



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 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 If any portion of the IFFP is modified or amended in any way, this certification is no longer valid.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.

Kevin J. Croshaw, P.E.

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 Eagle Mountain. Based on existing traffic volumes, Eagle Mountain does not show existing deficiencies within the City.

Future Demand

The basis of the future travel demand was projected using the trip generation created as part of the Transportation Master Plan (TMP). The entire region is divided into eight development zones. Within each development zones are individual land-use zones which were assigned trips using ITE’s trip generation methodology. The percentage of each of these zones that is currently developed was determined and projections were made in coordination with the City for how much development will occur in future years (20-year and 40-year scenarios). As part of the IFFP process, it is proposed that 10-year traffic growth follows straight line growth from the existing data and 20-year data.

Project Cost Attributable to Future Demand

Utilizing the TMP growth 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. Only the projects from 2019-2030 are impact fee eligible. For all impact fee eligible projects, reductions were calculated based on existing deficiencies, excess capacity, and pass-through traffic. Of the **\$127,706,000** required from Eagle Mountain to build the expected roadway projects from 2019-2030, **\$41,751,000** is eligible to be paid using impact fees. All project costs included in the IFFP are based on 2023 costs.



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

This analysis incorporates the information provided in the Eagle Mountain 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. Reference should be made to the previous chapters for additional information on the evaluation methodology and how the projections were made.

This section focuses on the improvements that are projected to be needed over the next 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 because 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 Eagle Mountain. 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. [Table 1](#) below summarizes the capacities for roadway segments used by Eagle Mountain at LOS D. The capacity used for the roadways

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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 2](#) 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
Major Arterial	5	32,800
Minor Arterial	3	15,100
Major Collector	3	13,400
Minor Collector	2	12,100
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 to maintain LOS D. One method to reduce costs is to coordinate the placement of signal wiring, foundations, and other features, with roadway construction before the placement of the actual traffic signals and other elements. The costs of these intersection improvements have been included in the roadway network cost estimates included in [Table 3](#).

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.

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.

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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. Eagle Mountain 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 number of lanes, which is a function of the expected traffic volume and serves as the greatest measure of roadway capacity.

Improvements to collectors and arterials are considered “system improvements” according to the Utah Impact Fee Law, as these streets serve users from multiple developments. System improvements 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 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 Eagle Mountain jurisdiction. A positive excess capacity represents available capacity for new development in the city before additional infrastructure will be needed. 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	Existing Capacity	Existing Volume	Excess Capacity/Deficiency	Excess Capacity/Deficiency %	2030 Capacity (Projects Included)	2030 Volume	2030 Excess Capacity/Deficiency	2030 Excess Capacity/Deficiency %
Cory Wride Highway: Mountain View Corridor to Ranches Parkway	32,800	31,000	1,800	5%	32,800	37,200	-4,400	-13%
Cory Wride Highway: Ranches Parkway to Old Airport Road	13,400	8,900	4,500	34%	32,800	26,700	6,100	19%
Pony Express Parkway	12,100	8,900	3,200	26%	32,800	13,500	19,300	59%
Eagle Mountain Boulevard	12,100	6,300	5,800	48%	32,800	5,300	27,500	84%

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:

- Existing Demand** – The traffic demand at the present time was estimated using traffic counts and population data.
- Existing Capacity** – The capacity of the current roadway network was estimated using the calculated LOS.
- Existing Deficiencies** – The deficiencies in the current network were identified by comparing the LOS of the roadways to the LOS standard.
- Future Demand** – The future demand on the network was estimated using development projections.
- Future Deficiencies** – The deficiencies in the future network were identified by comparing the calculated future LOS with the LOS standard.
- Recommended Improvements** – Recommendations were made that will help meet future demands.

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 include in the model come directly from the Utah Governor’s Office of Management and budget such as total population, total households, household size, total income as well as average income.

The MAD TDM was calibrated to fit existing traffic conditions in Eagle Mountain City. Existing traffic counts were collected throughout the city. Traffic counts were collected from UDOT and included annual average daily traffic (AADT) volumes as defined in Traffic on Utah Highways. On City owned roadways, traffic counts were either provided by Eagle Mountain City or were manually counted as part of the analysis.

Figure 1 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.



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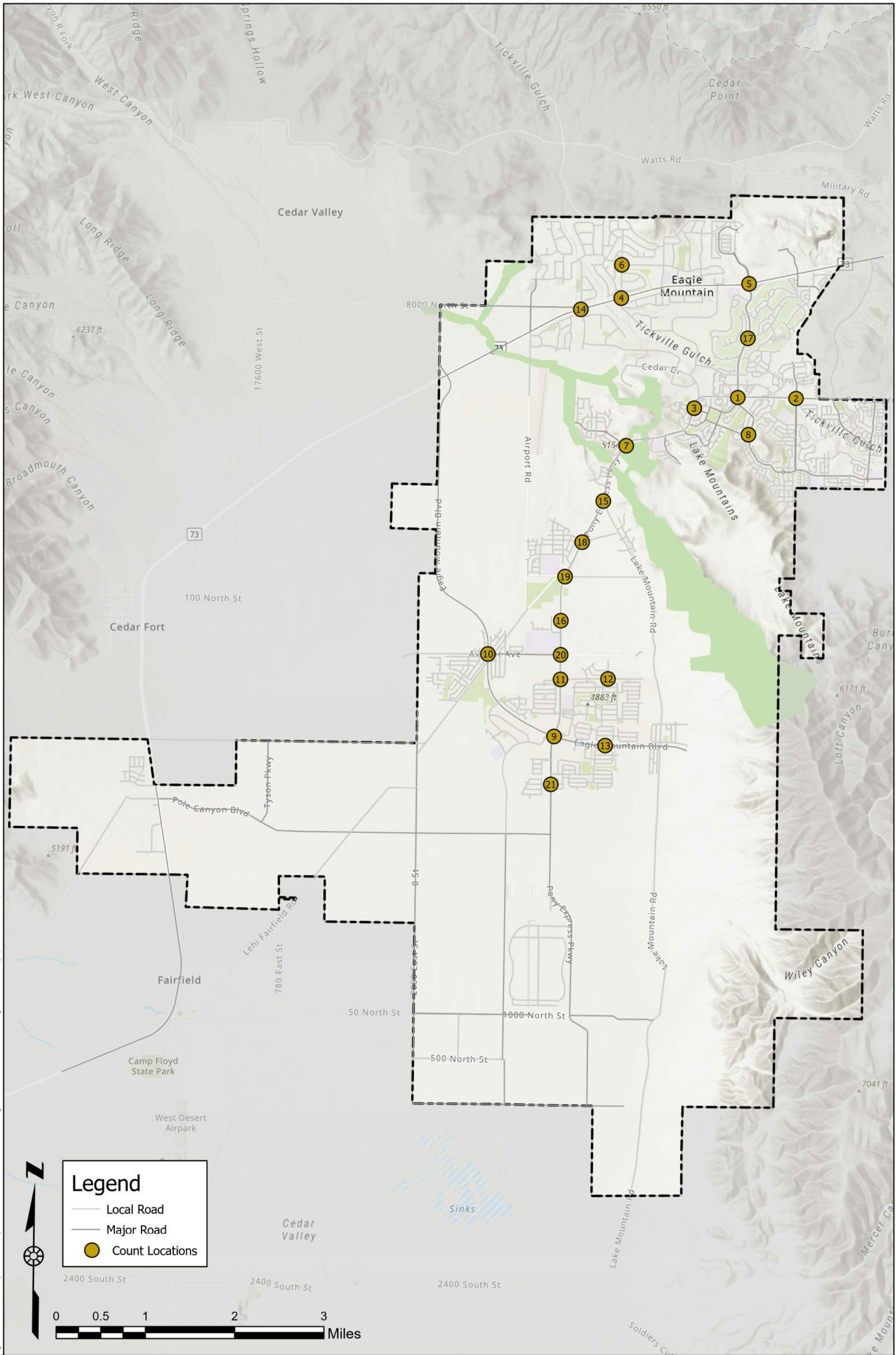
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The TDM generates traffic projects and future traffic demands/impacts based in the socioeconomic data within each TAZ. There are numerous variables within each TAZ, but the two main variables that determine traffic generation are total households and total employment. Since the MAG TDM provides a regional model with large TAZ's, citywide traffic volumes generated in the model are not accurate. To align the MAG TDM with the existing local conditions, each TAZ is split into smaller units based on the roadway network in Eagle Mountain. 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 TAZ Socioeconomic Data).

Within these development zones are individual land use zones which were assigned trips using ITE's trip generation methodology. The percentage of each of these zones that is currently developed was determined and projections were made in coordination with the City for how much development will occur in future years (10-year and 30-year scenarios).

Existing Functional Classification and Level of Service

The existing functional classification used in the TMP is shown in [Figure 2](#). 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 3](#).



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Legend

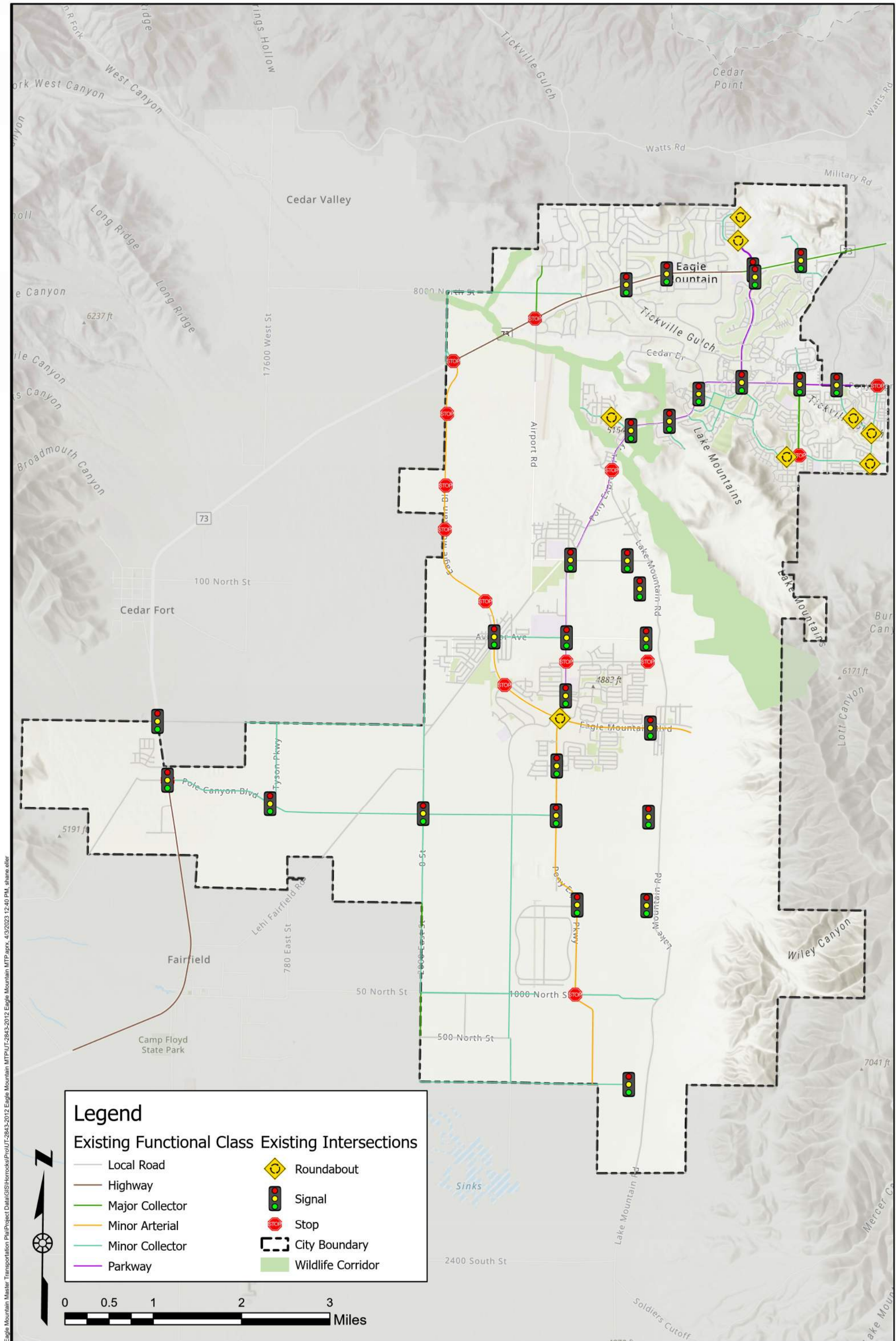
- Local Road
- Major Road
- Count Locations



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Count Location Map
 Eagle Mountain Impact Fee Facilities Plan

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Legend

Existing Functional Class		Existing Intersections	
	Local Road		Roundabout
	Highway		Signal
	Major Collector		Stop
	Minor Arterial		City Boundary
	Minor Collector		Wildlife Corridor
	Parkway		



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Existing Functional Classification
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	Figure 2



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Mitigations to Existing Capacity Deficiencies

Using LOS D as the threshold for roadway improvements in **Figure 3** (Indicated by red lines), the following shows the roadways that have existing capacity deficiencies:

Roadway Segments at or below LOS E:

- **Cory Wride Highway: Mountain View Corridor to Ranches**

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.

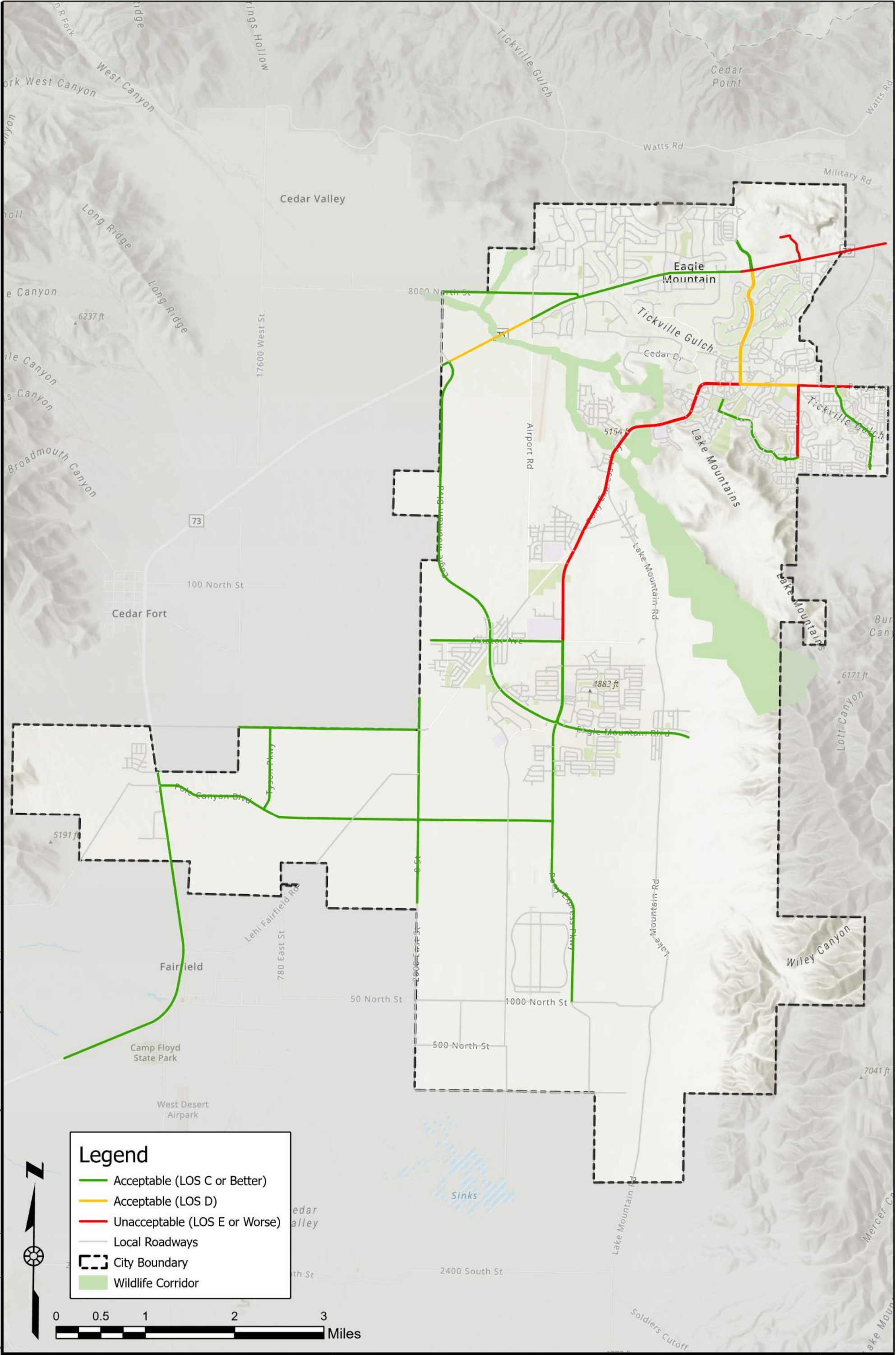
Future Roadway Network Conditions

By calibrating the MAG Travel Demand Model to fit the existing traffic conditions in Eagle Mountain, the model is prepared to project traffic volumes into the future. There are two future models used for this TMP. 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 4**, the following roadways would perform at LOS E or worse if no action were taken by 2030 to improve the roadway network:

- **Cory B Wride Highway:** Airport Road to eastern border.
- **Pony Express Parkway:** Aviator Avenue to Ranches Parkway.
- **Pony Express Parkway:** Porters Crossing Parkway to eastern border.
- **Mount Airey Drive:** North of Cory Wride Highway
- **Porters Crossing Parkway:** Pony Express Parkway to Golden Eagle Road



Legend

- Acceptable (LOS C or Better)
- Acceptable (LOS D)
- Unacceptable (LOS E or Worse)
- Local Roadways
- City Boundary
- Wildlife Corridor



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

Table 3 and **Figure 5** show the funding sources for IFFP project costs attributable to new growth as a percentage of the total project. A portion of each project in **Table 3** is impact fee eligible, depending on the funding. Only that portion of a project cost funded by Eagle Mountain is impact fee eligible. For each project, that amount is indicated in the **Eagle Mountain %** and **Eagle Mountain Total** columns. Where the project is likely to be completed using UDOT’s Small Urban fund, the Eagle Mountain impact fee eligible portion of the project is its “matching funds” obligation of the total project cost. UDOT projects will be funded 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 10% 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 10% was used for the cost estimates included in the IFFP. All cost estimates along with all unit costs and assumptions are included in **IFFP Cost Estimates**.

Table 3: Impact Fee Facilities Plan Project Funding Sources

Project	Location	Total Price	Funding Source	Eagle Mountain %	Eagle Mountain Total
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	\$20,197,000	Eagle Mountain	58%	\$11,715,000
1b	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	\$2,699,000	Eagle Mountain	44%	\$1,188,000
1c	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	\$3,608,000	Eagle Mountain	39%	\$1,408,000
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	\$37,298,000	MAG/Eagle Mountain	100%	\$37,298,000
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	\$5,099,000	Eagle Mountain	44%	\$2,244,000
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	\$15,313,000	Eagle Mountain	100%	\$15,313,000
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	\$10,047,000	Eagle Mountain	39%	\$3,919,000
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	\$28,542,000	Eagle Mountain	39%	\$11,132,000

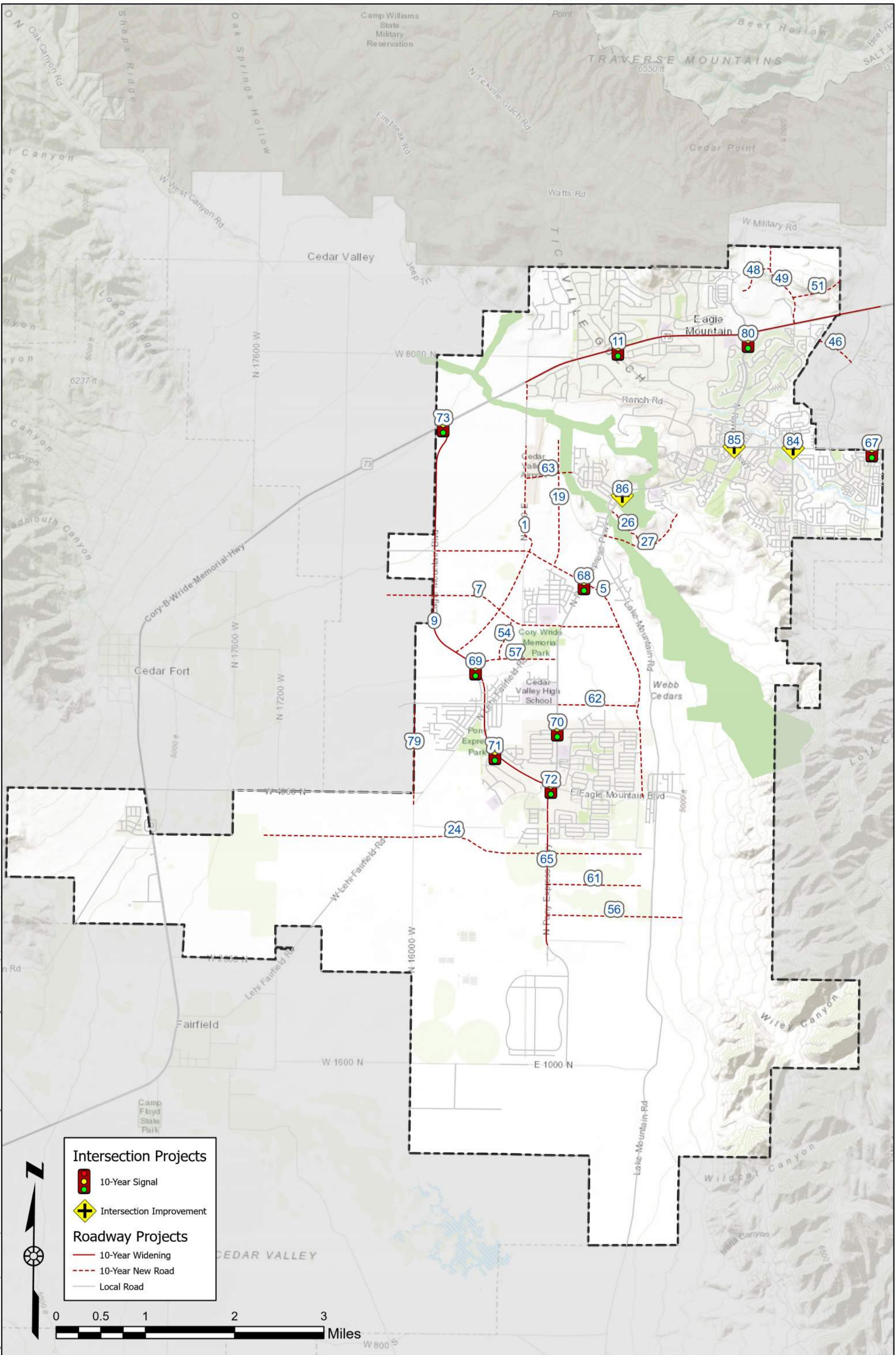


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Project	Location	Total Price	Funding Source	Eagle Mountain %	Eagle Mountain Total
26	New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	\$3,425,000	Eagle Mountain	39%	\$1,336,000
27	New Road (possibly E Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road -	\$6,394,000	Eagle Mountain	39%	\$2,494,000
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	\$2,837,000	Eagle Mountain	39%	\$1,107,000
48	New Road (Wagstaff Way): N Spring Run Drive to Spring Run Parkway	\$1,998,000	Eagle Mountain	39%	\$780,000
49	New Road (Spring Run Parkway): SR-73 to northern border	\$6,008,000	Eagle Mountain	39%	\$2,344,000
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	\$5,454,000	Eagle Mountain	39%	\$2,128,000
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	\$9,134,000	Eagle Mountain	39%	\$3,563,000
57	New Road (unknown W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	\$6,280,000	Eagle Mountain	39%	\$2,450,000
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	\$13,148,000	Eagle Mountain	58%	\$7,626,000
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	\$6,677,000	Eagle Mountain	44%	\$2,938,000
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	\$3,654,000	Eagle Mountain	39%	\$1,426,000
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	\$7,645,000	Eagle Mountain	100%	\$7,645,000
67	Wood Haven Boulevard & Pony Express Parkway - new signal	\$300,000	Eagle Mountain	100%	\$300,000
68	Pony Express Parkway & East Expressway - new signal	\$300,000	Eagle Mountain	100%	\$300,000
69	Eagle Mountain Boulevard & Project 57 - new signal	\$300,000	Eagle Mountain	100%	\$300,000
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	\$300,000	Eagle Mountain	7%	\$21,000
71	Eagle Mountain Boulevard & Major Street - new signal	\$300,000	Eagle Mountain	100%	\$300,000
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	\$2,426,000	Eagle Mountain	100%	\$2,426,000
79	New Road (1600 West): Aviator Avenue to 4000 North	\$3,965,000	Eagle Mountain	44%	\$1,745,000
80	New High-T Signal: Ranches Parkway & Campus Drive	\$1,626,000	Eagle Mountain	100%	\$1,626,000
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	\$321,000	Eagle Mountain	100%	\$321,000
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	\$126,000	Eagle Mountain	100%	\$126,000
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	\$187,000	Eagle Mountain	100%	\$187,000
	Total	\$205,608,000			\$127,706,000



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2030 Roadway and Intersection Improvements
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Figure 11	

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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 Eagle Mountain 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 Eagle Mountain currently generates approximately **4,916** one-way PM peak hour trips. The projected 2030 PM peak hour trip number for Eagle Mountain is **9,500** a **93%** increase on today's value. This gives a total increase of **4,584** 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.

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.

Pass-Through Reduction

Included in **Table 4** 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 Eagle Mountain, 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 Eagle Mountain and the origin and destination of that trip is located outside of Eagle Mountain, that trip is considered a pass-through trip. Since a pass-through trip does not arise from new development activity in Eagle Mountain, 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 4: Pass-Through Traffic Cost Reduction Calculation

Project	Location	Added Capacity	Pass-Through Volume	Pass Through %
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	32,800	533	2%
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road	13,400	1	1%
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57	13,400	3	1%
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	13,400	2	1%
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	13,400	6	1%
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	20,700	3	1%
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	12,100	2	1%



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Project	Location	Added Capacity	Pass-Through Volume	Pass Through %
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	12,100	2	1%
26	New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	12,100	0	0%
27	New Road (possibly E Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road -	12,100	1	1%
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	12,100	1	1%
48	New Road (Wagstaff Way): N Spring Run Drive to Spring Run Parkway	12,100	0	0%
49	New Road (Spring Run Parkway): SR-73 to northern border	12,100	4	1%
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	12,100	3	1%
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	12,100	7	1%
57	New Road (unknown W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	12,100	6	1%
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	12,100	1	1%
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	13,400	7	1%
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	12,100	0	0%
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	20,700	4	1%
67	Wood Haven Boulevard & Pony Express Parkway - new signal	0	0	0%
68	Pony Express Parkway & East Expressway - new signal	0	0	0%
69	Eagle Mountain Boulevard & Project 57 - new signal	0	0	0%
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	0	0	0%
71	Eagle Mountain Boulevard & Major Street - new signal	0	0	0%
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	0	0	0%
79	New Road (1600 West): Aviator Avenue to 4000 North	12,100	1	1%
80	New High-T Signal: Ranches Parkway & Campus Drive	0	0	0%
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	0	0	0%
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	0	0	0%
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	0	0	0%

Excess Capacity Reduction

Included in **Table 5** 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 5: Excess Capacity Cost Reduction Calculations

Project	Location	Future Capacity	Added Capacity	2030 Traffic Volume	2030 Excess Capacity	Cost Reduction %
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	32,800	32,800	12,800	20,000	61%
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road	13,400	13,400	4,320	9,080	68%
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57	12,100	12,100	3,310	8,790	73%



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Project	Location	Future Capacity	Added Capacity	2030 Traffic Volume	2030 Excess Capacity	Cost Reduction %
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	13,400	13,400	15,910	-2,510	0%
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	13,400	13,400	10,300	3,100	23%
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	32,800	20,700	15,200	17,600	85%
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	12,100	12,100	1,030	11,070	14%
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	12,100	12,100	5,400	6,700	55%
26	New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	12,100	12,100	0	12,100	100%
27	New Road (possibly E Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road -	12,100	12,100	3,810	8,290	69%
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	12,100	12,000	5,000	7,100	59%
48	New Road (Wagstaff Way): N Spring Run Drive to Spring Run Parkway	12,100	12,100	0	12,100	100%
49	New Road (Spring Run Parkway): SR-73 to northern border	12,100	12,100	4,820	7,280	60%
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	12,100	12,100	3,480	8,620	71%
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	12,100	12,100	1,400	10,700	88%
57	New Road (unknown W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	12,100	12,100	2,080	10,020	83%
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	12,100	12,100	1,130	10,970	91%
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	13,400	13,400	1,720	11,680	87%
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	12,100	12,100	1,910	10,190	84%
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	32,800	20,700	12,800	20,000	97%
67	Wood Haven Boulevard & Pony Express Parkway - new signal	0	0	0	0	0%
68	Pony Express Parkway & East Expressway - new signal	0	0	0	0	0%
69	Eagle Mountain Boulevard & Project 57 - new signal	0	0	0	0	0%
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	0	0	0	0	0%
71	Eagle Mountain Boulevard & Major Street - new signal	0	0	0	0	0%
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	0	0	0	0	0%
79	New Road (1600 West): Aviator Avenue to 4000 North	12,100	12,100	1,720	10,380	86%
80	New High-T Signal: Ranches Parkway & Campus Drive	0	0	0	0	0%
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	0	0	0	0	0%
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	0	0	0	0	0%
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	0	0	0	0	0%



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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 existing roadway volume. 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 6** shows the cost reduction based on the existing user share for all new roadway construction.

Table 6: Existing User Share Cost Reduction Calculation

Project	Location	Added Capacity	Existing User Volume	Existing User %
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	32,800	128	1%
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road	13,400	43	1%
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57	12,100	33	1%
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	13,400	163	1%
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	13,400	35	1%
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	20,700	10	1%
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	12,100	105	1%
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	12,100	56	1%
26	New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	12,100	0	1%
27	New Road (possibly E Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road -	12,100	32	1%
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	12,100	50	1%
48	New Road (Wagstaff Way): N Spring Run Drive to Spring Run Parkway	12,100	0	1%
49	New Road (Spring Run Parkway): SR-73 to northern border	12,100	47	1%
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	12,100	35	1%
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	12,100	14	1%
57	New Road (unknown W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	12,100	23	1%
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	12,100	11	1%
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	13,400	17	1%
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	12,100	7	1%
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	20,700	44	1%
67	Wood Haven Boulevard & Pony Express Parkway - new signal	0	0	0%
68	Pony Express Parkway & East Expressway - new signal	0	0	0%
69	Eagle Mountain Boulevard & Project 57 - new signal	0	0	0%
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	0	0	0%
71	Eagle Mountain Boulevard & Major Street - new signal	0	0	0%
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	0	0	0%
79	New Road (1600 West): Aviator Avenue to 4000 North	12,100	18	1%



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Project	Location	Added Capacity	Existing User Volume	Existing User %
80	New High-T Signal: Ranches Parkway & Campus Drive	0	0	0%
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	0	0	0%
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	0	0	0%
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	0	0	0%

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 7** is a summary table that accounts for all cost reductions attributed to existing deficiencies, existing user share, pass-through, and excess capacity.

Table 7: Proportion of Projects Attributed to New Development

Project	Location	Cost Reduction For			Proportion Attributable to Growth
		Existing Deficiencies/ User Share	Reduction for Pass-Through	Reduction for Excess Capacity	
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	1%	2%	61%	36%
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road	1%	1%	68%	30%
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57	1%	1%	73%	25%
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	1%	1%	0%	98%
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	1%	1%	23%	75%
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	1%	1%	85%	13%
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	1%	1%	91%	7%
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	1%	1%	55%	43%
26	New Road (Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	1%	0%	99%	0%
27	New Road (Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road	1%	1%	69%	29%
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	1%	1%	58%	40%
48	New Road (Wagstaff Way): N Spring Run Dr to Spring Run Parkway	1%	0%	99%	0%
49	New Road (Spring Run Parkway): SR-73 to northern border	1%	1%	60%	38%
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	1%	1%	71%	27%
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	1%	1%	88%	10%
57	New Road (W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	1%	1%	83%	15%
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	1%	1%	91%	7%

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Project	Location	Cost Reduction For			Proportion Attributable to Growth
		Existing Deficiencies/ User Share	Reduction for Pass-Through	Reduction for Excess Capacity	
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	1%	1%	87%	11%
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	1%	1%	84%	15%
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	1%	1%	97%	1%
67	Wood Haven Boulevard & Pony Express Parkway - new signal	1%	0%	0%	99%
68	Pony Express Parkway & East Expressway - new signal	1%	0%	0%	99%
69	Eagle Mountain Boulevard & Project 57 - new signal	1%	0%	0%	99%
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	1%	0%	0%	99%
71	Eagle Mountain Boulevard & Major Street - new signal	1%	0%	0%	99%
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	1%	0%	0%	99%
79	New Road (1600 West): Aviator Avenue to 4000 North	1%	1%	86%	12%
80	New High-T Signal: Ranches Parkway & Campus Drive	1%	0%	0%	99%
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	1%	0%	0%	99%
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	1%	0%	0%	99%
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	1%	0%	0%	99%

Using the proportion attributed to future growth in [Table 7](#), the cost attributable to future growth is calculated in [Table 8](#). Of the **\$127,706,000** required by Eagle Mountain for roadway improvements, **\$41,751,000** is eligible to be paid using impact fees. All project costs in [Table 8](#) are 2023 project costs. All assumptions, rates and specific project costs are found in [IFFP Cost Estimates](#).

Table 8: Cost Attributable to Growth

Project	Location	Total Cost	Eagle Mountain Total	Proportion Attributable to Growth	Cost Attributable to Growth
1a	New Road (Old Airport Rd): Cory B Wride Highway to East Expressway	\$20,197,000	\$11,715,000	36%	\$4,217,000
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road	\$2,699,000	\$1,188,000	30%	\$356,000
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57	\$3,608,000	\$1,408,000	25%	\$352,000
5	New road (East Expressway): Eagle Mountain Boulevard to Eagle Mountain Boulevard	\$37,298,000	\$37,298,000	47%	\$17,530,000
7	New Road (Mid Valley Road): Eagle Mountain Boulevard to East Expressway	\$5,099,000	\$2,244,000	75%	\$1,683,000
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway	\$15,313,000	\$15,313,000	13%	\$1,991,000
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	\$10,047,000	\$3,919,000	7%	\$274,000
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway	\$28,542,000	\$11,132,000	43%	\$4,787,000



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Project	Location	Total Cost	Eagle Mountain Total	Proportion Attributable to Growth	Cost Attributable to Growth
26	New Road (Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Parkway	\$3,425,000	\$1,336,000	0%	\$0
27	New Road (Oquirrh Ranch Parkway): Pony Express Parkway to Hidden Valley Road	\$6,394,000	\$2,494,000	29%	\$723,000
46	New Road (Talus Ridge Dr): Scenic Mountain Dr to Mt Saratoga Boulevard	\$2,837,000	\$1,107,000	40%	\$443,000
48	New Road (Wagstaff Way): N Spring Run Dr to Spring Run Parkway	\$1,998,000	\$780,000	0%	\$0
49	New Road (Spring Run Parkway): SR-73 to northern border	\$6,008,000	\$2,344,000	38%	\$891,000
51	New Road (Wagstaff Way): Spring Run Parkway to eastern border	\$5,454,000	\$2,128,000	27%	\$575,000
56	New Road (unknown W/E Rd): Pony Express Parkway to Project 31	\$9,134,000	\$3,563,000	10%	\$356,000
57	New Road (W/E Rd): Eagle Mountain Boulevard to Pony Express Parkway	\$6,280,000	\$2,450,000	15%	\$368,000
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	\$13,148,000	\$7,626,000	7%	\$534,000
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway	\$6,677,000	\$2,938,000	11%	\$323,000
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	\$3,654,000	\$1,426,000	15%	\$214,000
65	Pony Express Parkway Widening: Eagle Mountain Boulevard to Eagle Mountain Public Works	\$7,645,000	\$7,645,000	1%	\$76,000
67	Wood Haven Boulevard & Pony Express Parkway - new signal	\$300,000	\$300,000	99%	\$297,000
68	Pony Express Parkway & East Expressway - new signal	\$300,000	\$300,000	99%	\$297,000
69	Eagle Mountain Boulevard & Project 57 - new signal	\$300,000	\$300,000	99%	\$297,000
70	Bobby Wren Boulevard & Pony Express Parkway - new signal	\$300,000	\$21,000	99%	\$21,000
71	Eagle Mountain Boulevard & Major Street - new signal	\$300,000	\$300,000	99%	\$297,000
72	Pony Express Parkway & Eagle Mountain Boulevard - new signal	\$2,426,000	\$2,426,000	99%	\$2,402,000
79	New Road (1600 West): Aviator Avenue to 4000 North	\$3,965,000	\$1,745,000	12%	\$209,000
80	New High-T Signal: Ranches Parkway & Campus Drive	\$1,626,000	\$1,626,000	99%	\$1,610,000
84	Intersection Improvement: Porter's Crossing Parkway/Pony Express Parkway	\$321,000	\$321,000	99%	\$318,000
85	Intersection Improvement: Ranches Parkway/Pony Express Parkway	\$126,000	\$126,000	99%	\$125,000
86	Intersection Improvement: Lone Tree Parkway/Pony Express Parkway	\$187,000	\$187,000	99%	\$185,000
Total		\$205,608,000	\$127,706,000		\$41,751,000

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 because of new growth. This section discusses the potential revenue sources that could be used to fund transportation needs because of new development.

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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 Eagle Mountain 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. 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). 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.

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The rest is made available to counties and cities. As many of the roads in Eagle Mountain 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, Eagle Mountain 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 using impact fees. These fees are assessed because 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 Eagle Mountain currently uses Class D 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 because 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 because of new growth.

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

Interfund Loans

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

Developer Dedications and Exactions

Developer dedications and exactions for road System Facilities can both be credited against the developer's impact fee analysis. If the value of the developer dedications and/or exactions 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 exactions 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 statute, 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.



10 Year Capital Facilities Plan Cost Summary

Eagle Mountain 10 Year Capital Facilities Plan					
Project	Location	Total Cost	Funding Source	Eagle	Eagle Mountain
1	New Road (Old Airport Rd): Cory B Wride HWY to East Expressway - New 5 lane road	\$20,197,000	Eagle Mountain	58%	\$11,715,000
1b	New Road (Old Airport Rd): East Expressway to Mid Valley Road - New 3 lane road	\$2,699,000	Eagle Mountain	44%	\$1,188,000
1c	New Road (Old Airport Rd): Mid Valley Road to Project 57 - New 3 lane road	\$3,608,000	Eagle Mountain	39%	\$1,408,000
5	New road (East Expressway): Pony Express Pkwy to Eagle Mountain Blvd - New 5 lane road	\$37,298,000	MAG/Other Funds	100%	\$37,298,000
7	New Road (Mid Valley Road): Eagle Mountain Blvd to East Expressway - New 3 lane road	\$5,099,000	Eagle Mountain	44%	\$2,244,000
9	Eagle Mountain Boulevard Widening: SR-73 to East Expressway - Widen to 5 lanes	\$15,313,000	Eagle Mountain	100%	\$15,313,000
19	New Road (unknown N/S road): East of Old Airport Rd to East Expressway	\$10,047,000	Eagle Mountain	39%	\$3,919,000
24	New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway - New 2 lane road	\$28,542,000	Eagle Mountain	39%	\$11,132,000
26	New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Pkwy -	\$3,425,000	Eagle Mountain	39%	\$1,336,000
27	New Road (possibly E Oquirrh Ranch Parkway): Pony Express Pkwy to Hidden Valley Road -	\$6,394,000	Eagle Mountain	39%	\$2,494,000
46	New Road (Talus Ridge Drive): Scenic Mountain Dr to Mt Saratoga Blvd	\$2,837,000	Eagle Mountain	39%	\$1,107,000
48	New Road (possibly Wagstaff Way): N Spring Run Drive to Spring Run Parkway	\$1,998,000	Eagle Mountain	39%	\$780,000
49	New Road (Spring Run Parkway): SR-73 to northern border	\$6,008,000	Eagle Mountain	39%	\$2,344,000
51	New Road (possibly Wagstaff Way): Spring Run Parkway to eastern border	\$5,454,000	Eagle Mountain	39%	\$2,128,000
56	New Road (unknown W/E road): Pony Express Pkwy to Project 31 above	\$9,134,000	Eagle Mountain	39%	\$3,563,000
57	New Road (unknown W/E road): Eagle Mountain Blvd to Pony Express Parkway	\$6,280,000	Eagle Mountain	39%	\$2,450,000
61	New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway	\$13,148,000	Eagle Mountain	58%	\$7,626,000
62	New Road (Aviator Avenue): Pony Express Parkway to East Expressway - New 3 lane road	\$6,677,000	Eagle Mountain	44%	\$2,938,000
63	New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road	\$3,654,000	Eagle Mountain	39%	\$1,426,000
65	Pony Express Parkway Widening: Eagle Mountain Blvd to Eagle Mountain Public Works	\$7,645,000	Eagle Mountain	100%	\$7,645,000
67	WoodHaven Blvd & Pony Express Pkwy - New Signal	\$300,000	Eagle Mountain	100%	\$300,000
68	Pony Express Pkwy & East Expressway - New Signal	\$300,000	Eagle Mountain	100%	\$300,000
69	Eagle Mountain Boulevard & Project 57 - New Signal	\$300,000	Eagle Mountain	100%	\$300,000
70	Bobby Wren Boulevard & Pony Express Parkway - New Signal	\$300,000	Eagle Mountain	7%	\$21,000
71	Eagle Mountain Boulevard & Major Street - New Signal	\$300,000	Eagle Mountain	100%	\$300,000
72	Pony Express Pkwy & Eagle Mountain Boulevard - New Signal	\$2,426,000	Eagle Mountain	100%	\$2,426,000
79	New Road (1600 West): Aviator Avenue to 4000 North	\$3,965,000	Eagle Mountain	44%	\$1,745,000
80	New High-T Signal: Ranches Parkway & Campus Drive	\$1,626,000	Eagle Mountain	100%	\$1,626,000
84	Intersection Improvement: Porter's Crossing Pkwy/Pony Express Pkwy	\$321,000	Eagle Mountain	100%	\$321,000
85	Intersection Improvement: Ranches Pkwy/Pony Express Pkwy	\$126,000	Eagle Mountain	100%	\$126,000
86	Intersection Improvement: Lone Tree Pkwy/Pony Express Pkwy	\$187,000	Eagle Mountain	100%	\$187,000
	Total	\$205,608,000			\$127,706,000



IFFP Cost Estimates

Eagle Mountain Transportation Master Plan

New Road (Old Airport Rd): Cory B Wride HWY to East Expressway - New 5 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	292,136	\$2,921,357
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	35	\$69,111
Roadway Excavation	C.Y.	\$11	66,019	\$693,203
HMA Concrete	Ton	\$85	18,419	\$1,565,649
Untreated Base Course	C.Y.	\$15	17,605	\$264,077
Granular Borrow	C.Y.	\$40	30,809	\$1,232,361
Curb and Gutter (2.5' width)	L.F.	\$23	19,806	\$445,631
Sidewalk (5' width)	L.F.	\$25	19,806	\$495,145
Drainage	L.F.	\$45	19,806	\$891,261
Right of Way	S.F.	\$2.30	1,505,241	\$3,462,055
Street Lighting	L.F.	\$100	9,903	\$990,290
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$13,030,141
Mobilization (10% of Construction)	Lump	10%	1,303,014	\$1,303,014
Contingency (25% of Construction)	Lump	25%	3,257,535	\$3,257,535
Subtotal				\$17,590,691

Preconstruction Engineering	10%	\$1,303,014
Construction Engineering	10%	\$1,303,014

Total Project Costs	\$20,197,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 1
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

New Road (Old Airport Rd): East Expressway to Mid Valley Road - New 3 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	33,347	\$333,465
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	4	\$8,722
Roadway Excavation	C.Y.	\$11	7,485	\$78,594
HMA Concrete	Ton	\$85	2,088	\$177,511
Untreated Base Course	C.Y.	\$15	1,996	\$29,941
Granular Borrow	C.Y.	\$40	2,495	\$99,802
Curb and Gutter (2.5' width)	L.F.	\$23	4,042	\$90,945
Sidewalk (5' width)	L.F.	\$25	4,042	\$101,050
Drainage	L.F.	\$45	4,042	\$181,890
Right of Way	S.F.	\$2.30	189,974	\$436,940
Street Lighting	L.F.	\$100	2,021	\$202,100
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$1,740,961
Mobilization (10% of Construction)	Lump	10%	174,096	\$174,096
Contingency (25% of Construction)	Lump	25%	435,240	\$435,240
Subtotal				\$2,350,298

Preconstruction Engineering	10%	\$174,096
Construction Engineering	10%	\$174,096

Total Project Costs	\$2,699,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 1b
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Collector - 94'

Eagle Mountain Transportation Master Plan

New Road (Old Airport Rd): Mid Valley Road to Project 57 - New 3 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	25,280	\$252,800
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	6	\$11,172
Roadway Excavation	C.Y.	\$11	11,704	\$122,889
HMA Concrete	Ton	\$85	3,265	\$277,553
Untreated Base Course	C.Y.	\$15	3,121	\$46,815
Granular Borrow	C.Y.	\$40	3,901	\$156,049
Curb and Gutter (2.5' width)	L.F.	\$23	6,320	\$142,200
Sidewalk (5' width)	L.F.	\$25	6,320	\$158,000
Drainage	L.F.	\$45	6,320	\$284,400
Right of Way	S.F.	\$2.30	243,320	\$559,636
Street Lighting	L.F.	\$100	3,160	\$316,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$2,327,514
Mobilization (10% of Construction)	Lump	10%	232,751	\$232,751
Contingency (25% of Construction)	Lump	25%	581,879	\$581,879
Subtotal				\$3,142,144

Preconstruction Engineering	10%	\$232,751
Construction Engineering	10%	\$232,751

Total Project Costs	\$3,608,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 1c
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New road (East Expressway): Pony Express Pkwy to Eagle Mountain Blvd - New 5 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	539,496	\$5,394,955
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	64	\$127,630
Roadway Excavation	C.Y.	\$11	121,920	\$1,280,159
HMA Concrete	Ton	\$85	34,016	\$2,891,330
Untreated Base Course	C.Y.	\$15	32,512	\$487,680
Granular Borrow	C.Y.	\$40	56,896	\$2,275,838
Curb and Gutter (2.5' width)	L.F.	\$23	36,576	\$822,959
Sidewalk (5' width)	L.F.	\$25	36,576	\$914,399
Drainage	L.F.	\$45	36,576	\$1,645,919
Right of Way	S.F.	\$2.30	2,779,774	\$6,393,479
Street Lighting	L.F.	\$100	18,288	\$1,828,798
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$24,063,146
Mobilization (10% of Construction)	Lump	10%	2,406,315	\$2,406,315
Contingency (25% of Construction)	Lump	25%	6,015,787	\$6,015,787
Subtotal				\$32,485,247

Preconstruction Engineering	10%	\$2,406,315
Construction Engineering	10%	\$2,406,315

Total Project Costs	\$37,298,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 5
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

New Road (Mid Valley Road): Eagle Mountain Blvd to East Expressway - New 3 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	63,001	\$630,006
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	8	\$16,479
Roadway Excavation	C.Y.	\$11	14,142	\$148,486
HMA Concrete	Ton	\$85	3,945	\$335,367
Untreated Base Course	C.Y.	\$15	3,771	\$56,566
Granular Borrow	C.Y.	\$40	4,714	\$188,554
Curb and Gutter (2.5' width)	L.F.	\$23	7,636	\$171,820
Sidewalk (5' width)	L.F.	\$25	7,636	\$190,911
Drainage	L.F.	\$45	7,636	\$343,640
Right of Way	S.F.	\$2.30	358,913	\$825,499
Street Lighting	L.F.	\$100	3,818	\$381,822
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$3,289,150
Mobilization (10% of Construction)	Lump	10%	328,915	\$328,915
Contingency (25% of Construction)	Lump	25%	822,287	\$822,287
Subtotal				\$4,440,352

Preconstruction Engineering	10%	\$328,915
Construction Engineering	10%	\$328,915

Total Project Costs	\$5,099,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 7
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Collector - 94'

Eagle Mountain Transportation Master Plan

Eagle Mountain Boulevard Widening: SR-73 to East Expressway - Widen to 5 Lanes

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	221,481	\$2,214,808
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	26	\$52,396
Roadway Excavation	C.Y.	\$11	50,052	\$525,548
HMA Concrete	Ton	\$85	13,965	\$1,186,987
Untreated Base Course	C.Y.	\$15	13,347	\$200,209
Granular Borrow	C.Y.	\$40	23,358	\$934,307
Curb and Gutter (2.5' width)	L.F.	\$23	15,016	\$337,852
Sidewalk (5' width)	L.F.	\$25	15,016	\$375,391
Drainage	L.F.	\$45	15,016	\$675,704
Right of Way	S.F.	\$2.30	1,141,189	\$2,624,735
Street Lighting	L.F.	\$100	7,508	\$750,782
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$9,878,720
Mobilization (10% of Construction)	Lump	10%	987,872	\$987,872
Contingency (25% of Construction)	Lump	25%	2,469,680	\$2,469,680
Subtotal				\$13,336,272

Preconstruction Engineering	10%	\$987,872
Construction Engineering	10%	\$987,872

Total Project Costs	\$15,313,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 9
Improvement Type: Capacity Improvement
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

New Road (unknown N/S road): East of Old Airport Rd to East Expressway

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	70,400	\$704,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	16	\$31,111
Roadway Excavation	C.Y.	\$11	32,593	\$342,222
HMA Concrete	Ton	\$85	9,093	\$772,933
Untreated Base Course	C.Y.	\$15	8,691	\$130,370
Granular Borrow	C.Y.	\$40	10,864	\$434,568
Curb and Gutter (2.5' width)	L.F.	\$23	17,600	\$396,000
Sidewalk (5' width)	L.F.	\$25	17,600	\$440,000
Drainage	L.F.	\$45	17,600	\$792,000
Right of Way	S.F.	\$2.30	677,600	\$1,558,480
Street Lighting	L.F.	\$100	8,800	\$880,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$6,481,685
Mobilization (10% of Construction)	Lump	10%	648,168	\$648,168
Contingency (25% of Construction)	Lump	25%	1,620,421	\$1,620,421
Subtotal				\$8,750,275

Preconstruction Engineering	10%	\$648,168
Construction Engineering	10%	\$648,168

Total Project Costs	\$10,047,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 19
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (possibly W 3500 N St?): Tyson Parkway to East Expressway - New 2 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	200,000	\$2,000,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	44	\$88,384
Roadway Excavation	C.Y.	\$11	92,593	\$972,222
HMA Concrete	Ton	\$85	25,833	\$2,195,833
Untreated Base Course	C.Y.	\$15	24,691	\$370,370
Granular Borrow	C.Y.	\$40	30,864	\$1,234,568
Curb and Gutter (2.5' width)	L.F.	\$23	50,000	\$1,125,000
Sidewalk (5' width)	L.F.	\$25	50,000	\$1,250,000
Drainage	L.F.	\$45	50,000	\$2,250,000
Right of Way	S.F.	\$2.30	1,925,000	\$4,427,500
Street Lighting	L.F.	\$100	25,000	\$2,500,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$18,413,878
Mobilization (10% of Construction)	Lump	10%	1,841,388	\$1,841,388
Contingency (25% of Construction)	Lump	25%	4,603,469	\$4,603,469
Subtotal				\$24,858,735

Preconstruction Engineering	10%	\$1,841,388
Construction Engineering	10%	\$1,841,388

Total Project Costs	\$28,542,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 24
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (possibly Bald Eagle Way): Pony Express Parkway to possible E Oquirrh Ranch Pkwy - New 2 lane

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	24,000	\$240,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	5	\$10,606
Roadway Excavation	C.Y.	\$11	11,111	\$116,667
HMA Concrete	Ton	\$85	3,100	\$263,500
Untreated Base Course	C.Y.	\$15	2,963	\$44,444
Granular Borrow	C.Y.	\$40	3,704	\$148,148
Curb and Gutter (2.5' width)	L.F.	\$23	6,000	\$135,000
Sidewalk (5' width)	L.F.	\$25	6,000	\$150,000
Drainage	L.F.	\$45	6,000	\$270,000
Right of Way	S.F.	\$2.30	231,000	\$531,300
Street Lighting	L.F.	\$100	3,000	\$300,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$2,209,665
Mobilization (10% of Construction)	Lump	10%	220,967	\$220,967
Contingency (25% of Construction)	Lump	25%	552,416	\$552,416
Subtotal				\$2,983,048

Preconstruction Engineering	10%	\$220,967
Construction Engineering	10%	\$220,967

Total Project Costs	\$3,425,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 26
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (possibly E Oquirrh Ranch Parkway): Pony Express Pkwy to Hidden Valley Road -

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	44,800	\$448,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	10	\$19,798
Roadway Excavation	C.Y.	\$11	20,741	\$217,778
HMA Concrete	Ton	\$85	5,787	\$491,867
Untreated Base Course	C.Y.	\$15	5,531	\$82,963
Granular Borrow	C.Y.	\$40	6,914	\$276,543
Curb and Gutter (2.5' width)	L.F.	\$23	11,200	\$252,000
Sidewalk (5' width)	L.F.	\$25	11,200	\$280,000
Drainage	L.F.	\$45	11,200	\$504,000
Right of Way	S.F.	\$2.30	431,200	\$991,760
Street Lighting	L.F.	\$100	5,600	\$560,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$4,124,709
Mobilization (10% of Construction)	Lump	10%	412,471	\$412,471
Contingency (25% of Construction)	Lump	25%	1,031,177	\$1,031,177
Subtotal				\$5,568,357

Preconstruction Engineering	10%	\$412,471
Construction Engineering	10%	\$412,471

Total Project Costs	\$6,394,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 27
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (Talus Ridge Drive): Scenic Mountain Dr to Mt Saratoga Blvd

Costs

Item	Unit	Unit Cost	Quantity	Cost
Parkstrip	S.F.	\$10	19,877	\$198,774
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	4	\$8,784
Roadway Excavation	C.Y.	\$11	9,202	\$96,626
HMA Concrete	Ton	\$85	2,567	\$218,237
Untreated Base Course	C.Y.	\$15	2,454	\$36,810
Granular Borrow	C.Y.	\$40	3,067	\$122,700
Curb and Gutter (2.5' width)	L.F.	\$23	4,969	\$111,810
Sidewalk (5' width)	L.F.	\$25	4,969	\$124,234
Drainage	L.F.	\$45	4,969	\$223,621
Right of Way	S.F.	\$2.30	191,320	\$440,036
Street Lighting	L.F.	\$100	2,485	\$248,467
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$1,830,099
Mobilization (10% of Construction)	Lump	10%	183,010	\$183,010
Contingency (25% of Construction)	Lump	25%	457,525	\$457,525
Subtotal				\$2,470,634
Preconstruction Engineering			10%	\$183,010
Construction Engineering			10%	\$183,010
Total Project Costs				\$2,837,000

Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 46
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (possibly Wagstaff Way): N Spring Run Drive to Spring Run Parkway

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	14,000	\$140,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	3	\$6,187
Roadway Excavation	C.Y.	\$11	6,481	\$68,056
HMA Concrete	Ton	\$85	1,808	\$153,708
Untreated Base Course	C.Y.	\$15	1,728	\$25,926
Granular Borrow	C.Y.	\$40	2,160	\$86,420
Curb and Gutter (2.5' width)	L.F.	\$23	3,500	\$78,750
Sidewalk (5' width)	L.F.	\$25	3,500	\$87,500
Drainage	L.F.	\$45	3,500	\$157,500
Right of Way	S.F.	\$2.30	134,750	\$309,925
Street Lighting	L.F.	\$100	1,750	\$175,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$1,288,971
Mobilization (10% of Construction)	Lump	10%	128,897	\$128,897
Contingency (25% of Construction)	Lump	25%	322,243	\$322,243
Subtotal				\$1,740,111

Preconstruction Engineering	10%	\$128,897
Construction Engineering	10%	\$128,897

Total Project Costs	\$1,998,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 48
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (Spring Run Parkway): SR-73 to northern border

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	40,000	\$400,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	9	\$17,677
Roadway Excavation	C.Y.	\$11	18,519	\$194,444
HMA Concrete	Ton	\$85	5,167	\$439,167
Untreated Base Course	C.Y.	\$15	4,938	\$74,074
Granular Borrow	C.Y.	\$40	6,173	\$246,914
Curb and Gutter (2.5' width)	L.F.	\$23	10,000	\$225,000
Sidewalk (5' width)	L.F.	\$25	10,000	\$250,000
Drainage	L.F.	\$45	10,000	\$450,000
Right of Way	S.F.	\$2.30	385,000	\$885,500
Street Lighting	L.F.	\$100	5,000	\$500,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$3,875,776
Mobilization (10% of Construction)	Lump	10%	387,578	\$387,578
Contingency (25% of Construction)	Lump	25%	968,944	\$968,944
Subtotal				\$5,232,297

Preconstruction Engineering	10%	\$387,578
Construction Engineering	10%	\$387,578

Total Project Costs	\$6,008,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 49
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (possibly Wagstaff Way): Spring Run Parkway to eastern border

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	34,400	\$344,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	8	\$15,202
Roadway Excavation	C.Y.	\$11	15,926	\$167,222
HMA Concrete	Ton	\$85	4,443	\$377,683
Untreated Base Course	C.Y.	\$15	4,247	\$63,704
Granular Borrow	C.Y.	\$40	5,309	\$212,346
Curb and Gutter (2.5' width)	L.F.	\$23	8,600	\$193,500
Sidewalk (5' width)	L.F.	\$25	8,600	\$215,000
Drainage	L.F.	\$45	8,600	\$387,000
Right of Way	S.F.	\$2.30	331,100	\$761,530
Street Lighting	L.F.	\$100	4,300	\$430,000
Bridge/Culvert	S.F.	\$225	1,560	\$351,000
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$3,518,187
Mobilization (10% of Construction)	Lump	10%	351,819	\$351,819
Contingency (25% of Construction)	Lump	25%	879,547	\$879,547
Subtotal				\$4,749,552

Preconstruction Engineering	10%	\$351,819
Construction Engineering	10%	\$351,819

Total Project Costs	\$5,454,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 51
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (unknown W/E road): Pony Express Pkwy to Project 31 above

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	64,000	\$640,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	14	\$28,283
Roadway Excavation	C.Y.	\$11	29,630	\$311,111
HMA Concrete	Ton	\$85	8,267	\$702,667
Untreated Base Course	C.Y.	\$15	7,901	\$118,519
Granular Borrow	C.Y.	\$40	9,877	\$395,062
Curb and Gutter (2.5' width)	L.F.	\$23	16,000	\$360,000
Sidewalk (5' width)	L.F.	\$25	16,000	\$400,000
Drainage	L.F.	\$45	16,000	\$720,000
Right of Way	S.F.	\$2.30	616,000	\$1,416,800
Street Lighting	L.F.	\$100	8,000	\$800,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$5,892,441
Mobilization (10% of Construction)	Lump	10%	589,244	\$589,244
Contingency (25% of Construction)	Lump	25%	1,473,110	\$1,473,110
Subtotal				\$7,954,795

Preconstruction Engineering	10%	\$589,244
Construction Engineering	10%	\$589,244

Total Project Costs	\$9,134,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 56
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (unknown W/E road): Eagle Mountain Blvd to Pony Express Parkway

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	44,000	\$440,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	10	\$19,444
Roadway Excavation	C.Y.	\$11	20,370	\$213,889
HMA Concrete	Ton	\$85	5,683	\$483,083
Untreated Base Course	C.Y.	\$15	5,432	\$81,481
Granular Borrow	C.Y.	\$40	6,790	\$271,605
Curb and Gutter (2.5' width)	L.F.	\$23	11,000	\$247,500
Sidewalk (5' width)	L.F.	\$25	11,000	\$275,000
Drainage	L.F.	\$45	11,000	\$495,000
Right of Way	S.F.	\$2.30	423,500	\$974,050
Street Lighting	L.F.	\$100	5,500	\$550,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$4,051,053
Mobilization (10% of Construction)	Lump	10%	405,105	\$405,105
Contingency (25% of Construction)	Lump	25%	1,012,763	\$1,012,763
Subtotal				\$5,468,922

Preconstruction Engineering	10%	\$405,105
Construction Engineering	10%	\$405,105

Total Project Costs	\$6,280,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 57
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

New Road (Pole Canyon Boulevard): Pony Express Parkway to East Expressway

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	185,850	\$1,858,500
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	22	\$43,967
Roadway Excavation	C.Y.	\$11	42,000	\$441,000
HMA Concrete	Ton	\$85	11,718	\$996,030
Untreated Base Course	C.Y.	\$15	11,200	\$168,000
Granular Borrow	C.Y.	\$40	19,600	\$784,000
Curb and Gutter (2.5' width)	L.F.	\$23	12,600	\$283,500
Sidewalk (5' width)	L.F.	\$25	12,600	\$315,000
Drainage	L.F.	\$45	12,600	\$567,000
Right of Way	S.F.	\$2.30	957,600	\$2,202,480
Street Lighting	L.F.	\$100	6,300	\$630,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$8,482,477
Mobilization (10% of Construction)	Lump	10%	848,248	\$848,248
Contingency (25% of Construction)	Lump	25%	2,120,619	\$2,120,619
Subtotal				\$11,451,344

Preconstruction Engineering	10%	\$848,248
Construction Engineering	10%	\$848,248

Total Project Costs	\$13,148,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 61
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

New Road (Aviator Avenue): Pony Express Parkway to East Expressway - New 3 lane road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	82,500	\$825,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	11	\$21,579
Roadway Excavation	C.Y.	\$11	18,519	\$194,444
HMA Concrete	Ton	\$85	5,167	\$439,167
Untreated Base Course	C.Y.	\$15	4,938	\$74,074
Granular Borrow	C.Y.	\$40	6,173	\$246,914
Curb and Gutter (2.5' width)	L.F.	\$23	10,000	\$225,000
Sidewalk (5' width)	L.F.	\$25	10,000	\$250,000
Drainage	L.F.	\$45	10,000	\$450,000
Right of Way	S.F.	\$2.30	470,000	\$1,081,000
Street Lighting	L.F.	\$100	5,000	\$500,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$4,307,178
Mobilization (10% of Construction)	Lump	10%	430,718	\$430,718
Contingency (25% of Construction)	Lump	25%	1,076,795	\$1,076,795
Subtotal				\$5,814,691

Preconstruction Engineering	10%	\$430,718
Construction Engineering	10%	\$430,718

Total Project Costs	\$6,677,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 62
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Collector - 94'

Eagle Mountain Transportation Master Plan

New Road (Lone Tree Parkway): Old Airport Road to Seabiscuit Road

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	25,600	\$256,000
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	6	\$11,313
Roadway Excavation	C.Y.	\$11	11,852	\$124,444
HMA Concrete	Ton	\$85	3,307	\$281,067
Untreated Base Course	C.Y.	\$15	3,160	\$47,407
Granular Borrow	C.Y.	\$40	3,951	\$158,025
Curb and Gutter (2.5' width)	L.F.	\$23	6,400	\$144,000
Sidewalk (5' width)	L.F.	\$25	6,400	\$160,000
Drainage	L.F.	\$45	6,400	\$288,000
Right of Way	S.F.	\$2.30	246,400	\$566,720
Street Lighting	L.F.	\$100	3,200	\$320,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$2,356,976
Mobilization (10% of Construction)	Lump	10%	235,698	\$235,698
Contingency (25% of Construction)	Lump	25%	589,244	\$589,244
Subtotal				\$3,181,918

Preconstruction Engineering	10%	\$235,698
Construction Engineering	10%	\$235,698

Total Project Costs	\$3,654,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 63
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Minor Collector - 77'

Eagle Mountain Transportation Master Plan

Pony Express Parkway Widening: Eagle Mountain Blvd to Eagle Mountain Public Works

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	28,622	\$114,489
Clearing and Grubbing	Acre	\$2,000	21	\$42,241
Roadway Excavation	C.Y.	\$11	37,481	\$393,556
HMA Concrete	Ton	\$85	10,457	\$888,873
Untreated Base Course	C.Y.	\$15	9,995	\$149,926
Granular Borrow	C.Y.	\$40	17,491	\$699,654
Curb and Gutter (2.5' width)	L.F.	\$23	18,400	\$414,000
Sidewalk (5' width)	L.F.	\$25	18,400	\$460,000
Drainage	L.F.	\$45	18,400	\$828,000
Right of Way	S.F.	\$2.30	9,200	\$21,160
Street Lighting	L.F.	\$100	9,200	\$920,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$4,931,899
Mobilization (10% of Construction)	Lump	10%	493,190	\$493,190
Contingency (25% of Construction)	Lump	25%	1,232,975	\$1,232,975
Subtotal				\$6,658,063

Preconstruction Engineering	10%	\$493,190
Construction Engineering	10%	\$493,190

Total Project Costs	\$7,645,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 65
Improvement Type: Capacity Improvement
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

WoodHaven Blvd & Pony Express Pkwy - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	0	\$0
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$193,000
Mobilization (10% of Construction)	Lump	10%	19,300	\$19,300
Contingency (25% of Construction)	Lump	25%	48,250	\$48,250
Subtotal				\$260,550

Preconstruction Engineering	10%	\$19,300
Construction Engineering	10%	\$19,300

Total Project Costs	\$300,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	0
HMA Thickness (in) =	0
Untreated Base Course Thickness (in) =	0
Granular Borrow Thickness (in) =	0
Roadway Excavation Depth (ft) =	0
Number of Sidewalks (No.) =	0

Project Parameters:

Project Number: 67
Improvement Type: Traffic Signal
Completion Year: 2030
Roadway Functional Class: Traffic Signal

Eagle Mountain Transportation Master Plan

Pony Express Pkwy & East Expressway - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	0	\$0
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$193,000
Mobilization (10% of Construction)	Lump	10%	19,300	\$19,300
Contingency (25% of Construction)	Lump	25%	48,250	\$48,250
Subtotal				\$260,550

Preconstruction Engineering	10%	\$19,300
Construction Engineering	10%	\$19,300

Total Project Costs	\$300,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	0
HMA Thickness (in) =	0
Untreated Base Course Thickness (in) =	0
Granular Borrow Thickness (in) =	0
Roadway Excavation Depth (ft) =	0
Number of Sidewalks (No.) =	0

Project Parameters:

Project Number: 68
Improvement Type: Traffic Signal
Completion Year: 2030
Roadway Functional Class: Traffic Signal

Eagle Mountain Transportation Master Plan

Eagle Mountain Boulevard & Project 57 - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	0	\$0
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$193,000
Mobilization (10% of Construction)	Lump	10%	19,300	\$19,300
Contingency (25% of Construction)	Lump	25%	48,250	\$48,250
Subtotal				\$260,550

Preconstruction Engineering	10%	\$19,300
Construction Engineering	10%	\$19,300

Total Project Costs	\$300,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	0
HMA Thickness (in) =	0
Untreated Base Course Thickness (in) =	0
Granular Borrow Thickness (in) =	0
Roadway Excavation Depth (ft) =	0
Number of Sidewalks (No.) =	0

Project Parameters:

Project Number: 69
Improvement Type: Traffic Signal
Completion Year: 2030
Roadway Functional Class: Traffic Signal

Eagle Mountain Transportation Master Plan

Bobby Wren Boulevard & Pony Express Parkway - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	0	\$0
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$193,000
Mobilization (10% of Construction)	Lump	10%	19,300	\$19,300
Contingency (25% of Construction)	Lump	25%	48,250	\$48,250
Subtotal				\$260,550

Preconstruction Engineering	10%	\$19,300
Construction Engineering	10%	\$19,300

Total Project Costs	\$300,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	0
HMA Thickness (in) =	0
Untreated Base Course Thickness (in) =	0
Granular Borrow Thickness (in) =	0
Roadway Excavation Depth (ft) =	0
Number of Sidewalks (No.) =	0

Project Parameters:

Project Number: 70
Improvement Type: Traffic Signal
Completion Year: 2030
Roadway Functional Class: Traffic Signal

Eagle Mountain Transportation Master Plan

Eagle Mountain Boulevard & Major Street - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	0	\$0
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$193,000
Mobilization (10% of Construction)	Lump	10%	19,300	\$19,300
Contingency (25% of Construction)	Lump	25%	48,250	\$48,250
Subtotal				\$260,550

Preconstruction Engineering	10%	\$19,300
Construction Engineering	10%	\$19,300

Total Project Costs	\$300,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	0
HMA Thickness (in) =	0
Untreated Base Course Thickness (in) =	0
Granular Borrow Thickness (in) =	0
Roadway Excavation Depth (ft) =	0
Number of Sidewalks (No.) =	0

Project Parameters:

Project Number: 71
Improvement Type: Traffic Signal
Completion Year: 2030
Roadway Functional Class: Traffic Signal

Eagle Mountain Transportation Master Plan

Pony Express Pkwy & Eagle Mountain Boulevard - New Signal

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	0	\$0
Roadway Excavation	C.Y.	\$11	0	\$0
HMA Concrete	Ton	\$85	0	\$0
Untreated Base Course	C.Y.	\$15	0	\$0
Granular Borrow	C.Y.	\$40	0	\$0
Curb and Gutter (2.5' width)	L.F.	\$23	0	\$0
Sidewalk (5' width)	L.F.	\$25	0	\$0
Drainage	L.F.	\$45	0	\$0
Right of Way	S.F.	\$2.30	0	\$0
Street Lighting	L.F.	\$100	637	\$63,661
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$1,501,223	1	\$1,501,223
Construction Cost				\$1,564,884
Mobilization (10% of Construction)	Lump	10%	156,488	\$156,488
Contingency (25% of Construction)	Lump	25%	391,221	\$391,221
Subtotal				\$2,112,593

Preconstruction Engineering	10%	\$156,488
Construction Engineering	10%	\$156,488

Total Project Costs	\$2,426,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 72
Improvement Type: Capacity Improvement
Completion Year: 2030
Roadway Functional Class: Major Arterial - 152' - Five Lanes

Eagle Mountain Transportation Master Plan

New Road (1600 West): Aviator Avenue to 4000 North

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	11	\$22,874
Roadway Excavation	C.Y.	\$11	19,630	\$206,111
HMA Concrete	Ton	\$85	5,477	\$465,517
Untreated Base Course	C.Y.	\$15	5,235	\$78,519
Granular Borrow	C.Y.	\$40	6,543	\$261,728
Curb and Gutter (2.5' width)	L.F.	\$23	10,600	\$238,500
Sidewalk (5' width)	L.F.	\$25	10,600	\$265,000
Drainage	L.F.	\$45	10,600	\$477,000
Right of Way	S.F.	\$2.30	5,300	\$12,190
Street Lighting	L.F.	\$100	5,300	\$530,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$2,557,439
Mobilization (10% of Construction)	Lump	10%	255,744	\$255,744
Contingency (25% of Construction)	Lump	25%	639,360	\$639,360
Subtotal				\$3,452,542

Preconstruction Engineering	10%	\$255,744
Construction Engineering	10%	\$255,744

Total Project Costs	\$3,965,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	10
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number: 79
Improvement Type: New Road
Completion Year: 2030
Roadway Functional Class: Major Collector - 94'

Eagle Mountain				
Transportation Master Plan				
New High-T Signal: Ranches Parkway & Campus Drive				
Costs				
Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	0	\$0
Clearing and Grubbing	Acre	\$2,000	4	\$8,868
Roadway Excavation	C.Y.	\$11	8,471	\$88,948
HMA Concrete	Ton	\$85	2,363	\$200,896
Untreated Base Course	C.Y.	\$15	2,259	\$33,885
Granular Borrow	C.Y.	\$40	3,953	\$158,130
Curb and Gutter (2.5' width)	L.F.	\$23	2,541	\$57,181
Sidewalk (5' width)	L.F.	\$25	2,541	\$63,535
Drainage	L.F.	\$45	2,541	\$114,362
Right of Way	S.F.	\$2.30	1,271	\$2,923
Street Lighting	L.F.	\$100	1,271	\$127,069
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	1	\$193,000
Construction Cost				\$1,048,797
Mobilization (10% of Construction)	Lump	10%	104,880	\$104,880
Contingency (25% of Construction)	Lump	25%	262,199	\$262,199
Subtotal				\$1,415,876

Preconstruction Engineering	10%	\$104,880
Construction Engineering	10%	\$104,880

Total Project Costs	\$1,626,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number:	80
Improvement Type:	Capacity Improvement
Completion Year:	2030
Roadway Functional Class:	Major Arterial - 152' - Five Lanes

**Eagle Mountain
Transportation Master Plan**

Intersection Improvement: Porter's Crossing Pkwy/Pony Express Pkwy

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	4,467	\$17,867
Clearing and Grubbing	Acre	\$2,000	1	\$1,047
Roadway Excavation	C.Y.	\$11	278	\$2,917
HMA Concrete	Ton	\$85	78	\$6,588
Untreated Base Course	C.Y.	\$15	74	\$1,111
Granular Borrow	C.Y.	\$40	130	\$5,185
Curb and Gutter (2.5' width)	L.F.	\$23	1,200	\$27,000
Sidewalk (5' width)	L.F.	\$25	1,200	\$30,000
Drainage	L.F.	\$45	1,200	\$54,000
Right of Way	S.F.	\$2.30	600	\$1,380
Street Lighting	L.F.	\$100	600	\$60,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$207,094
Mobilization (10% of Construction)	Lump	10%	20,709	\$20,709
Contingency (25% of Construction)	Lump	25%	51,773	\$51,773
Subtotal				\$279,577

Preconstruction Engineering	10%	\$20,709
Construction Engineering	10%	\$20,709

Total Project Costs	\$321,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number:	84
Improvement Type:	Capacity Improvement
Completion Year:	2030
Roadway Functional Class:	Major Arterial - 152' - Five Lanes

**Eagle Mountain
Transportation Master Plan**

Intersection Improvement: Ranches Pkwy/Pony Express Pkwy

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	1,222	\$4,889
Clearing and Grubbing	Acre	\$2,000	0	\$459
Roadway Excavation	C.Y.	\$11	315	\$3,306
HMA Concrete	Ton	\$85	88	\$7,466
Untreated Base Course	C.Y.	\$15	84	\$1,259
Granular Borrow	C.Y.	\$40	147	\$5,877
Curb and Gutter (2.5' width)	L.F.	\$23	400	\$9,000
Sidewalk (5' width)	L.F.	\$25	400	\$10,000
Drainage	L.F.	\$45	400	\$18,000
Right of Way	S.F.	\$2.30	200	\$460
Street Lighting	L.F.	\$100	200	\$20,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$80,715
Mobilization (10% of Construction)	Lump	10%	8,072	\$8,072
Contingency (25% of Construction)	Lump	25%	20,179	\$20,179
Subtotal				\$108,966

Preconstruction Engineering	10%	\$8,072
Construction Engineering	10%	\$8,072

Total Project Costs	\$126,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granular Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number:	85
Improvement Type:	Capacity Improvement
Completion Year:	2030
Roadway Functional Class:	Major Arterial - 152' - Five Lanes

**Eagle Mountain
Transportation Master Plan**

Intersection Improvement: Lone Tree Pkwy/Pony Express Pkwy

Costs

Item	Unit	Unit Cost	Quantity	Cost(2023)
Parkstrip	S.F.	\$10	0	\$0
Removal of Existing Asphalt	S.Y.	\$4	2,233	\$8,933
Clearing and Grubbing	Acre	\$2,000	0	\$358
Roadway Excavation	C.Y.	\$11	139	\$1,458
HMA Concrete	Ton	\$85	39	\$3,294
Untreated Base Course	C.Y.	\$15	37	\$556
Granular Borrow	C.Y.	\$40	65	\$2,593
Curb and Gutter (2.5' width)	L.F.	\$23	600	\$13,500
Sidewalk (5' width)	L.F.	\$25	600	\$15,000
Drainage	L.F.	\$45	600	\$27,000
Right of Way	S.F.	\$2.30	7,800	\$17,940
Street Lighting	L.F.	\$100	300	\$30,000
Bridge/Culvert	S.F.	\$225	0	\$0
Traffic Signal	Each	\$193,000	0	\$0
Construction Cost				\$120,632
Mobilization (10% of Construction)	Lump	10%	12,063	\$12,063
Contingency (25% of Construction)	Lump	25%	30,158	\$30,158
Subtotal				\$162,853

Preconstruction Engineering	10%	\$12,063
Construction Engineering	10%	\$12,063

Total Project Costs	\$187,000
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Overall Assumptions:

HMA Pavement Density (pcf) =	155
HMA Thickness (in) =	4
Untreated Base Course Thickness (in) =	8
Granual Borrow Thickness (in) =	14
Roadway Excavation Depth (ft) =	2.5
Number of Sidewalks (No.) =	2

Project Parameters:

Project Number:	86
Improvement Type:	Capacity Improvement
Completion Year:	2030
Roadway Functional Class:	Major Arterial - 152' - Five Lanes