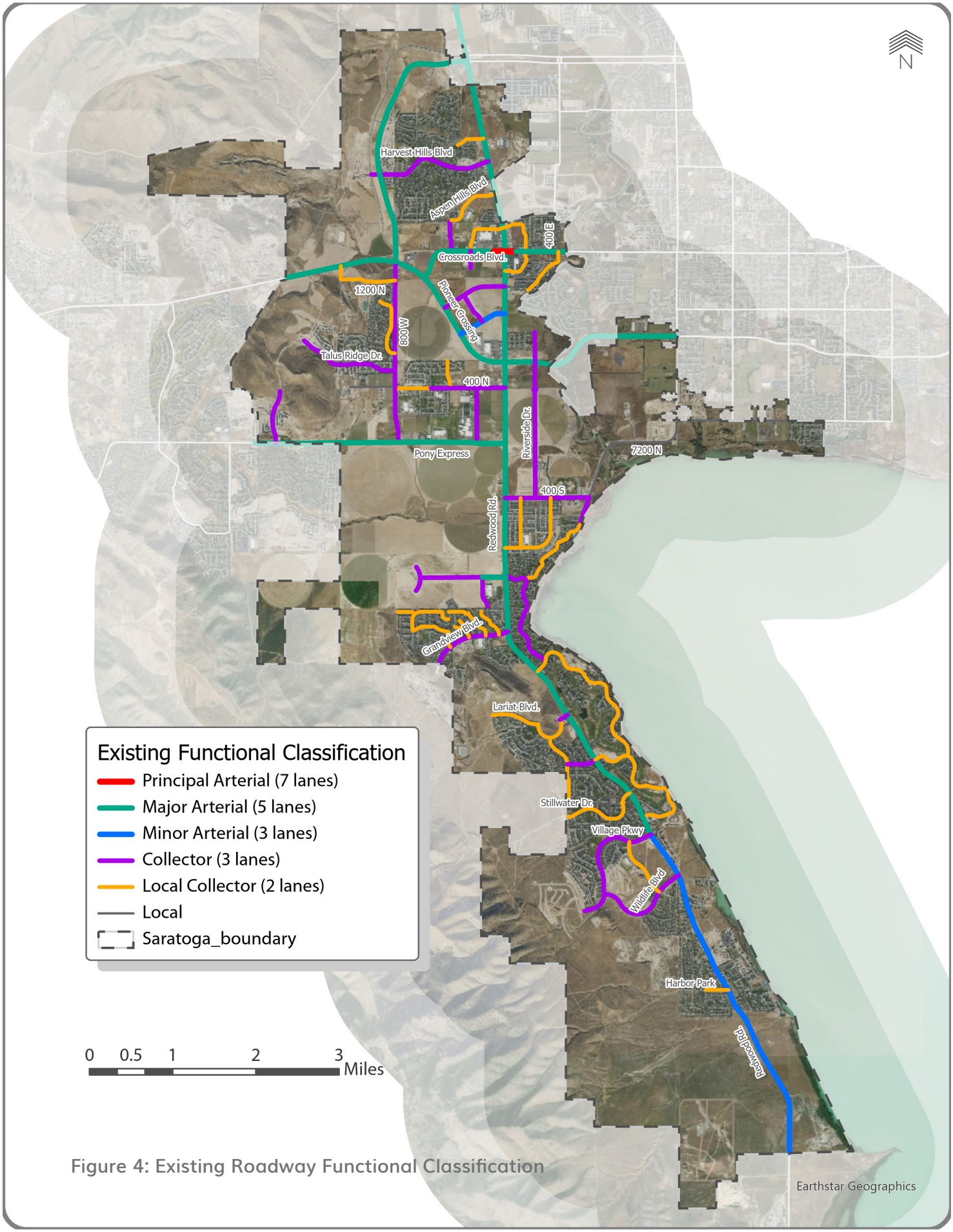

Figure 4: Existing Roadway Functional Classification

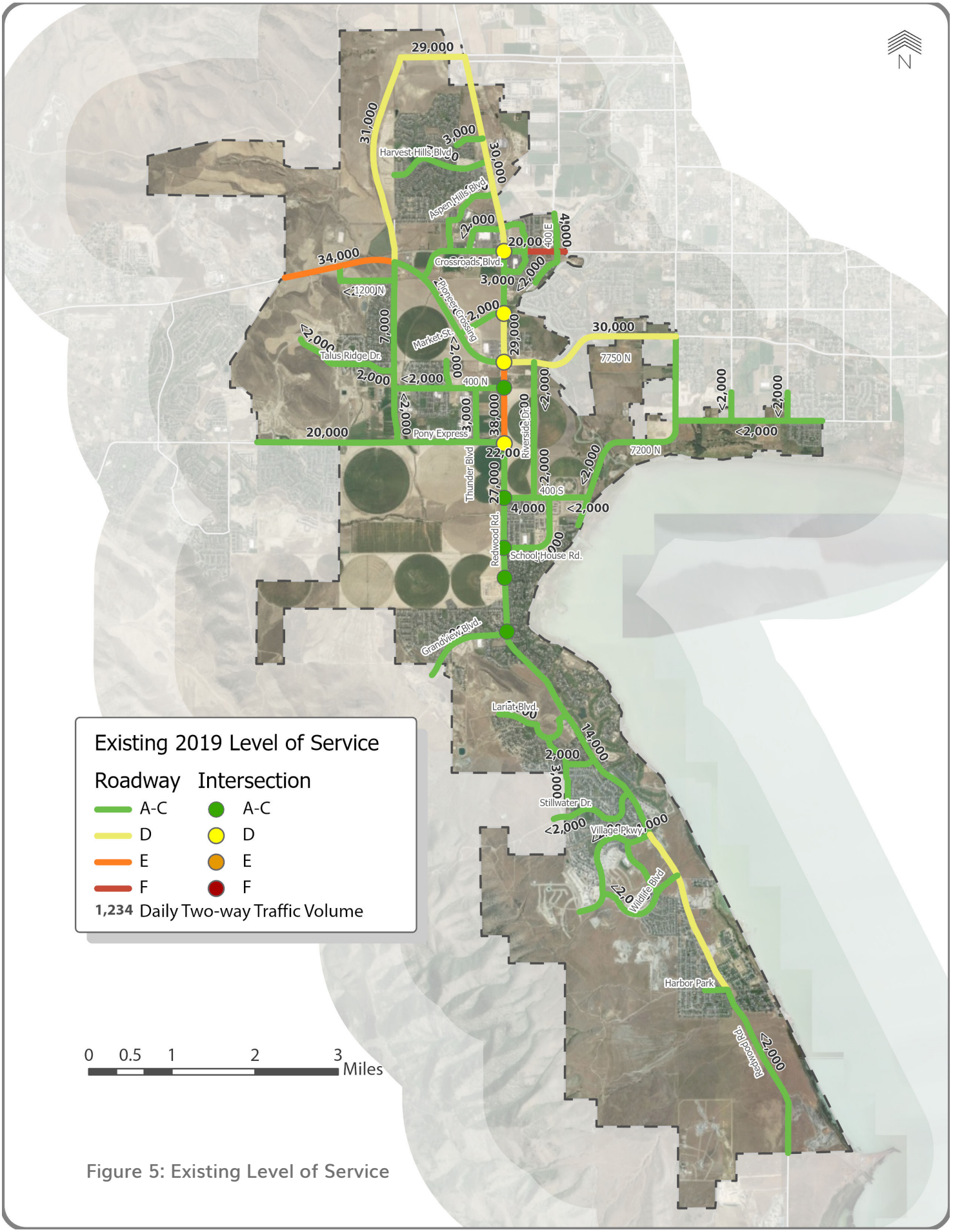

Figure 5: Existing Level of Service

Mitigations to Existing Capacity Deficiencies

Using LOS D as the threshold for roadway improvements in Figure 4 (Indicated by red lines), the following shows the roadways that have existing capacity deficiencies:

Roadway Segments at or below LOS E:

- Redwood Road (SR-68): Pioneer Crossing (SR-145) to Pony Express Parkway
- Cory B Wride Memorial Highway (SR-73): West City Border to Mountain View Corridor (SR-85)
- Crossroads Boulevard: Commerce Drive to East City Border

In most cases, roadway capacity improvements are achieved by adding travel lanes. In some cases, additional capacity can be gained by striping additional lanes where the existing pavement width will accommodate it. This can be accomplished by eliminating on street parking, creating narrower travel lanes, and adding two-way left turn lanes where they don't currently exist. For all roadway capacity improvements, it is recommended to investigate other mitigation methods before widening the roadway.

Future Roadway Network Conditions

By calibrating the MAG Travel Demand Model to fit the existing traffic conditions in Saratoga Springs City, the model is prepared to project traffic volumes into the future. There are two future models used for this IFFP. The first model used was to identify potential capacity deficiencies, called the 2030 No Build Model. The other model used was the 2030 Master Plan Solution Model, which includes all future projects to improve the deficiencies in the 2030 No Build Model.

No Build Level of Service

A no-build scenario is intended to show what the roadway network would be like in the future if no action is taken to improve the City roadway network. The travel demand model was again used to predict this condition by applying the future growth and travel demand to the existing roadway network. As shown in ***Figure 6***, the following roadways would perform at LOS E or worse if no action were taken by 2030 to improve the roadway network:

- Redwood Road (SR-68): Village Parkway to Harbor Park Way
- -Redwood Road (SR-68): North City Border to Ring Road
- Pony Express Parkway: West City Border to Redwood Road (SR-68)
- 400 North: Thunder Boulevard to Redwood Road (SR-68)
- 400 South: Redwood Road (SR-68) to Riverside Drive
- Cory B Wride Memorial Highway (SR-73): West City Border to Mountain View Corridor to Crossroads Boulevard
- Pioneer Crossing (SR-145): Crossroads Boulevard to East City Border
- Crossroads Boulevard: Commerce Drive to East City Border
- 800 West: Cory B Wride Memorial Highway (SR-73) to 400 North
- Mountain View Corridor (SR-85): Redwood Road (SR-68) to Cory B Wride Memorial Highway (SR-73)

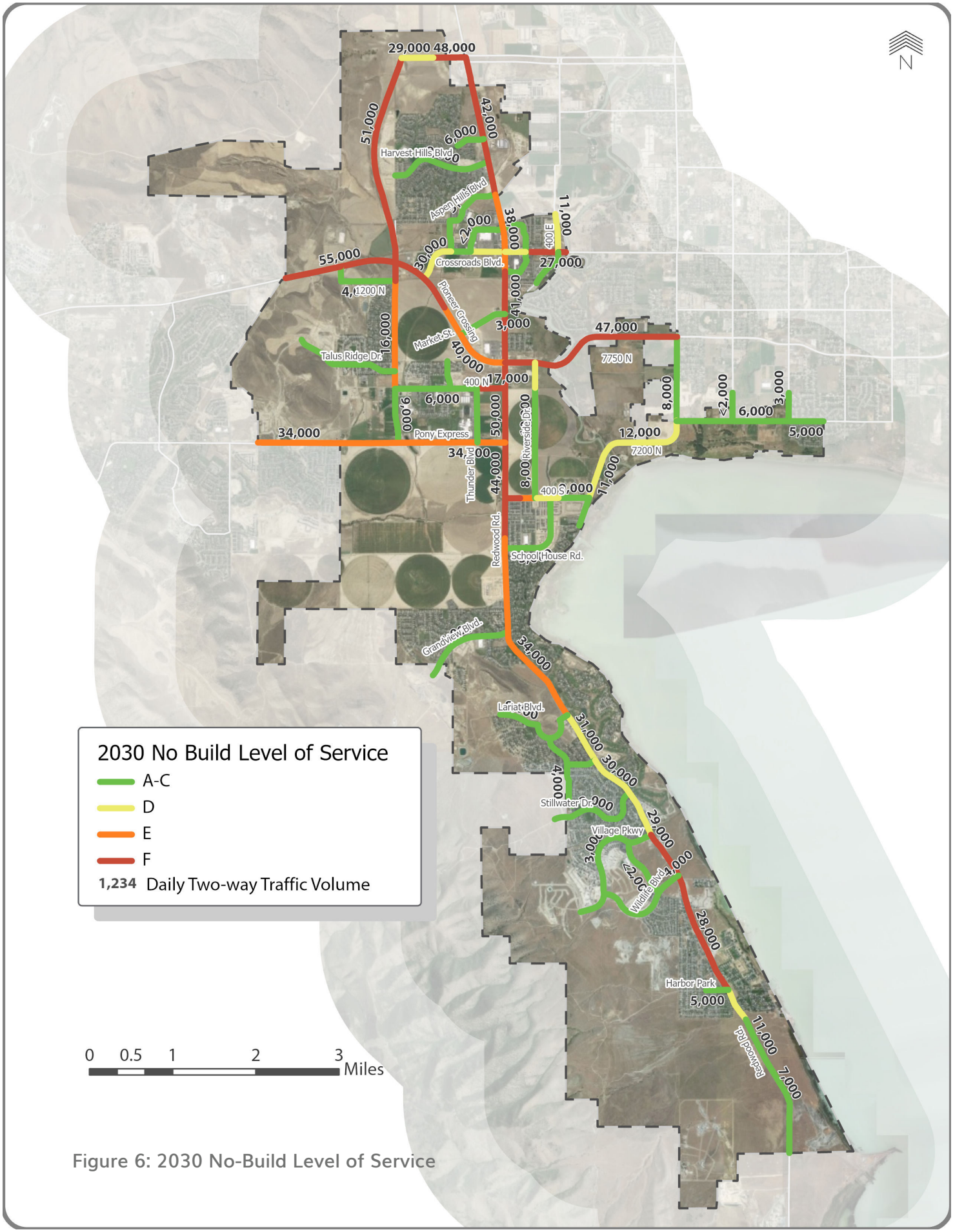

Figure 6: 2030 No-Build Level of Service

10-Year Capital Facilities Plan

Although projects will be completed as growth and development occurs throughout the city, the existing and no build scenarios are used as a basis to predict the necessary projects to include in the IFFP. ***Figure 7*** and ***Table 6*** show the Capital Facilities Plan, which forecast all necessary improvements for the next ten years. This includes all of the projects regardless of their eligibility for impact fee expenditure. Project costs are included in ***Appendix C – 10 Year Capital Facilities Plan Cost Summary***.

Table 6: Capital Facilities Plan Projects

Project	Location	Total Cost	Funding Source	Saratoga Springs City %	Saratoga Springs City Total
1A	Foothill Boulevard (East Frontage Road): Pony Express to Lariat Boulevard	$16,349,000	Saratoga/MAG	39%	$6,349,000
1B	Foothill Boulevard: Corridor Preservation	$5,449,000	Saratoga	41%	$2,218,000
2	Pony Express Extension: Redwood Road (SR-68) to Jordan River	$21,544,000	Saratoga/MAG	54%	$11,544,000
3	Pony Express Extension: Jordan River Bridge	$5,840,000	Saratoga/MAG	7%	$395,000
4A	Pony Express Extension: Jordan River to Saratoga Road, Phase 1	$1,190,000	Saratoga/MAG	46%	$547,000
4B	Pony Express Extension: Jordan River to Saratoga Road, Phase 2	$6,467,000	Saratoga/MAG	7%	$438,000
11	Crossroads Blvd: Commerce Drive to Eastern Border	$3,083,000	Saratoga/MAG	7%	$209,000
12	400 East: Crossroads Blvd to northern City Boundary	$1,754,000	Saratoga/MAG	7%	$119,000
14	Saratoga Road: Pony Express to Pioneer Crossing (SR-175) (Saratoga Springs Portion)	$4,026,000	Saratoga	100%	$4,026,000
I16	Talus Ridge Drive ad Mt. Saratoga Blvd	$1,023,000	Saratoga	100%	$1,023,000
21	Wild Hills Blvd: Western City Boundary to MVC	$18,223,000	Saratoga	41%	$7,417,000
22	Mount Saratoga Boulevard	$12,437,000	Saratoga/MAG	7%	$842,000
23	Mt. Saratoga Blvd: Cedar Fork Road (SR-73) to Quail Hill Rd	$13,011,000	Saratoga	24%	$3,123,000
25	Medical Drive: Foothill Boulevard to Pioneer Crossing	$6,168,000	Saratoga	24%	$1,480,000
26	Riverside Dr: End of Existing to Pioneer Crossing	$7,358,000	Saratoga	24%	$1,766,000
27	Market Street: Redwood Road (SR-68) to Riverside Drive	$1,100,000	Saratoga	24%	$264,000
28	Market Street: Foothill Blvd to Pioneer Crossing	$7,145,000	Saratoga	24%	$1,715,000
I29	Crossroads Blvd and 1400 North	$604,000	Saratoga	100%	$604,000
30	550 North: 500 East to Saratoga Road	$7,051,000	Saratoga	24%	$1,692,000
32	400 North: Redwood Road (SR-68) to Riverside Drive	$1,018,000	Saratoga	24%	$244,000
I24	Wild Blossom Blvd and Chianti St	$634,000	Saratoga	100%	$634,000
35	200 West: Pony Express to Founders Boulevard	$6,566,000	Saratoga	24%	$1,576,000
38	Hidden Valley Drive: Foothill Blvd to New Collector	$15,670,000	Saratoga	41%	$6,378,000
39	New Collector: Redwood Road to Hidden Valley Dr	$5,702,000	Saratoga	24%	$1,368,000
40A	Ensign Drive: Foothill Blvd to Light House Drive	$4,638,000	Saratoga	24%	$1,113,000
40B	Ensign Drive: Herald Drive to 800 South (approx.)	$1,626,000	Saratoga	24%	$390,000
45	Lariat Blvd: End of Existing to Foothill Boulevard	$1,041,000	Saratoga	15%	$154,000
50	New Road: Bonneville Drive to Wildlife Blvd	$4,824,000	Saratoga	24%	$1,158,000
53	Harvest Hills Blvd: Right-turn lane at Mountain View	$558,000	Saratoga	100%	$558,000
13	Foothill Blvd: Cedar Fort Road to Pony Express Pkwy	$12,364,000	Saratoga	100%	$12,364,000
I26	Foothill Blvd & 400 North	$451,000	Saratoga	100%	$451,000
Total:		$194,914,000			$72,159,000

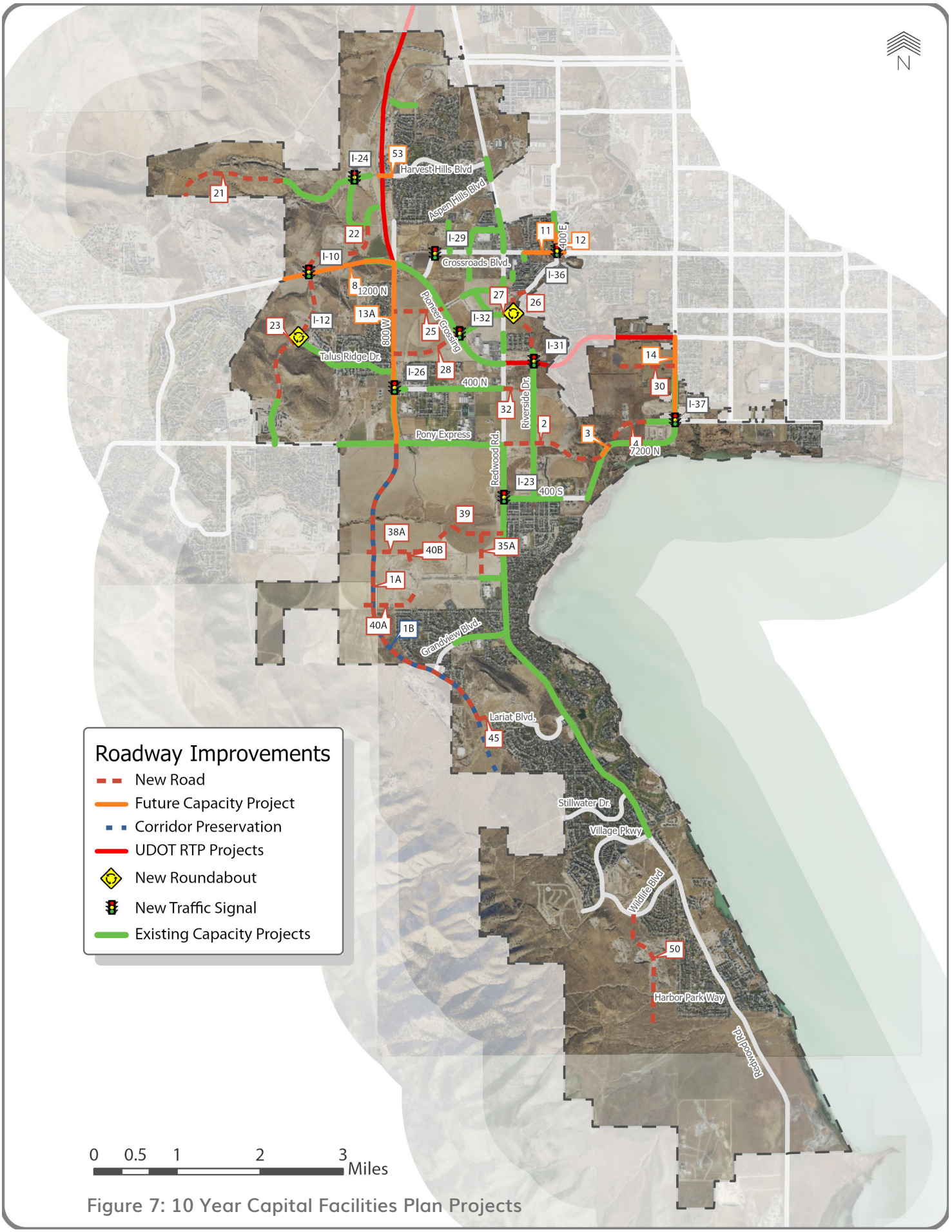

Figure 7: 10 Year Capital Facilities Plan Projects

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

Project Cost Attributable to 6-year Growth

Table 7 and ***Figure 8*** shows the funding sources for IFFP projects costs attributable to new growth as a percentage of the total project. A portion of each project in ***Table 6*** is impact fee eligible, depending on how it is funded. Only that portion of a project cost funded by Saratoga Springs is impact fee eligible. For each project, that amount is indicated in the ***Saratoga Springs City %*** and ***Saratoga Springs City Total*** columns. Where the project is likely to be completed using MAG funding, the Saratoga Springs City impact fee eligible portion of the project is its "matching funds" obligation, in this case, 6.77% of the total project cost. UDOT projects will be funded entirely with state funds and are not eligible for impact fee expenditure.

There are additional costs included in each cost estimate based on a percentage of the construction costs. The four additional costs include contingency, mobilization, preconstruction engineering, and construction engineering. The percentages used for the additional costs may vary as these values are estimated for each individual project. These estimates are based on the concept cost estimate values used by UDOT. Contingency accounts for the items not estimated during the concept cost estimate. Examples include roadway striping, utility placement, and survey. Contingency costs can range up to 25% based on the number of items not estimated. Mobilization is the preparation before construction begins on a project. It is recommended that a value of 10% be used for project mobilization. Preconstruction engineering is based on the complexity of the project as well as the construction costs. It is recommended that for local projects the preconstruction costs can range up to 16% of the construction costs. For the cost estimates included in this IFFP, a value of 16% was used. Construction engineering includes the construction management and additional design necessary during construction. Recommended costs for local projects range up to 16% and a value of 16% was used for the cost estimates included in the IFFP. All cost estimates along with all unit costs and assumptions are included in ***Appendix D – IFFP Cost Estimates.***

Table 7: Impact Fee Facilities Plan Project Funding Sources

Project	Location	Funding Source
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	Saratoga Springs/MAG
1B	Foothill Blvd: Corridor Preservation	Saratoga Springs/MAG
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	Saratoga Springs/MAG
3	Pony Express Pkwy Extension: Jordan River Bridge	Saratoga Springs/MAG
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Road, Phase 1	Saratoga Springs/MAG
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Road, Phase 2	Saratoga Springs/MAG
8	Cory B Wride Memorial Highway (SR-73): Mountain View Corridor Frontage to West City Border	UDOT
11	Crossroads Blvd: Commerce Dr to East Border, Signal: Crossroads and 400 East/Riverside Dr	Saratoga Springs/MAG
12	400 East: Crossroads Blvd to North City Boundary	Saratoga Springs
14	Saratoga Rd: Pony Express Pkwy to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	Saratoga Springs
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	Saratoga Springs
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	Saratoga Springs/MAG
23	Mt. Saratoga Blvd: Cory B Wride Memorial Highway (SR-73) to Quail Hill Rd	Saratoga Springs
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	Saratoga Springs
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	Saratoga Springs
27	Market St: Redwood Rd (SR-68) to Riverside Dr	Saratoga Springs
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	Saratoga Springs
30	550 North: 500 East to Saratoga Rd	Saratoga Springs
32	400 North: Redwood Rd (SR-68) to Riverside Dr	Saratoga Springs
35	Old Farm Rd: Founders Blvd to Project 39	Saratoga Springs
38	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	Saratoga Springs
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	Saratoga Springs
40A	Ensign Dr: Foothill Blvd to Light House Dr	Saratoga Springs
40B	Ensign Dr: Herald Dr to 800 South (approx.)	Saratoga Springs
45	Lariat Blvd: End of Existing to Foothill Blvd	Saratoga Springs
50	New Collector: Bonneville Dr to Wildlife Blvd	Saratoga Springs
53	Harvest Hills Blvd: Right-turn lane at Mountain View	Saratoga Springs
I10	Cory B Wride Memorial Highway (SR-73) and Mount Saratoga Boulevard	UDOT
I16	Talus Ridge Dr ad Mt. Saratoga Blvd	Saratoga Springs
I23	Redwood Rd (SR-68) and 400 South	UDOT
I21	Crossroads Blvd and 1400 North	Saratoga Springs
I31	Riverside Dr and Pioneer Crossing (SR-145)	UDOT
I23	Traffic Signal: Market St and Pioneer Crossing (SR-145)	UDOT
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	Saratoga Springs
13	Foothill Blvd: Cedar Fort Rd to Pony Express Pkwy	Saratoga Springs
I26	Traffic Signal: Foothill Blvd & 400 North	Saratoga Springs

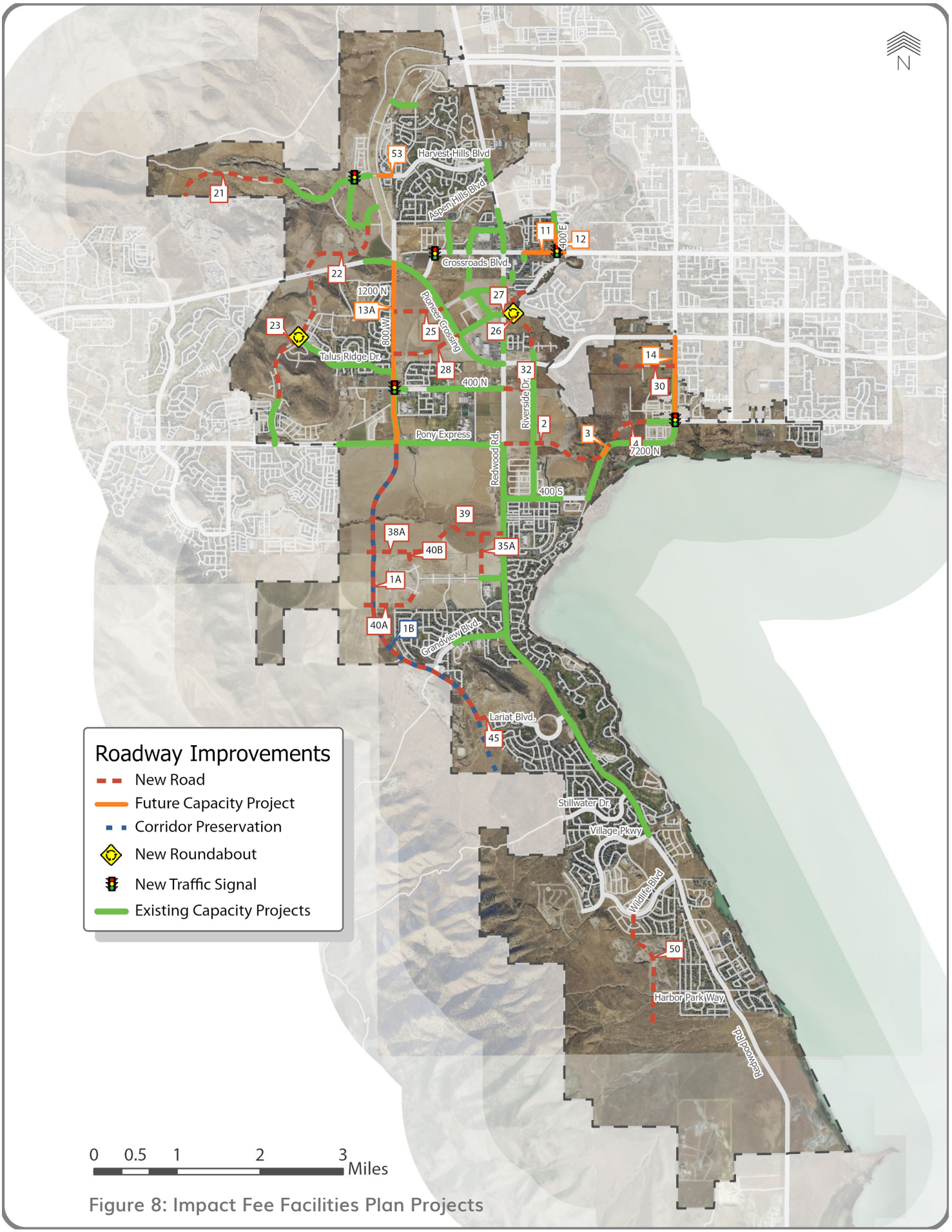

Figure 8: Impact Fee Facilities Plan Projects

Project Cost Attributable to 10-Year Growth

Using the travel demand model mentioned in previous chapters it is possible to estimate the number of PM trips originating or terminating in Saratoga Springs 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. The City of Saratoga Springs currently generates approximately ***10,628*** one-way PM peak hour vehicle trips. The projected 2030 PM peak hour trip number for Saratoga Springs City is ***21,430***, an ***102%*** increase on today's value. This gives a total increase of ***10,802*** trips.

Included in the IFFP are reductions to the City's total cost that are not attributed to growth. The reductions included in the following sections are for existing deficiencies, pass-through, and excess capacity that will not be consumed through 2030. These are calculated based on the projected 2030 traffic volumes as well as output data from the TDM.

Also included are the reductions for traffic signals. Traffic signals are implemented based on the traffic signal warrants found in Chapter 4C of the Utah Manual on Uniform Traffic Control Devices (MUTCD). Included in the MUTCD are warrants based of traffic volumes, pedestrian volumes, safety, as well as the roadway network in proximity to the intersection. A traffic signal is not installed without meeting one of the signal warrants included in the Utah MUTCD. To estimate the reductions for existing deficiencies, pass-through, and excess capacity, the weighted average of the two intersecting streets was used.

Existing Deficiency Reduction

Table 8 includes the calculations to determine the cost to cure deficiencies in existing roadways that are unrelated to new development activity due to existing deficiencies. This proportionate cost of added lane capacity will remedy an existing capacity deficiency that cannot be funded using Impact Fees.

Table 8: Existing Deficiency Cost Reduction Calculation

Project	Location	Added Capacity	Existing Deficiency	Deficiency %
11	Crossroads Blvd: Commerce Drive to Eastern Border	17,700	4,700	27%

Pass-Through Reduction

Included in ***Table 9*** is the percent Pass-Through traffic for all project roadways. A vehicle trip is considered pass-through when the origin and the destination for a specific trip occurs outside the city limits. For all growth within Saratoga Springs, there is a certain percentage of new trips which are considered pass- through. This percentage is determined using the MAG Travel Demand Model. The Travel Demand Model determines pass-through traffic by keeping track of the origin, destination, and path for each vehicle trip generated. When the vehicle trip uses a roadway in Saratoga Springs and the origin and destination of that trip is located outside of Saratoga Springs, that trip is considered a pass-through trip. Since a pass- through trip does not arise from new development activity in Saratoga Springs, it cannot be paid for with impact fees. The proportion of pass-through traffic not attributable to impact fees is the proportion of pass-through traffic to the added capacity of the roadway.

Table 9: Pass-Through Traffic Cost Reduction Calculation - Capital Facilities Plan Projects

Project	Location	Added Capacity	Pass- Through Volume	Pass Through %
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	15,100	1,580	10%
1B	Foothill Blvd: Corridor Preservation	15,100	1,580	10%
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	32,800	9,050	28%
3	Pony Express Pkwy Extension: Jordan River Bridge	25,300	9,540	38%
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 1	32,800	9,540	29%
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 2	32,800	9,540	29%
11	Crossroads Blvd: Commerce Dr to East City Border, Signal: Crossroads and 400 East/Riverside Dr	17,700	2,320	13%
12	400 East: Crossroads Blvd to North City Border	25,300	1,630	6%
14	Saratoga Rd: Pony Pkwy Express to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	7,600	1,210	16%
I12	Roundabout: Talus Ridge Dr ad Mt. Saratoga Blvd	23,000	4,700	20%
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	15,100	30	1%
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	13,400	340	3%
23	Mt. Saratoga Blvd: Cory B Wride Memorial Hwy (SR-73) to Quail Hill Rd	13,400	4,690	35%
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	0	1%
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	13,400	680	5%
27	Market St: Redwood Rd (SR-68) to Riverside Dr	15,100	680	5%
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	90	1%
I21	Traffic Signal: Crossroads Blvd and 1400 North	42,000	1,720	4%
30	550 North: 500 East to Saratoga Rd	13,400	0	1%
32	400 North: Redwood Rd (SR-68) to Riverside Dr	13,400	120	1%
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	12,100	20	1%
35A	Old Farm Rd: Founders Blvd to Project 39	13,400	0	1%
38A	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	15,100	0	1%
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	13,400	0	1%
40A	Ensign Dr: Foothill Blvd to Light House Dr	13,400	130	1%
40B	Ensign Dr: Herald Dr to 800 South (approx.)	13,400	0	1%
45	Lariat Blvd: End of Existing to Foothill Blvd	12,100	320	3%
50	New Collector: Bonneville Dr to Wildlife Blvd	13,400	0	1%
53	Harvest Hills Blvd: Right-turn lane at Mountain View	700	160	23%
13A	Foothill Blvd: Cory B Wride Memorial Highway (SR-73) to Pony Express	7,600	2,960	39%
I26	Traffic Signal: Foothill Blvd & 400 North	42,000	3,000	7%

Excess Capacity Reduction

Included in ***Table 10*** is the calculated excess capacity remaining in 2030. The excess capacity is the proportion of the added capacity that is not used in 2030. Since this capacity is not used by 2030, it is not a cost of growth in this IFFP period, but can be recouped in a later IFFP period.

Table 10: Excess Capacity Cost Reduction Calculation - Capital Facilities Plan Projects

Project	Location	Future Capacity	Added Capacity	2030 Traffic Volume	2030 Excess Capacity	Cost Reduction %
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	15,100	15,100	9,500	5,600	37%
1B	Foothill Blvd: Corridor Preservation	15,100	15,100	9,500	5,600	37%
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	32,800	32,800	24,500	8,300	25%
3	Pony Express Pkwy Extension: Jordan River Bridge	32,800	25,300	29,000	3,800	12%
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 1	32,800	32,800	32,000	800	2%
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 2	32,800	32,800	32,000	800	2%
11	Crossroads Blvd: Commerce Dr to East City Border, Signal: Crossroads and 400 East/Riverside Dr	32,800	17,700	17,900	14,900	45%
12	400 East: Crossroads Blvd to North City Border	32,800	25,300	12,500	20,300	62%
14	Saratoga Rd: Pony Express Pkwy to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	15,100	7,600	11,000	4,100	27%
I12	Roundabout: Talus Ridge Dr ad Mt. Saratoga Blvd	23,000	23,000	11,300	11,700	51%
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	15,100	15,100	4,500	10,600	70%
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	13,400	13,400	5,100	8,300	62%
23	Mt. Saratoga Blvd: Cory B Wride Memorial Hwy (SR-73) to Quail Hill Rd	13,400	13,400	10,300	3,100	23%
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	13,400	3,400	10,000	75%
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	13,400	13,400	7,200	6,200	46%
27	Market St: Redwood Rd (SR-68) to Riverside Dr	15,100	15,100	5,300	9,800	65%
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	13,400	5,500	7,900	59%
I21	Traffic Signal: Crossroads Blvd and 1400 North	42,000	42,000	12,900	29,100	69%
30	550 North: 500 East to Saratoga Rd	13,400	13,400	700	12,700	95%
32	400 North: Redwood Rd (SR-68) to Riverside Dr	13,400	13,400	700	12,700	95%
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	23,000	23,000	12,800	10,200	44%
35A	Old Farm Rd: Founders Blvd to Project 39	13,400	13,400	800	12,600	94%
38A	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	15,100	15,100	1,600	13,500	89%
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	13,400	13,400	2,400	11,000	82%
40A	Ensign Dr: Foothill Blvd to Light House Dr	13,400	13,400	1,200	12,200	91%
40B	Ensign Dr: Herald Dr to 800 South (approx.)	13,400	13,400	2,000	11,400	85%
45	Lariat Blvd: End of Existing to Foothill Blvd	12,100	12,100	4,500	7,600	63%
50	New Collector: Bonneville Dr to Wildlife Blvd	13,400	13,400	5,100	8,300	62%
53	Harvest Hills Blvd: Right-turn lane at Mountain View	14,100	700	8,100	6,000	43%
13A	Foothill Blvd: Cory B Wride Memorial Hwy (SR-73) to Pony Express	**15,100**	**7,600**	**12,700**	**2,400**	**16%**
I26	Traffic Signal: Foothill Blvd & 400 North	**42,000**	**42,000**	**20,500**	**21,500**	**51%**

Existing User Share for New Construction Projects

For all roadways in the roadway system, a portion of the traffic volume would be used by the existing roadway users regardless of future development. For existing roadways, the existing user share is the additional traffic that would use a roadway if it was widened. For new construction, a proportion of the new traffic volume is attributed to those users who would use the road regardless of the development. ***Table 11*** shows the cost reduction based on the existing user share for all new roadway construction.

Table 11: Existing User Share Cost Reduction Calculation - Capital Facilities Plan Projects

Project	Location	Capacity	Existing User Volume	Existing User %
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	15,100	2,260	15%
1B	Foothill Blvd: Corridor Preservation	15,100	2,260	15%
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	32,800	8,850	27%
3	Pony Express Pkwy Extension: Jordan River Bridge	25,300	1,600	6%
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 1	32,800	14,890	45%
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 2	32,800	14,890	45%
12	400 East: Crossroads Blvd to North City Border	25,300	4,100	17%
14	Saratoga Rd: Pony Express Pkwy to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	7,600	3,320	44%
I12	Roundabout: Talus Ridge Dr ad Mt. Saratoga Blvd	23,000	2,870	12%
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	15,100	360	2%
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	13,400	590	4%
23	Mt. Saratoga Blvd: Cory B Wride Memorial Hwy (SR-73) to Quail Hill Rd	13,400	1,630	12%
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	260	2%
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	13,400	4,540	34%
27	Market St: Redwood Rd (SR-68) to Riverside Dr	15,100	3,140	21%
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	13,400	3,060	23%
I21	Traffic Signal: Crossroads Blvd and 1400 North	42,000	8,000	19%
30	550 North: 500 East to Saratoga Rd	13,400	30	1%
32	400 North: Redwood Rd (SR-68) to Riverside Dr	13,400	140	1%
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	42,000	500	1%
35A	Old Farm Rd: Founders Blvd to Project 39	13,400	10	1%
38A	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	15,100	280	2%
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	13,400	320	2%
40A	Ensign Dr: Foothill Blvd to Light House Dr	13,400	70	1%
40B	Ensign Dr: Herald Dr to 800 South (approx.)	13,400	230	2%
45	Lariat Blvd: End of Existing to Foothill Blvd	12,100	1,750	14%
50	New Collector: Bonneville Dr to Wildlife Blvd	13,400	660	5%
53	Harvest Hills Blvd: Right-turn lane at Mountain View	14,100	1,830	13%
13A	Foothill Blvd: Cory B Wride Memorial Hwy (SR-73) to Pony Express	7,600	670	9%
I26	Traffic Signal: Foothill Blvd & 400 North	42,000	9,860	24%

Proportion Attributable to Growth Summary and Costs

Impact fees can only be collected for the proportion of the added capacity which is used by new development that is projected to occur through 2030. ***Table 12*** is a summary table that accounts for all cost reductions attributed to existing deficiencies, existing user share, pass-through, and excess capacity.

Table 12: Proportion of Projects Attributed to New Development - Capital Facilities Plan Projects

Project	Location	Cost Reduction			Proportion Attributable to New Growth
		Reduction for Pass-Through	Reduction for Excess Capacity	Existing Deficiency / User Share	
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	10%	37%	15%	37%
1B	Foothill Blvd: Corridor Preservation	10%	37%	15%	37%
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	28%	25%	27%	20%
3	Pony Express Pkwy Extension: Jordan River Bridge	38%	12%	6%	44%
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 1	29%	2%	45%	23%
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 2	29%	2%	45%	23%
11	Crossroads Blvd: Commerce Dr to East Border, Signal: Crossroads and 400 East/Riverside Dr	13%	45%	27%	15%
12	400 East: Crossroads Blvd to North City Border	6%	62%	17%	15%
14	Saratoga Rd: Pony Pkwy Express to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	16%	27%	44%	13%
I12	Roundabout: Talus Ridge Dr ad Mt. Saratoga Blvd	20%	51%	12%	16%
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	1%	70%	2%	26%
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	3%	62%	4%	31%
23	Mt. Saratoga Blvd: Cory B Wride Memorial Hwy (SR-73) to Quail Hill Rd	35%	23%	12%	30%
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	1%	75%	2%	22%
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	5%	46%	34%	15%
27	Market St: Redwood Rd (SR-68) to Riverside Dr	5%	65%	21%	10%
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	1%	59%	23%	17%
I21	Traffic Signal: Crossroads Blvd and 1400 North	1%	44%	1%	53%
30	550 North: 500 East to Saratoga Rd	1%	95%	1%	3%
32	400 North: Redwood Rd (SR-68) to Riverside Dr	1%	95%	1%	3%
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	1%	44%	1%	53%
35A	Old Farm Rd: Founders Blvd to Project 39	1%	94%	1%	4%
38A	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	1%	89%	2%	8%
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	1%	82%	2%	15%
40A	Ensign Dr: Foothill Blvd to Light House Dr	1%	91%	1%	7%
40B	Ensign Dr: Herald Dr to 800 South (approx.)	1%	85%	2%	12%
45	Lariat Blvd: End of Existing to Foothill Blvd	3%	63%	14%	20%
50	New Collector: Bonneville Dr to Wildlife Blvd	1%	62%	5%	32%
53	Harvest Hills Blvd: Right-turn lane at Mountain View	23%	43%	13%	22%
13A	Foothill Blvd: Cory B Wride Memorial Highway (SR-73) to Pony Express	39%	16%	9%	36%
I26	Traffic Signal: Foothill Blvd & 400 North	7%	51%	24%	18%

Using the proportion attributed to future growth in ***Table 11***, the cost attributable to future growth is calculated in ***Table 12***. Of the ***$72,159,000*** required by Saratoga Springs for roadway improvements, ***$17,454,000*** is eligible to be paid using impact fees. All project costs in ***Table 12*** include inflation based on the project year. All assumptions, rates and specific project costs are found in ***Appendix D – IFFP Cost Estimates***.

Table 13: Cost Attributable to Growth - Capital Facilities Plan Projects

Project	Location	Total Cost	Saratoga Springs City Total	Proportion Attributable to New Growth	Cost Attributable to Growth
1A	Foothill Blvd (East Frontage Rd): Pony Express to Lariat Blvd	$16,349,000	$6,349,000	37%	$2,380,000
1B	Foothill Blvd: Corridor Preservation	$5,449,000	$2,218,000	37%	$831,000
2	Pony Express Pkwy Extension: Redwood Rd (SR-68) to Jordan River	$21,544,000	$11,544,000	20%	$2,323,000
3	Pony Express Pkwy Extension: Jordan River Bridge	$5,840,000	$395,000	44%	$175,000
4A	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 1	$1,190,000	$547,000	23%	$126,000
4B	Pony Express Pkwy Extension: Jordan River to Saratoga Rd, Phase 2	$6,467,000	$438,000	23%	$101,000
11	Crossroads Blvd: Commerce Dr to East Border, Signal: Crossroads and 400 East/Riverside Dr	$3,083,000	$209,000	15%	$31,000
12	400 East: Crossroads Blvd to North City Border	$1,754,000	$119,000	15%	$17,000
14	Saratoga Rd: Pony Express Pkwy to Pioneer Crossing (SR-145) (Saratoga Springs Portion)	$4,026,000	$4,026,000	13%	$533,000
I16	Roundabout: Talus Ridge Dr ad Mt. Saratoga Blvd	$1,023,000	$1,023,000	16%	$166,000
21	Wild Blossom Blvd: West City Border to Mountain View Corridor	$18,223,000	$7,417,000	26%	$1,959,000
22	Aster Dr: Chianti St to Cory B Wride Memorial Hwy (SR-73)	$12,437,000	$842,000	31%	$262,000
23	Mt. Saratoga Blvd: Cory B Wride Memorial Hwy (SR-73) to Quail Hill Rd	$13,011,000	$3,123,000	30%	$928,000
25	Medical Dr: Foothill Blvd to Pioneer Crossing (SR-145)	$6,168,000	$1,480,000	22%	$332,000
26	Riverside Dr: End of Existing to Pioneer Crossing (SR-145)	$7,358,000	$1,766,000	15%	$261,000
27	Market St: Redwood Rd (SR-68) to Riverside Dr	$1,100,000	$264,000	10%	$26,000
28	Market St: Foothill Blvd to Pioneer Crossing (SR-145)	$7,145,000	$1,715,000	17%	$295,000
I29	Traffic Signal: Crossroads Blvd and 1400 North	$604,000	$604,000	53%	$323,000
30	550 North: 500 East to Saratoga Rd	$7,051,000	$1,692,000	3%	$55,000
32	400 North: Redwood Rd (SR-68) to Riverside Dr	$1,018,000	$244,000	3%	$8,000
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	$634,000	$634,000	53%	$339,000
35	Old Farm Rd: Founders Blvd to Project 39	$6,566,000	$1,576,000	4%	$63,000
38	800 South (Approx.): Foothill Blvd to New Collector (Project 39)	$15,670,000	$6,378,000	8%	$494,000
39	New Collector: Redwood Rd (SR-68) to Hidden Valley Dr (Project 38A)	$5,702,000	$1,368,000	15%	$199,000
40A	Ensign Dr: Foothill Blvd to Light House Dr	$4,638,000	$1,113,000	7%	$83,000
40B	Ensign Dr: Herald Dr to 800 South (approx.)	$1,626,000	$390,000	12%	$48,000
45	Lariat Blvd: End of Existing to Foothill Blvd	$1,041,000	$154,000	20%	$31,000
50	New Collector: Bonneville Dr to Wildlife Blvd	$4,824,000	$1,158,000	32%	$372,000
53	Harvest Hills Blvd: Right-turn lane at Mountain View	$558,000	$558,000	22%	$120,000
13	Foothill Blvd: Cory B Wride Memorial Hwy (SR-73) to Pony Express	$12,364,000	$12,364,000	36%	$4,493,000
I26	Traffic Signal: Foothill Blvd & 400 North	$451,000	$451,000	18%	$80,000
Total:		$194,914,000	$72,159,000		$17,454,000

Table 14 summarizes the cost attributable to new growth for existing capacity projects that were identified by the city for equity buy-in. These projects have started or completed construction since data was collected for the IFFP. Since data is not available to estimate the proportion of cost attributed to new development for each project, the average proportion was calculated for each functional classification from *Table 13*. This average proportion was then used to calculate the cost attributable to growth for each existing capacity project. Of the *$33,191,017* spent by Saratoga Springs on existing capacity improvements, *$7,991,000* is eligible to be paid reimbursed using impact fees.

Table 14: Cost Attributable to Growth - Existing Capacity Projects (Equity Buy-in)

Project	Location	Saratoga Springs City Total	Functional Class	Avg. Proportion Attributable to New Growth by Functional Class	Cost Attributable to Growth
E-1	Talus Ridge Dr: Foothill Blvd to west of Grand Tour Dr.	$521,516	Collector	27%	$142,000
E-2	Saratoga Rd: 145 N to Lazaret Ave Pony Express Pkwy: Saratoga Rd to Northshore Dr	$258,712	Major Arterial	18%	$47,000
E-3	Medical Dr: Regent St to Redwood Rd Exchange Dr: Market St to Medical Drive	$659,790	Collector	27%	$180,000
E-4	Exchange Dr: South boundary of Tractor Supply Co. to north boundary of IHC parcel	$44,783	Collector	27%	$12,000
E-5	Redwood Rd: Medical Dr north to northerly parcel boundary line (~340 ft)	$17,293	Major Arterial	18%	$3,000
E-6	Redwood Rd : 400 S to Pony Express	$163,537	Major Arterial	18%	$30,000
E-7	400 South: Patriot Park to Redwood Rd	$109,718	Collector	27%	$30,000
E-8	Riverside Dr : Pioneer Crossing to Dalmore Meadows	$66,722	Collector	27%	$18,000
E-9	Dandelion Dr: Mountain View to Providence Dr	$30,000	Local*	18%	$5,000
E-10	Aster Dr: Chianti St to Mountain View	$214,800	Collector	27%	$59,000
E-11	Wild Blossom Blvd: west of Mountain View	$3,727,680	Minor Arterial	24%	$897,000
E-12	Chianti St: Aster Dr to Wild Blossom Blvd	$519,100	Collector	27%	$141,000
E-13	Founders Blvd: Old Farm Rd to Redwood Rd	$516,949	Major Arterial	18%	$94,000
E-14	Grandview: Redwood Rd to Hillside Dr	$358,970	Collector	27%	$98,000
E-15	80 East: Commerce Dr to Jordan Ridge	$32,560	Local*	18%	$6,000
E-16	400 East : Jordan View Landing extents	$112,655	Major Arterial	18%	$20,000
E-17	400 South: Redwood Rd to Legacy Farms	$12,106	Collector	27%	$3,000
E-18	400 North : Mason Ct to 800 W	$59,885	Collector	27%	$16,000
E-19	W Commerce Dr: Redwood Rd to Crossroads Blvd	$191,131	Local Collector	18%	$35,000
E-20	Talus Ridge Dr: Approximately Grand Tour Dr to Mt. Saratoga Blvd	$384,750	Collector	27%	$105,000
E-21	Mt. Saratoga Blvd: Pony Express to Woodland Rd	$479,700	Collector	27%	$131,000
E-22	Commerce Dr: City Hall Access Road	$34,950	Local Collector	18%	$6,000
E-23	Saratoga Road Widening: 6800 North	$841,217	Collector	27%	$229,000
E-24	6800 N Widening: Bridge to 7350 N	$545,812	Collector	27%	$149,000
E-25	400 North Canal Bridge	$286,225	Collector	27%	$78,000
E-26	Pony Express Pkwy: Redwood Rd to 200 W	$1,723,323	Major Arterial	18%	$312,000
E-27	Pony Express Pkwy: 200 W to Eagle Mountain	$4,479,663	Major Arterial	18%	$812,000
E-28	800 West Extension: Pony Express to 400 N	$3,228,371	Collector	27%	$879,000
E-29	Redwood Widening Betterments: Hillcrest, Sergeant, Checker, Dalmore	$256,760	Major Arterial	18%	$47,000
E-30	400 North: 540 W to Redwood Rd	$1,065,998	Collector	27%	$290,000
E-31	Pioneer Crossing Betterments: SR-73 to Redwood Rd	$1,297,000	Major Arterial	18%	$235,000
E-32	Pony Express & 800 West: Intersection Widening	$188,549	Major Arterial	18%	$34,000
E-33	Pony Express & 800 West: New Signal	$300,000	Major Arterial	18%	$54,000
E-34	Market Street: Pioneer to Redwood and Riverside Drive: 400 S to Pioneer Crossing	$6,847,753	Collector	27%	$1,865,000
E-35	400 West Connection: Crossroads Blvd to Aspen Hills	$1,132,963	Collector	27%	$309,000
E-36	Pony Express 5 Lane Widening: Redwood to Eagle Mountain	$232,500	Major Arterial	18%	$42,000
E-37	Redwood Widening Betterments: 400 S to Village Pkwy	$967,582	Major Arterial	18%	$175,000
E-38	Foothill Blvd Widening: Fairfield Rd to Talus Ridge	$278,165	Collector	27%	$76,000
E-39	Saratoga Road Widening	$99,704	Collector	27%	$27,000
E-40	Dalmore Meadows Sidewalk	$53,000	Local*	18%	$10,000
E-41	2015 Transportation Master Plan	$32,924	NA	100%	$33,000
E-42	2015 Transportation CFP, IFFP, IFA	$15,000	NA	100%	$15,000
E-43	Foothill Blvd Conceptual Design and Cost Est	$64,901	Collector	27%	$18,000
E-44	2018 Transportation Master Plan	$16,450	NA	100%	$16,000
E-45	2018 Transportation IFFP Update	$16,450	NA	100%	$16,000
E-46	Foothill Extension Design: Pony Express to Lariat	$703,401	Collector	27%	$192,000
	Total:	**$33,191,017**			**$7,991,000**

* Local roads assume average proportion attributable to new growth for local collectors for upsized side treatments

Table 15 summarizes the total project cost from the Capital Facilities Plan Projects and existing capacity projects the are eligible for equity buy-in. Overall, *$25,445,000* is eligible for impact fees.

Table 15: Total Cost Attributable to Growth

Capital Facilities Plan Projects	$17,454,000
Existing Capacity Projects (Equity Buy-in)	$7,991,000
Total	**$25,445,000**

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 MAG. The City will need to continue to partner and work with these other jurisdictions to ensure the 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 Saratoga Springs 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 12 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.

MAG accepts applications for federal funds through local and regional government jurisdictions. The MAG Technical Advisory and Regional Planning committees 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
- Air Quality Improvements – projects showing demonstrable air quality benefits
- 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 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. As many of the roads in Saratoga Springs fall under UDOT jurisdiction, it is in the interests of the City that staff is aware of the procedures used by UDOT to allocate those funds and to be active in requesting the funds be made available for UDOT owned roadways in the City.

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 monies. In order to qualify for preservation funds, the City must comply with the Corridor Preservation Process found online at www.udot.utah.gov/public/ucon. Currently, Saratoga Springs 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 the creation of special improvement districts. 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. The City of Saratoga Springs currently uses Class C funding for their transportation improvements. 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 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 for road System Facilities 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 costs that address future needs are included in this IFFP. This ensures a fair fee since developers will not be expected to address present deficiencies.

APPENDIX A – ITE TRIP GENERATION

ITE Code	Use	Units	PM Trips per Unit
130	Industrial Park	1,000 SF GFA	0.4
140	Manufacturing	1,000 SF GFA	0.67
151	Mini-Warehouse	1,000 SF GFA	0.17
252	Senior Adult Housing - Attached	Dwelling Units	0.26
210	Single-Family Detached Housing	Dwelling Units	0.99
220	Multifamily Housing (Low-Rise)	Dwelling Units	0.56
231	Mid-Rise Residential with 1st-Floor Commercial	Dwelling Units	0.36
240	Mobile Home Park	Dwelling Units	0.46
254	Assisted Living	1,000 SF GFA	0.48
310	Hotel	Rooms	0.6
444	Movie Theater	1,000 SF GFA	6.17
445	Multiplex Movie Theater	1,000 SF GFA	4.91
492	Health/Fitness Club	1,000 SF GFA	3.45
520	Elementary School	1,000 SF GFA	1.37
522	Middle School / Junior High School	1,000 SF GFA	1.19
530	High School	1,000 SF GFA	0.97
534	Private School (K-8)	Students	0.26
560	Church	1,000 SF GFA	0.49
565	Daycare Center	1,000 SF GFA	11.12
590	Library	1,000 SF GFA	8.16
610	Hospital	1,000 SF GFA	0.97
710	General Office Building	1,000 SF GFA	1.15
720	Medical-Dental Office Building	1,000 SF GFA	3.46
770	Business Park	1,000 SF GFA	0.42
812	Building Materials and Lumber Store	1,000 SF GFA	2.06
817	Nursery (Garden Center)	1,000 SF GFA	6.94
820	Shopping Center	1,000 SF GFA	3.81
841	Automobile Sales (Used)	1,000 SF GFA	3.75
848	Tire Store	1,000 SF GFA	3.98
850	Supermarket	1,000 SF GFA	9.24
851	Convenience Market (Open 24 Hours)	1,000 SF GFA	49.11
912	Drive-In Bank	1,000 SF GFA	20.45
918	Hair Salon	1,000 SF GFA	1.45
932	High-Turnover (Sit-Down) Restaurant	1,000 SF GFA	9.77
934	Fast Food Restaurant with Drive-Through Window	1,000 SF GFA	32.67
942	Automobile Care Center	1,000 SF GFA	3.11
944	Gasoline / Service Station	1,000 SF GFA	109.27
945	Gasoline / Service Station with Convenience Market	1,000 SF GFA	88.35
947	Self Service Car Wash	Wash Stalls	5.54
948	Automated Car Wash	1,000 SF GFA	14.2

APPENDIX B – TAZ SOCIOECONOMIC DATA

Existing Saratoga

;TAZID	CO_TAZID	TOTHH	HHPOP	HHSIZE	TOTEMP	RETEMP	INDEMP	OTHEMP	ALLEMP	RETL	FOOD	MANU	WSLE	OFFI	GVED	HLTH	OTHR	FM_AGRI	FM_MING	FM_CONS	HBJ	AVGINCOME	Enrol_Elem	Enrol_Midl	Enrol_High	CO_FIPS	CO_NAME
1921	491921	155	464	2.99	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	12	13	63602	0	0	0	49	-1
1922	491922	196	631	3.22	0	0	0	0	132	0	0	0	0	0	0	0	0	0	0	115	17	63602	0	0	0	49	-1
1923	491923	367	1200	3.27	0	0	0	0	350	0	0	0	0	0	0	0	0	0	0	318	32	63602	0	0	0	49	-1
1924	491924	197	697	3.54	24	5	3	16	62	1	4	3	0	1	4	4	7	0	0	21	17	63602	0	0	0	49	-1
1925	491925	196	648	3.30	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	52	17	63602	0	0	0	49	-1
1926	491926	191	589	3.08	6	0	0	6	300	0	0	0	0	0	0	2	4	0	0	277	17	63602	0	0	0	49	-1
1927	491927	489	1603	3.28	0	0	0	0	224	0	0	0	0	0	0	0	0	0	0	177	47	63602	0	0	0	49	-1
1928	491928	173.4	555	3.20	23	3	0	20	34	1	3	0	0	0	5	1	14	0	0	0	11	0	0	0	0	0	-1
1929	491929	33.4	110	3.30	0	0	0	0	91	0	0	0	0	0	0	0	0	0	0	88	3	0	0	0	0	0	-1
1930	491930	376	1211	3.22	17	0	0	17	40	0	0	0	0	1	5	11	0	0	0	0	23	0	0	0	0	0	-1
1931	491931	510	1585	3.11	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	44	46	63602	0	0	0	49	-1
1932	491932	347	1112	3.20	154	3	3	148	183	1	2	1	1	9	20	112	8	0	0	0	29	0	0	0	0	0	-1
1933	491933	39.8	105	2.65	786	237	19	530	880	199	38	15	4	14	151	305	61	0	0	86	8	0	0	0	0	0	-1
1934	491934	483	1758	3.64	11	0	0	11	75	0	0	0	0	0	0	11	0	0	0	22	42	74557	0	0	0	49	-1
1935	491935	339	1071	3.16	0	0	0	0	121	0	0	0	0	0	0	0	0	0	0	92	29	74557	0	0	0	49	-1
1936	491936	88	277	3.15	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	10	8	74557	0	0	0	49	-1
1937	491937	42	83	1.98	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	-1
1938	491938	447	1678	3.75	19	3	0	16	58	0	3	0	0	5	3	2	6	0	0	0	39	74557	0	0	0	49	-1
1939	491939	47.8	151	3.16	1	0	0	1	6	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	0	-1
1940	491940	119	395	3.32	27	1	0	26	92	0	1	0	0	0	18	6	1	0	0	56	8	0	0	0	0	0	-1
1941	491941	194.2	665	3.43	0	0	0	0	47	0	0	0	0	0	0	0	0	0	0	35	12	0	0	0	0	0	-1
1942	491942	466	1491	3.20	4	4	0	0	204	0	4	0	0	0	0	0	0	0	44	116	40	80453	0	0	0	49	-1
1943	491943	573	1956	3.41	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	92	33	0	0	0	0	0	-1
1945	491945	256	906	3.54	0	0	0	0	487	0	0	0	0	0	0	0	0	4	0	461	22	80453	0	0	0	49	-1
1947	491947	306	1009	3.30	0	0	0	0	96	0	0	0	0	0	0	0	0	3	0	67	26	61091	0	0	0	49	-1
1950	491950	499	1622	3.25	180	76	3	101	342	15	61	2	1	2	25	26	48	4	0	115	43	61091	0	0	0	49	-1
1954	491954	180	756	4.20	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	16	80453	0	0	0	49	-1
1955	491955	373	1320	3.54	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	32	80453	0	0	0	49	-1
1956	491956	304	1086	3.57	0	0	0	0	116	0	0	0	0	0	0	0	0	5	0	85	26	80453	0	0	0	49	-1
1957	491957	217	727	3.35	0	0	0	0	138	0	0	0	0	0	0	0	0	4	0	115	19	80453	0	0	0	49	-1
1958	491958	600	1898	3.16	0	0	0	0	285	0	0	0	0	0	0	0	0	2	0	231	52	61091	0	0	0	49	-1
1959	491959	293	978	3.34	0	0	0	0	176	0	0	0	0	0	0	0	0	4	0	147	25	61091	0	0	0	49	-1
1960	491960	438	1361	3.11	408	7	4	397	452	5	2	0	4	63	13	141	180	4	0	0	40	61091	0	0	0	49	-1
1961	491961	686	2077	3.03	27	7	1	19	206	1	6	1	0	0	2	0	17	3	0	115	61	61091	0	0	0	49	-1
1962	491962	429	1481	3.45	0	0	0	0	130	0	0	0	0	0	0	0	0	0	0	93	37	77792	0	858	1287	49	-1
1963	491963	873	2815	3.23	373	83	30	260	566	74	9	28	2	70	46	64	80	3	0	115	75	77792	0	0	0	49	-1
1964	491964	0	0	0.00	628	87	22	519	632	59	28	15	7	53	49	22	395	4	0	0	0	61091	0	0	0	49	-1
1965	491965	349	1205	3.45	1664	152	158	1354	1822	74	78	141	17	348	469	119	418	4	0	120	34	61091	0	0	0	49	-1
1966	491966	174	549	3.15	1265	96	74	1095	1399	58	38	66	8	335	253	203	304	4	0	115	15	61091	0	0	0	49	-1
1967	491967	0	0	0.00	716	14	0	702	720	3	11	0	0	405	44	198	55	4	0	0	0	61091	0	0	0	49	-1
1968	491968	25	67	2.66	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	61091	0	0	0	49	-1
1969	491969	8	26	3.28	510	38	1	471	628	2	36	0	1	139	169	81	82	2	0	115	1	61091	0	0	2468	49	-1
1970	491970	227	738	3.25	365	3	0	362	438	1	2	0	0	1	304	0	57	1	0	52	20	61091	1884	1996	0	49	-1
1971	491971	143	516	3.61	661	71	9	581	675	53	18	9	0	212	56	126	187	2	0	0	12	61091	0	0	0	49	-1
1972	491972	173	581	3.36	283	73	22	188	417	57	16	21	1	5	57	83	43	4	0	115	15	61091	58	22	22	49	-1
1973	491973	246	814	3.31	885	248	79	558	911	169	79	78	1	111	126	125	196	5	0	0	21	61091	0	0	0	49	-1
1974	491974	431	1469	3.41	0	0	0	0	111	0	0	0	0	0	0	0	0	2	0	72	37	72248	0	0	0	49	-1
1975	491975	254.9	856	3.36	0	0	0	0	177	0	0	0	0	0	0	0	0	0	0	157	21	0	0	0	0	0	-1
1978	491978	312	1171	3.75	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	75273	0	0	0	49	-1
1979	491979	263	911	3.46	30	0	1	29	241	0	0	0	1	0	27	0	2	0	0	188	23	75273	0	0	0	49	-1
1980	491980	1	2	1.75	296	196	5	95	297	160	36	4	1	1	33	36	25	1	0	0	0	75273	0	0	0	49	-1

Existing Saratoga

;TAZID	CO_TAZID	TOTHH	HHPOP	HHSIZE	TOTEMP	RETEMP	INDEMP	OTHEMP	ALLEMP	RETL	FOOD	MANU	WSLE	OFFI	GVED	HLTH	OTHR	FM_AGRI	FM_MING	FM_CONS	HBJ	AVGINCOME	Enrol_Elem	Enrol_Midl	Enrol_High	CO_FIPS	CO_NAME
1981	491981	157.2	555	3.53	147	9	11	128	215	5	4	6	4	32	7	70	19	0	0	57	11	0	0	0	0	0	-1
1983	491983	328	1083	3.30	43	12	1	30	84	0	12	1	0	11	3	5	11	1	0	12	28	61091	0	0	0	49	-1
1984	491984	839	2366	2.82	1579	450	37	1092	1782	292	158	1	36	96	261	223	512	0	0	131	72	61091	0	0	0	49	-1
1985	491985	0	0	0.00	235	2	1	232	238	0	2	1	0	145	10	72	5	3	0	0	0	61091	0	0	0	49	-1
1986	491986	198	646	3.26	787	23	3	761	822	16	7	3	0	35	82	567	77	6	0	12	17	61091	0	0	0	49	-1
1987	491987	159	483	3.04	985	605	4	376	1003	572	33	3	1	24	66	163	123	4	0	0	14	61091	0	0	0	49	-1
1988	491988	0	0	0.00	1426	280	76	1070	1429	272	8	37	39	289	167	345	269	3	0	0	0	86568	0	0	0	49	-1
1991	491991	509	1650	3.24	627	78	5	544	1083	0	78	4	1	201	177	125	41	8	22	378	48	69414	0	0	0	49	-1
1992	491992	77.8	249	3.20	711	278	19	414	717	227	52	15	4	62	63	118	171	1	0	1	4	0	0	0	0	0	-1
1993	491993	21	69	3.29	567	42	5	520	571	38	4	2	3	47	40	297	136	2	0	0	2	72877	0	0	0	49	-1
1994	491994	1	4	3.50	913	621	0	292	918	577	44	0	0	2	45	57	188	0	0	5	0	72877	0	0	0	49	-1
1995	491995	197	648	3.29	259	10	0	249	291	10	0	0	0	5	90	39	115	0	0	15	17	72877	0	0	0	49	-1
1996	491996	935	3131	3.35	72	14	0	58	164	14	0	0	0	4	2	5	47	0	0	11	81	72877	811	0	0	49	-1
1997	491997	298.3	888	2.98	131	54	5	73	156	47	6	3	2	11	26	3	32	0	0	0	25	0	0	0	0	0	-1
1998	491998	76.9	267	3.47	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	22	5	0	0	0	0	0	-1
1999	491999	101	348	3.45	28	10	0	18	75	7	3	0	0	6	5	3	4	0	0	38	9	60773	0	0	0	49	-1
2000	492000	22	75	3.42	39	13	7	19	80	5	8	4	3	1	4	3	11	3	0	36	2	60773	0	0	0	49	-1
2001	492001	113	387	3.42	466	30	1	435	607	0	30	0	1	93	84	60	198	1	0	130	10	60773	0	0	0	49	-1
2002	492002	452	1243	2.75	873	272	6	595	912	127	145	3	3	54	42	147	352	0	0	0	39	72877	0	0	0	49	-1
2005	492005	420	1308	3.11	935	86	11	838	1142	73	13	3	8	327	151	13	347	2	0	164	41	72877	0	0	0	49	-1
2013	492013	0	0	0.00	0	0	0	0	245	0	0	0	0	0	0	0	0	0	0	245	0	0	0	0	0	0	-1
2021	492021	0.5	1	1.80	422	58	9	355	423	10	47	3	7	82	63	150	60	1	0	0	0	0	0	0	0	0	-1
2022	492022	0	0	0.00	86	40	20	26	86	39	1	2	18	4	7	2	14	0	0	0	0	0	0	0	0	0	-1
2901	492901	0	0	0.00	20	0	4	15	125	0	0	4	0	1	4	10	0	0	23	83	0	0	0	0	0	49	-1
2902	492902	43.4	139	3.20	13	2	0	11	16	0	1	0	0	0	3	0	8	0	0	0	3	0	0	0	0	49	-1
2903	492903	0	0	0.00	77	1	1	74	77	0	1	1	1	4	10	56	4	0	0	0	0	0	0	0	0	49	-1
2904	492904	1.2	3	2.75	355	107	9	239	394	90	17	7	2	6	68	138	27	0	0	39	0	0	0	0	0	49	-1
2905	492905	44.9	142	3.15	95	0	0	95	100	0	0	0	0	0	0	0	95	0	0	0	5	0	0	0	0	49	-1
2906	492906	0	0	0.00	16	1	0	15	48	0	1	0	0	0	10	4	1	0	0	32	0	0	0	0	0	49	-1
2907	492907	48.6	166	3.42	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	29	3	0	0	0	0	49	-1
2908	492908	0	0	0.00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	49	-1
2909	492909	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	-1
2910	492910	133.6	440	3.30	0	0	0	0	82	0	0	0	0	0	0	0	0	0	0	70	12	0	0	0	0	49	-1
2911	492911	352	1122	3.19	0	0	0	0	325	0	0	0	0	0	0	0	0	0	0	293	33	0	0	0	0	49	-1
2912	492912	352	1122	3.19	0	0	0	0	251	0	0	0	0	0	0	0	0	0	0	219	33	0	0	0	0	49	-1
2913	492913	0	0	0.00	66	30	16	20	66	30	0	2	14	3	5	1	11	0	0	0	0	0	0	0	0	49	-1
2914	492914	0.1	0	1.00	266	36	6	224	267	7	30	2	4	52	40	94	38	1	0	0	0	0	0	0	0	49	-1
2917	492917	66.1	229	3.47	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	49	-1
2918	492918	138.8	490	3.53	130	8	9	113	190	4	3	6	4	29	6	62	16	0	0	51	10	0	0	0	0	49	-1
2919	492919	165	554	3.36	0	0	0	0	115	0	0	0	0	0	0	0	0	0	0	101	14	0	0	0	0	49	-1
2921	492921	73.2	234	3.20	670	262	18	390	675	213	49	14	4	59	59	111	161	1	0	1	4	0	0	0	0	49	-1
2922	492922	92.7	276	2.98	41	17	1	23	49	15	2	1	1	4	8	1	10	0	0	0	8	0	0	0	0	49	-1

2030 Saratoga

;TAZID	CO_TAZID	TOTHH	HHPOP	HHSIZE	TOTEMP	RETEMP	INDEMP	OTHEMP	ALLEMP	RETL	FOOD	MANU	WSLE	OFFI	GVED	HLTH	OTHR	FM_AGRI	FM_MING	FM_CONS	HBJ	AVGINCOME	Enrol_Elem	Enrol_Midl	Enrol_High	CO_FIPS	CO_NAME
1921	491921	155	464	2.99	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	12	13	63602	0	0	0	49	-1
1922	491922	196	631	3.22	0	0	0	0	132	0	0	0	0	0	0	0	0	0	0	115	17	63602	0	0	0	49	-1
1923	491923	367	1200	3.27	0	0	0	0	350	0	0	0	0	0	0	0	0	0	0	318	32	63602	0	0	0	49	-1
1924	491924	197	697	3.54	24	5	3	16	62	1	4	3	0	1	4	4	7	0	0	21	17	63602	0	0	0	49	-1
1925	491925	196	648	3.30	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	52	17	63602	0	0	0	49	-1
1926	491926	191	589	3.08	6	0	0	6	300	0	0	0	0	0	0	2	4	0	0	277	17	63602	0	0	0	49	-1
1927	491927	489	1603	3.28	0	0	0	0	224	0	0	0	0	0	0	0	0	0	0	177	47	63602	0	0	0	49	-1
1928	491928	173.4	555	3.20	23	3	0	20	34	1	3	0	0	0	5	1	14	0	0	0	11	0	0	0	0	0	-1
1929	491929	33.4	110	3.30	0	0	0	0	91	0	0	0	0	0	0	0	0	0	0	88	3	0	0	0	0	0	-1
1930	491930	376	1211	3.22	17	0	0	17	40	0	0	0	0	1	5	11	0	0	0	0	23	0	0	0	0	0	-1
1931	491931	510	1585	3.11	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	44	46	63602	0	0	0	49	-1
1932	491932	347	1112	3.20	154	3	3	148	183	1	2	1	1	9	20	112	8	0	0	0	29	0	0	0	0	0	-1
1933	491933	39.8	105	2.65	786	237	19	530	880	199	38	15	4	14	151	305	61	0	0	86	8	0	0	0	0	0	-1
1934	491934	483	1758	3.64	11	0	0	11	75	0	0	0	0	0	0	11	0	0	0	22	42	74557	0	0	0	49	-1
1935	491935	339	1071	3.16	0	0	0	0	121	0	0	0	0	0	0	0	0	0	0	92	29	74557	0	0	0	49	-1
1936	491936	88	277	3.15	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	10	8	74557	0	0	0	49	-1
1937	491937	42	83	1.98	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	-1
1938	491938	447	1678	3.75	19	3	0	16	58	0	3	0	0	5	3	2	6	0	0	0	39	74557	0	0	0	49	-1
1939	491939	47.8	151	3.16	1	0	0	1	6	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	0	-1
1940	491940	119	395	3.32	27	1	0	26	92	0	1	0	0	0	18	6	1	0	0	56	8	0	0	0	0	0	-1
1941	491941	194.2	665	3.43	0	0	0	0	47	0	0	0	0	0	0	0	0	0	0	35	12	0	0	0	0	0	-1
1942	491942	466	1491	3.20	4	4	0	0	204	0	4	0	0	0	0	0	0	0	44	116	40	80453	0	0	0	49	-1
1943	491943	573	1956	3.41	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	92	33	0	0	0	0	0	-1
1945	491945	256	906	3.54	0	0	0	0	487	0	0	0	0	0	0	0	0	4	0	461	22	80453	0	0	0	49	-1
1947	491947	306	1009	3.30	0	0	0	0	96	0	0	0	0	0	0	0	0	3	0	67	26	61091	0	0	0	49	-1
1950	491950	499	1622	3.25	180	76	3	101	342	15	61	2	1	2	25	26	48	4	0	115	43	61091	0	0	0	49	-1
1954	491954	180	756	4.20	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	16	80453	0	0	0	49	-1
1955	491955	373	1320	3.54	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	32	80453	0	0	0	49	-1
1956	491956	304	1086	3.57	0	0	0	0	116	0	0	0	0	0	0	0	0	5	0	85	26	80453	0	0	0	49	-1
1957	491957	217	727	3.35	0	0	0	0	138	0	0	0	0	0	0	0	0	4	0	115	19	80453	0	0	0	49	-1
1958	491958	600	1898	3.16	0	0	0	0	285	0	0	0	0	0	0	0	0	2	0	231	52	61091	0	0	0	49	-1
1959	491959	293	978	3.34	0	0	0	0	176	0	0	0	0	0	0	0	0	4	0	147	25	61091	0	0	0	49	-1
1960	491960	438	1361	3.11	408	7	4	397	452	5	2	0	4	63	13	141	180	4	0	0	40	61091	0	0	0	49	-1
1961	491961	686	2077	3.03	27	7	1	19	206	1	6	1	0	0	2	0	17	3	0	115	61	61091	0	0	0	49	-1
1962	491962	429	1481	3.45	0	0	0	0	130	0	0	0	0	0	0	0	0	0	0	93	37	77792	0	858	1287	49	-1
1963	491963	873	2815	3.23	373	83	30	260	566	74	9	28	2	70	46	64	80	3	0	115	75	77792	0	0	0	49	-1
1964	491964	0	0	0.00	628	87	22	519	632	59	28	15	7	53	49	22	395	4	0	0	0	61091	0	0	0	49	-1
1965	491965	349	1205	3.45	1664	152	158	1354	1822	74	78	141	17	348	469	119	418	4	0	120	34	61091	0	0	0	49	-1
1966	491966	174	549	3.15	1265	96	74	1095	1399	58	38	66	8	335	253	203	304	4	0	115	15	61091	0	0	0	49	-1
1967	491967	0	0	0.00	716	14	0	702	720	3	11	0	0	405	44	198	55	4	0	0	0	61091	0	0	0	49	-1
1968	491968	25	67	2.66	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	61091	0	0	0	49	-1
1969	491969	8	26	3.28	510	38	1	471	628	2	36	0	1	139	169	81	82	2	0	115	1	61091	0	0	2468	49	-1
1970	491970	227	738	3.25	365	3	0	362	438	1	2	0	0	1	304	0	57	1	0	52	20	61091	1884	1996	0	49	-1
1971	491971	143	516	3.61	661	71	9	581	675	53	18	9	0	212	56	126	187	2	0	0	12	61091	0	0	0	49	-1
1972	491972	173	581	3.36	283	73	22	188	417	57	16	21	1	5	57	83	43	4	0	115	15	61091	58	22	22	49	-1
1973	491973	246	814	3.31	885	248	79	558	911	169	79	78	1	111	126	125	196	5	0	0	21	61091	0	0	0	49	-1
1974	491974	431	1469	3.41	0	0	0	0	111	0	0	0	0	0	0	0	0	2	0	72	37	72248	0	0	0	49	-1
1975	491975	254.9	856	3.36	0	0	0	0	177	0	0	0	0	0	0	0	0	0	0	157	21	0	0	0	0	0	-1
1978	491978	312	1171	3.75	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27	75273	0	0	0	49	-1
1979	491979	263	911	3.46	30	0	1	29	241	0	0	0	1	0	27	0	2	0	0	188	23	75273	0	0	0	49	-1
1980	491980	1	2	1.75	296	196	5	95	297	160	36	4	1	1	33	36	25	1	0	0	0	75273	0	0	0	49	-1

2030 Saratoga

;TAZID	CO_TAZID	TOTHH	HHPOP	HHSIZE	TOTEMP	RETEMP	INDEMP	OTHEMP	ALLEMP	RETL	FOOD	MANU	WSLE	OFFI	GVED	HLTH	OTHR	FM_AGRI	FM_MING	FM_CONS	HBJ	AVGINCOME	Enrol_Elem	Enrol_Midl	Enrol_High	CO_FIPS	CO_NAME
1981	491981	157.2	555	3.53	147	9	11	128	215	5	4	6	4	32	7	70	19	0	0	57	11	0	0	0	0	0	-1
1983	491983	328	1083	3.30	43	12	1	30	84	0	12	1	0	11	3	5	11	1	0	12	28	61091	0	0	0	49	-1
1984	491984	839	2366	2.82	1579	450	37	1092	1782	292	158	1	36	96	261	223	512	0	0	131	72	61091	0	0	0	49	-1
1985	491985	0	0	0.00	235	2	1	232	238	0	2	1	0	145	10	72	5	3	0	0	0	61091	0	0	0	49	-1
1986	491986	198	646	3.26	787	23	3	761	822	16	7	3	0	35	82	567	77	6	0	12	17	61091	0	0	0	49	-1
1987	491987	159	483	3.04	985	605	4	376	1003	572	33	3	1	24	66	163	123	4	0	0	14	61091	0	0	0	49	-1
1988	491988	0	0	0.00	1426	280	76	1070	1429	272	8	37	39	289	167	345	269	3	0	0	0	86568	0	0	0	49	-1
1991	491991	509	1650	3.24	627	78	5	544	1083	0	78	4	1	201	177	125	41	8	22	378	48	69414	0	0	0	49	-1
1992	491992	77.8	249	3.20	711	278	19	414	717	227	52	15	4	62	63	118	171	1	0	1	4	0	0	0	0	0	-1
1993	491993	21	69	3.29	567	42	5	520	571	38	4	2	3	47	40	297	136	2	0	0	2	72877	0	0	0	49	-1
1994	491994	1	4	3.50	913	621	0	292	918	577	44	0	0	2	45	57	188	0	0	5	0	72877	0	0	0	49	-1
1995	491995	197	648	3.29	259	10	0	249	291	10	0	0	0	5	90	39	115	0	0	15	17	72877	0	0	0	49	-1
1996	491996	935	3131	3.35	72	14	0	58	164	14	0	0	0	4	2	5	47	0	0	11	81	72877	811	0	0	49	-1
1997	491997	298.3	888	2.98	131	54	5	73	156	47	6	3	2	11	26	3	32	0	0	0	25	0	0	0	0	0	-1
1998	491998	76.9	267	3.47	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	22	5	0	0	0	0	0	-1
1999	491999	101	348	3.45	28	10	0	18	75	7	3	0	0	6	5	3	4	0	0	38	9	60773	0	0	0	49	-1
2000	492000	22	75	3.42	39	13	7	19	80	5	8	4	3	1	4	3	11	3	0	36	2	60773	0	0	0	49	-1
2001	492001	113	387	3.42	466	30	1	435	607	0	30	0	1	93	84	60	198	1	0	130	10	60773	0	0	0	49	-1
2002	492002	452	1243	2.75	873	272	6	595	912	127	145	3	3	54	42	147	352	0	0	0	39	72877	0	0	0	49	-1
2005	492005	420	1308	3.11	935	86	11	838	1142	73	13	3	8	327	151	13	347	2	0	164	41	72877	0	0	0	49	-1
2013	492013	0	0	0.00	0	0	0	0	245	0	0	0	0	0	0	0	0	0	0	245	0	0	0	0	0	0	-1
2021	492021	0.5	1	1.80	422	58	9	355	423	10	47	3	7	82	63	150	60	1	0	0	0	0	0	0	0	0	-1
2022	492022	0	0	0.00	86	40	20	26	86	39	1	2	18	4	7	2	14	0	0	0	0	0	0	0	0	0	-1
2901	492901	0	0	0.00	20	0	4	15	125	0	0	4	0	1	4	10	0	0	23	83	0	0	0	0	0	49	-1
2902	492902	43.4	139	3.20	13	2	0	11	16	0	1	0	0	0	3	0	8	0	0	0	3	0	0	0	0	49	-1
2903	492903	0	0	0.00	77	1	1	74	77	0	1	1	1	4	10	56	4	0	0	0	0	0	0	0	0	49	-1
2904	492904	1.2	3	2.75	355	107	9	239	394	90	17	7	2	6	68	138	27	0	0	39	0	0	0	0	0	49	-1
2905	492905	44.9	142	3.15	95	0	0	95	100	0	0	0	0	0	0	0	95	0	0	0	5	0	0	0	0	49	-1
2906	492906	0	0	0.00	16	1	0	15	48	0	1	0	0	0	10	4	1	0	0	32	0	0	0	0	0	49	-1
2907	492907	48.6	166	3.42	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	29	3	0	0	0	0	49	-1
2908	492908	0	0	0.00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	49	-1
2909	492909	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	-1
2910	492910	133.6	440	3.30	0	0	0	0	82	0	0	0	0	0	0	0	0	0	0	70	12	0	0	0	0	49	-1
2911	492911	352	1122	3.19	0	0	0	0	325	0	0	0	0	0	0	0	0	0	0	293	33	0	0	0	0	49	-1
2912	492912	352	1122	3.19	0	0	0	0	251	0	0	0	0	0	0	0	0	0	0	219	33	0	0	0	0	49	-1
2913	492913	0	0	0.00	66	30	16	20	66	30	0	2	14	3	5	1	11	0	0	0	0	0	0	0	0	49	-1
2914	492914	0.1	0	1.00	266	36	6	224	267	7	30	2	4	52	40	94	38	1	0	0	0	0	0	0	0	49	-1
2917	492917	66.1	229	3.47	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	49	-1
2918	492918	138.8	490	3.53	130	8	9	113	190	4	3	6	4	29	6	62	16	0	0	51	10	0	0	0	0	49	-1
2919	492919	165	554	3.36	0	0	0	0	115	0	0	0	0	0	0	0	0	0	0	101	14	0	0	0	0	49	-1
2921	492921	73.2	234	3.20	670	262	18	390	675	213	49	14	4	59	59	111	161	1	0	1	4	0	0	0	0	49	-1
2922	492922	92.7	276	2.98	41	17	1	23	49	15	2	1	1	4	8	1	10	0	0	0	8	0	0	0	0	49	-1

APPENDIX C –
10 YEAR CAPITAL FACILITIES PLAN
COST SUMMARY

Saratoga Springs 10 Year Capital Facilities Plan (2020 - 2030)								
Project	Location	Completion Year	Inflation Factor	Total Cost (Project Year)	Funding Source	Saratoga Springs %	Funded by Others	Saratoga Springs Total
1A	Foothill Boulevard (East Frontage Road): Pony Express to Lariat Boulevard	2024	1.282	$16,349,000	Saratoga/MAG	39%	$10,000,000	$6,349,000
1B	Foothill Boulevard: Cooridor Preservation	2024	1.282	$5,449,000	Saratoga	41%	$3,231,000	$2,218,000
2	Pony Express Extension: Redwood Road (SR-68) to Jordan River	2028	1.559	$21,544,000	Saratoga/MAG	54%	$10,000,000	$11,544,000
3	Pony Express Extension: Jordan River Bridge	2023	1.221	$5,840,000	Saratoga/MAG	7%	$5,445,000	$395,000
4A	Pony Express Extension: Jordan River to Saratoga Road, Phase 1	2024	1.282	$1,190,000	Saratoga/MAG	46%	$643,000	$547,000
4B	Pony Express Extension: Jordan River to Saratoga Road, Phase 2	2028	1.559	$6,467,000	Saratoga/MAG	7%	$6,029,000	$438,000
11	Crossroads Blvd: Commerce Drive to Eastern Border	2020	1.055	$3,083,000	Saratoga/MAG	7%	$2,874,000	$209,000
12	400 East: Crossroads Blvd to northern City Boundary	2023	1.221	$1,754,000	Saratoga/MAG	7%	$1,635,000	$119,000
14	Saratoga Road: Pony Express to Pioneer Crossing (SR-175) (Saratoga Springs Portion)	2029	1.637	$4,026,000	Saratoga	100%	$0	$4,026,000
I16	Talus Ridge Drive ad Mt. Saratoga Blvd	2023	1.221	$1,023,000	Saratoga	100%	$0	$1,023,000
21	Wild HIlls Blvd: Western City Boundary to MVC	2029	1.637	$18,223,000	Saratoga	41%	$10,806,000	$7,417,000
22	Mount Saratoga Boulevard	2030	1.718	$12,437,000	Saratoga/MAG	7%	$11,595,000	$842,000
23	Mt. Saratoga Blvd: Cedar Fork Road (SR-73) to Quail Hill Rd	2023	1.221	$13,011,000	Saratoga	24%	$9,888,000	$3,123,000
25	Medical Drive: Foothill Boulevard to Pioneer Crossing	2028	1.559	$6,168,000	Saratoga	24%	$4,688,000	$1,480,000
26	Riverside Dr: End of Exisitng to Pioneer Crossing	2022	1.163	$7,358,000	Saratoga	24%	$5,592,000	$1,766,000
27	Market Street: Redwood Road (SR-68) to Riverside Drive	2024	1.282	$1,100,000	Saratoga	24%	$836,000	$264,000
28	Market Street: Foothill Blvd to Pioneer Crossing	2026	1.414	$7,145,000	Saratoga	24%	$5,430,000	$1,715,000
I29	Crossroads Blvd and 1400 North	2029	1.637	$604,000	Saratoga	100%	$-0	$604,000
30	550 North: 500 East to Saratoga Road	2029	1.637	$7,051,000	Saratoga	24%	$5,359,000	$1,692,000
32	400 North: Redwood Road (SR-68) to Riverside Drive	2021	1.108	$1,018,000	Saratoga	24%	$774,000	$244,000
I24	Traffic Signal: Wild Blossom Blvd and Chianti St	2030	1.718	$634,000	Saratoga	100%	$0	$634,000
35	200 West: Pony Express to Founders Boulevard	2029	1.637	$6,566,000	Saratoga	24%	$4,990,000	$1,576,000
38	Hidden Valley Drive: Foothill Blvd to New Collector (Project 39)	2029	1.637	$15,670,000	Saratoga	41%	$9,292,000	$6,378,000
39	New Collector: Redwood Road to Hidden Valley Dr (Project 38)	2029	1.637	$5,702,000	Saratoga	24%	$4,334,000	$1,368,000
40A	Ensign Drive: Foothill Blvd to Light House Drive	2021	1.108	$4,638,000	Saratoga	24%	$3,525,000	$1,113,000
40B	Ensign Drive: Hearld Drive to 800 South (approx.)	2021	1.108	$1,626,000	Saratoga	24%	$1,236,000	$390,000
45	Lariat Blvd: End of Existing to Foothill Boulevard	2023	1.221	$1,041,000	Saratoga	15%	$887,000	$154,000
50	New Road: Bonneville Drive to Wildlife Blvd	2029	1.637	$4,824,000	Saratoga	24%	$3,666,000	$1,158,000
53	Harvest Hills Blvd: Right-turn lane at Mountain View	2022	1.163	$558,000	Saratoga	100%	$0	$558,000
13	Foothill Blvd: Cedar Fort Road to Pony Express Pkwy	2029	1.637	$12,364,000	Saratoga	100%	$0	$12,364,000
I26	Foothill Blvd & 400 North	2023	1.221	$451,000	Saratoga	100%	$0	$451,000
	Total			$194,914,000			$122,755,000	$72,159,000

APPENDIX D – IFFP COST ESTIMATES

Year	Rate	Recommended Rate	Cumulative Inflation Factor
2019	7%	0%	1.00
2020	6%	6%	1.06
2021	5%	5%	1.11
2022	5%	4%	1.16
2023	5%	4%	1.22
2024	5%	4%	1.28
2025	5%	4%	1.35
2026	5%	4%	1.41
2027	5%	4%	1.48
2028	5%	4%	1.56
2029	5%	4%	1.64
2030	5%	4%	1.72
2031	5%	4%	1.80
2032	5%	4%	1.89
2033	5%	4%	1.99
2034	5%	4%	2.09
2035	5%	4%	2.19
2036	5%	4%	2.30
2037	5%	4%	2.42
2038	5%	4%	2.54
2039	5%	4%	2.67
2040	5%	4%	2.80
2041	5%	4%	2.94
2042	5%	4%	3.09
2043	5%	4%	3.24
2044	5%	4%	3.40
2045	5%	4%	3.57
2046	5%	4%	3.75
2047	5%	4%	3.94
2048	5%	4%	4.14

Saratoga Springs Transportation Improvement Program (TIP) Unit Costs		
Item	**Unit**	**Unit Costs**
Mobilization	% of Cost	10%
Parkstrip	S.F.	$4.25
Removal of Existing Asphalt	S.Y.	$7.00
Clearing and Grubbing	Acre	$2,000.00
Roadway Excavation	C.Y.	$25.00
HMA Concrete	Ton	$85.00
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50
Untreated Base Course	C.Y.	$45.00
Granular Borrow	C.Y.	$40.00
Curb and Gutter (2' width)	L.F.	$25.00
Sidewalk	S.F.	$6.00
Drainage	% of Cost	15%
Right of Way	S.F.	$4.25
Removal of Existing Curb and Gutter	L.F.	$5.00
Grind Existing Asphalt	S.Y.	$5.00
Restriping	L.F.	$7.00
Roundabout	Each	$500,000
Traffic Signal	Each	$250,000
Bridge/Culvert	S.F.	$225
Items not included in estimate*		10%
Preconstruction Engineering*		12%
Construction Engineering*		12%

Saratoga Springs Transportation Master Plan					
1A: Foothill Boulevard (East Frontage Road): Pony Express to Lariat Boulevard					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2024)**
Mobilization	% of Cost	10%	7,611,360	$761,136	$976,050
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	22.68	$45,360	$58,168
Roadway Excavation	C.Y.	$25.00	165,500	$4,137,500	$5,305,761
HMA Concrete	Ton	$85.00	24,100	$2,048,500	$2,626,913
Untreated Base Course	C.Y.	$45.00	18,400	$828,000	$1,061,793
Granular Borrow	C.Y.	$40.00	13,800	$552,000	$707,862
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	7,611,360	$1,141,704	$1,464,075
			Subtotal	**$9,514,200**	**$12,200,622**
			Items not included in estimate	10%	$951,420	$1,220,062
			Preconstruction Engineering	12%	$1,141,704	$1,464,075
			Construction Engineering	12.0%	$1,141,704	$1,464,075
			Total Project Costs	**$12,750,000**	**$16,349,000**
Saratoga Springs's Responsibility				**38.8%**	
				$ 4,951,000	**$ 6,349,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**1A**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2024
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.28
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
1B: Foothill Boulevard: Cooridor Preservation					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2024)**
Mobilization	% of Cost	10%	0	$0	$0
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	0	$0	$0
HMA Concrete	Ton	$85.00	0	$0	$0
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	999,800	$4,249,150	$5,448,936
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	0	$0	$0
			Subtotal	**$4,249,150**	**$5,448,936**
			Contingency & Items not included in estimate	0%	$0	$0
			Preconstruction Engineering	0%	$0	$0
			Construction Engineering	0%	$0	$0
			Total Project Costs	**$4,250,000**	**$5,449,000**
Saratoga Springs's Responsibility				**40.7%**	
				$ 1,730,000	**$ 2,217,743**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**1B**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2024
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.28
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
2: Pony Express Extension: Redwood Road (SR-68) to Jordan River					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2028)**
Mobilization	% of Cost	10%	8,251,465	$825,147	$1,286,169
Parkstrip	S.F.	$4.25	167,200	$710,600	$1,107,623
Removal of Existing Asphalt	S.Y.	$7.00	16,400	$114,800	$178,941
Clearing and Grubbing	Acre	$2,000.00	14.07	$28,140	$43,862
Roadway Excavation	C.Y.	$25.00	96,300	$2,407,500	$3,752,608
HMA Concrete	Ton	$85.00	11,600	$986,000	$1,536,893
Untreated Base Course	C.Y.	$45.00	5,000	$225,000	$350,711
Granular Borrow	C.Y.	$40.00	7,500	$300,000	$467,615
Curb and Gutter (2' width)	L.F.	$25.00	10,200	$255,000	$397,472
Sidewalk	S.F.	$6.00	81,100	$486,600	$758,471
Right of Way	S.F.	$4.25	612,900	$2,604,825	$4,060,181
Removal of Existing Curb and Gutter	L.F.	$5.00	10,200	$51,000	$79,494
Grind Existing Asphalt	S.Y.	$5.00	16,400	$82,000	$127,815
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	8,251,465	$1,237,720	$1,929,253
			Subtotal	**$10,314,331**	**$16,077,108**
			Contingency & Items not included in estimate	10%	$1,031,433	$1,607,711
			Preconstruction Engineering	12%	$1,237,720	$1,929,253
			Construction Engineering	12.0%	$1,237,720	$1,929,253
			Total Project Costs	**$13,822,000**	**$21,544,000**
Saratoga Springs's Responsibility				**53.6%**	
				$ 7,406,000	**$ 11,544,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**2**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	6	Type:	**Major Arterial**
Granual Borrow Thickness (in) =	9	Comp Year:	2028
Roadway Excavation Depth (ft) =	1.7	Inflation Factor:	1.56
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
3: Pony Express Extension: Jordan River Bridge					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2023)**
Mobilization	% of Cost	10%	2,854,725	$285,473	$348,646
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	14,100	$352,500	$430,506
HMA Concrete	Ton	$85.00	1,400	$119,000	$145,334
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	1,000	$25,000	$30,532
Sidewalk	S.F.	$6.00	7,900	$47,400	$57,889
Right of Way	S.F.	$4.25	73,700	$313,225	$382,540
Removal of Existing Curb and Gutter	L.F.	$5.00	1,000	$5,000	$6,106
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	2,854,725	$428,209	$522,969
Bridge/Culvert	S.F.	$225	8,856	$1,992,600	$2,433,551
			Subtotal	**$3,568,406**	**$4,358,073**
		Contingency & Items not included in estimate	10%	$356,841	$435,807
		Preconstruction Engineering	12%	$428,209	$522,969
		Construction Engineering	12.0%	$428,209	$522,969
			Total Project Costs	**$4,782,000**	**$5,840,000**
Saratoga Springs's Responsibility				**6.8%**	
				$ 323,741	**$ 395,368**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**3**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	6	Type:	**Major Arterial**
Granual Borrow Thickness (in) =	9	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.7	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
4A: Pony Express Extension: Jordan River to Saratoga Road, Phase 1					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2024)**
Mobilization	% of Cost	10%	553,850	$55,385	$71,023
Parkstrip	S.F.	$4.25	16,600	$70,550	$90,470
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	7,400	$185,000	$237,236
HMA Concrete	Ton	$85.00	1,100	$93,500	$119,901
Untreated Base Course	C.Y.	$45.00	900	$40,500	$51,936
Granular Borrow	C.Y.	$40.00	700	$28,000	$35,906
Curb and Gutter (2' width)	L.F.	$25.00	1,900	$47,500	$60,912
Sidewalk	S.F.	$6.00	14,800	$88,800	$113,873
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	553,850	$83,078	$106,535
			Subtotal	**$692,313**	**$887,792**
			Items not included in estimate	10%	$69,231	$88,779
			Preconstruction Engineering	12%	$83,078	$106,535
			Construction Engineering	12.0%	$83,078	$106,535
			Total Project Costs	**$928,000**	**$1,190,000**
Saratoga Springs's Responsibility				**46.0%**	
				$ 427,000	**$ 547,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**4A**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2024
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.28
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
4B: Pony Express Extension: Jordan River to Saratoga Road, Phase 2					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2028)**
Mobilization	% of Cost	10%	2,476,800	$247,680	$386,063
Parkstrip	S.F.	$4.25	43,200	$183,600	$286,180
Removal of Existing Asphalt	S.Y.	$7.00	7,800	$54,600	$85,106
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	29,700	$742,500	$1,157,346
HMA Concrete	Ton	$85.00	5,500	$467,500	$728,699
Untreated Base Course	C.Y.	$45.00	3,200	$144,000	$224,455
Granular Borrow	C.Y.	$40.00	2,400	$96,000	$149,637
Curb and Gutter (2' width)	L.F.	$25.00	3,200	$80,000	$124,697
Sidewalk	S.F.	$6.00	25,600	$153,600	$239,419
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	3,200	$16,000	$24,939
Grind Existing Asphalt	S.Y.	$5.00	7,800	$39,000	$60,790
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	2	$500,000	$779,358
Drainage	% of Cost	15%	2,476,800	$371,520	$579,094
			Subtotal	**$3,096,000**	**$4,825,783**
			Contingency & Items not included in estimate	10%	$309,600	$482,578
			Preconstruction Engineering	12%	$371,520	$579,094
			Construction Engineering	12.0%	$371,520	$579,094
			Total Project Costs	**$4,149,000**	**$6,467,000**
Saratoga Springs's Responsibility				**6.8%**	
				$ 280,887	**$ 437,816**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**4B**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2028
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.56
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
11: Crossroads Blvd: Commerce Drive to Eastern Border					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2020)**
Mobilization	% of Cost	10%	1,744,525	$174,453	$184,047
Parkstrip	S.F.	$4.25	17,700	$75,225	$79,362
Removal of Existing Asphalt	S.Y.	$7.00	17,400	$121,800	$128,499
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	19,000	$475,000	$501,125
HMA Concrete	Ton	$85.00	4,700	$399,500	$421,473
Untreated Base Course	C.Y.	$45.00	1,000	$45,000	$47,475
Granular Borrow	C.Y.	$40.00	1,500	$60,000	$63,300
Curb and Gutter (2' width)	L.F.	$25.00	3,000	$75,000	$79,125
Sidewalk	S.F.	$6.00	23,500	$141,000	$148,755
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	3,000	$15,000	$15,825
Grind Existing Asphalt	S.Y.	$5.00	17,400	$87,000	$91,785
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	1	$250,000	$263,750
Drainage	% of Cost	15%	1,744,525	$261,679	$276,071
			Subtotal	**$2,180,656**	**$2,300,592**
			Contingency & Items not included in estimate	10%	$218,066	$230,059
			Preconstruction Engineering	12%	$261,679	$276,071
			Construction Engineering	12.0%	$261,679	$276,071
			Total Project Costs	**$2,923,000**	**$3,083,000**
Saratoga Springs's Responsibility				**6.8%**	
				$ 197,887	**$ 208,719**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**11**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	6	Type:	**Principal Arterial**
Granual Borrow Thickness (in) =	9	Comp Year:	2020
Roadway Excavation Depth (ft) =	1.7	Inflation Factor:	1.06
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
12: 400 East: Crossroads Blvd to northern City Boundary					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2023)**
Mobilization	% of Cost	10%	857,235	$85,724	$104,694
Parkstrip	S.F.	$4.25	16,200	$68,850	$84,086
Removal of Existing Asphalt	S.Y.	$7.00	4,000	$28,000	$34,196
Clearing and Grubbing	Acre	$2,000.00	0.93	$1,860	$2,272
Roadway Excavation	C.Y.	$25.00	10,700	$267,500	$326,696
HMA Concrete	Ton	$85.00	1,700	$144,500	$176,477
Untreated Base Course	C.Y.	$45.00	600	$27,000	$32,975
Granular Borrow	C.Y.	$40.00	800	$32,000	$39,081
Curb and Gutter (2' width)	L.F.	$25.00	1,600	$40,000	$48,852
Sidewalk	S.F.	$6.00	7,900	$47,400	$57,889
Right of Way	S.F.	$4.25	40,500	$172,125	$210,215
Removal of Existing Curb and Gutter	L.F.	$5.00	1,600	$8,000	$9,770
Grind Existing Asphalt	S.Y.	$5.00	4,000	$20,000	$24,426
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	857,235	$128,585	$157,040
			Subtotal	**$1,071,544**	**$1,308,669**
			Contingency & Items not included in estimate	10%	$107,154	$130,867
			Preconstruction Engineering	12%	$128,585	$157,040
			Construction Engineering	12.0%	$128,585	$157,040
			Total Project Costs	**$1,436,000**	**$1,754,000**
Saratoga Springs's Responsibility				**6.8%**	
				$ 97,217	**$ 118,746**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**12**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	6	Type:	**Major Arterial (400 E)**
Granual Borrow Thickness (in) =	9	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.7	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
13: Foothill Blvd: Cedar Fort Road to Pony Express Pkwy					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	4,509,850	$450,985	$738,105
Parkstrip	S.F.	$4.25	135,400	$575,450	$941,811
Removal of Existing Asphalt	S.Y.	$7.00	33,500	$234,500	$383,795
Clearing and Grubbing	Acre	$2,000.00	6.05	$12,100	$19,803
Roadway Excavation	C.Y.	$25.00	30,100	$752,500	$1,231,580
HMA Concrete	Ton	$85.00	9,800	$833,000	$1,363,331
Untreated Base Course	C.Y.	$45.00	3,000	$135,000	$220,948
Granular Borrow	C.Y.	$40.00	2,300	$92,000	$150,572
Curb and Gutter (2' width)	L.F.	$25.00	7,600	$190,000	$310,964
Sidewalk	S.F.	$6.00	60,200	$361,200	$591,158
Right of Way	S.F.	$4.25	263,200	$1,118,600	$1,830,758
Removal of Existing Curb and Gutter	L.F.	$5.00	7,600	$38,000	$62,193
Grind Existing Asphalt	S.Y.	$5.00	33,500	$167,500	$274,139
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	4,509,850	$676,478	$1,107,158
			Subtotal	**$5,637,313**	**$9,226,315**
			Contingency & Items not included in estimate	10%	$563,731	$922,632
			Preconstruction Engineering	12%	$676,478	$1,107,158
			Construction Engineering	12.0%	$676,478	$1,107,158
			Total Project Costs	**$7,554,000**	**$12,364,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 7,554,000	**$ 12,364,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**13**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
14: Saratoga Road: Pony Express to Pioneer Crossing (SR-175) (Saratoga Springs Portion)					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	1,468,560	$146,856	$240,352
Parkstrip	S.F.	$4.25	59,400	$252,450	$413,173
Removal of Existing Asphalt	S.Y.	$7.00	14,700	$102,900	$168,411
Clearing and Grubbing	Acre	$2,000.00	1.33	$2,660	$4,353
Roadway Excavation	C.Y.	$25.00	7,400	$185,000	$302,780
HMA Concrete	Ton	$85.00	3,500	$297,500	$486,904
Untreated Base Course	C.Y.	$45.00	700	$31,500	$51,555
Granular Borrow	C.Y.	$40.00	500	$20,000	$32,733
Curb and Gutter (2' width)	L.F.	$25.00	3,300	$82,500	$135,024
Sidewalk	S.F.	$6.00	26,400	$158,400	$259,246
Right of Way	S.F.	$4.25	57,800	$245,650	$402,043
Removal of Existing Curb and Gutter	L.F.	$5.00	3,300	$16,500	$27,005
Grind Existing Asphalt	S.Y.	$5.00	14,700	$73,500	$120,294
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	1,468,560	$220,284	$360,528
			Subtotal	**$1,835,700**	**$3,004,401**
			Contingency & Items not included in estimate	10%	$183,570	$300,440
			Preconstruction Engineering	12%	$220,284	$360,528
			Construction Engineering	12.0%	$220,284	$360,528
			Total Project Costs	**$2,460,000**	**$4,026,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 2,460,000	**$ 4,026,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**14**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
21: Wild HIlls Blvd: Western City Boundary to MVC					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	6,647,325	$664,733	$1,087,935
Parkstrip	S.F.	$4.25	97,800	$415,650	$680,274
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	11.85	$23,700	$38,789
Roadway Excavation	C.Y.	$25.00	72,400	$1,810,000	$2,962,339
HMA Concrete	Ton	$85.00	9,900	$841,500	$1,377,242
Untreated Base Course	C.Y.	$45.00	7,600	$342,000	$559,735
Granular Borrow	C.Y.	$40.00	5,700	$228,000	$373,156
Curb and Gutter (2' width)	L.F.	$25.00	10,900	$272,500	$445,987
Sidewalk	S.F.	$6.00	86,900	$521,400	$853,350
Right of Way	S.F.	$4.25	515,900	$2,192,575	$3,588,481
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	6,647,325	$997,099	$1,631,903
			Subtotal	**$8,309,156**	**$13,599,191**
			Contingency & Items not included in estimate	10%	$830,916	$1,359,919
			Preconstruction Engineering	12%	$997,099	$1,631,903
			Construction Engineering	12.0%	$997,099	$1,631,903
			Total Project Costs	**$11,135,000**	**$18,223,000**
Saratoga Springs's Responsibility				**40.7%**	
				$ 4,531,945	**$ 7,416,761**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**21**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
22: Mount Saratoga Boulevard					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2030)**
Mobilization	% of Cost	10%	4,320,685	$432,069	$742,503
Parkstrip	S.F.	$4.25	80,800	$343,400	$590,127
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	7.93	$15,860	$27,255
Roadway Excavation	C.Y.	$25.00	47,900	$1,197,500	$2,057,884
HMA Concrete	Ton	$85.00	5,100	$433,500	$744,963
Untreated Base Course	C.Y.	$45.00	4,900	$220,500	$378,926
Granular Borrow	C.Y.	$40.00	3,700	$148,000	$254,336
Curb and Gutter (2' width)	L.F.	$25.00	9,000	$225,000	$386,659
Sidewalk	S.F.	$6.00	44,900	$269,400	$462,960
Right of Way	S.F.	$4.25	345,300	$1,467,525	$2,521,918
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	4,320,685	$648,103	$1,113,754
			Subtotal	**$5,400,856**	**$9,281,285**
			Contingency & Items not included in estimate	10%	$540,086	$928,129
			Preconstruction Engineering	12%	$648,103	$1,113,754
			Construction Engineering	12.0%	$648,103	$1,113,754
			Total Project Costs	**$7,238,000**	**$12,437,000**
Saratoga Springs's Responsibility				**6.8%**	
				$ 490,013	**$ 841,985**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**22**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs/MAG**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2030
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.72
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
23: Mt. Saratoga Blvd: Cedar Fork Road (SR-73) to Quail Hill Rd					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2023)**
Mobilization	% of Cost	10%	6,360,090	$636,009	$776,754
Parkstrip	S.F.	$4.25	118,800	$504,900	$616,632
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	11.67	$23,340	$28,505
Roadway Excavation	C.Y.	$25.00	70,400	$1,760,000	$2,149,478
HMA Concrete	Ton	$85.00	7,600	$646,000	$788,956
Untreated Base Course	C.Y.	$45.00	7,200	$324,000	$395,699
Granular Borrow	C.Y.	$40.00	5,400	$216,000	$263,800
Curb and Gutter (2' width)	L.F.	$25.00	13,200	$330,000	$403,027
Sidewalk	S.F.	$6.00	66,000	$396,000	$483,633
Right of Way	S.F.	$4.25	508,200	$2,159,850	$2,637,813
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	6,360,090	$954,014	$1,165,131
			Subtotal	**$7,950,113**	**$9,709,428**
			Contingency & Items not included in estimate	10%	$795,011	$970,943
			Preconstruction Engineering	12%	$954,014	$1,165,131
			Construction Engineering	12.0%	$954,014	$1,165,131
			Total Project Costs	**$10,654,000**	**$13,011,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 2,556,960	**$ 3,122,640**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**23**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
25: Medical Drive: Foothill Boulevard to Pioneer Crossing					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2028)**
Mobilization	% of Cost	10%	2,362,080	$236,208	$368,181
Parkstrip	S.F.	$4.25	44,100	$187,425	$292,142
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	4.34	$8,680	$13,530
Roadway Excavation	C.Y.	$25.00	26,200	$655,000	$1,020,959
HMA Concrete	Ton	$85.00	2,800	$238,000	$370,974
Untreated Base Course	C.Y.	$45.00	2,700	$121,500	$189,384
Granular Borrow	C.Y.	$40.00	2,000	$80,000	$124,697
Curb and Gutter (2' width)	L.F.	$25.00	4,900	$122,500	$190,943
Sidewalk	S.F.	$6.00	24,500	$147,000	$229,131
Right of Way	S.F.	$4.25	188,700	$801,975	$1,250,051
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	2,362,080	$354,312	$552,272
			Subtotal	**$2,952,600**	**$4,602,264**
			Contingency & Items not included in estimate	10%	$295,260	$460,226
			Preconstruction Engineering	12%	$354,312	$552,272
			Construction Engineering	12.0%	$354,312	$552,272
			Total Project Costs	**$3,957,000**	**$6,168,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 949,680	**$ 1,480,320**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**25**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2028
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.56
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
26: Riverside Dr: End of Exisitng to Pioneer Crossing					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2022)**
Mobilization	% of Cost	10%	3,776,290	$377,629	$439,234
Parkstrip	S.F.	$4.25	61,200	$260,100	$302,532
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	6.02	$12,040	$14,004
Roadway Excavation	C.Y.	$25.00	36,300	$907,500	$1,055,547
HMA Concrete	Ton	$85.00	3,900	$331,500	$385,580
Untreated Base Course	C.Y.	$45.00	3,700	$166,500	$193,662
Granular Borrow	C.Y.	$40.00	2,800	$112,000	$130,271
Curb and Gutter (2' width)	L.F.	$25.00	6,800	$170,000	$197,733
Sidewalk	S.F.	$6.00	34,000	$204,000	$237,280
Right of Way	S.F.	$4.25	261,800	$1,112,650	$1,294,165
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	1	$500,000	$581,569
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	3,776,290	$566,444	$658,852
			Subtotal	**$4,720,363**	**$5,490,429**
			Contingency & Items not included in estimate	10%	$472,036	$549,043
			Preconstruction Engineering	12%	$566,444	$658,851
			Construction Engineering	12.0%	$566,444	$658,851
			Total Project Costs	**$6,326,000**	**$7,358,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 1,518,240	**$ 1,765,920**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**26**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2022
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.16
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
27: Market Street: Redwood Road (SR-68) to Riverside Drive					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2024)**
Mobilization	% of Cost	10%	511,660	$51,166	$65,613
Parkstrip	S.F.	$4.25	9,500	$40,375	$51,775
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.93	$1,860	$2,385
Roadway Excavation	C.Y.	$25.00	5,600	$140,000	$179,530
HMA Concrete	Ton	$85.00	600	$51,000	$65,400
Untreated Base Course	C.Y.	$45.00	600	$27,000	$34,624
Granular Borrow	C.Y.	$40.00	500	$20,000	$25,647
Curb and Gutter (2' width)	L.F.	$25.00	1,100	$27,500	$35,265
Sidewalk	S.F.	$6.00	5,300	$31,800	$40,779
Right of Way	S.F.	$4.25	40,500	$172,125	$220,726
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	511,660	$76,749	$98,420
			Subtotal	**$639,575**	**$820,164**
			Contingency & Items not included in estimate	10%	$63,958	$82,016
			Preconstruction Engineering	12%	$76,749	$98,420
			Construction Engineering	12.0%	$76,749	$98,420
			Total Project Costs	**$858,000**	**$1,100,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 205,920	**$ 264,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**27**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2024
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.28
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
28: Market Street: Foothill Blvd to Pioneer Crossing					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2026)**
Mobilization	% of Cost	10%	3,017,035	$301,704	$426,549
Parkstrip	S.F.	$4.25	56,300	$239,275	$338,287
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	5.53	$11,060	$15,637
Roadway Excavation	C.Y.	$25.00	33,400	$835,000	$1,180,524
HMA Concrete	Ton	$85.00	3,600	$306,000	$432,623
Untreated Base Course	C.Y.	$45.00	3,400	$153,000	$216,312
Granular Borrow	C.Y.	$40.00	2,600	$104,000	$147,035
Curb and Gutter (2' width)	L.F.	$25.00	6,300	$157,500	$222,674
Sidewalk	S.F.	$6.00	31,300	$187,800	$265,512
Right of Way	S.F.	$4.25	240,800	$1,023,400	$1,446,884
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	3,017,035	$452,555	$639,823
			Subtotal	**$3,771,294**	**$5,331,860**
			Contingency & Items not included in estimate	10%	$377,129	$533,186
			Preconstruction Engineering	12%	$452,555	$639,823
			Construction Engineering	12.0%	$452,555	$639,823
			Total Project Costs	**$5,054,000**	**$7,145,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 1,212,960	**$ 1,714,800**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**28**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2026
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.41
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
30: 550 North: 500 East to Saratoga Road					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	2,571,870	$257,187	$420,925
Parkstrip	S.F.	$4.25	48,000	$204,000	$333,877
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	4.71	$9,420	$15,417
Roadway Excavation	C.Y.	$25.00	28,400	$710,000	$1,162,022
HMA Concrete	Ton	$85.00	3,100	$263,500	$431,258
Untreated Base Course	C.Y.	$45.00	2,900	$130,500	$213,583
Granular Borrow	C.Y.	$40.00	2,200	$88,000	$144,025
Curb and Gutter (2' width)	L.F.	$25.00	5,400	$135,000	$220,948
Sidewalk	S.F.	$6.00	26,700	$160,200	$262,192
Right of Way	S.F.	$4.25	205,000	$871,250	$1,425,932
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	2,571,870	$385,781	$631,388
			Subtotal	**$3,214,838**	**$5,261,567**
			Contingency & Items not included in estimate	10%	$321,484	$526,157
			Preconstruction Engineering	12%	$385,781	$631,388
			Construction Engineering	12.0%	$385,781	$631,388
			Total Project Costs	**$4,308,000**	**$7,051,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 1,033,920	**$ 1,692,240**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**30**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
32: 400 North: Redwood Road (SR-68) to Riverside Drive					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2021)**
Mobilization	% of Cost	10%	548,475	$54,848	$60,757
Parkstrip	S.F.	$4.25	23,100	$98,175	$108,753
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	7,400	$185,000	$204,934
HMA Concrete	Ton	$85.00	800	$68,000	$75,327
Untreated Base Course	C.Y.	$45.00	700	$31,500	$34,894
Granular Borrow	C.Y.	$40.00	600	$24,000	$26,586
Curb and Gutter (2' width)	L.F.	$25.00	2,600	$65,000	$72,004
Sidewalk	S.F.	$6.00	12,800	$76,800	$85,075
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	548,475	$82,271	$91,136
			Subtotal	**$685,594**	**$759,466**
			Contingency & Items not included in estimate	10%	$68,559	$75,947
			Preconstruction Engineering	12%	$82,271	$91,136
			Construction Engineering	12.0%	$82,271	$91,136
			Total Project Costs	**$919,000**	**$1,018,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 220,560	**$ 244,320**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**32**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2021
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.11
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
35: 200 West: Pony Express to Founders Boulevard					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	2,394,920	$239,492	$391,965
Parkstrip	S.F.	$4.25	39,800	$169,150	$276,840
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	3.91	$7,820	$12,799
Roadway Excavation	C.Y.	$25.00	23,600	$590,000	$965,624
HMA Concrete	Ton	$85.00	2,600	$221,000	$361,700
Untreated Base Course	C.Y.	$45.00	2,500	$112,500	$184,123
Granular Borrow	C.Y.	$40.00	1,900	$76,000	$124,385
Curb and Gutter (2' width)	L.F.	$25.00	4,500	$112,500	$184,123
Sidewalk	S.F.	$6.00	22,100	$132,600	$217,020
Right of Way	S.F.	$4.25	170,200	$723,350	$1,183,872
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	1	$250,000	$409,163
Drainage	% of Cost	15%	2,394,920	$359,238	$587,947
			Subtotal	**$2,993,650**	**$4,899,561**
			Contingency & Items not included in estimate	10%	$299,365	$489,956
			Preconstruction Engineering	12%	$359,238	$587,947
			Construction Engineering	12.0%	$359,238	$587,947
			Total Project Costs	**$4,012,000**	**$6,566,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 962,880	**$ 1,575,840**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**35**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
38: Hidden Valley Drive: Foothill Blvd to New Collector					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	5,715,830	$571,583	$935,482
Parkstrip	S.F.	$4.25	84,100	$357,425	$584,980
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	10.19	$20,380	$33,355
Roadway Excavation	C.Y.	$25.00	62,300	$1,557,500	$2,549,084
HMA Concrete	Ton	$85.00	8,500	$722,500	$1,182,481
Untreated Base Course	C.Y.	$45.00	6,500	$292,500	$478,720
Granular Borrow	C.Y.	$40.00	4,900	$196,000	$320,784
Curb and Gutter (2' width)	L.F.	$25.00	9,400	$235,000	$384,613
Sidewalk	S.F.	$6.00	74,800	$448,800	$734,529
Right of Way	S.F.	$4.25	443,700	$1,885,725	$3,086,274
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	5,715,830	$857,375	$1,403,223
			Subtotal	**$7,144,788**	**$11,693,525**
			Contingency & Items not included in estimate	10%	$714,479	$1,169,353
			Preconstruction Engineering	12%	$857,375	$1,403,223
			Construction Engineering	12.0%	$857,375	$1,403,223
			Total Project Costs	**$9,575,000**	**$15,670,000**
Saratoga Springs's Responsibility				**40.7%**	
				$ 3,897,025	**$ 6,377,690**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**38**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
39: New Collector: Redwood Road to Hidden Valley Dr					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	2,079,895	$207,990	$340,406
Parkstrip	S.F.	$4.25	38,700	$164,475	$269,188
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	3.81	$7,620	$12,471
Roadway Excavation	C.Y.	$25.00	23,000	$575,000	$941,074
HMA Concrete	Ton	$85.00	2,500	$212,500	$347,788
Untreated Base Course	C.Y.	$45.00	2,400	$108,000	$176,758
Granular Borrow	C.Y.	$40.00	1,800	$72,000	$117,839
Curb and Gutter (2' width)	L.F.	$25.00	4,300	$107,500	$175,940
Sidewalk	S.F.	$6.00	21,500	$129,000	$211,128
Right of Way	S.F.	$4.25	165,600	$703,800	$1,151,875
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	2,079,895	$311,984	$510,609
			Subtotal	**$2,599,869**	**$4,255,076**
			Contingency & Items not included in estimate	10%	$259,987	$425,508
			Preconstruction Engineering	12%	$311,984	$510,609
			Construction Engineering	12.0%	$311,984	$510,609
			Total Project Costs	**$3,484,000**	**$5,702,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 836,160	**$ 1,368,480**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**39**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
40A: Ensign Drive: Foothill Blvd to Light House Drive					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2021)**
Mobilization	% of Cost	10%	2,499,540	$249,954	$276,887
Parkstrip	S.F.	$4.25	46,500	$197,625	$218,919
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	4.57	$9,140	$10,125
Roadway Excavation	C.Y.	$25.00	27,600	$690,000	$764,348
HMA Concrete	Ton	$85.00	3,000	$255,000	$282,476
Untreated Base Course	C.Y.	$45.00	2,900	$130,500	$144,561
Granular Borrow	C.Y.	$40.00	2,200	$88,000	$97,482
Curb and Gutter (2' width)	L.F.	$25.00	5,200	$130,000	$144,008
Sidewalk	S.F.	$6.00	25,800	$154,800	$171,480
Right of Way	S.F.	$4.25	198,700	$844,475	$935,467
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	2,499,540	$374,931	$415,330
			Subtotal	**$3,124,425**	**$3,461,083**
			Contingency & Items not included in estimate	10%	$312,443	$346,108
			Preconstruction Engineering	12%	$374,931	$415,330
			Construction Engineering	12.0%	$374,931	$415,330
			Total Project Costs	**$4,187,000**	**$4,638,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 1,004,880	**$ 1,113,120**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**40A**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2021
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.11
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
40B: Ensign Drive: Hearld Drive to 800 South (approx.)					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2021)**
Mobilization	% of Cost	10%	876,075	$87,608	$97,047
Parkstrip	S.F.	$4.25	16,200	$68,850	$76,269
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	1.60	$3,200	$3,545
Roadway Excavation	C.Y.	$25.00	9,600	$240,000	$265,860
HMA Concrete	Ton	$85.00	1,100	$93,500	$103,575
Untreated Base Course	C.Y.	$45.00	1,000	$45,000	$49,849
Granular Borrow	C.Y.	$40.00	800	$32,000	$35,448
Curb and Gutter (2' width)	L.F.	$25.00	1,800	$45,000	$49,849
Sidewalk	S.F.	$6.00	9,000	$54,000	$59,819
Right of Way	S.F.	$4.25	69,300	$294,525	$326,260
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	876,075	$131,411	$145,571
			Subtotal	**$1,095,094**	**$1,213,092**
			Contingency & Items not included in estimate	10%	$109,509	$121,309
			Preconstruction Engineering	12%	$131,411	$145,571
			Construction Engineering	12.0%	$131,411	$145,571
			Total Project Costs	**$1,468,000**	**$1,626,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 352,320	**$ 390,240**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**40B**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2021
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.11
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
45: Lariat Blvd: End of Existing to Foothill Boulevard					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2023)**
Mobilization	% of Cost	10%	508,790	$50,879	$62,138
Parkstrip	S.F.	$4.25	10,600	$45,050	$55,019
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.92	$1,840	$2,247
Roadway Excavation	C.Y.	$25.00	5,300	$132,500	$161,822
HMA Concrete	Ton	$85.00	600	$51,000	$62,286
Untreated Base Course	C.Y.	$45.00	600	$27,000	$32,975
Granular Borrow	C.Y.	$40.00	400	$16,000	$19,541
Curb and Gutter (2' width)	L.F.	$25.00	1,200	$30,000	$36,639
Sidewalk	S.F.	$6.00	5,900	$35,400	$43,234
Right of Way	S.F.	$4.25	40,000	$170,000	$207,620
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	508,790	$76,319	$93,207
			Subtotal	**$635,988**	**$776,728**
			Contingency & Items not included in estimate	10%	$63,599	$77,673
			Preconstruction Engineering	12%	$76,319	$93,207
			Construction Engineering	12.0%	$76,319	$93,207
			Total Project Costs	**$853,000**	**$1,041,000**
Saratoga Springs's Responsibility				**14.8%**	
				$ 126,244	**$ 154,068**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**45**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Local Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
50: New Road: Bonneville Drive to Wildlife Blvd					
New Road					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	1,759,390	$175,939	$287,951
Parkstrip	S.F.	$4.25	32,800	$139,400	$228,149
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	3.22	$6,440	$10,540
Roadway Excavation	C.Y.	$25.00	19,500	$487,500	$797,867
HMA Concrete	Ton	$85.00	2,100	$178,500	$292,142
Untreated Base Course	C.Y.	$45.00	2,000	$90,000	$147,299
Granular Borrow	C.Y.	$40.00	1,500	$60,000	$98,199
Curb and Gutter (2' width)	L.F.	$25.00	3,700	$92,500	$151,390
Sidewalk	S.F.	$6.00	18,200	$109,200	$178,722
Right of Way	S.F.	$4.25	140,200	$595,850	$975,199
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	1,759,390	$263,909	$431,926
			Subtotal	**$2,199,238**	**$3,599,384**
			Contingency & Items not included in estimate	10%	$219,924	$359,938
			Preconstruction Engineering	12%	$263,909	$431,926
			Construction Engineering	12.0%	$263,909	$431,926
			Total Project Costs	**$2,947,000**	**$4,824,000**
Saratoga Springs's Responsibility				**24.0%**	
				$ 707,280	**$ 1,157,760**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**50**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
53: Harvest Hills Blvd: Right-turn lane at Mountain View					
Widening					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2022)**
Mobilization	% of Cost	10%	286,140	$28,614	$33,282
Parkstrip	S.F.	$4.25	10,800	$45,900	$53,388
Removal of Existing Asphalt	S.Y.	$7.00	3,400	$23,800	$27,683
Clearing and Grubbing	Acre	$2,000.00	0.17	$340	$395
Roadway Excavation	C.Y.	$25.00	1,900	$47,500	$55,249
HMA Concrete	Ton	$85.00	800	$68,000	$79,093
Untreated Base Course	C.Y.	$45.00	200	$9,000	$10,468
Granular Borrow	C.Y.	$40.00	200	$8,000	$9,305
Curb and Gutter (2' width)	L.F.	$25.00	600	$15,000	$17,447
Sidewalk	S.F.	$6.00	3,000	$18,000	$20,936
Right of Way	S.F.	$4.25	7,200	$30,600	$35,592
Removal of Existing Curb and Gutter	L.F.	$5.00	600	$3,000	$3,489
Grind Existing Asphalt	S.Y.	$5.00	3,400	$17,000	$19,773
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	286,140	$42,921	$49,923
			Subtotal	**$357,675**	**$416,023**
			Contingency & Items not included in estimate	10%	$35,768	$41,602
			Preconstruction Engineering	12%	$42,921	$49,923
			Construction Engineering	12.0%	$42,921	$49,923
			Total Project Costs	**$480,000**	**$558,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 480,000	**$ 558,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**53**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2022
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.16
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
I16: Talus Ridge Drive ad Mt. Saratoga Blvd					
Roundabout					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2023)**
Mobilization	% of Cost	10%	500,000	$50,000	$61,065
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	0	$0	$0
HMA Concrete	Ton	$85.00	0	$0	$0
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	1	$500,000	$610,647
Traffic Signal	Each	$250,000.00	0	$0	$0
Drainage	% of Cost	15%	500,000	$75,000	$91,597
			Subtotal	**$625,000**	**$763,309**
			Contingency & Items not included in estimate	10%	$62,500	$76,331
			Preconstruction Engineering	12%	$75,000	$91,597
			Construction Engineering	12.0%	$75,000	$91,597
			Total Project Costs	**$838,000**	**$1,023,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 838,000	**$ 1,023,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**I16**
HMA Thickness (in) =	4	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Collector**
Granual Borrow Thickness (in) =	6	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.5	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Transportation Master Plan

I26: Foothill Blvd & 400 North

Traffic Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost (2020)	Cost (2023)
Mobilization	% of Cost	10%	250,000	$25,000	$30,532
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	0	$0	$0
HMA Concrete	Ton	$85.00	0	$0	$0
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	1	$250,000	$305,324
Drainage	% of Cost	15%	0	$0	$0
			Subtotal	**$275,000**	**$335,856**
			Contingency & Items not included in estimate	10%	$27,500	$33,586
			Preconstruction Engineering	12%	$33,000	$40,303
			Construction Engineering	12.0%	$33,000	$40,303
			Total Project Costs	**$369,000**	**$451,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 369,000	**$ 451,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**I26**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2023
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.22
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
I29: Crossroads Blvd and 1400 North					
Traffic Signal					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2029)**
Mobilization	% of Cost	10%	250,000	$25,000	$40,916
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	0	$0	$0
HMA Concrete	Ton	$85.00	0	$0	$0
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	1	$250,000	$409,163
Drainage	% of Cost	15%	0	$0	$0
			Subtotal	**$275,000**	**$450,079**
			Contingency & Items not included in estimate	10%	$27,500	$45,008
			Preconstruction Engineering	12%	$33,000	$54,009
			Construction Engineering	12.0%	$33,000	$54,009
			Total Project Costs	**$369,000**	**$604,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 369,000	**$ 604,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**I29**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2029
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.64
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		

Saratoga Springs Transportation Master Plan					
I24: Wild Blossom Blvd and Chianti St					
Traffic Signal					
Costs					
Item	**Unit**	**Unit Cost**	**Quantity**	**Cost (2020)**	**Cost (2030)**
Mobilization	% of Cost	10%	250,000	$25,000	$42,962
Parkstrip	S.F.	$4.25	0	$0	$0
Removal of Existing Asphalt	S.Y.	$7.00	0	$0	$0
Clearing and Grubbing	Acre	$2,000.00	0.00	$0	$0
Roadway Excavation	C.Y.	$25.00	0	$0	$0
HMA Concrete	Ton	$85.00	0	$0	$0
Untreated Base Course	C.Y.	$45.00	0	$0	$0
Granular Borrow	C.Y.	$40.00	0	$0	$0
Curb and Gutter (2' width)	L.F.	$25.00	0	$0	$0
Sidewalk	S.F.	$6.00	0	$0	$0
Right of Way	S.F.	$4.25	0	$0	$0
Removal of Existing Curb and Gutter	L.F.	$5.00	0	$0	$0
Grind Existing Asphalt	S.Y.	$5.00	0	$0	$0
Restriping	L.F.	$7.00	0	$0	$0
Surface Treatment Assoc. w/ Restripe	S.Y.	$2.50	0	$0	$0
Roundabout	Each	$500,000.00	0	$0	$0
Traffic Signal	Each	$250,000.00	1	$250,000	$429,621
Drainage	% of Cost	15%	0	$0	$0
			Subtotal	**$275,000**	**$472,583**
			Contingency & Items not included in estimate	10%	$27,500	$47,258
			Preconstruction Engineering	12%	$33,000	$56,710
			Construction Engineering	12.0%	$33,000	$56,710
			Total Project Costs	**$369,000**	**$634,000**
Saratoga Springs's Responsibility				**100.0%**	
				$ 369,000	**$ 634,000**

Overall Assumptions:

HMA Pavement Density (pcf) =	155	Project No.	**I34**
HMA Thickness (in) =	5	Funding:	**Saratoga Springs**
Untreated Base Course Thickness (in) =	8	Type:	**Minor Arterial**
Granual Borrow Thickness (in) =	6	Comp Year:	2030
Roadway Excavation Depth (ft) =	1.6	Inflation Factor:	1.72
Number of Sidewalks (No.) =	2		
Overlay HMA Thickness (in) =	3		