



HERRIMAN CITY 2022 TRANSPORTATION MASTER PLAN



Adopted March 2023

TABLE OF CONTENTS

1. INTRODUCTION	1	4. PLAN RECOMMENDATIONS	39
2. EXISTING CONDITIONS	2	4.1. FUNCTIONAL CLASSIFICATION	39
2.1. DEMOGRAPHICS	2	4.1.1. LOCAL AND MINOR LOCAL STREETS	40
2.2. PEER CITY ANALYSIS	5	4.1.2. MINOR COLLECTOR STREETS	41
2.3. EXISTING LAND USE	7	4.1.3. MAJOR COLLECTOR STREETS	42
2.4. EXISTING FUNCTIONAL CLASSIFICATION	12	4.1.4. MINOR ARTERIAL STREETS	42
2.5. PEDESTRIAN AND BICYCLE FACILITIES	13	4.1.5. MAJOR ARTERIAL	43
2.6. PUBLIC TRANSPORTATION	14	4.1.6. PRINCIPAL ARTERIAL	43
2.7. SAFETY ANALYSIS	14	4.2. PROPOSED FUTURE NETWORK	45
3. FUTURE CONDITIONS	19	4.3. TRANSPORTATION STANDARDS	46
3.1. LAND USE	19	4.3.1. TRAFFIC CONTROL	46
3.2. REGIONAL PLANS	25	4.3.2. ACCESS SPACING	47
3.2.1. UDOT U-111 STATE ENVIRONMENTAL STUDY	26	4.3.3. CORNER RADII	48
3.3. TRAFFIC CONDITIONS	27	4.4. FUTURE BICYCLE INFRASTRUCTURE	48
3.4. TRAVEL DEMAND MODELING	30	4.5. FUTURE TRANSIT	50
3.4.1. BASE YEAR MODEL CALIBRATION	30	5. STREET FACILITIES PLAN	53
3.4.2. FUTURE VOLUMES	31	5.1. STREET FACILITIES PLAN	53



1. INTRODUCTION

Herriman City, Utah, is located in the southwest portion of Salt Lake County and was incorporated in 1999. The City has contracted with the WCG to update this transportation master plan. The previous transportation master plan was from 2019, and has been updated to reflect the annexation of the Olympia area on January 1, 2022.

The primary purpose of this Herriman City (hereinafter referred to as “Herriman” or “City”) Transportation Master Plan is to create a planning document that can be used to help meet the City’s transportation goals and facilitate future development that will enhance the positive aspects of the City while minimizing negative impacts associated with new development. Since incorporating in 1999, Herriman has experienced significant population growth, and this growth is expected to continue for the next 30 years. Growth impacts will quickly exceed the capacity of some elements of the City’s existing transportation system. This plan addresses future demands on the City’s transportation system while retaining safe and active streets for non-motorized travel.

- Section 1: Includes an introduction
- Section 2: Reviews the City’s existing conditions and provides Herriman with comparisons to peer cities
- Section 3: Evaluates future transportation conditions that Herriman will likely encounter
- Section 4: Presents the Transportation Master Plan and recommended improvements
- Section 5: Outlines a recommended Street Facilities Plan.

This plan primarily focuses on automobile trips along arterial and collector roadways as they provide the framework for a city and region wide transportation network. For details on how active transportation ties into this roadway network please see the [2021 Active Transportation Plan](#).



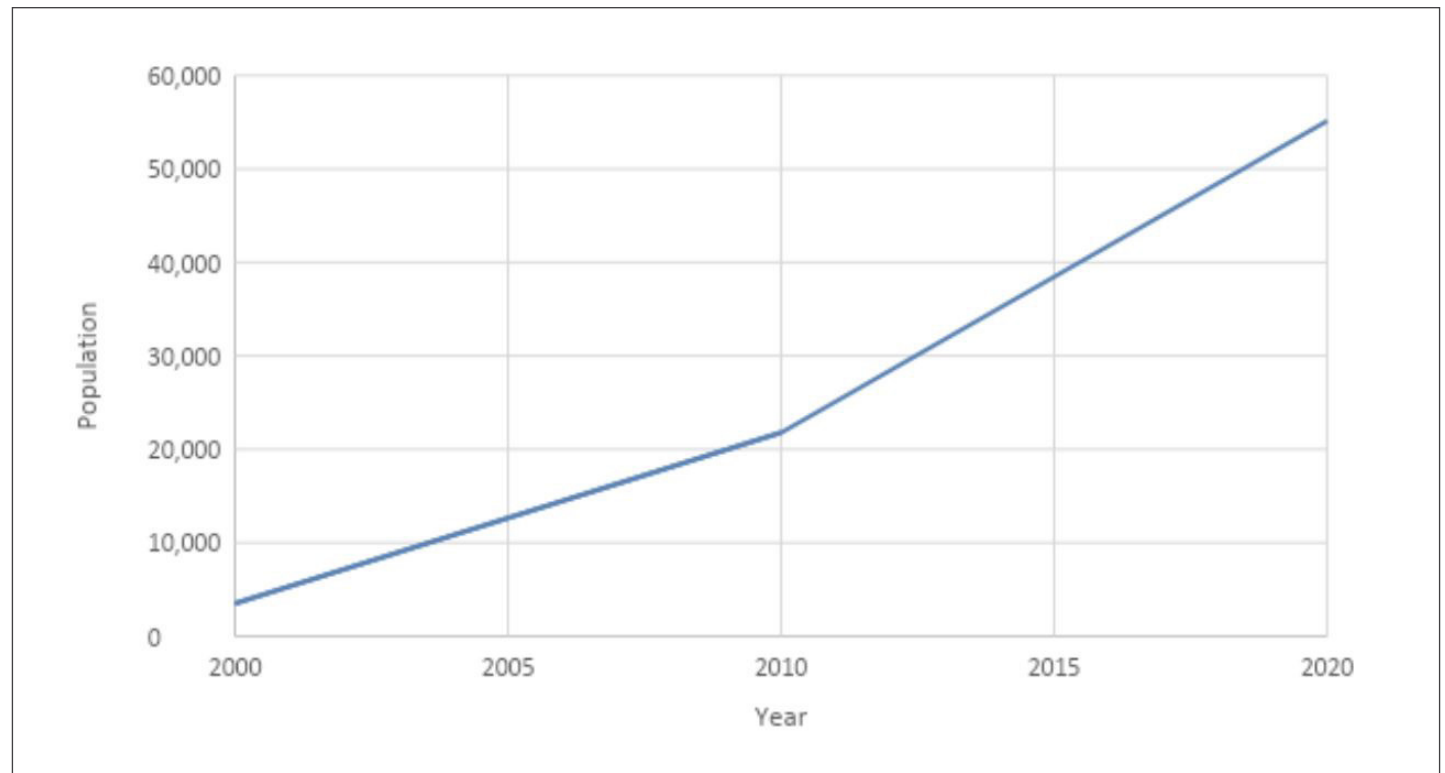
2. EXISTING CONDITIONS

This section evaluates the existing transportation system and demographics with Herriman City. Additionally, roadway safety is reviewed and recommendations for improving safety are provided.

2.1. DEMOGRAPHICS

Herriman has experienced significant population growth over the past 20 years. Figure 1 shows Herriman's growth since 2000, one year after the City's incorporation in 1999. The 2000 census indicated that the population of the City was then 3,514. Between 2000 and 2020, the population increased by more than 50,000. Growth has remained nearly constant, with an average of approximately 2,580 new people added each year.

Figure 1: Historic Herriman Population



Source: US Census Estimates (2000-2020)

Herriman is one of the fastest growing cities in Utah. When looking at percent change, Herriman ranks second in the state with a 153 percent increase from 2010 to 2020. This is well above other top-ranking cities, such as Bluffdale and Saratoga Springs, with 124 percent and 110 percent increases respectively.

Table 1 shows the top 10 fastest growing cities in the state by percent change.

Table 1. Fastest Growing Cities in Utah, 2010-2020, Ranked by Percent Change

City	2010 Population	2020 Population	Percent Change 2010-2018
Vineyard	139	12,543	8924%
Herriman	21,785	55,144	153%
Bluffdale	7,598	17,014	124%
Saratoga Springs	17,919	37,696	110%
Eagle Mountain	21,555	43,623	102%
West Haven	10,317	16,739	62%
Lehi	47,715	75,907	59%
South Jordan	50,595	77,487	53%
Washington	18,816	27,993	49%
Santaquin	9,187	13,725	49%

Source: 2020 US Census Estimates

When considering the total numeric increase in population between 2010 and 2020, Herriman ranks first for all cities in Utah, with a net increase of 33,359 people over ten years (see Table 2). This increase is well above that of larger, more established cities such as South Jordan, Lehi and St. George.

Table 2. Fastest Growing Cities in Utah, 2010-2020, Ranked by Numeric Change

City	2010 Population	2020 Population	Net Change
Herriman	21,785	55,144	33,359
Lehi	47,407	75,907	28,500
South Jordan	50,418	77,487	27,069
St. George	72,897	95,342	22,445
Eagle Mountain	21,415	43,623	22,208
Saratoga Springs	17,781	37,696	19,915
Layton	67,311	81,773	14,462
Salt Lake City	186,440	199,723	13,283
West Jordan	103,712	116,961	13,249
Sandy	87,461	96,904	9,443

Source: 2020 US Census Estimates

Based on data from the US Census, American Community Survey (ACS) Five-Year Estimates, the household characteristics of Herriman are unique to the area. On average, Herriman has larger households (3.86 people per home) and a younger population (25.5 years old) than Salt Lake County and the State of Utah. Dependency ratios are a ratio for those typically too young (0-14, child dependency) or too old (65 and over, aged dependency) to be in the labor force, and are used as an indication of what portion of the population is dependent. Table 3 summarizes household characteristics for Herriman compared to the county and the state. As seen in Table 3, the aged dependency ratio for Herriman is less than the county and the state, and the child dependency ratio is significantly higher. These household characteristics all point to a young population of large families. Educational attainment of a bachelor's degree or higher in Herriman is similar to the county and statewide average (for individuals 25 years and older).

Table 3. Household Characteristics

Household Characteristic	Herriman	Salt Lake County	Utah
Average Household Size	3.86	2.99	3.12
Median Age (years)	25.5	32.8	30.8
Child Dependency Ratio	56.3	33.1	37.3
Aged Dependency Ratio	7.0	16.9	17.6
Bachelor's degree or higher (percent)	35.3	35.6	34.0

Source: US Census, ACS 5-year estimates

Herriman's economic indicators are comparable to that of Salt Lake County and the state. Table 4 shows several economic characteristics for Herriman compared with county and state characteristics. Herriman has a higher percentage of its residents in the labor force, lower unemployment, higher median income, and a lower poverty rate than the averages for the county and State of Utah.

Table 4. Economic Characteristics

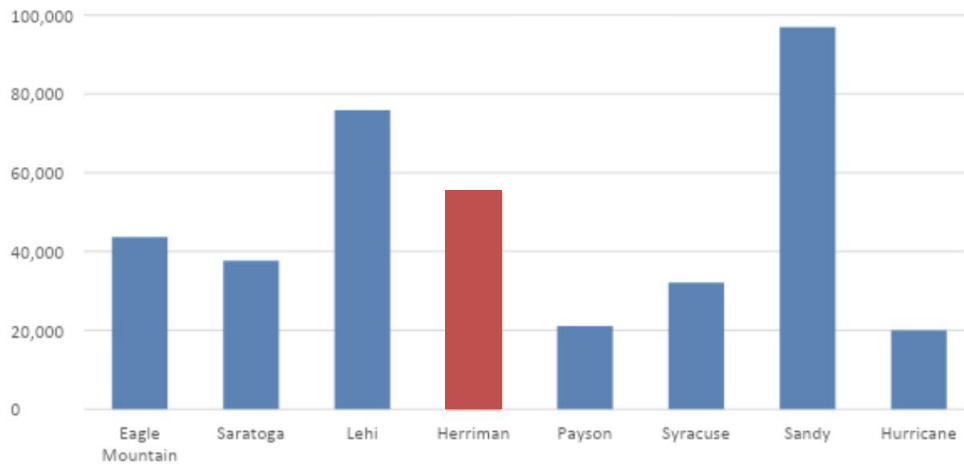
Economic Indicator	Herriman	Salt Lake County	Utah
In labor force	75.1%	71.5%	68.3%
Unemployed	2.1%	3.2%	3.2%
Median household income	\$101,460	\$74,865	\$71,621
Past 12 months income was below the poverty level	2.7%	7.0%	7.3%

Source: US Census, ACS 5-year estimates

2.2. PEER CITY ANALYSIS

A peer city analysis was conducted to compare Herriman's demographics to other cities. Peer cities were chosen based on similarities to Herriman in population size and geographic isolation from a major interstate highway. Based on these criteria, Hurricane, Saratoga Springs, Payson, Eagle Mountain, and Syracuse were chosen. Lehi and Sandy were also included in the analysis to serve as 'aspirational' cities, or cities that may have characteristics of a future Herriman. These cities were then compared to Herriman utilizing available ACS data on median age, place of work (relative to place of residence), mode of travel to work, and travel time to work. The population of each of the peer cities is shown in Figure 2.

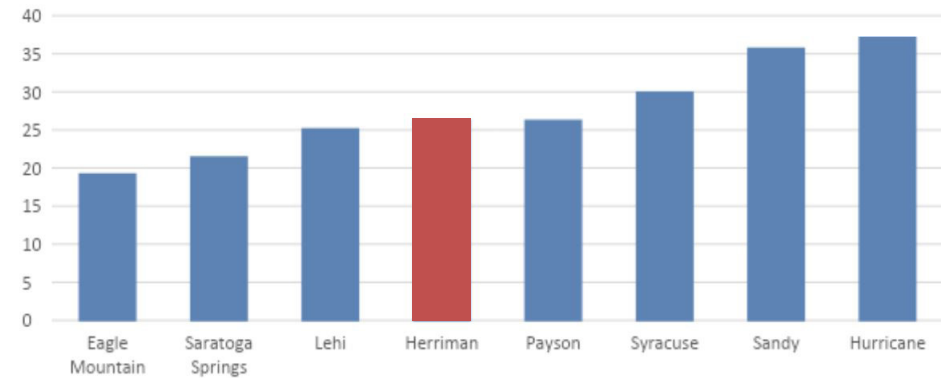
Figure 2: Peer City Population Data



Source: 2020 US Census

Herriman has a median age of 25.5 years old, which is relatively young compared to its peer cities. Only Eagle Mountain, Saratoga Springs, and Lehi are lower, with median ages of 19.2, 21.4, and 25.1 respectively (see Figure 3).

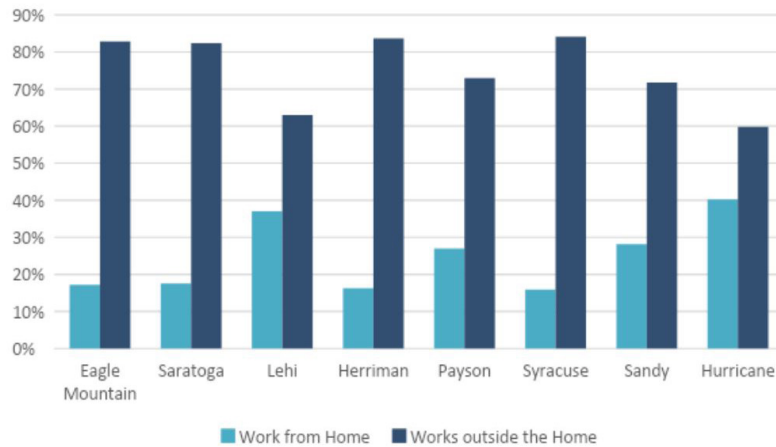
Figure 3: Peer City Resident Median Age (Years)



Source: US Census, ACS 5-year estimate

About 15 percent of Herriman residents work from home. The percentage of Herriman residents who work from home is much lower than Hurricane and Lehi, and fairly similar to Eagle Mountain, Saratoga, and Syracuse. (see Figure 4).

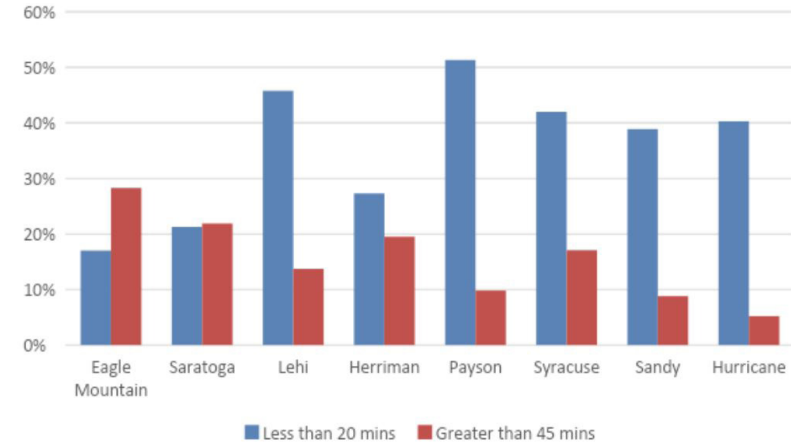
Figure 4: Peer City Work Location



Source: US Census, ACS 5-year estimate

Approximately 28 percent of Herriman commuters have a travel time to work of less than 20 minutes, which is below average for the group and higher than Eagle Mountain and Saratoga (see Figure 5). About 20 percent of residents have a commute of over 45 minutes, which is above average for the group.

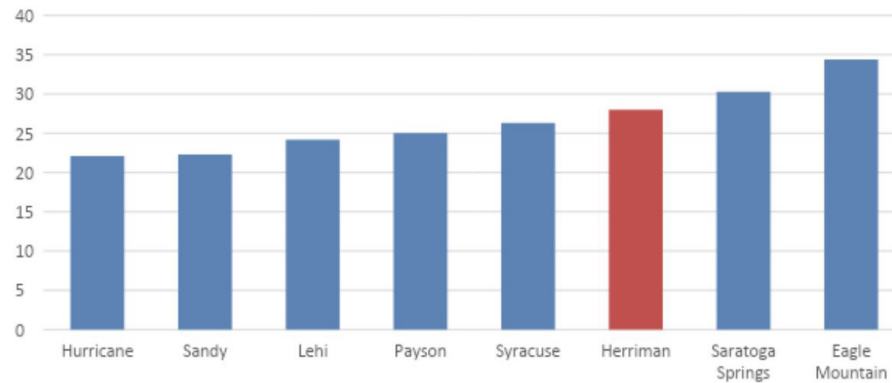
Figure 5: Peer City Average Commute



Source: US Census, ACS 5-year estimate

The mean travel time to work is 28 minutes for Herriman residents (see Figure 6). This is above average when compared to the peer cities but is not unexpected due to the relative isolation of Herriman from a major Interstate.

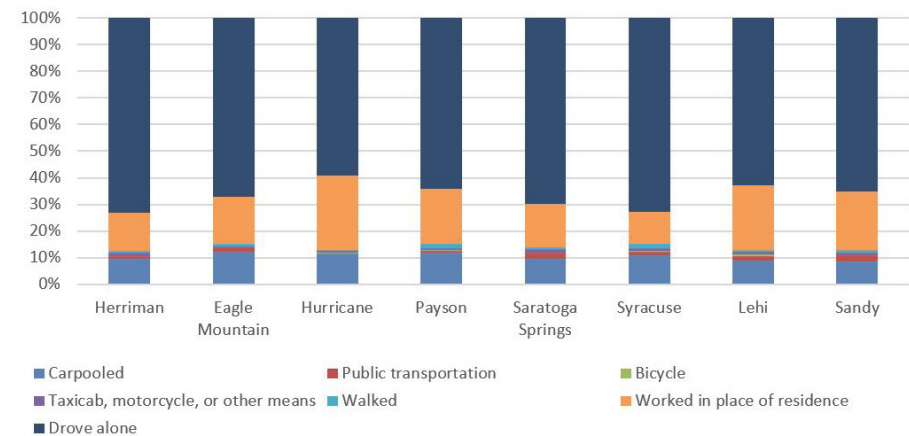
Figure 6: Peer City Mean Travel Time to Work (Minutes)



Source: US Census, ACS 5-year estimate

Mode of travel to work is shown in Figure 7. Seventy-seven percent of people in Herriman drive alone to work, which is slightly above average for the group. Residents of Herriman typically do not bicycle or walk to work, and one percent use public transportation (based on the data provided). Fifteen percent of Herriman residents work from home, which is below the average of the group. This auto-dominated mode-split can largely be explained by the long distances to major employment centers and a lack of regular and prevalent public transit service.

Figure 7: Peer City Means to Work by Percent of Mode Share



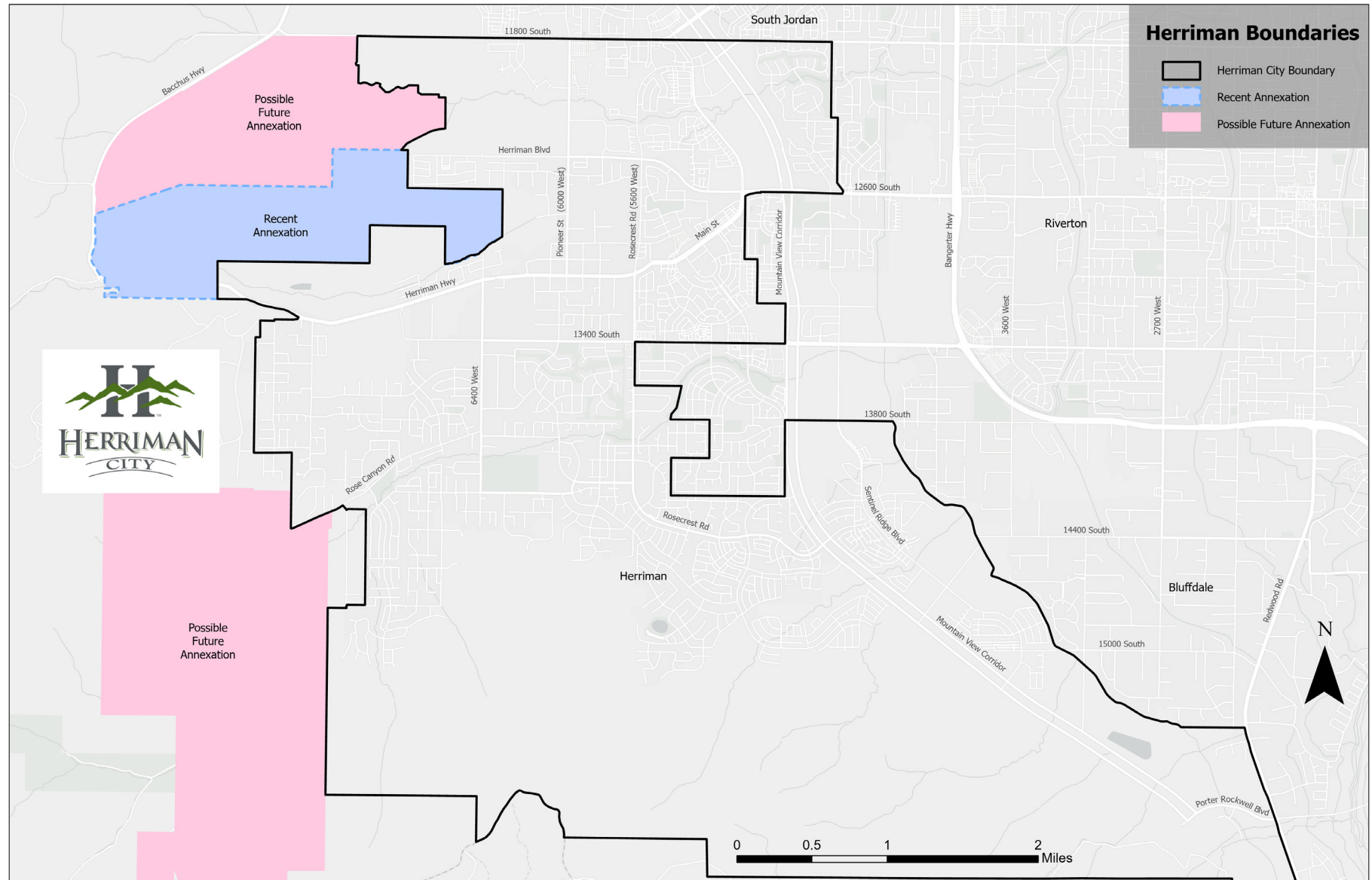
Source: US Census, ACS 5-year estimate

2.3. EXISTING LAND USE

Historically, land uses in Herriman can best be described as predominantly residential, low density, and suburban. With intense development pressures, land use is changing rapidly with more medium density housing and commercial development.

On July 1, 2014, Herriman annexed approximately 300 acres in the northwest section of the city. The Dansie Annexation occurred on January 1, 2016 and included approximately 500 acres. On January 1, 2022 Herriman annexed the Olympia area which is shown in the figure below.

Figure 8: Herriman Current Boundaries and Possible Future Annexation



Transportation planning depends on estimating future land uses in addition to demographic changes. This information is used in a computer-modeling tool, known as the Travel Demand Model, which forecasts trips to and from destinations based on smaller regions known as Transportation Analysis Zones (TAZs). The TAZs are geographically smaller than a municipality and are similar in size to census block groups. TAZs are defined by the Wasatch Front Regional Council (WFRC). Data associated with the TAZs from WFRC updated to represent 2020 population and employment status. This information was used to develop the travel demand model shown in Figure 9.

Figure 9: Herriman Area Transportation Analysis Zones

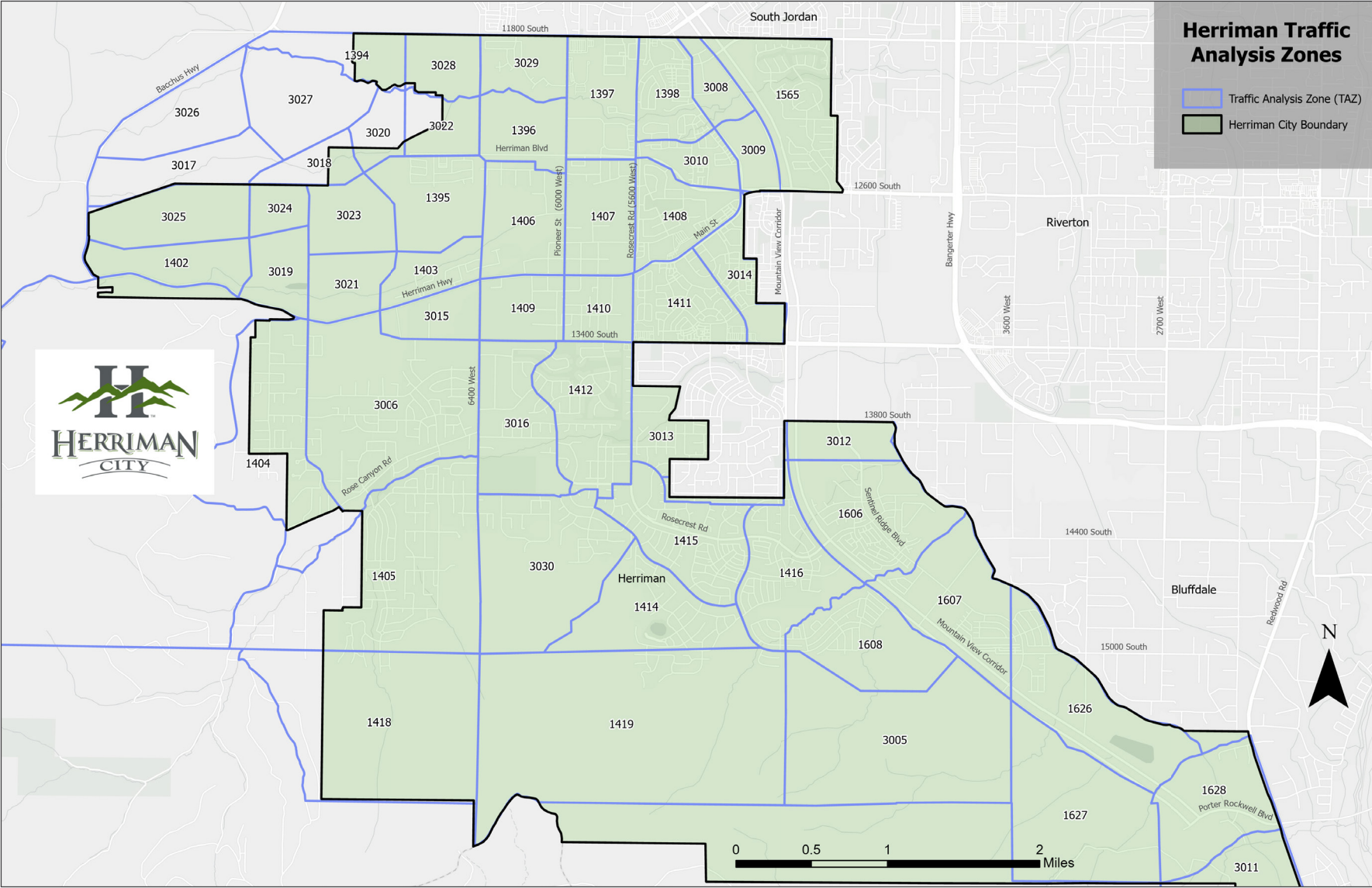


Figure 10 shows the number of existing households by TAZ. The highest densities of households are found in the central portion of the City. Currently, only a small number of homes are located in the southern portion of the City. Unincorporated areas to the northwest also have relatively few households.

Figure 10: 2020 Households by Transportation Analysis Zone

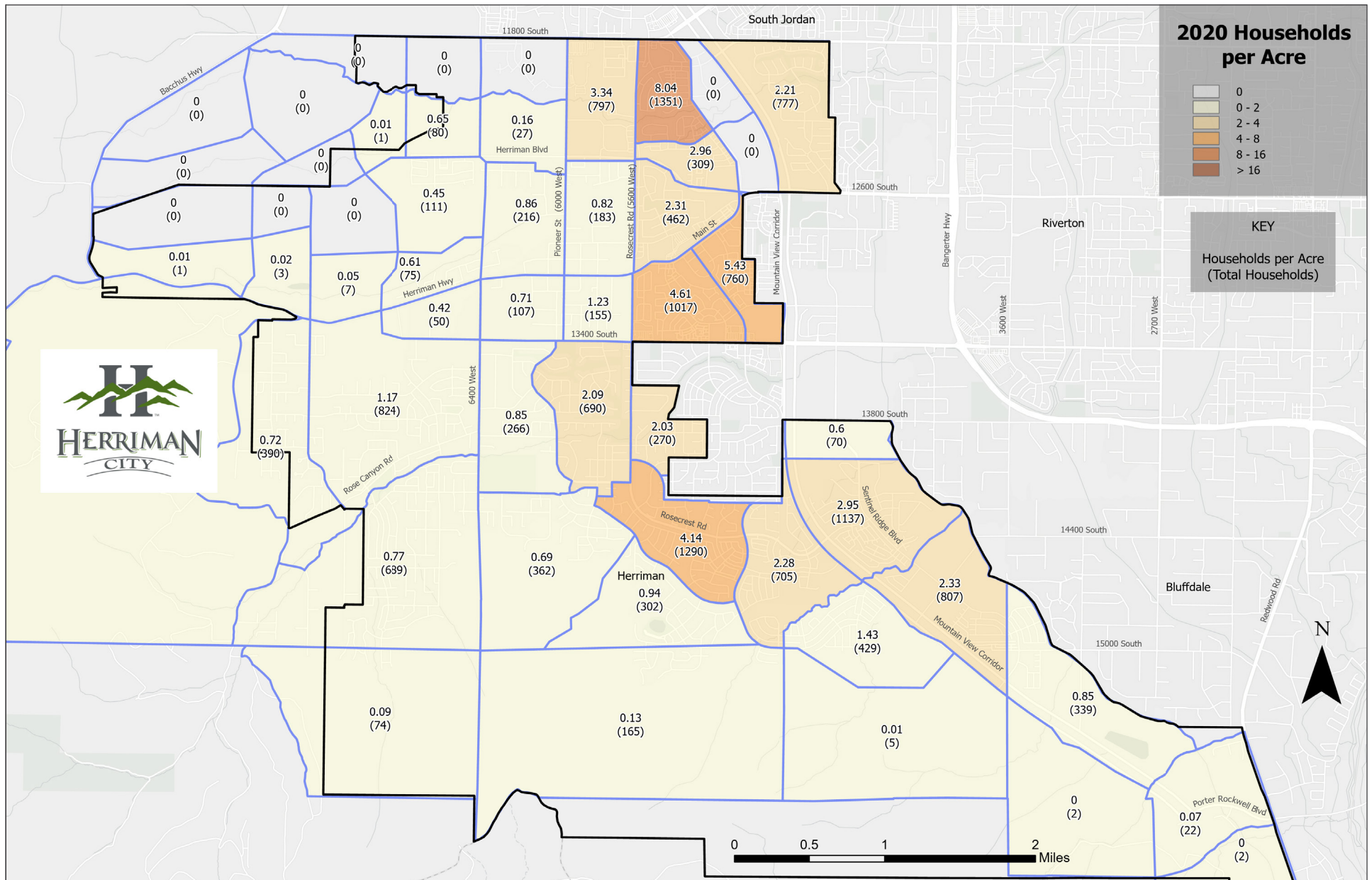
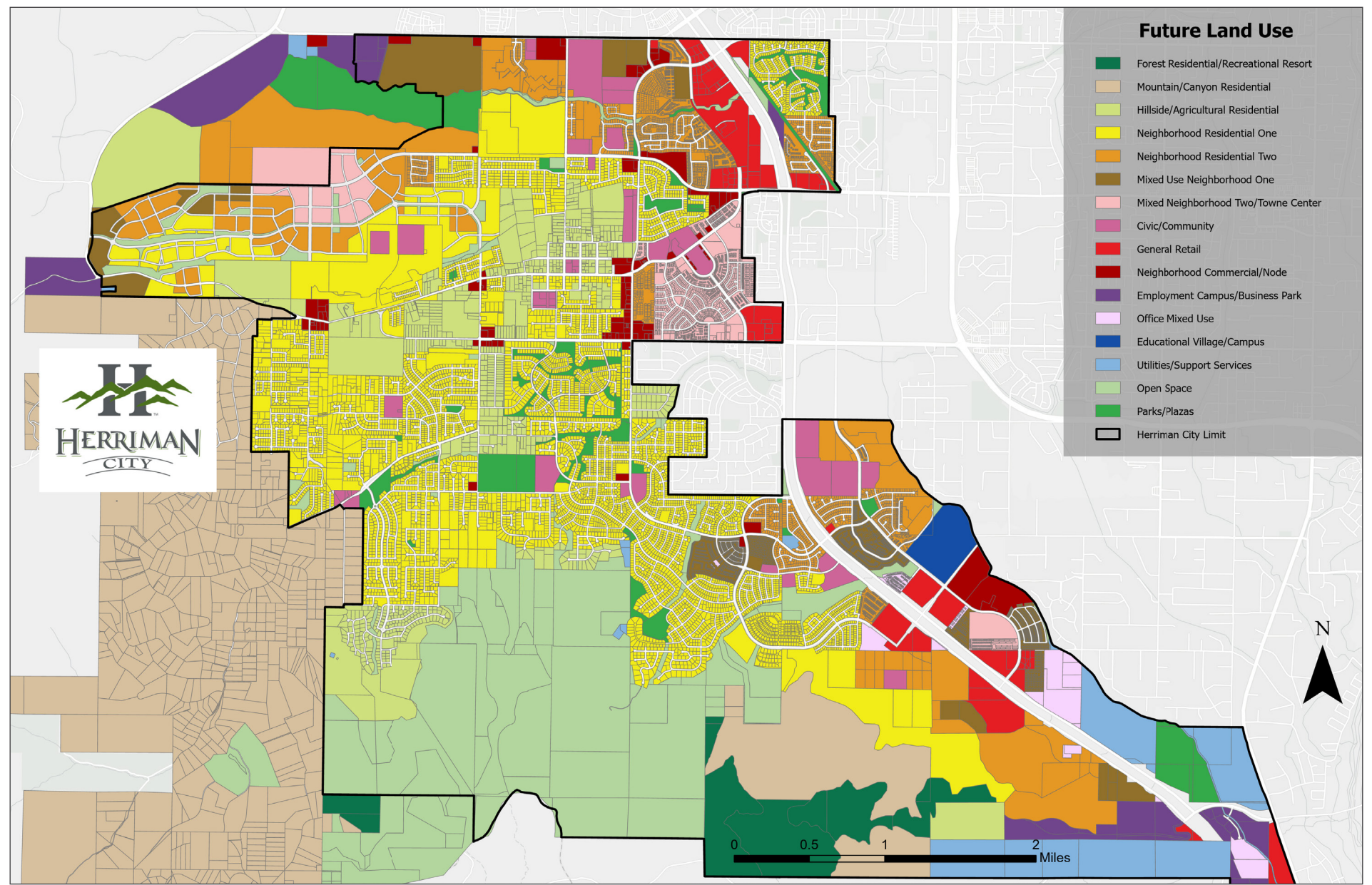


Figure 11: 2020 Employment by Transportation Analysis Zone



Much of the southern portion of Herriman is geographically constrained by the steep slopes of the foothills to the south and west, which inhibits development. Future development in south Herriman will likely be limited to hillside residences. The northwest region, however, does not contain these same constraints and should see higher development densities in the future. The current zoning (see Figure 12) within Herriman closely represents what exists today, with several planned zones for mixed-use development.

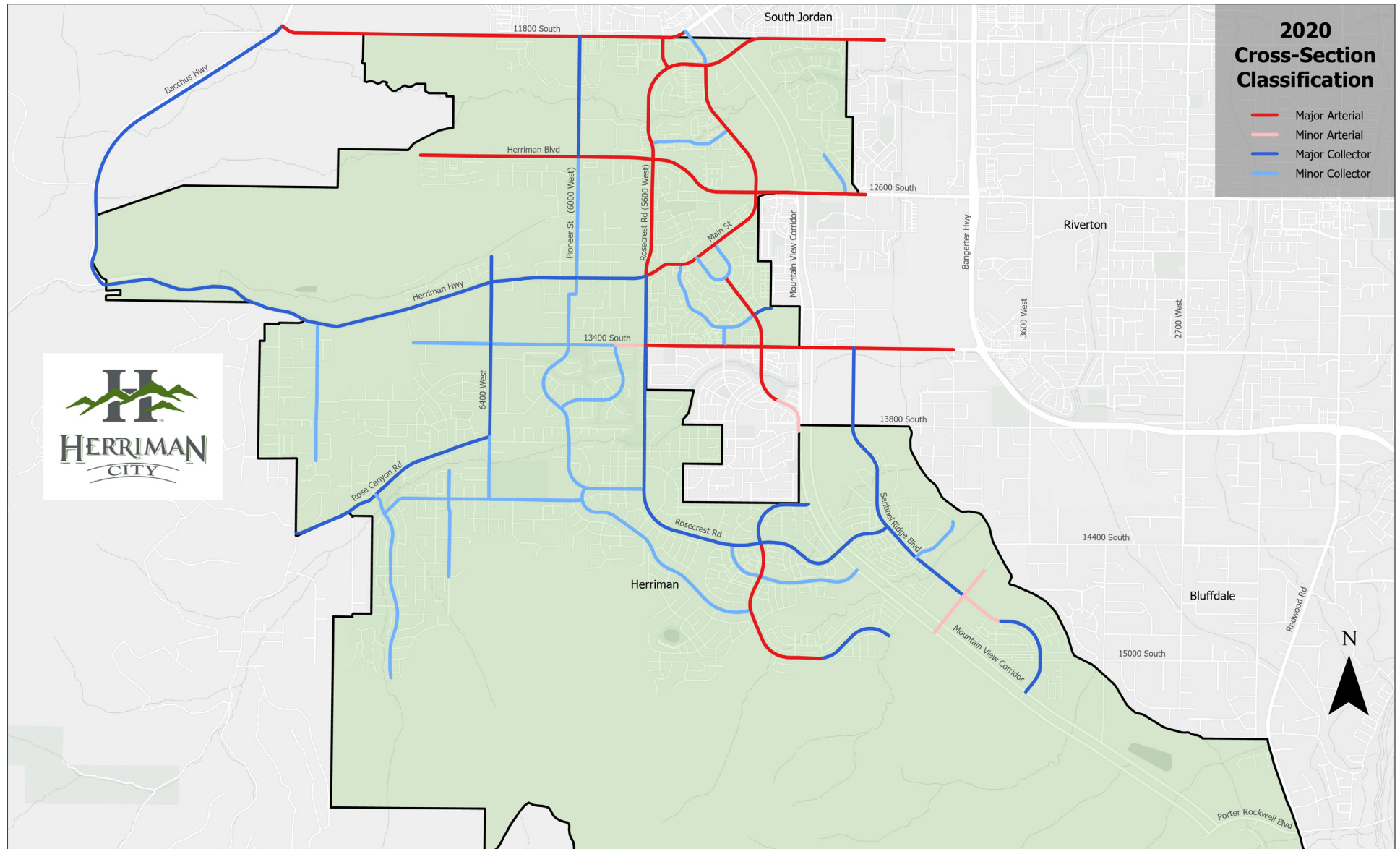
Figure 12: Herriman Current Zoning Map



2.4. EXISTING FUNCTIONAL CLASSIFICATION

Figure 13 shows the existing roadway network by functional classification. This classification includes major and minor collectors and major and minor arterial roadways. Roads that are under construction are not shown on this map. It should be noted that some roadways are a certain functional classification due to their cross section, and not necessary their current regional connectivity demands. For example, Fort Herriman Parkway and Juniper Crest Road are shown as Major Arterials since they are constructed with the Major Arterial cross section, and not do to connectivity demands.

Figure 13: Existing Functional Classification of Roads

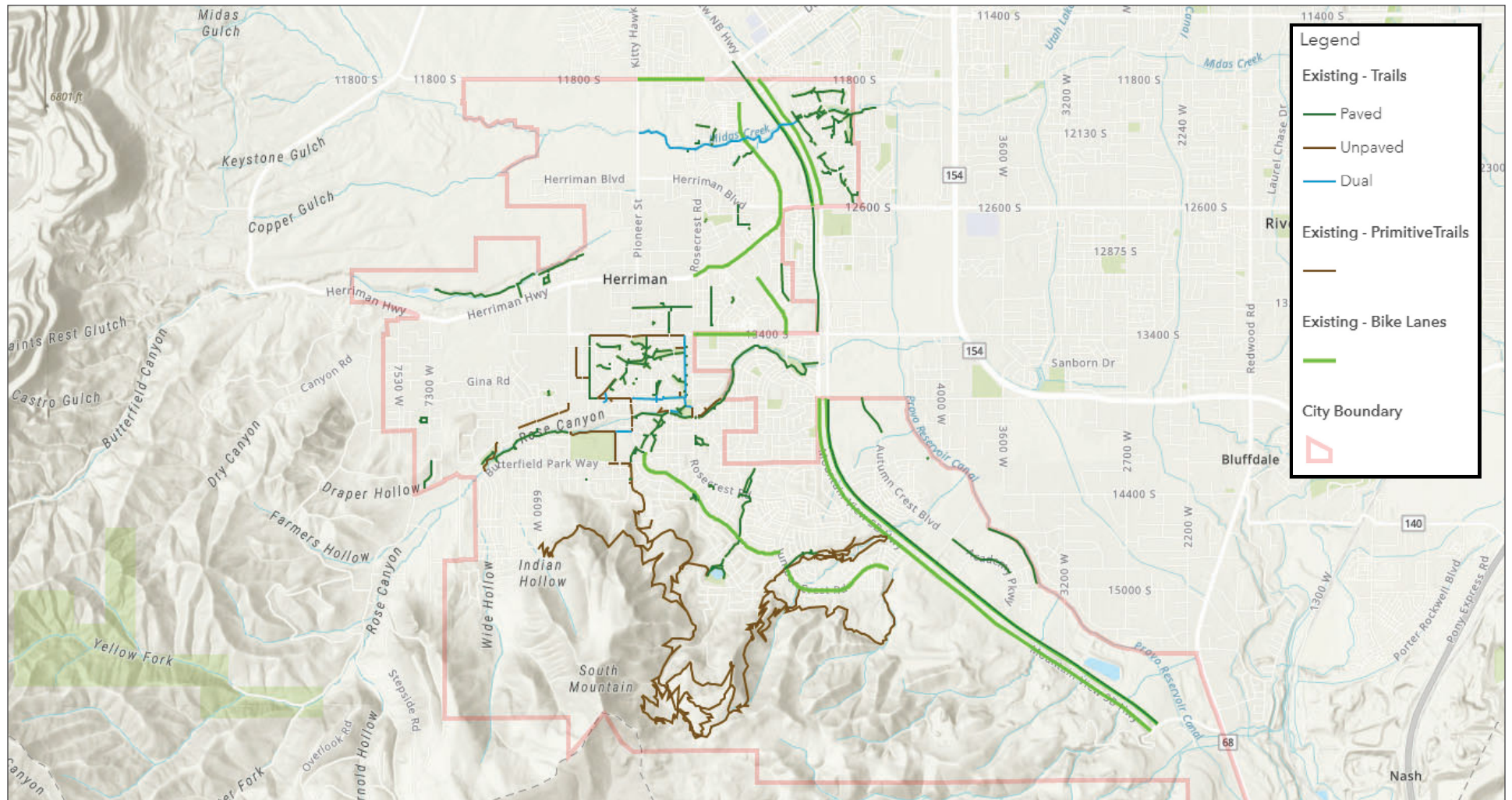


2.5. PEDESTRIAN AND BICYCLE FACILITIES

Herriman is starting with an already robust paved path and sidewalk network. Over recent years Herriman has built a paved path network which connects many neighborhoods and key destinations through the City. In addition to paved paths, Herriman also has a strong network of equestrian, hiking, and mountain biking trails. All of this combined already make Herriman a great community for utilizing active transportation within many neighborhoods. Within Herriman there are currently approximately 13 miles of bike lanes, 32 miles of paved paths, and 388 miles of sidewalks, paved paths, bike lanes, and primitive trails are shown below in Figure 14. For more details on existing and future active transportation facilities please see the [2021 Active Transportation Plan](#).

Figure 14 shows the existing bicycle facilities within Herriman. The most significant bicycle infrastructure which services the City are the bicycle lanes and multi-use pathways along Mountain View Corridor. There are a few bicycle lanes on collector and arterial streets throughout the City and a multi-use pathway which connects the Mountain View Corridor system to trails in the foothills.

Figure 14: Existing Bicycle Facilities



2.6. PUBLIC TRANSPORTATION

Utah Transit Authority (UTA) currently operates in partnership with Via to provide an on-demand, smart, shared transportation system. The system is intended to enhance connectivity to TRAX and FrontRunner lines and to key destinations in the community. Using the Via app or by telephone, riders can hail a shuttle directly from their smartphone to a nearby pick-up location. The technology provided by Via then matches multiple riders headed in a similar direction into a single vehicle, with routing that prioritizes quick and efficient trips without relying on a fixed route schedule. The regular one-way fare is \$2.50, wheelchair accessible options are available for those who need it.

2.7. SAFETY ANALYSIS

A safety analysis was performed for all roadways within Herriman City. The most recent 5 full years of available crash data (2017 to 2021) from UDOT Traffic & Safety were used to perform a safety analysis. Historic crash patterns were analyzed within Herriman City to develop project and policy recommendations.

In total there were 1,798 crashes reported within Herriman City between 2017 and 2021. Crashes have been generally increasing in Herriman City over the past 5 years. This is somewhat expected as population has increased significantly over that time. Additionally, as expected most crashes occur at intersections with the highest traffic volumes.

Table 5. 2017 to 2021 Crash Trends

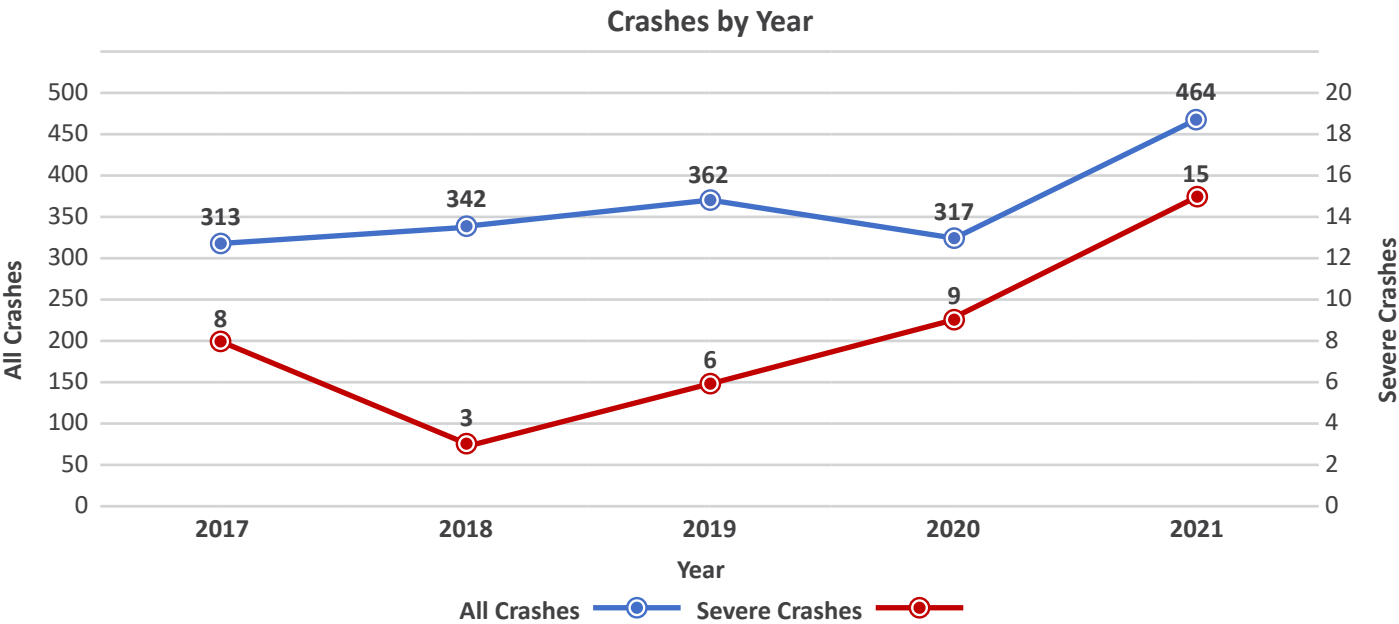
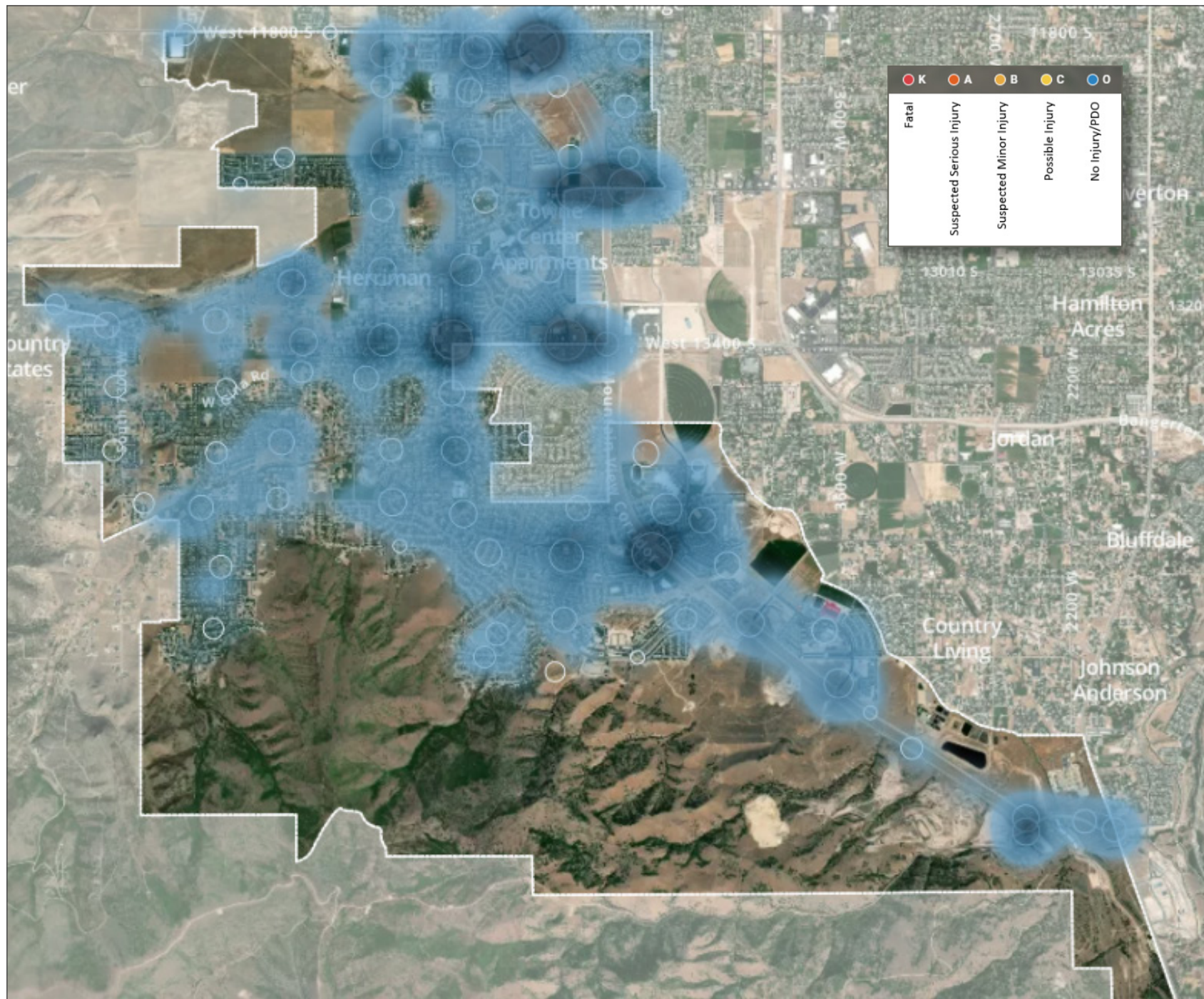


Figure 15: 2016-2018 Crash Frequency Summary



Crash severity is reported according to a five-category scale ranging from no injury to fatality. UDOT, like many other places, has taken on the goal of Zero Fatalities¹. This zero fatalities approach is guided by the Safe System framework. The Safe System approach consists of the following five elements².

Given these goals, and the very significant cost of severe crashes (both fatal and serious injury), these crash types are the focus of the analysis.



Safe Road Users

The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.



Safe Vehicles

Vehicles are designed and regulated to minimize the occurrence and severity of collisions using safety measures that incorporate the latest technology.



Safe Speeds

Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways; reducing impact forces, providing additional time for drivers to stop, and improving visibility.



Safe Roads

Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur. Examples include physically separating people traveling at different speeds, providing dedicated times for different users to move through a space, and alerting users to hazards and other road users.



Post-Crash Care

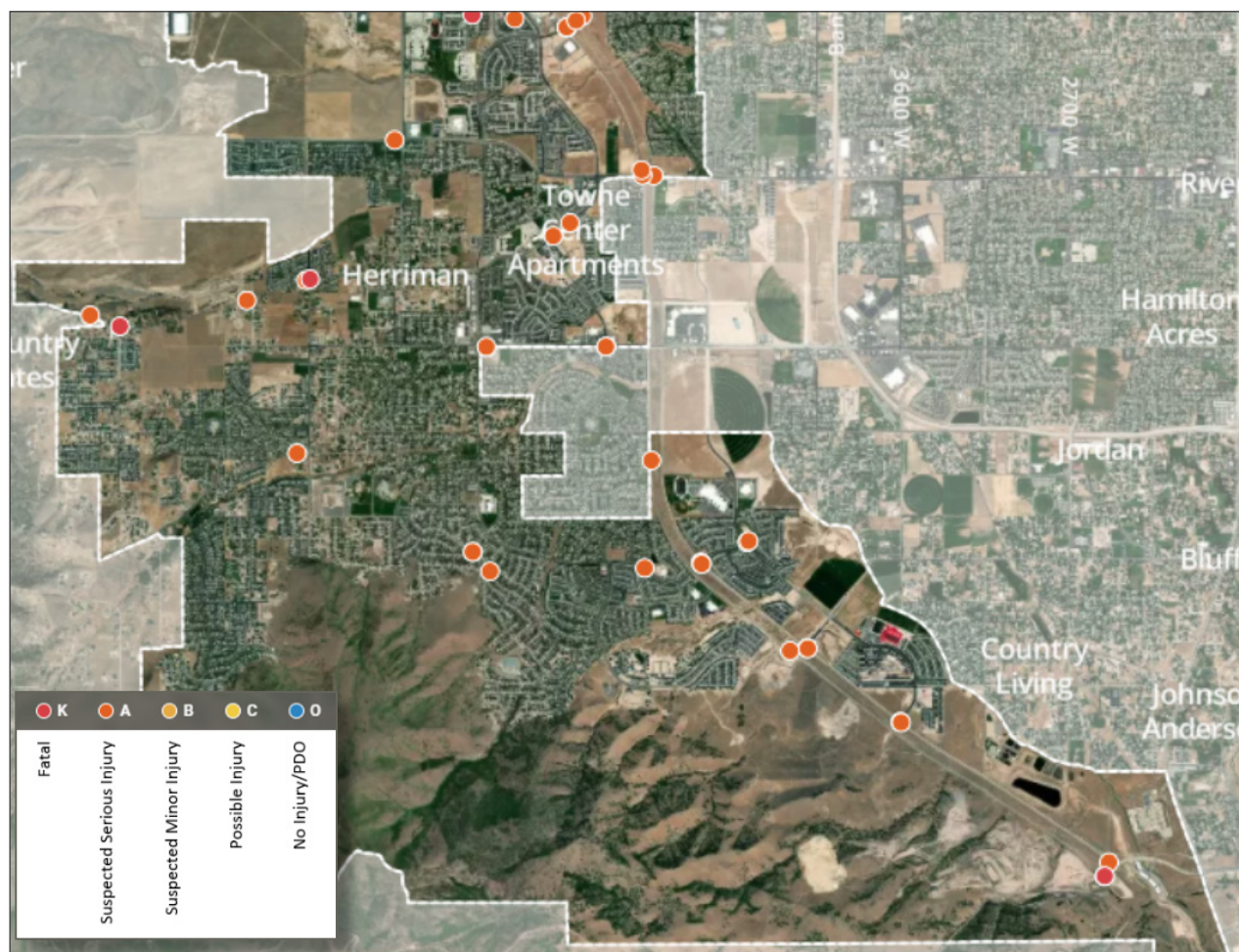
When a person is injured in a collision, they rely on emergency first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.

Figure 16 illustrates the fatal and serious injury crashes in Herriman City. For the analysis period, there were 6 crashes with a fatality and 35 serious injury crashes. The number of fatal and serious injury crashes in Herriman City as a percentage of total crashes is 2.2 percent, which is just above the Salt Lake County average of 1.9 percent during the same timeframe. This above average crash severity is due to Mountain View Corridor (SR-85). Of the 41 severe crashes with Herriman more than half were located at intersections with Mountain View Corridor (21 out of 41 severe crashes). This corridor has well known safety issues, and UDOT has taken steps to improve safety at intersections with Mountain View Corridor.

1 <https://zerofatalities.com/>

2 https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

Figure 16: 2017 to 2021 Severe Crashes



Crash narratives were reviewed for all severe crashes within Herriman City. Based on this review, along with a review of themes within non-severe crashes, the following recommendations are made:

- **Real Vista Drive & Mountain View Corridor (SR-85):** Two severe crashes involving vehicles running the stop signs along Real Vista Drive have been reported within the study period. Herriman City should work with UDOT on getting a signal installed at this location as soon as possible. Until a signal can be installed, Herriman City should work with UDOT on ways to improve stop sign visibility (oversized signs, gate posted, flashing sign border, MUTCD sign W4-4p “CROSS TRAFFIC DOES NOT STOP”).
- **Signalized Intersections & Mountain View Corridor (SR-85):** While UDOT has taken actions to improve safety at these intersections, severe crashes are still occurring. Thus, Herriman City should continue to monitor these locations, and follow up with UDOT when issues arise.
- **Citywide Electric Scooter Crashes:** Two severe electric scooter have occurred along Emmeline Drive. From reviewing the crash narrative, both crashes

appear somewhat random, and not representing a larger trend. However, with the popularity of electric scooters increasing, the city should continue to monitor these crash types.

- **Pioneer Street & Autumn Glow Cove:** A severe pedestrian crash occurred at this location. A child coming from the elementary school crossed here instead of using a crosswalk at 13200 South or 13400 South. Given that these crosswalks are 0.3 miles apart, Herriman City should consider another crossing location in between to provide direct access between the elementary school and the neighborhoods to the east.
- **Herriman Highway:** A general theme of reckless and high-speed driving has resulted in several severe crashes along this roadway. As this roadway continues to be built out with curb and gutter, Herriman should consider UDOT Speed Management measures³.
- **12600 South & Herriman Main Street:** A severe crash involving a westbound left-turning vehicle occurred in early 2022. From a review of non-severe crashes at this intersection, it was found that there is a theme of westbound left-turning vehicles failing to yield to eastbound through vehicles. Thus, Herriman City should consider converting the westbound left-turn to protected only left-turn phasing.

3 <https://drive.google.com/file/d/1n4NBMyx6nxL6ZnKPJxdUu5mNp7m1VCo5/view>





3. FUTURE CONDITIONS

This section discusses the projected population growth and future transportation needs of Herriman and draws on the existing conditions analysis provided in the previous section.

3.1. LAND USE

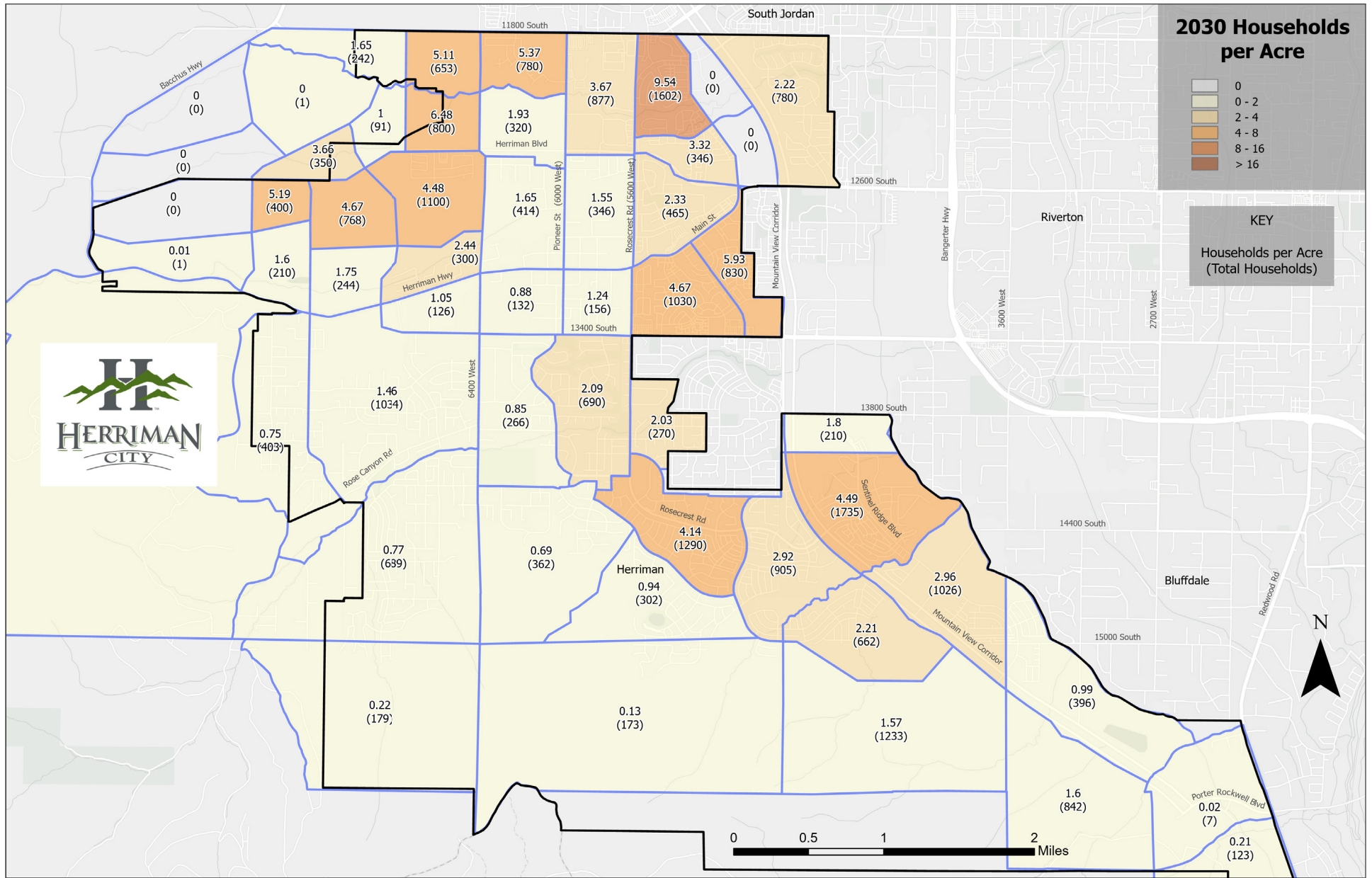
Herriman City officials project that the City population will grow to 93,864 by 2030 and to 145,149 by 2050, with an ultimate build-out population of approximately 151,000. Population projections are based on the technical memorandum prepared by Bowen Collins on December 14, 2020 titled “Growth Projections for Herriman City Planning Documents”. The build-out population includes the potential annexation areas. This number is higher than region-wide population estimates made by WFRC. WFRC constrains growth to regional totals, which is useful when considering the large-scale population growth but less reliable when looking at smaller geographies. To account for this issue, this plan uses population numbers provided by Herriman to show projections with TAZ-level demographic information. Employment projections were developed with Herriman staff. It’s projected that Herriman remains more of a residential community than employment center, but that as the city grows out commercial nodes, and smaller employment centers will be constructed. Additionally, through discussions with city staff it was assumed that the average household size dipped to approximately 3.57 by 2020, and that it remains constant through 2050. While household sizes are likely to decrease as the city ages, this accounts for potential newly constructed ADUs on existing single family lots. Table 6 shows projections for population, households, and employment from WFRC and Herriman.

Table 6. Demographic Projections

	WFRC Current Model	Herriman Revisions	WFRC Projections		Herriman Projections	
	2020	2020	2030	2050	2030	2050
Population	42,661	55,144	59,534	86,350	93,824	145,149
Households	12,781	15,466	19,652	31,357	26,281	40,658
Employment	5,414	4,212	24,532	33,608	12,757	35,358

The number of total projected households by TAZ for 2030 and 2050 is shown in Figure 17 and Figure 18 respectively. The projected growth of the number of households is particularly high in undeveloped areas where terrain is suitable for development.

Figure 17: Projected 2030 Households by TAZ



[illegible]

Similarly, the growth in the number of employees is projected to occur in the currently undeveloped northwest, southeast, and the Herriman Towne Center. Figure 19 and Figure 20 show the number of employees in each TAZ for 2030 and 2050 respectively.

Figure 19: Projected 2030 Employment by TAZ

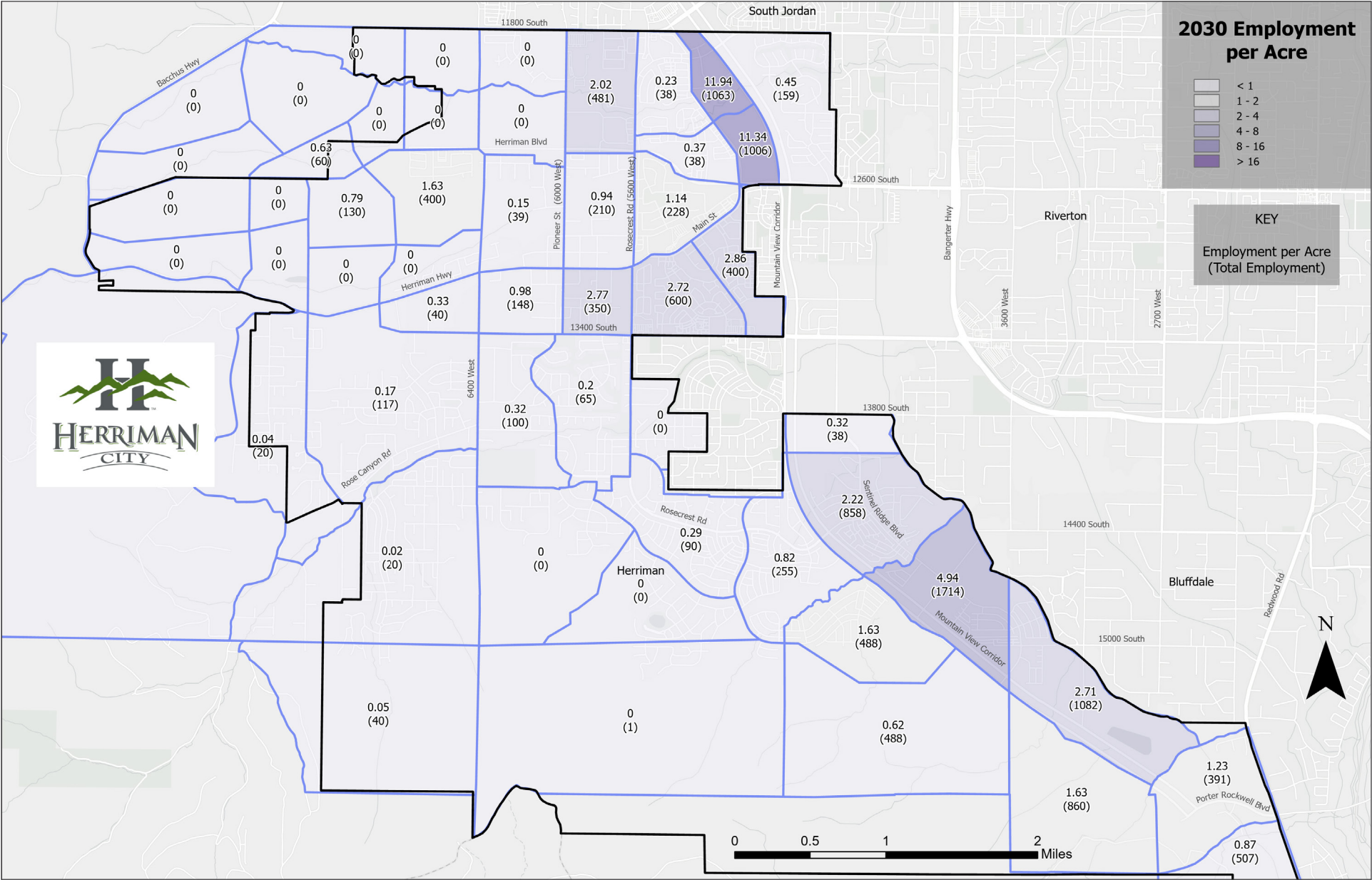
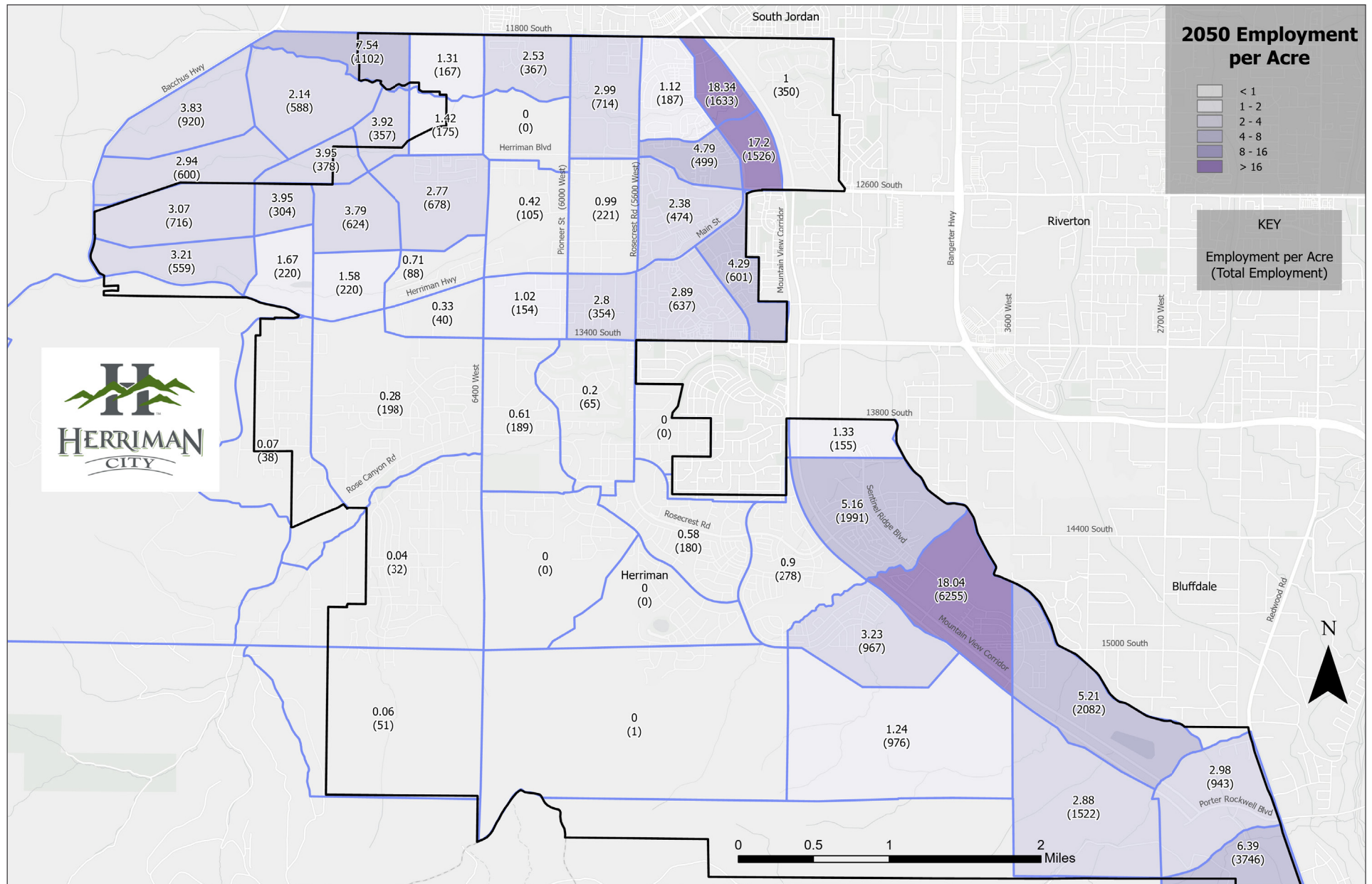
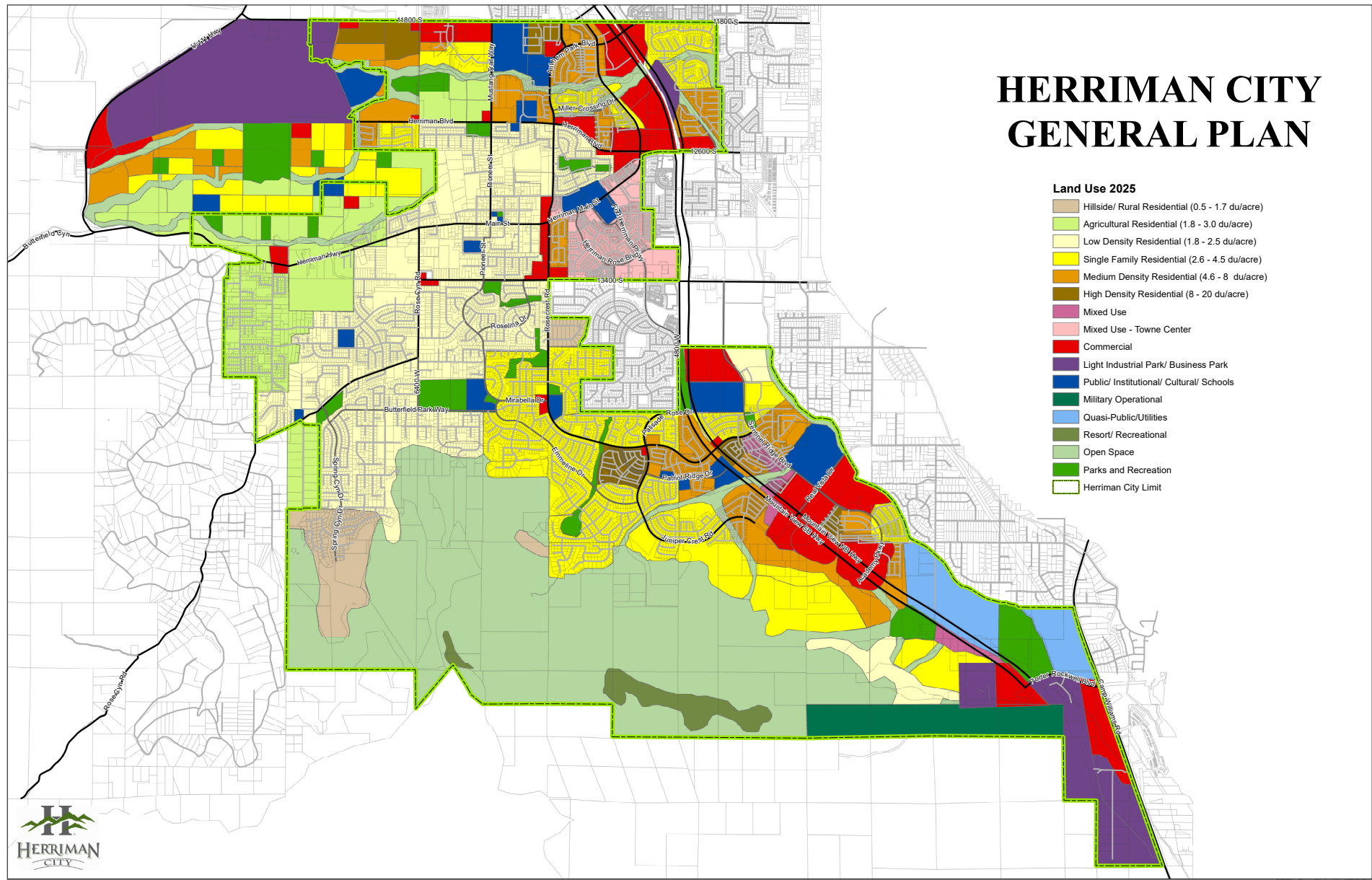


Figure 20: Projected 2050 Employment by TAZ



Herriman City’s 2025 Land Use Plan is similar to current zoning. The most notable differences are the conversion of a large portion of the agricultural zones to low density single family zones, inclusion of the unincorporated land to the west of the City, and the Towne Center plan. Figure 21 shows the Herriman City 2025 Land Use Plan.

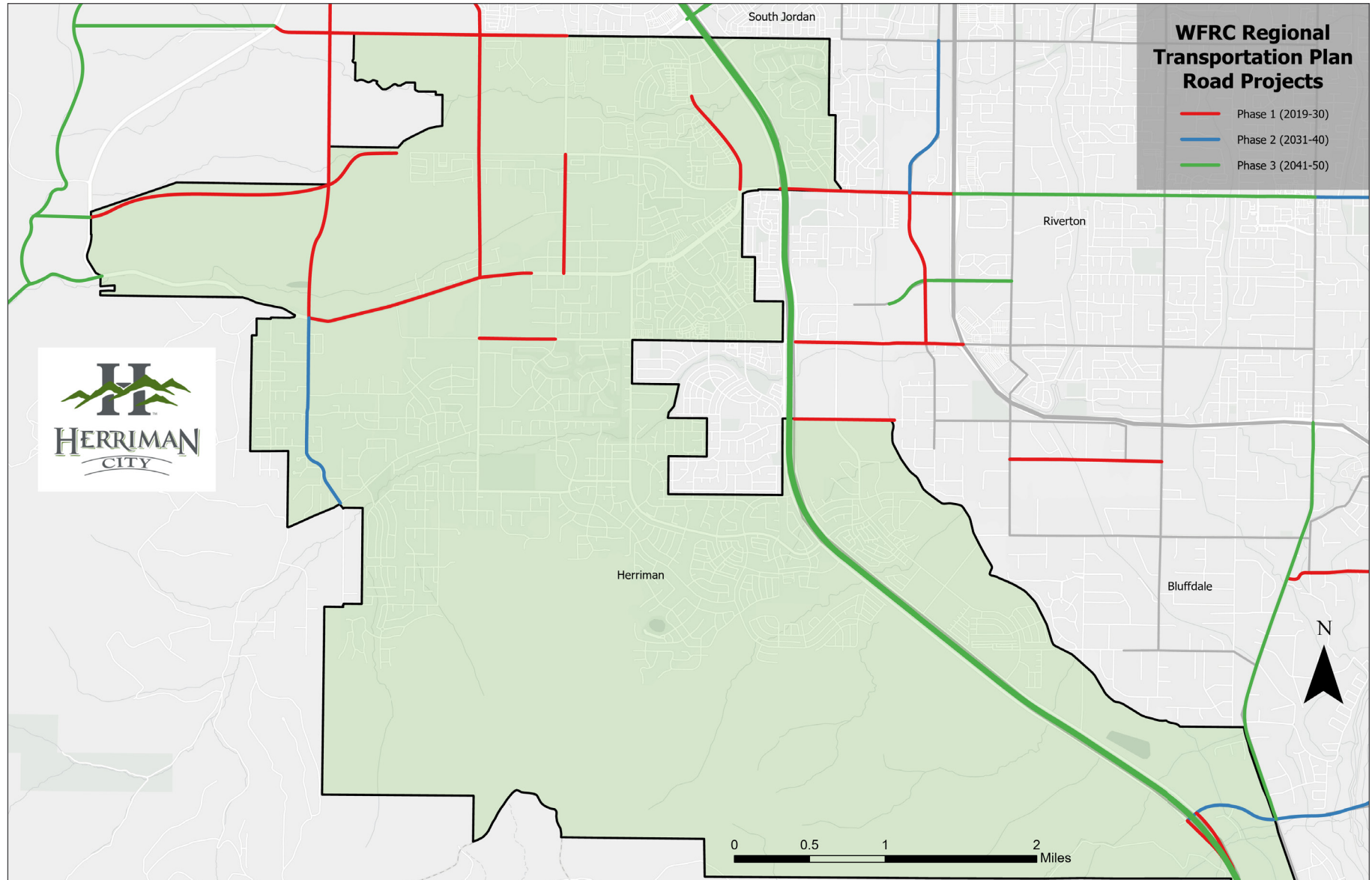
Figure 21: Future (2025) Land Use Plan



3.2. REGIONAL PLANS

The forecasting and planning undertaken by Herriman is complimented by regional planning performed by WFRC, UDOT, and UTA. WFRC's Regional Transportation Plan (RTP) includes roadway, transit, and active transportation projects for each of the previously stated agencies in three funded stages through the year 2050. Figure 22 shows the recommended RTP roadway projects in or near Herriman. These planned regional projects are consistent with the proposed local projects outlined in this master plan.

Figure 22: Regional Transportation Plan Projects in Herriman



3.2.1. UDOT U-111 STATE ENVIRONMENTAL STUDY

The Utah Department of Transportation (UDOT) is conducting a state environmental study (SES) of U-111 between 11800 South and Herriman Boulevard to address the current and future growth in southwestern Salt Lake County and the surrounding areas. This study is expected to:

- Determine whether to extend U-111
- Evaluate potential alignments for a possible roadway extension
- Identify any corresponding impacts
- Determine whether a no-build alternative is feasible

Currently (as of November 2022) a final alternative has not been selected, but Alignment B (shown below) is being advanced into further analysis and design. The final draft of the state environmental study (SES) is expected to be complete in March 2023.

Figure 23: U-111 State Environmental Study – Alignment B



3.3. TRAFFIC CONDITIONS

The traffic volumes in Herriman are generally modest, with average daily traffic (ADT) only rising above 30,000 on a couple of major arterial roadways. Overall, Herriman's roadways have a level of service (LOS) well within the typical LOS D standard typical of urbanized areas. Figure 24 depicts the level of service progression from A "free flow" to F "forced flow."

For application in Herriman, LOS D roadway capacities were adjusted to daily maximums based on various factors consistent with the Highway Capacity Manual. Table 7 summarizes the daily maximum capacities used to define capacity deficiencies as part of this study. Figure 25 shows existing traffic volumes, and Figure 26 shows the existing LOS for arterial roads and major and minor collectors.

Figure 24: Level of Service Diagram

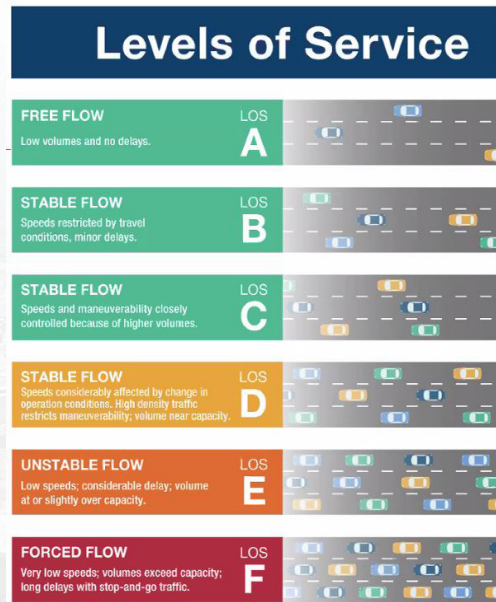


Table 7. LOS D Daily Maximum Capacities (Two Way Daily Trips)

Lanes	Major Arterial	Minor Arterial	Major Collector	Minor Collector
2	12,500	11,300	11,200	9,800
3	19,100	16,000	17,500	13,500
4	38,300	32,500	30,900	22,700
5	41,000	35,000	37,200	31,000
6	52,800	46,000	-	-
7	57,000	50,000	-	-

Figure 25: Existing (2020) Traffic Volumes (Two Way Daily Trips)

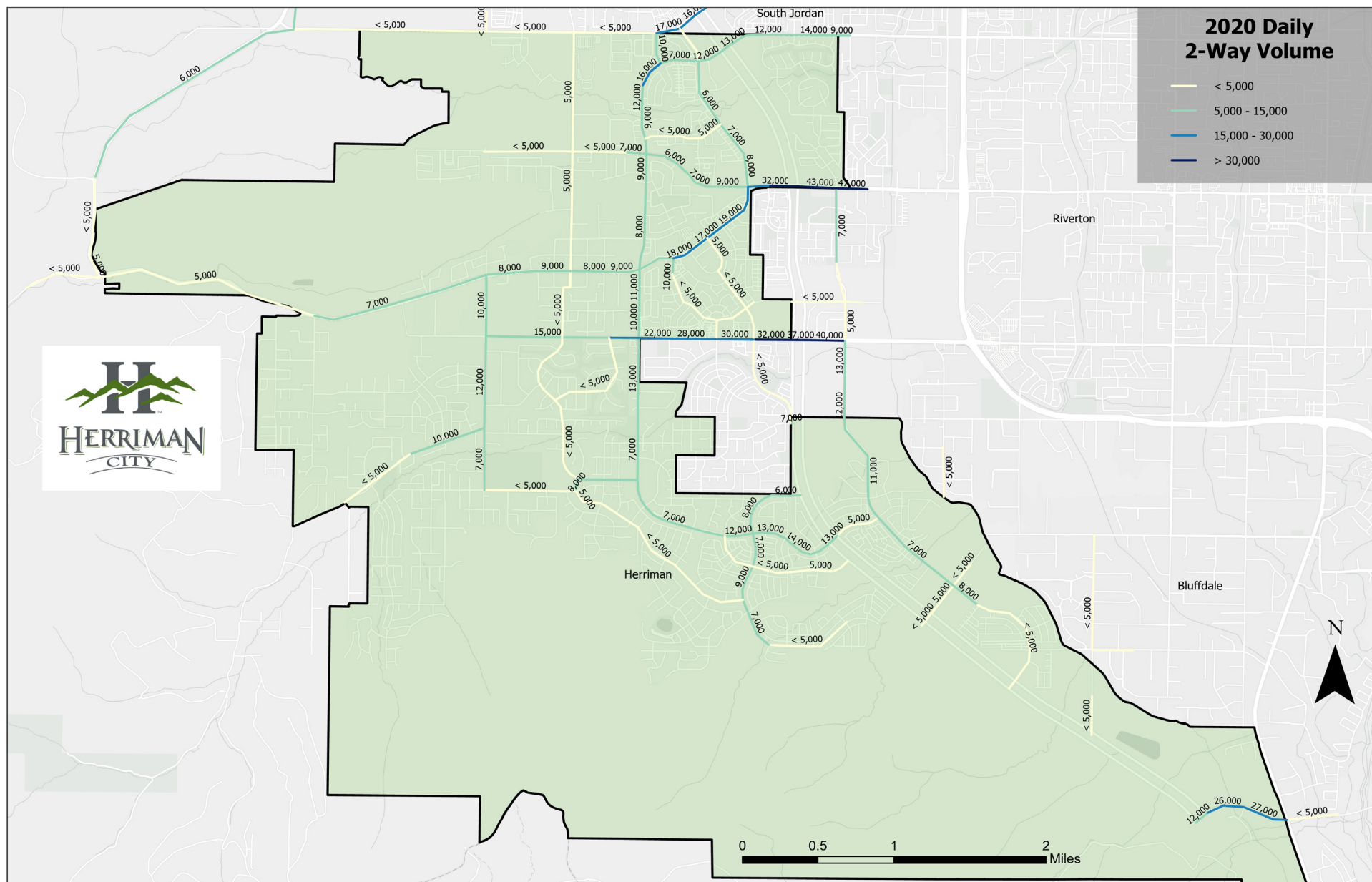
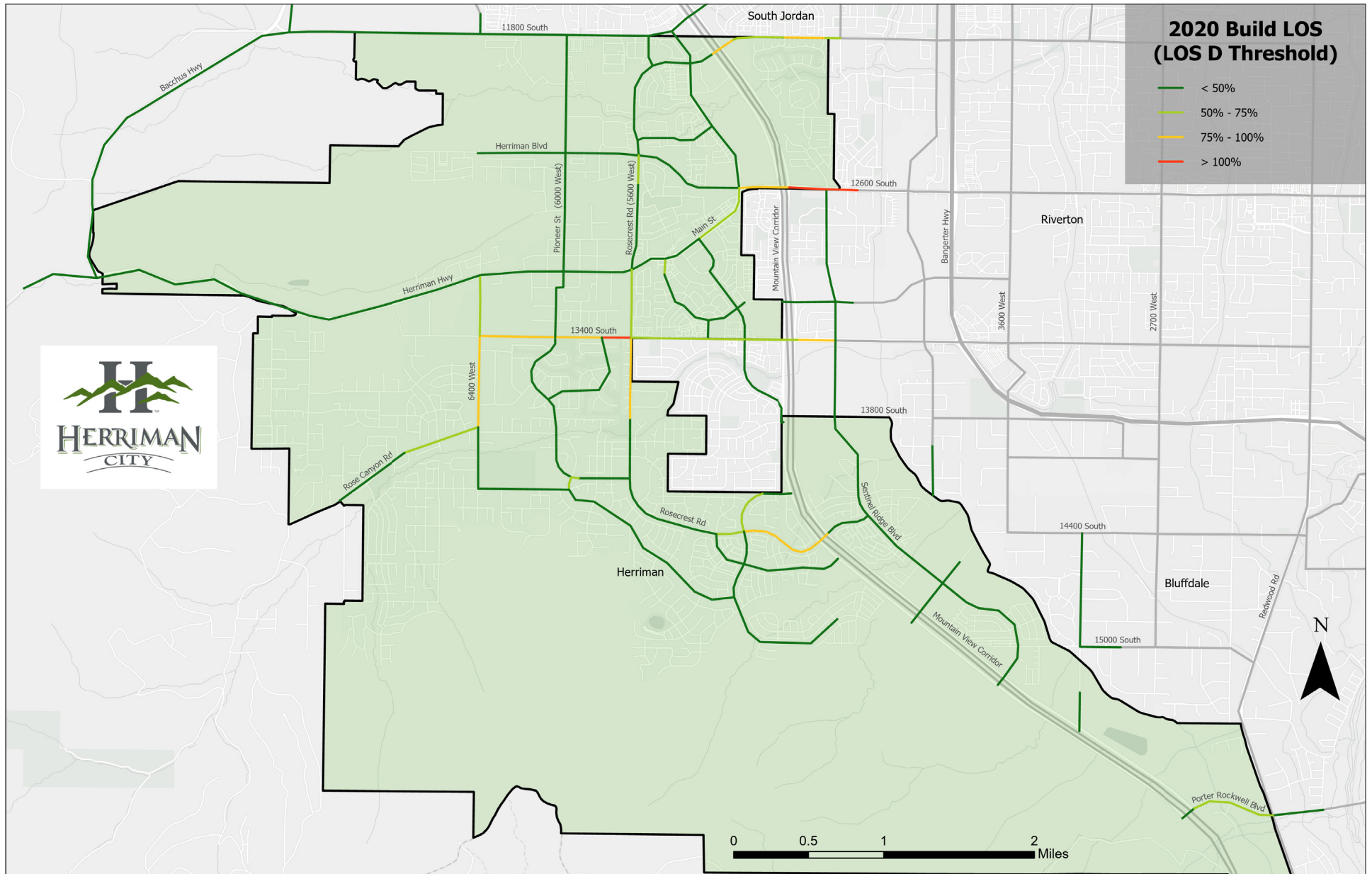


Figure 26: Existing (2020) Level of Service of Major Roads



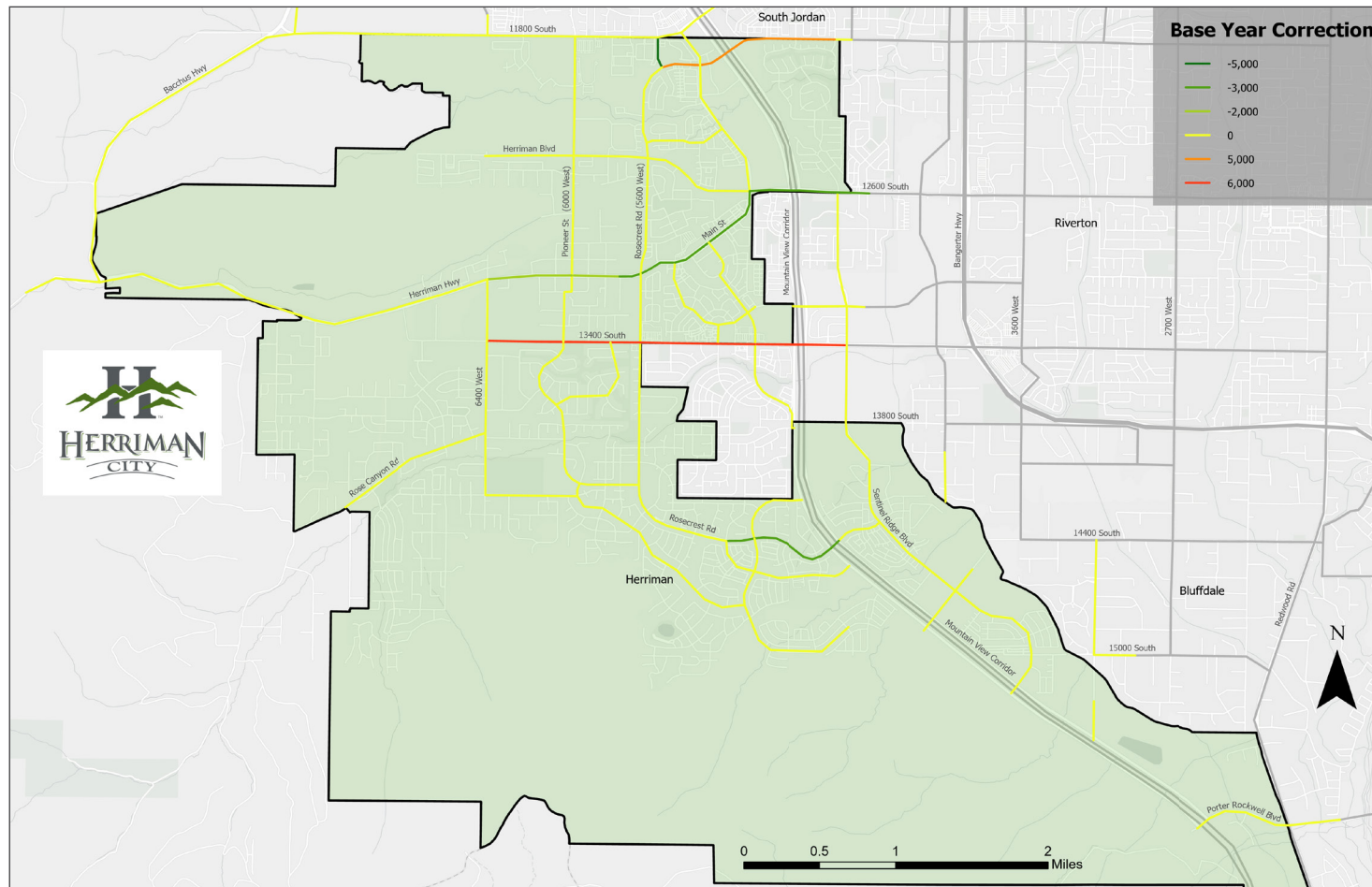
3.4. TRAVEL DEMAND MODELING

Future traffic conditions were forecasted using the WFRC – Mountainland Association of Governments (MAG) regional travel demand computer model (version 8.3.1, dated August 17, 2020). The model base year was 2020 and future conditions were forecasted for 2030 and 2050. The base year and future year socioeconomic data for Herriman were updated as part of the model calibration process for this transportation master plan.

3.4.1. BASE YEAR MODEL CALIBRATION

The base WFRC-MAG model network was updated to reflect existing conditions more accurately. Changes included modifying roadway functional types, creating new roadway links, and updating the underlying socioeconomic data. Additionally, a base year correction was developed from the difference between the 2020 modeled traffic and actual traffic counts provided by the City. This base year correction was then applied to the 2030 and 2050 modeled traffic to produce forecasts which account for any inherent tendencies of the model. Figure 27 shows a summary of the corrections to the 2020 model.

Figure 27: Summary of Corrections to 2020 Model



3.4.2. FUTURE VOLUMES

Once the base model was calibrated to reflect current conditions, future population, household, and employment data along with future roadway networks were used to model projected 2030 and 2050 travel volumes on a future Herriman network.

Figure 28 depicts projected 2030 daily travel volumes. Model results indicate that daily volumes within the City generally stay below 30,000, with the exception of 12600 South (Herriman Boulevard) and 13400 South near the Mountain View Corridor crossings where daily volumes exceed 50,000.

Figure 29 shows the projected 2030 LOS in the Minimal Build condition. Level of service in 2030 Minimal Build is projected to remain within the LOS D threshold in on most corridors. However, without widening the following segments of roadway are projected to exceed the LOS threshold.

- 11800 South: Mountain View Corridor to 4600 West (Ticaboo Mine Road)
- Herriman Boulevard: 6400 West to 6000 West and Herriman Main Street to the city boundary
- 13400 South: 6400 West to 5600 West

Figure 30 shows the projected 2030 LOS with widening projects (Build). In this scenario there are two roadways that still exceed the LOS threshold. Explanations on these roadways being projected to exceed the LOS threshold are provided below.

- **11800 South: Mountain View Corridor to 4600 West (Ticaboo Mine Road)**

11800 South through the Mountain View Corridor interchange is a phase 1 project, thus improving LOS through the most significant bottleneck on this corridor. East of Mountain View Corridor, the roadway does not drastically exceed the capacity of a 3-lane cross section in 2030. Thus, this project will be delayed to Phase 2 (2031-2040) to correspond with the South Jordan City TMP schedule, as South Jordan owns the northern half of this roadway.

- **Herriman Boulevard: 4570 West to the city boundary**

Even with a 7-lane cross section this roadway is projected to still exceed the LOS threshold. UDOT is currently performing a study for this corridor examining solutions such as grade separation and innovative intersections.

MINIMAL BUILD

Represents a network where all new roadways are built but no widening projects occur.

(It is assumed that for new development to access the existing roadway network these new roadways will need to be constructed. Thus, there is no rationale in running a “No Build” scenario that still assumes significant household and employment growth since that could never realistically occur.)

BUILD

Represents all corresponding phase projects from the Street Facilities Plan being constructed

(For example: the 2030 Build condition will include all Phase 1 projects)

Figure 28: Projected 2030 Daily Traffic Volumes

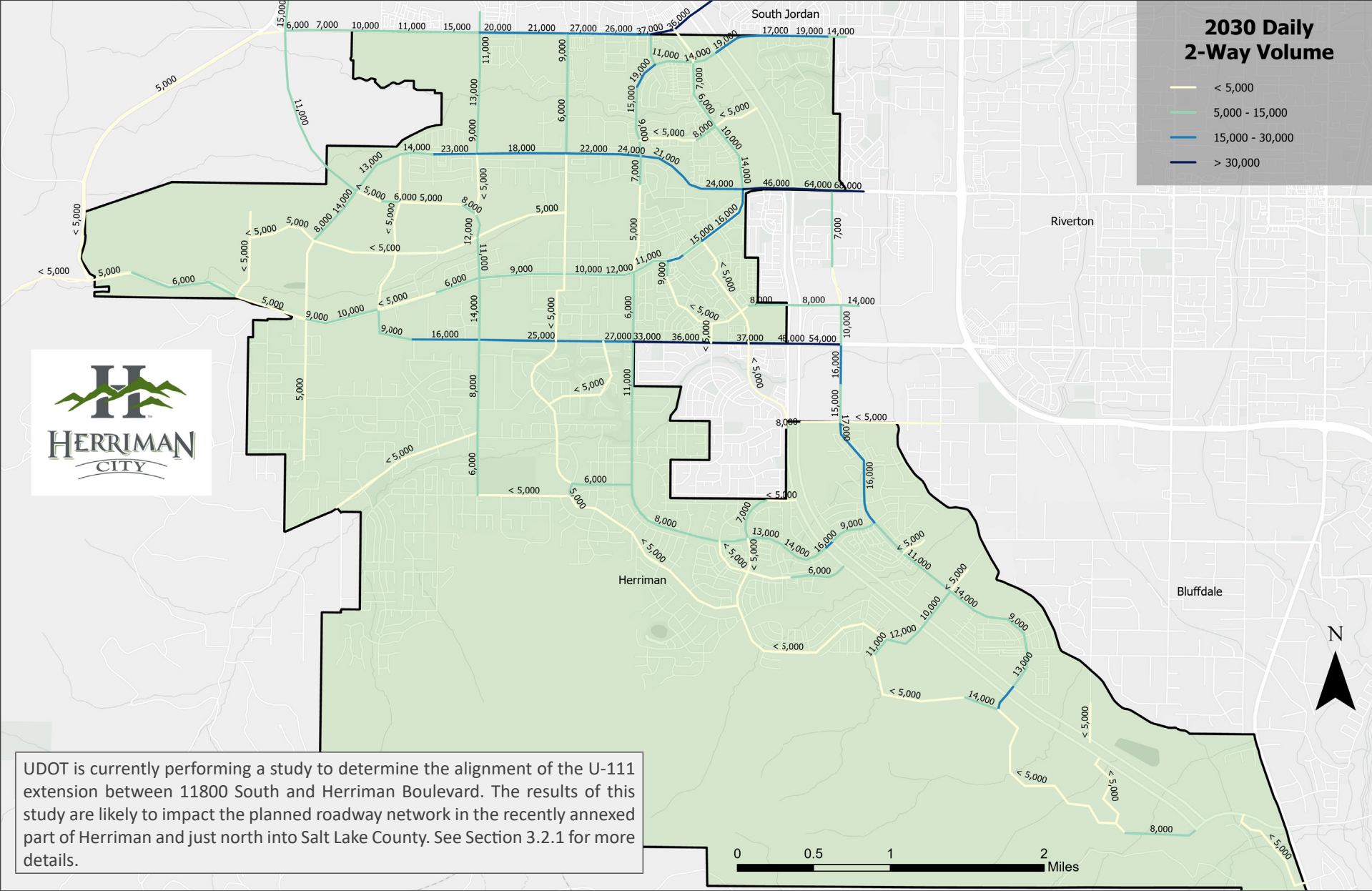


Figure 29: Projected 2030 Level of Service – Minimal Build

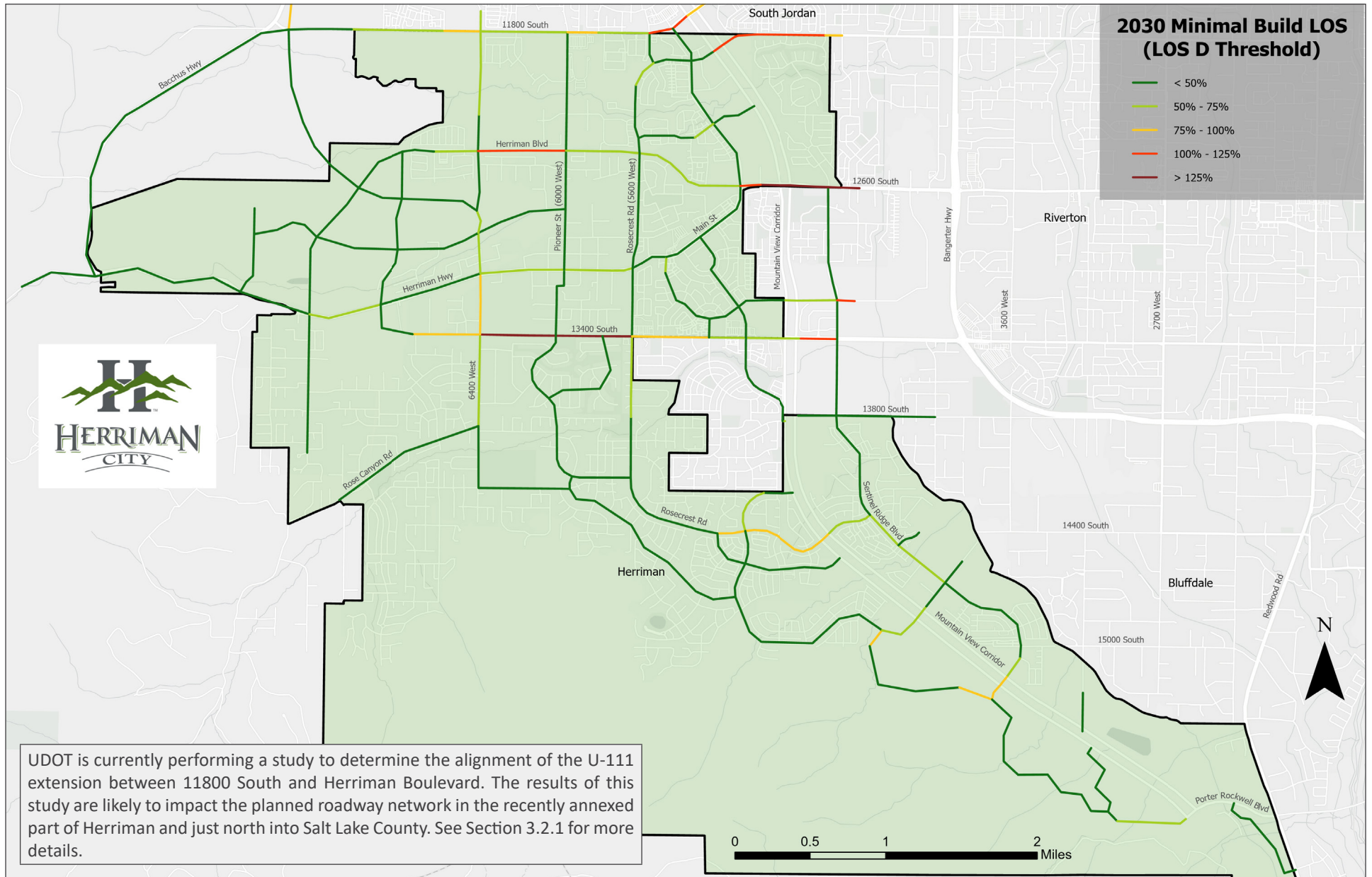


Figure 30: Projected 2030 Level of Service – Build

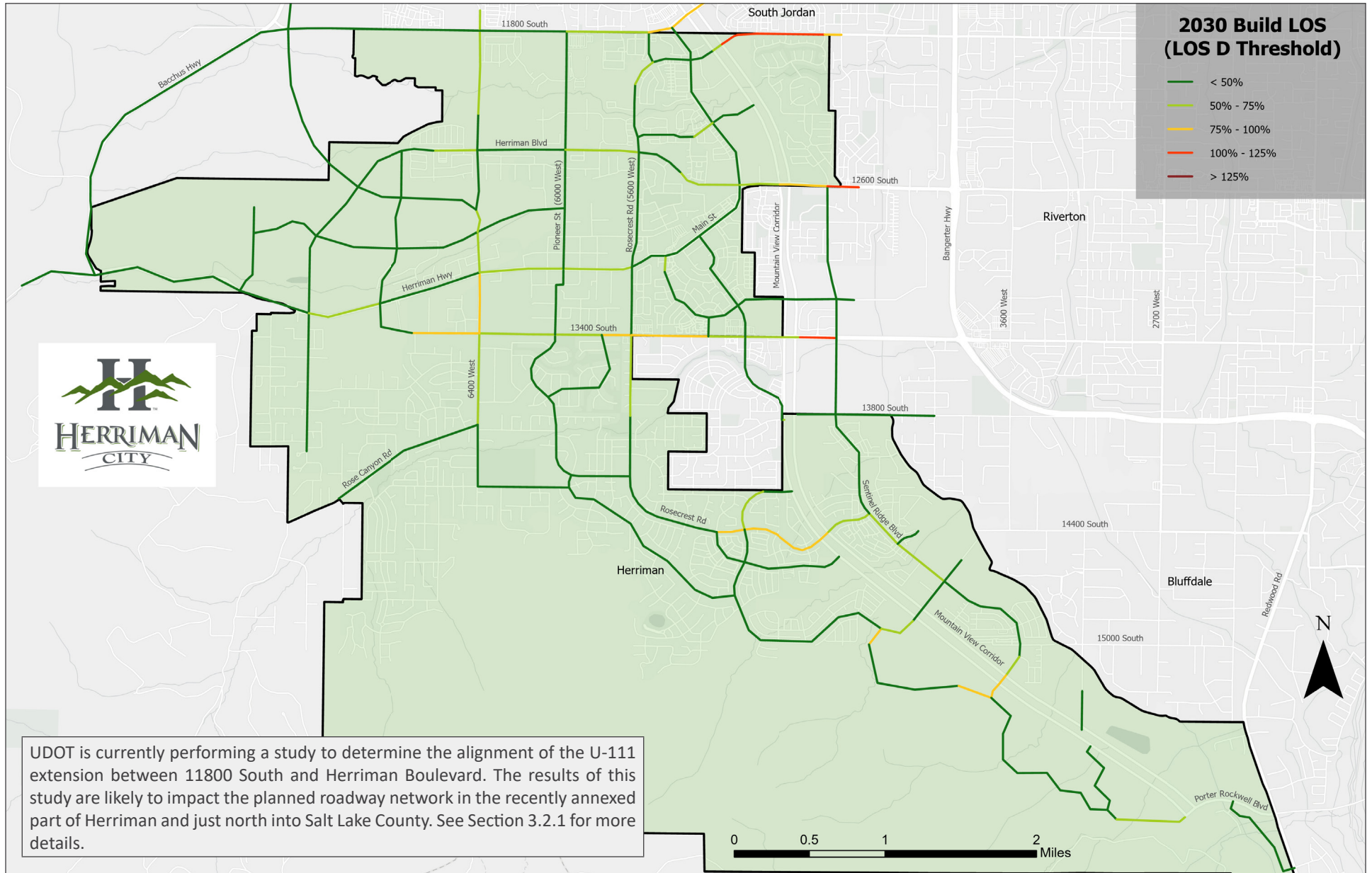


Figure 31 depicts projected 2050 daily travel volumes. Model results indicate that daily volumes are still fairly low on many city roadways. However, given Herriman's location in the southwest corner of the valley high volumes are projected proximate to all Mountain View Corridor interchanges. Roadways such as 11800 South, 12600 South, Herriman Main Street, and 13400 South have significant volumes accessing and through the Mountain View Corridor interchanges. By 2050 the new SR-111 alignment is projected to have over 20,000 daily vehicles.

Figure 32 shows the projected 2050 LOS in the Minimal Build condition. Level of service in 2050 Minimal Build is projected to remain within the LOS D threshold in on most corridors. However, without widening the following segments of roadway are projected to exceed the LOS threshold (segments that already failed in 2030 are not listed again).

- **Bacchus Highway:** Just southwest of 7900 West and just west of 7600 West to the new SR-111.
- **11800 South:** entire roadway within Herriman
- **New Roadway:** just west of SR-111 to current city boundary
- **Herriman Highway:** Dansie Boulevard to 7900 West
- **13400 South:** 6740 West to Moorfield Road
- **6400 West:** 13400 South to Herriman Highway
- **Rosecrest Road:** At Mountain View Corridor interchange
- **Juniper Crest Road:** At Mountain View Corridor interchange
- **Academy Parkway:** At Mountain View Corridor interchange

Figure 33 shows the projected 2050 LOS with widening projects (Build). In this scenario there are five roadways that still exceed the LOS threshold. Explanations on these roadways being projected to exceed the LOS threshold are provided below.

Herriman Boulevard: Mountain View Corridor to the city boundary

Even with a 7-lane cross section this roadway is projected to still exceed the LOS threshold. UDOT is currently performing a study for this corridor examining solutions such as grade separation and innovative intersections.

New Roadway: just west of SR-111 to current city boundary

The model indicates that this roadway will warrant a 5-lane cross-section in 2050. However, the growth dictating this need is highly speculative and outside of current Herriman City borders. Additionally, 7300 West is planned to be a 5-lane roadway and have the bulk of commercial uses adjacent to it, and has excess capacity. Thus, it is likely much of this traffic will utilize that roadway instead. However, the model does indicate a potential high traffic volume corridor here, thus the ROW should be reserved for a potential 5-lane cross section, but the roadway should only be built to 3-lanes.

Herriman Highway: Dansie Boulevard to 7900 West

The city is currently planning for all of Herriman Highway to be a 3-lane cross-section west of 5600 West. This segment of Herriman Highway barely exceeds the LOS threshold for a 3-lane roadway and the additional growth dictating the need for a 5-lane roadway is high speculative.

13400 South: 6740 West to 6400 West

This roadway is planned to be widened to a 3-lane cross-section in phase 1. There are ROW constraints that make widening to 5-lanes not feasible.

6400 West: 13400 South to Herriman Highway

This roadway is planned to be widened to a 3-lane cross-section in phase 1. There are ROW constraints that make widening to 5-lanes not feasible.

Figure 31: Projected 2050 Daily Traffic Volumes

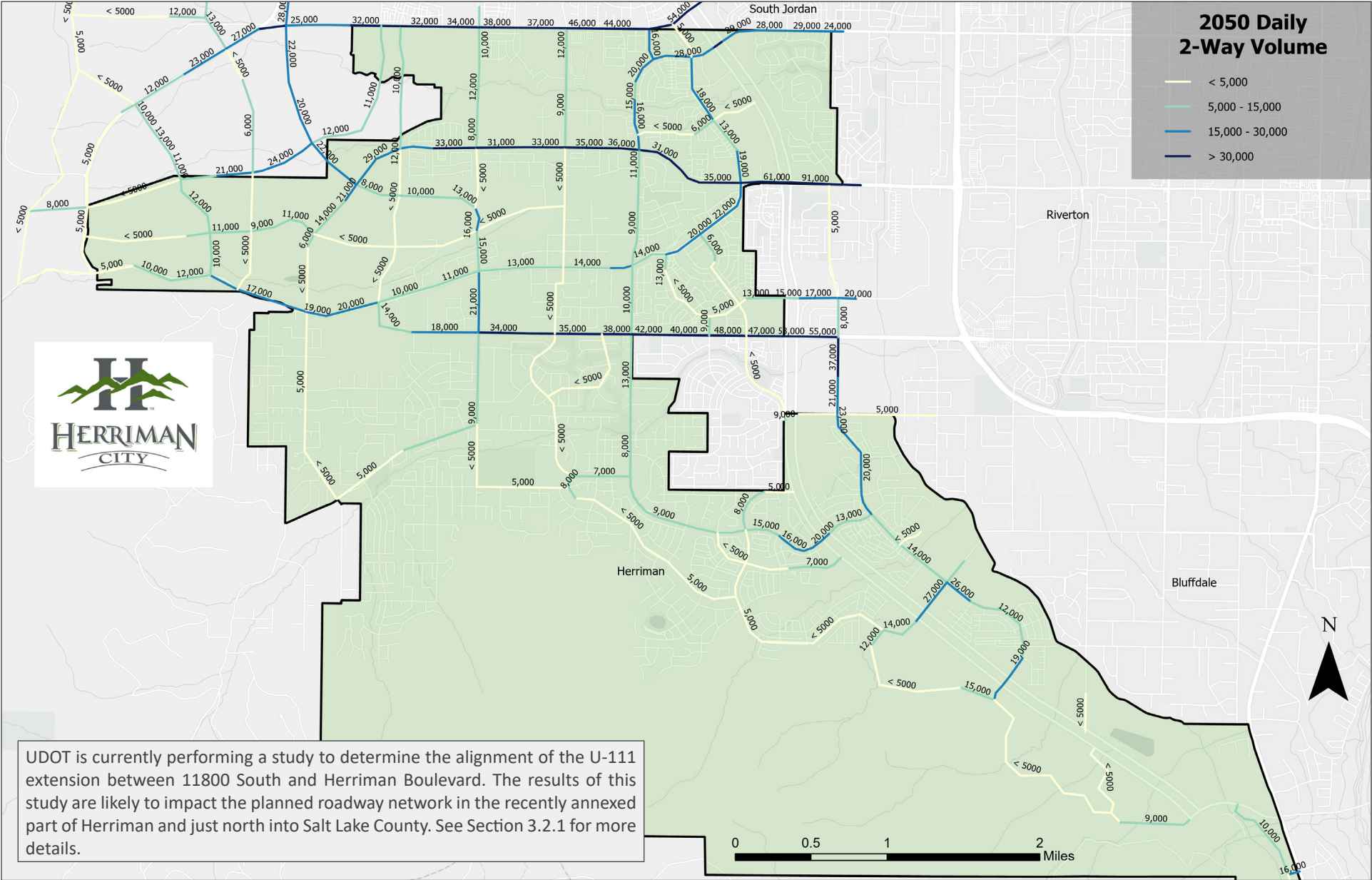


Figure 32: Projected 2050 Level of Service – Minimal Build

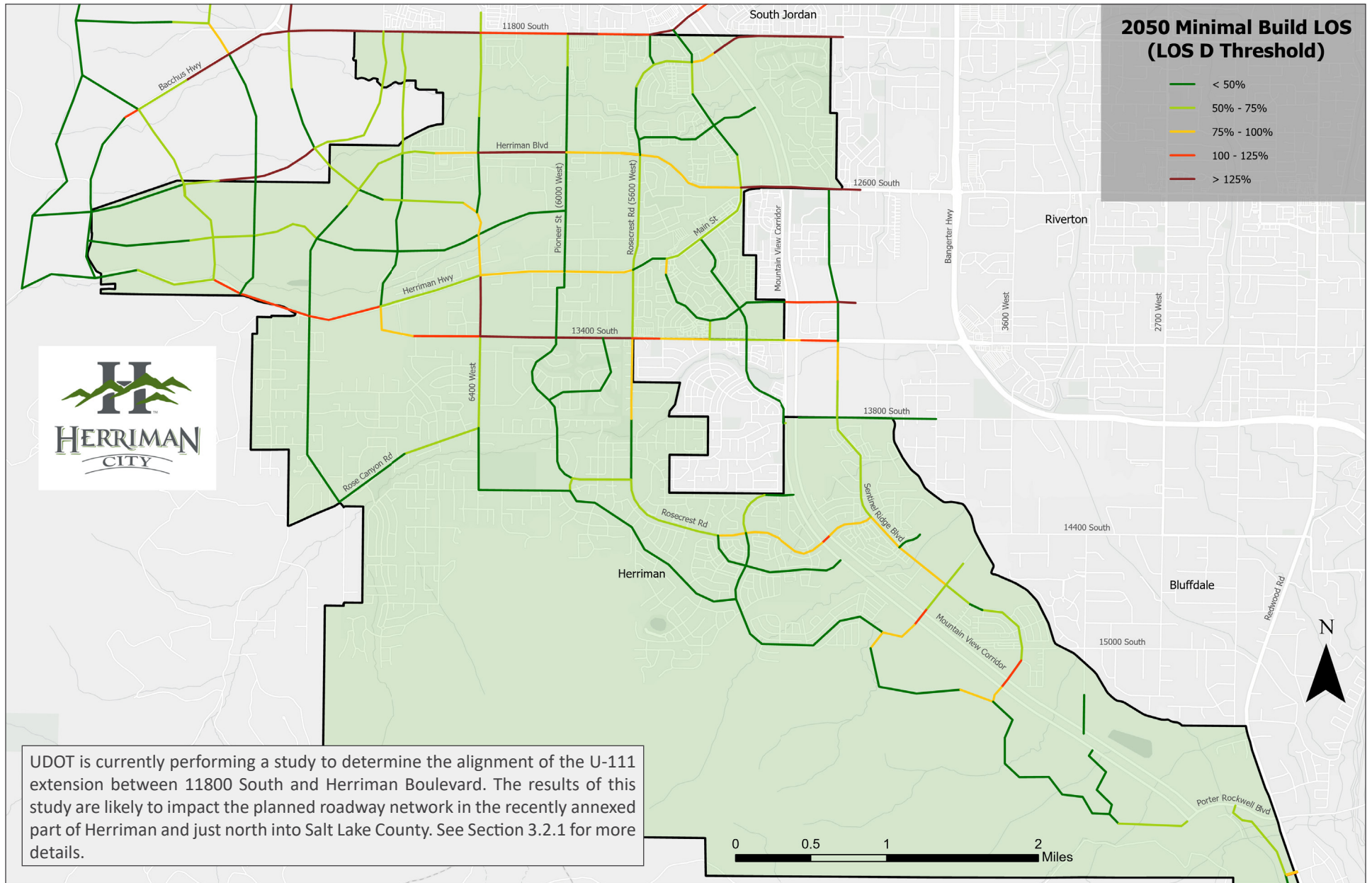
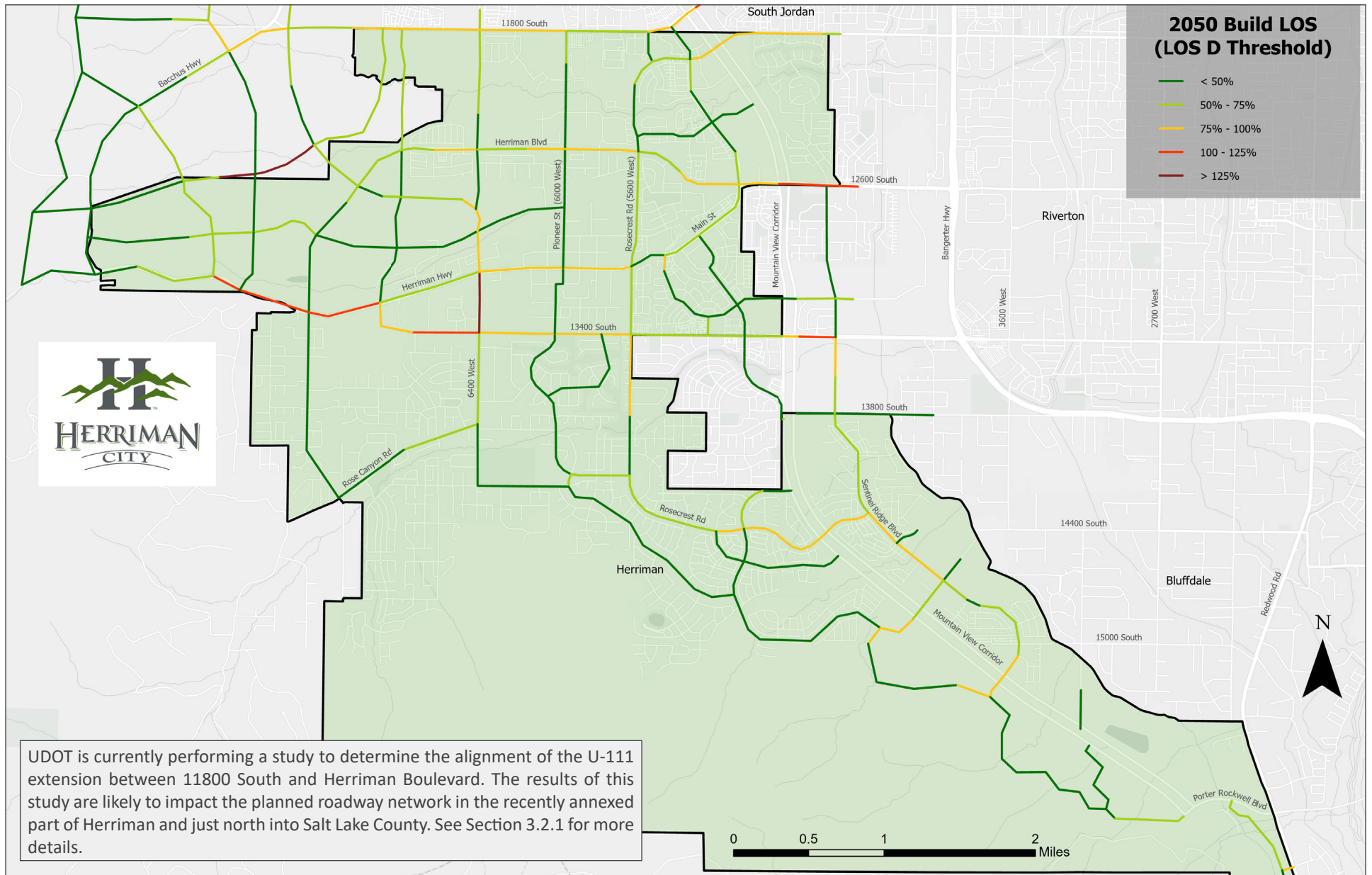


Figure 33: Projected 2050 Level of Service – Build





4. PLAN RECOMMENDATIONS

As Herriman continues to grow, transportation system improvements will need to be made to maintain acceptable LOS on city streets and intersection. This section outlines these roadway projects and details of specific cross sections and other roadway details. Additionally, expanding the active transportation network in unison is necessary and is outlined in this section.

4.1. FUNCTIONAL CLASSIFICATION

A functional classification of streets is used to group roadways into classes according to the volume of traffic the roadways are intended to serve. The classes are based upon the degree of mobility (speed and trip length) and land access that they are designed to serve. Roadway functional classifications are generally comprised of a mix of arterials, collectors, and local streets. Arterials are designed to serve higher volumes of traffic at higher speeds, while collectors are designed to balance land access with traffic speeds and traffic capacity. Local streets are intended to provide low-speed access to individual properties. Figure 34 summarizes the hierarchy of the functional classification of streets based upon mobility and access.

Figure 34: Mobility Vs Access

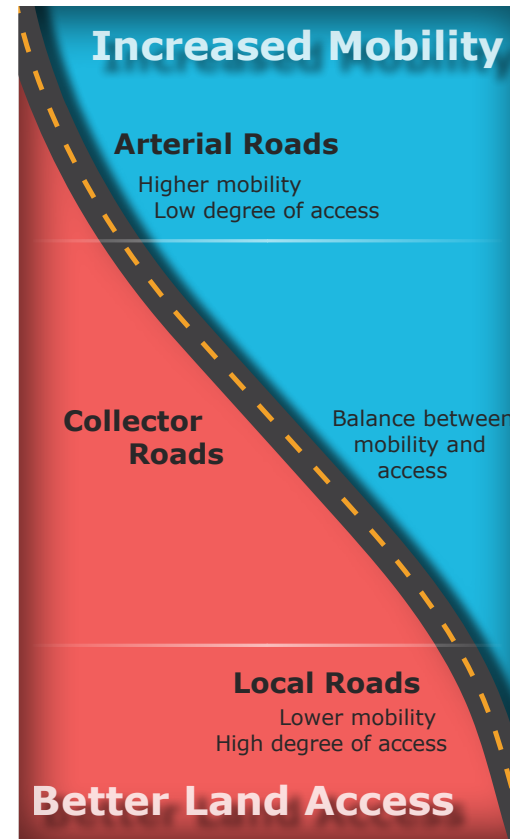


Table 9 provides general characteristics for the traffic operations of each functional classification. The definitions outlined include speed, average trip length, crash rate, and access control. Access control refers to the number of intersections, driveways, etc., interrupting the roadway.

Table 8. Street Functional Classification Summary

Street Functional Group	ROW Width (ft)	Speed (mph)	Average Trip Length (miles)	Expected Crash Rate (accidents per million vehicle miles)	Access Control
Arterial	>90	45+	3-15	3-5	Significant
Collector/Minor Collector	66 - 90	25-45	1-5	2-4	Moderate
Local and Minor Local	<66	<30	<0.5	Varies	None

4.1.1. LOCAL AND MINOR LOCAL STREETS

Local streets are designed to provide access from residences to the roadway network. They serve many driveways and provide a collection point to collector or arterial roadways. Local streets should be designed to minimize speed and reduce cut-through traffic while meeting the requirements of emergency vehicles. Local streets are typically placed with driveways on both sides and have posted speed limits of 25 miles per hour. Generally, no striping is proposed on local streets. However, the city engineer may recommend roadway striping as needed as a traffic-calming measure. Parking may be restricted on local streets near intersections, in high density or commercial areas, where snow removal or storage issues arise, or at other locations deemed necessary by the city engineer. Herriman plans to approve two construction standards for local and minor streets: one for a 53-foot right-of-way (ROW), shown in Figure 35; and one for a 60-foot ROW, shown in Figure 36. The 53-foot minor local cross section roads are best limited to single family residential access, whereas the wider 60-foot local cross section can accommodate higher density residential, neighborhood commercial, schools, churches and institutional land uses. Developers are responsible for the full cost of design and constructing local and minor local streets including the drainage facilities (storm drain pipes, inlets, manholes, etc.). For private roadways, emphasis needs to be placed on inclusion of sidewalks on both sides of the roadway and connectivity to the larger public sidewalk network. Requirements for private roadways should also include minimum lane widths to accommodate two-way traffic in a setting such as alleys for rear-loaded residential units.

Figure 35: Minor Local Street Standard – 53 Foot ROW

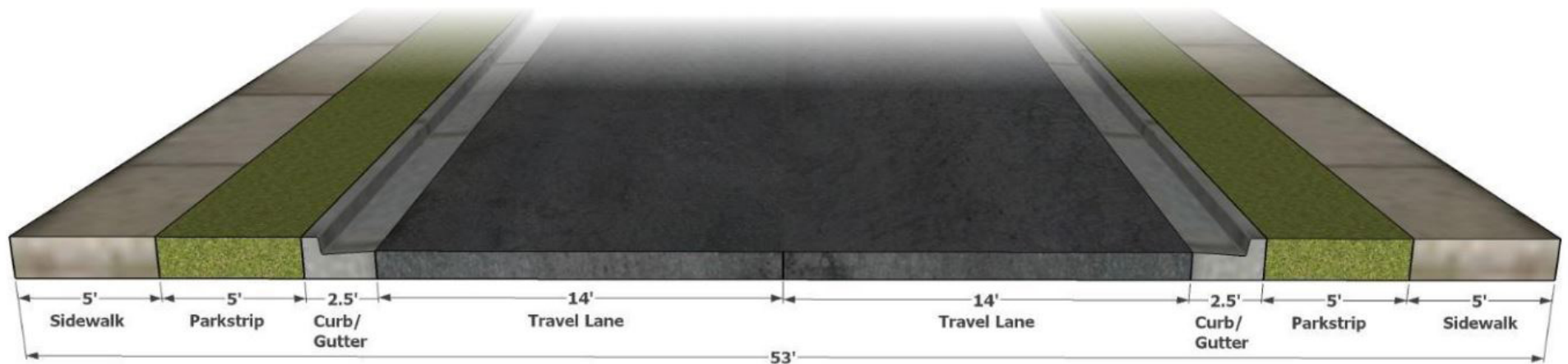
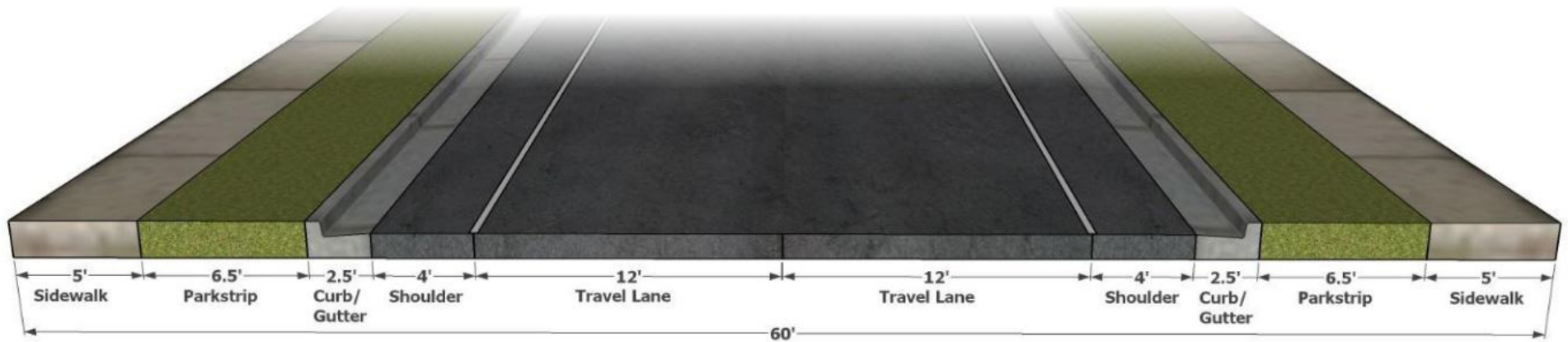


Figure 36: Local Street Standard – 60 Foot ROW

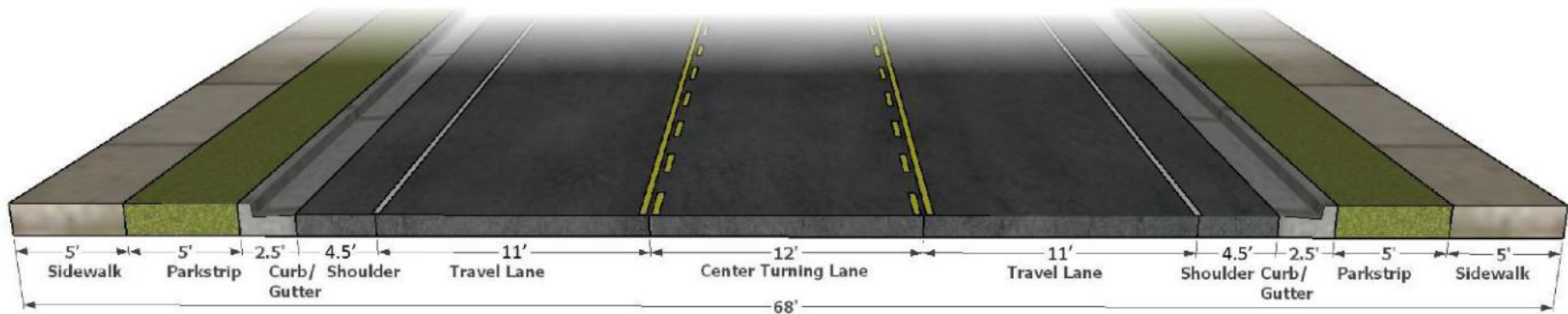


4.1.2. MINOR COLLECTOR STREETS

Minor collector streets within Herriman serve local trips and provide local access. Minor collectors have one through travel lane in each direction, a center turn lane, curb and gutter on both sides, sidewalk on both sides, and park strips on both sides within a 68-foot ROW. The center turn lane may be eliminated to allow for the addition of a bike lane in each direction. Additional details about roadway access spacing standards can be found in section 4.3.2 of this plan. The typical design cross section for a minor collector is shown in Figure 37.

In areas where a minor collector street is required, a developer will pay to design the new street and construct and install all improvements associated with local street standards with a 60-ft ROW as shown in Figure 36. The City will generally be responsible for paying for the costs associated with constructing the additional (about 11 feet) of pavement between the gutter lips to meet the minor collector street standard and the striping associated with the center turn lane.

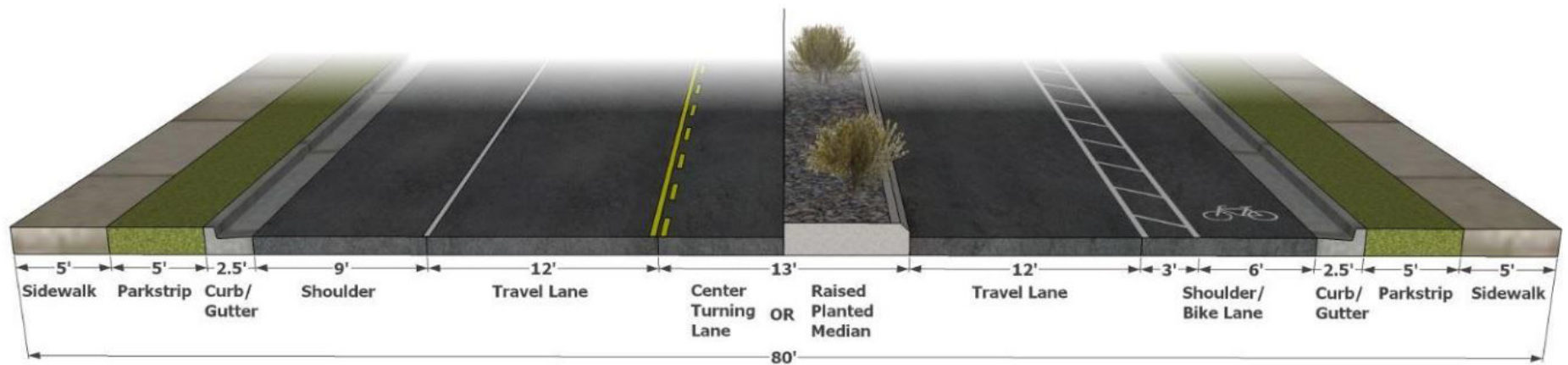
Figure 37: Minor Collector Streets Standard



4.1.3. MAJOR COLLECTOR STREETS

Major collector streets, like minor collectors, have one through travel lane in each direction and a center turn lane, as well as a wide shoulder on each side. The recommended collector cross section has 12-foot travel lanes in each direction, a 13-foot center turn lane, and 9-foot shoulders within an 80-foot ROW. The shoulders are intended to have bike lanes, but could be striped for parking if needed as shown in Figure 38. The 80-foot ROW is wide enough that if increased capacity is needed, two travel lanes in each direction could be accommodated with the elimination of the center turn lane and/or reduction of the lane and shoulder widths. At major intersections, the shoulder and travel lane can be modified to 10-foot lanes to accommodate right-turn lanes, provided motorists are cautioned to share the road with bicyclists (when a bicycle lane is marked in the shoulder area). In areas where a major collector street is required, a developer will pay to design the new street and construct and install all of the improvements associated with local street standards with a 60-ft ROW as shown in Figure 36. The City will be responsible for paying for the costs associated with constructing the pavement width in excess of 37 feet, any raised median, and additional striping associated with the center turn lane and a bike lane.

Figure 38: Major Collector Street Standard

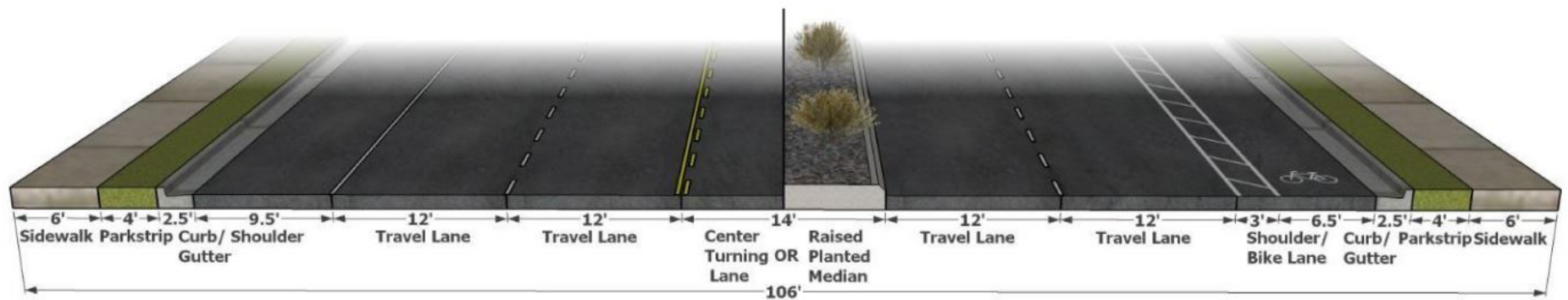


4.1.4. MINOR ARTERIAL STREETS

Minor arterial streets balance regional travel and local access. Minor arterials have two through travel lanes, a center turn lane, and wide shoulders within a 106-foot ROW. The shoulders are intended to have bike lanes but could be striped for parking if needed. The 106-foot ROW is wide enough that if increased capacity is needed, three travel lanes in each direction could be accommodated with the elimination of the center turn lane and/or a reduction of the lane and shoulder widths. Figure 39 shows the standard 106-foot arterial cross section.

The City is responsible for the costs associated with designing and constructing the full minor arterial street cross-section.

Figure 39: Minor Arterial Standard

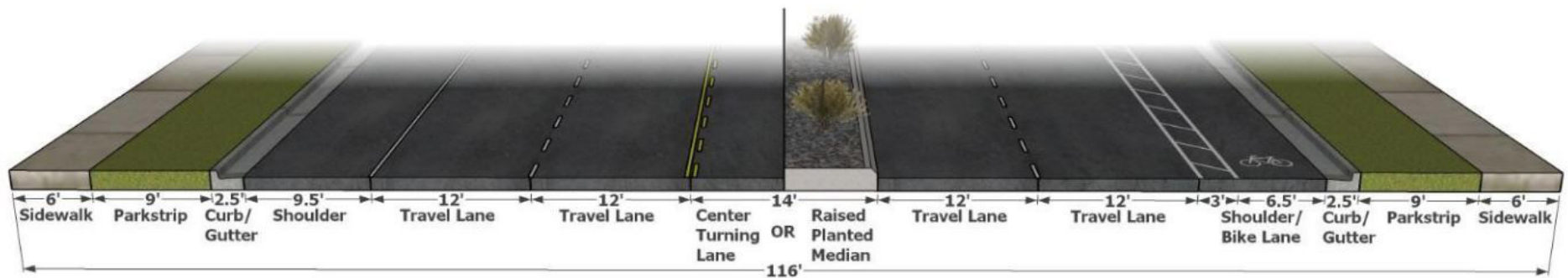


4.1.5. MAJOR ARTERIAL

Similar to minor arterials, major arterial streets balance regional travel and local access. Major arterials have two through travel lanes, a center turn lane, and wide shoulders within a 116-foot ROW. The shoulders are intended to have bike lanes but could be striped for parking if needed. The 116-foot ROW is wide enough that if increased capacity is needed, three travel lanes in each direction could be accommodated with the elimination of the center turn lane and/or a reduction of the lane and shoulder widths. The recommended typical design cross section of an arterial street with a 116-ft ROW is shown in Figure 40.

The City is responsible for the costs associated with designing and constructing the full major arterial street cross-section.

Figure 40: Major Arterial Street Standard

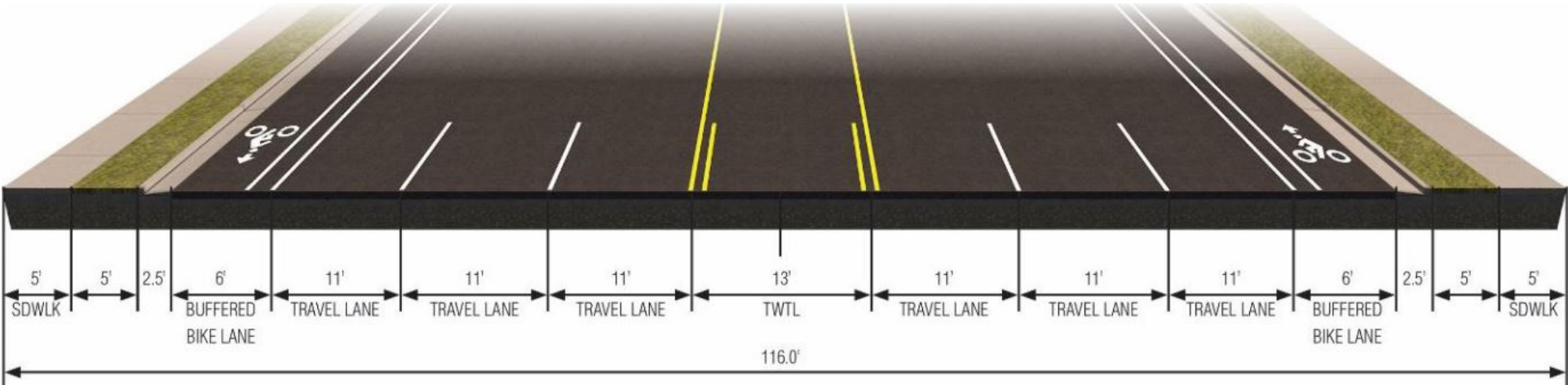


4.1.6. PRINCIPAL ARTERIAL

Similar to major arterials, principal arterial streets have a 116-foot ROW, but have a more focused approach on vehicle throughput. The principal arterial cross section has narrower lanes (11' vs. 12') and narrower park strips to allow for 3 travel lanes in each direction while still providing a 6' buffered bike lane or shoulder. The recommended typical design cross section of an arterial street with a 116-ft ROW is shown in Figure 41.

The City is responsible for the costs associated with designing and constructing the full major arterial street cross-section.

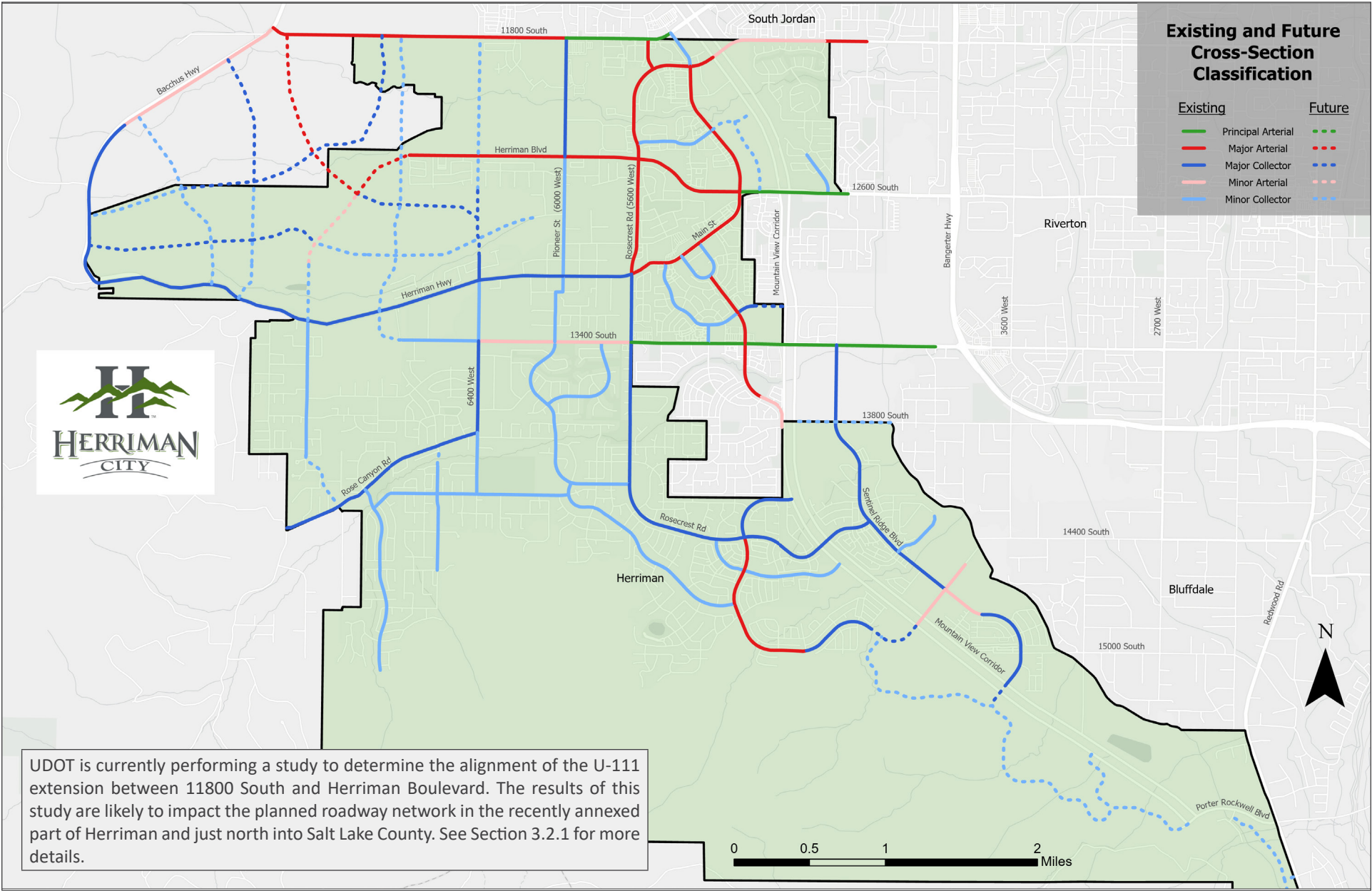
Figure 41: Principal Arterial Street Standard



4.2. PROPOSED FUTURE NETWORK

The existing and recommended future network of arterial, collector, and minor collector streets is shown in Figure 42.

Figure 42: Existing and Recommended Major Street Network



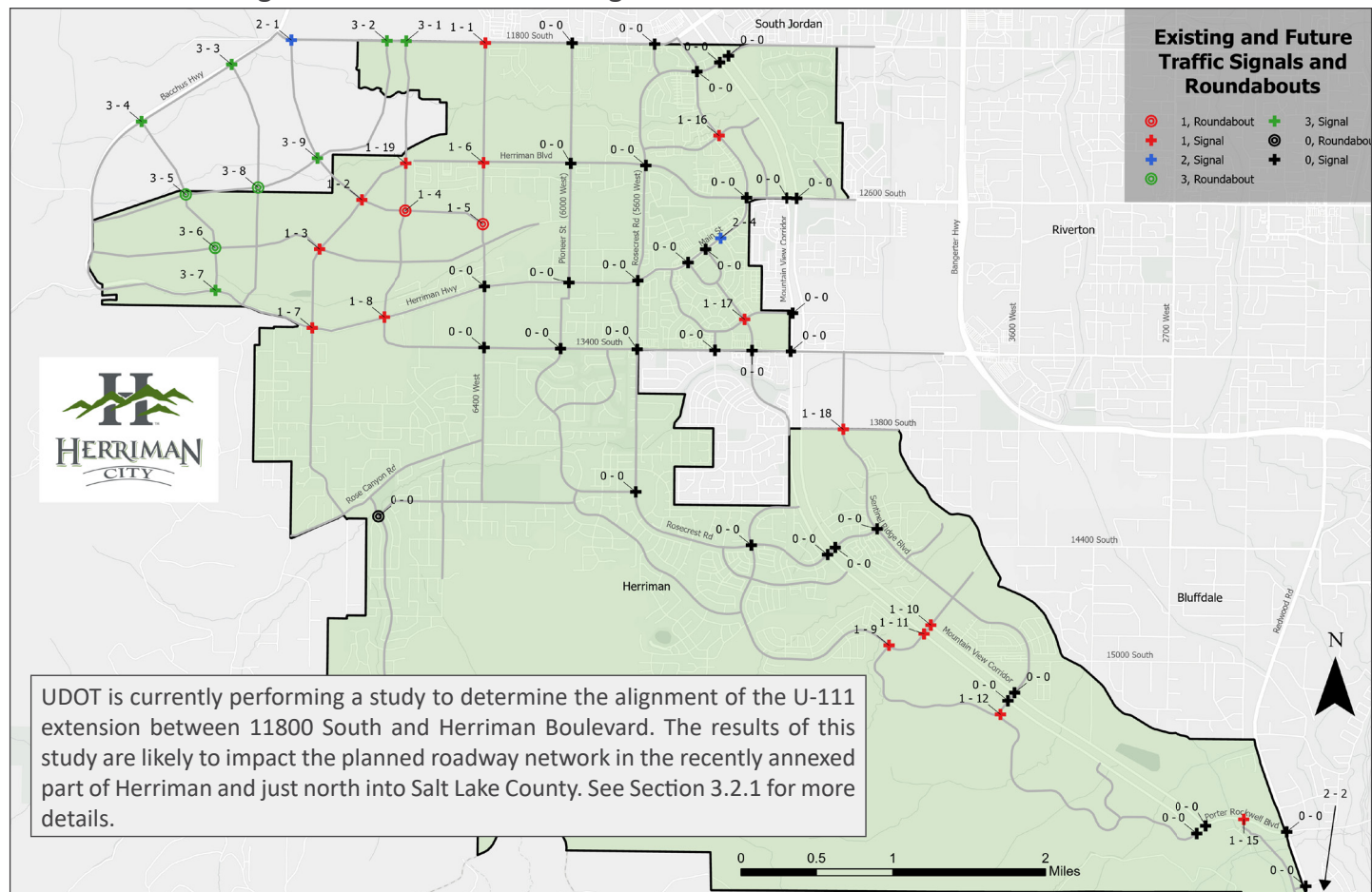
4.3. TRANSPORTATION STANDARDS

4.3.1. TRAFFIC CONTROL

The need for traffic signals will increase as traffic volumes and road networks throughout Herriman continue to grow. The Manual on Uniform Traffic Control Devices (MUTCD) states that “an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.” The MUTCD indicates that eight different traffic signal warrants should be considered when investigating the need for a traffic control signal. These warrants look at vehicular volumes, pedestrian volumes, school crossings, signal coordination, vehicular crashes, and the adjacent road network. Before installation of a signal the City should consider the feasibility of a roundabout. Roundabouts are generally safer than signals and offer significant traffic calming advantages.

Recommended traffic control improvements shown below are separated into Phase 1 (0 to 10 years), Phase 2 (11 to 20 years), and Phase 3 (21 to 30 years). Anticipated traffic control needs by phase are shown in Figure 43. Locations for roundabouts were determined based on discussions with city staff, traffic volumes, and available right-of-way. All locations tagged with “0 - 0” are existing.

Figure 43: Locations of Existing and Recommended Future Traffic Control



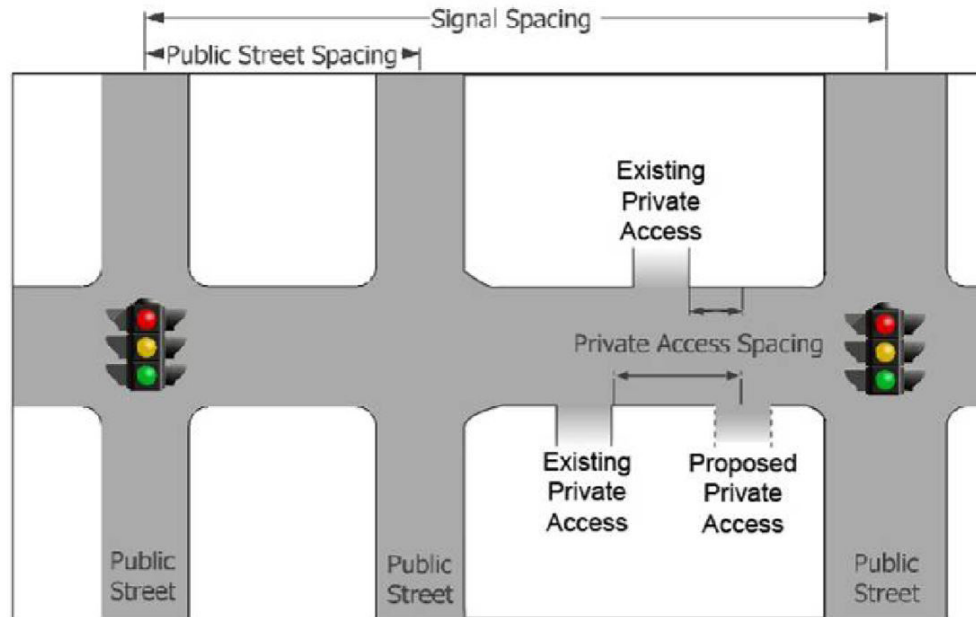
4.3.2. ACCESS SPACING

This transportation master plan incorporates the access spacing and related permit requirements on state highways based on UDOT Administrative Rule R930-6 by reference. This plan also summarizes the allowable access spacing for all City streets in Herriman. On non-state routes, access spacing may be adjusted by the city engineer based on localized conditions. Requests to decrease access spacing standards may be granted by the city engineer or city council provided a traffic impact study is prepared by the developer documenting the preservation of safety, capacity, and speed with reduced access spacing. Table 9 lists the Herriman access spacing standards for signals, public streets, and private areas. Figure 44 illustrates spacing categories.

Table 9. Summary of Minimum Spacing Requirements

	Minimum Signal Spacing (feet)	Minimum Public Street Spacing (feet)	Minimum Private Access Spacing (feet)
Arterial Streets	2,640	660	250
Collector Streets	1,320	300	150
Local Streets	N.A.	150	No Minimum

Figure 44: Spacing Illustration



Access spacing, also referred to as driveway spacing, is measured from the closest edge (perpendicular tangent section) of the nearest driveway to the center of the proposed driveway. Access spacing standards allow drivers to process one decision at a time. Through proper spacing, drivers may monitor upcoming points of conflict with other vehicles and react accordingly to each conflict.

4.3.3. CORNER RADII

The dimensions of curb radii directly affect the speed of turning motor vehicles. Large radii are needed to accommodate large trucks and busses, but also allow cars to make high-speed turns and create increased crossing distances for pedestrians. A network of intersections with short curb radii would create the most welcoming pedestrian environment but would hinder fire truck movement, creating a potentially hazardous situation. Therefore, curb radii standards are needed to ensure that all user types are accommodated in the roadway design. Recommended back of curb corner radii for each street classification are presented in Table 10.

Table 10. Recommended Back of Curb Radii for Street Intersections

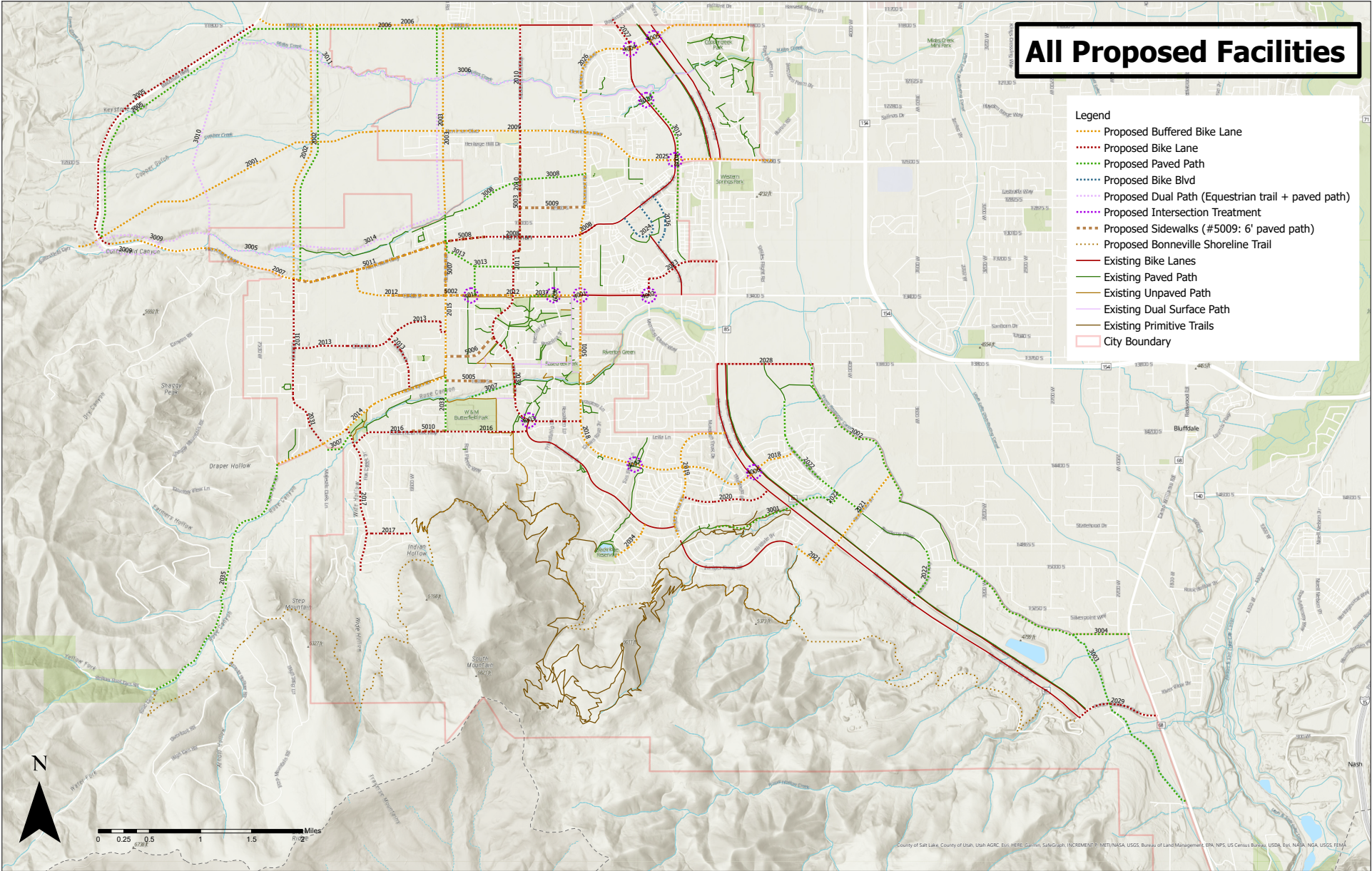
Type of Intersection Street	Type of Through Street				
		Local	Minor Collector	Major Collector	Arterial
	Local	25 ft	25 ft	30 ft	30 ft
	Minor Collector	25 ft	30 ft	30 ft	30 ft
	Major Collector	30 ft	30 ft	40 ft	40 ft
	Arterial	30 ft	30 ft	40 ft	40 ft

The recommended radii listed in Table 10 may be adjusted based on traffic volumes, scale of large vehicle uses, and the needs of specific lane uses/truck routing. Changes to curb radii are subject to the approvals from the city engineer and fire marshal.

4.4. FUTURE BICYCLE INFRASTRUCTURE

Herriman recognizes the need for an extensive and cohesive bicycle path network to accommodate all modes of travel. To accommodate bicycle paths, transportation standards for collector and arterial streets were developed to incorporate wide shoulders and allow for bicycle lane striping. Figure 45 shows the existing bicycle path network as well as future multi-use pathways, trails, and bicycle lanes. This map also accounts for bicycle facilities on new collector and arterial streets. This network is comprehensive and it would allow for greater bicycle access throughout the City for commuter and recreational cyclists.

Figure 45: Future Bicycle Network

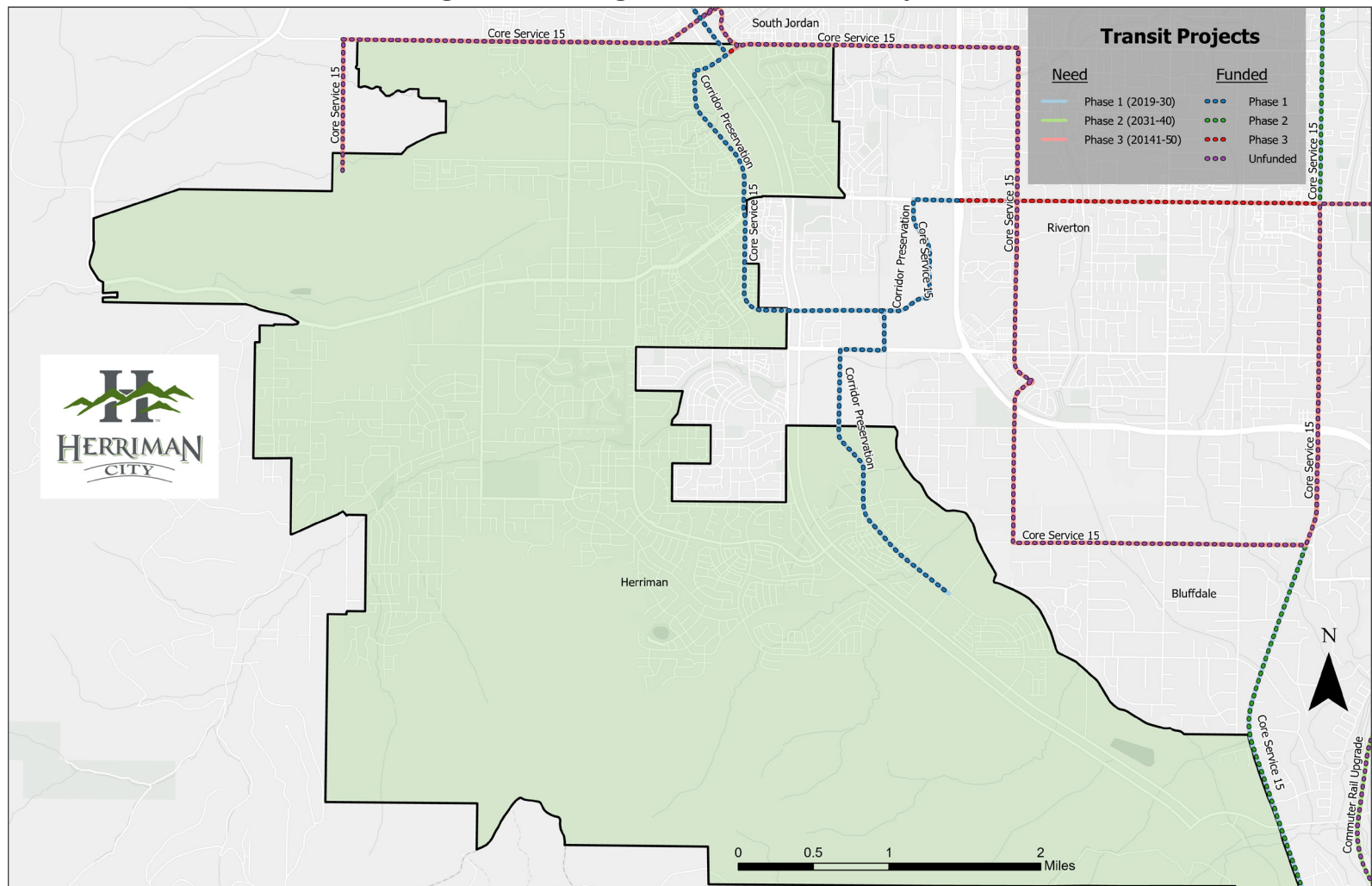


4.5. FUTURE TRANSIT

As Herriman grows, population densities will increase, more business and job opportunities will be created, and the transit system will need to be upgraded to meet the City's needs. Currently, Herriman is only served by on-demand transit which provides connections to Trax, FrontRunner, and other key destinations. Expanding to fixed routes should be considered as demand dictates. Beyond this, new routes should be explored. Figure 46 shows the WFRC's planned RTP transit projects.

Two future transit projects will impact Herriman. The first is a Phase 3 (2041-2050) project for a new transit route extending south from the Daybreak TRAX Station through northern Herriman, then west through Riverton, and into Draper. The second is a corridor preservation project for future transit. The corridor follows the same route as the new bus line, but also has an alternative which runs further south to Real Vista Drive. Through the WFRC Transportation and Land Use Connection (TLC) program a transit corridor and land use study will be performed in late 2022. This will likely determine the future of this corridor and what, if any, additional transit service is provided through Herriman.

Figure 46: Existing and Planned Transit Projects



The anticipated expansion of the UTA TRAX Red Line into Herriman will likely be the biggest change to the existing transit service. Extending from its existing terminus in the Daybreak development, a potential future line would continue on Daybreak Parkway and turn south on the future extension of Main Street. A future TRAX station within central Herriman would provide excellent transit service to residents and excellent connections to destinations across the valley.

Figures 46 through 49 illustrate examples of road design cross sections for a future Main Street that includes TRAX light rail.

Figure 47: Main Street with TRAX – 60-foot ROW

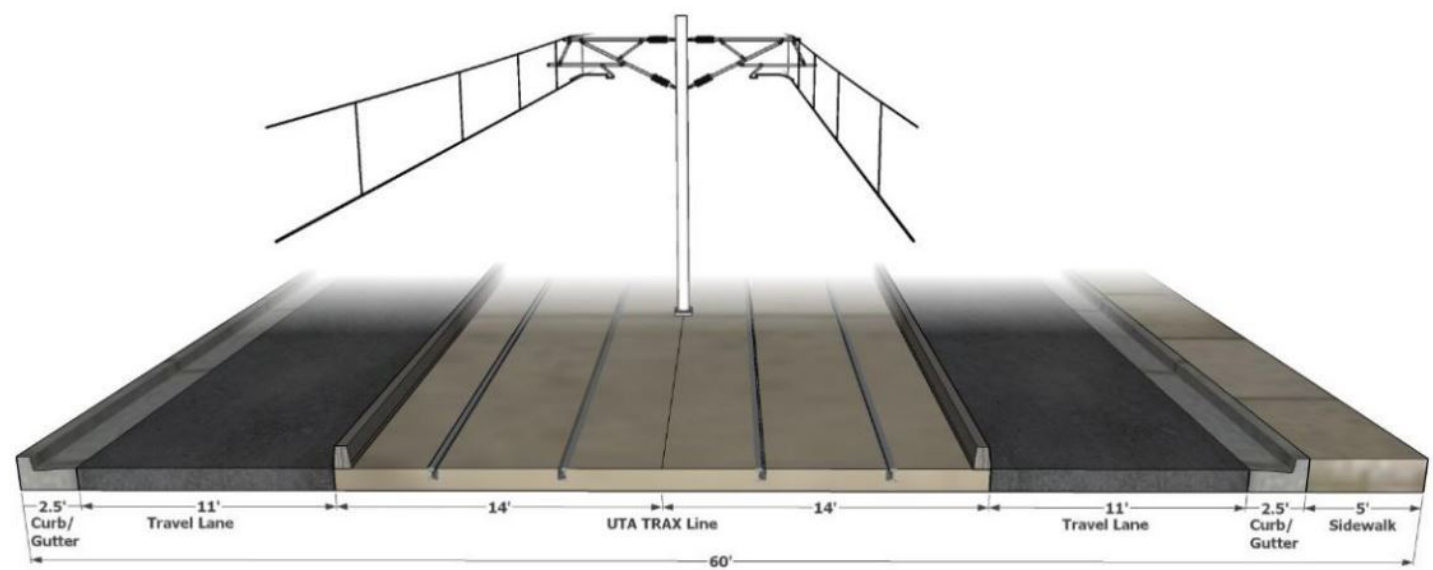


Figure 48: Main Street with TRAX – 121-foot ROW

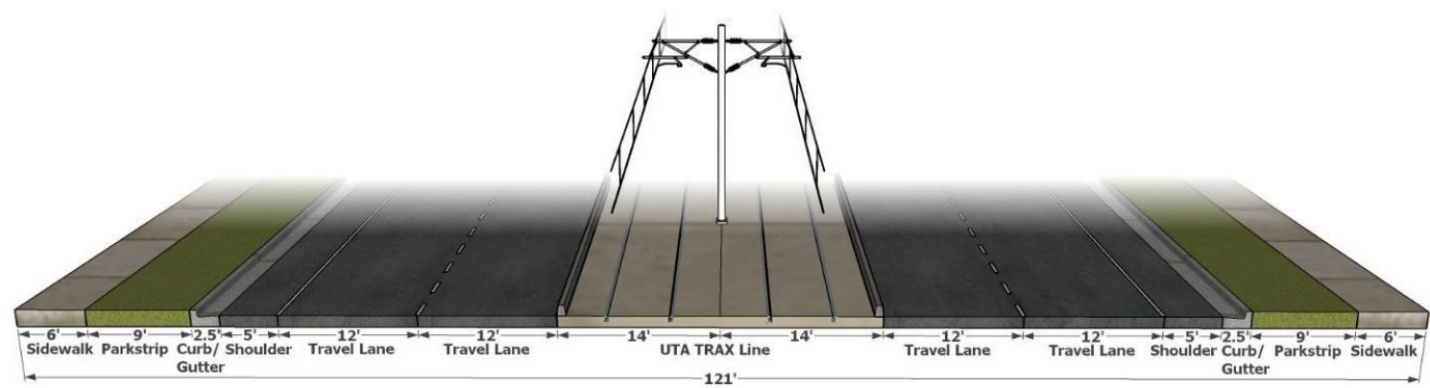
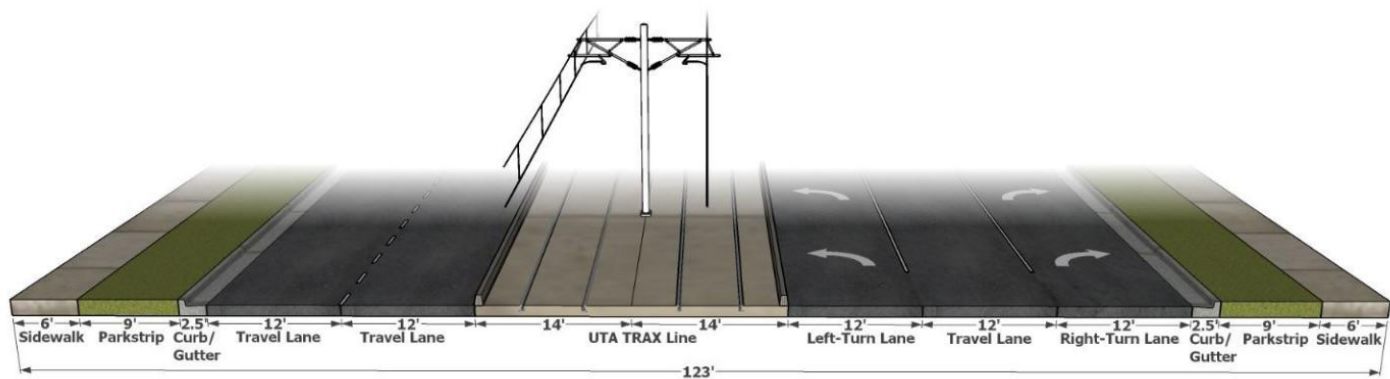


Figure 49: Main Street with TRAX Intersection – 123-foot ROW





5. Street Facilities Plan

The following street facilities plan presents the projected phasing and estimated construction costs of the recommended major street improvement projects.

5.1. STREET FACILITIES PLAN

The street facilities plan (SFP) identifies recommended transportation project needs by priority and includes a conceptual planning level cost estimate (2022 dollars) for each improvement. The recommended improvements are separated into Phase 1 (0 to 10 years), Phase 2 (11 to 20 years), and Phase 3 (21 to 30 years). The recommended projects only include collector and arterial streets and projects that increase the capacity of the road network.

Phase, Improvement Type

- Phase 1, New (Red dashed line)
- Phase 1, Widening (Red solid line)
- Phase 2, New (Blue dashed line)
- Phase 2, Widening (Blue solid line)
- Phase 3, New (Green dashed line)
- Phase 3, Widening (Green solid line)
- Phase 4 Potential Long-Term (Orange dashed line)

HERRIMAN CITY

UDOT is currently performing a study to determine the alignment of the U-111 extension between 11800 South and Herriman Boulevard. The results of this study are likely to impact the planned roadway network in the recently annexed part of Herriman and just north into Salt Lake County. See Section 3.2.1 for more details.

0 0.5 1 2 Miles

N

[⤴ BACK TO TABLE OF CONTENTS ⤴](#)

Figure 51: Recommended Street Improvements by Phase - Intersections

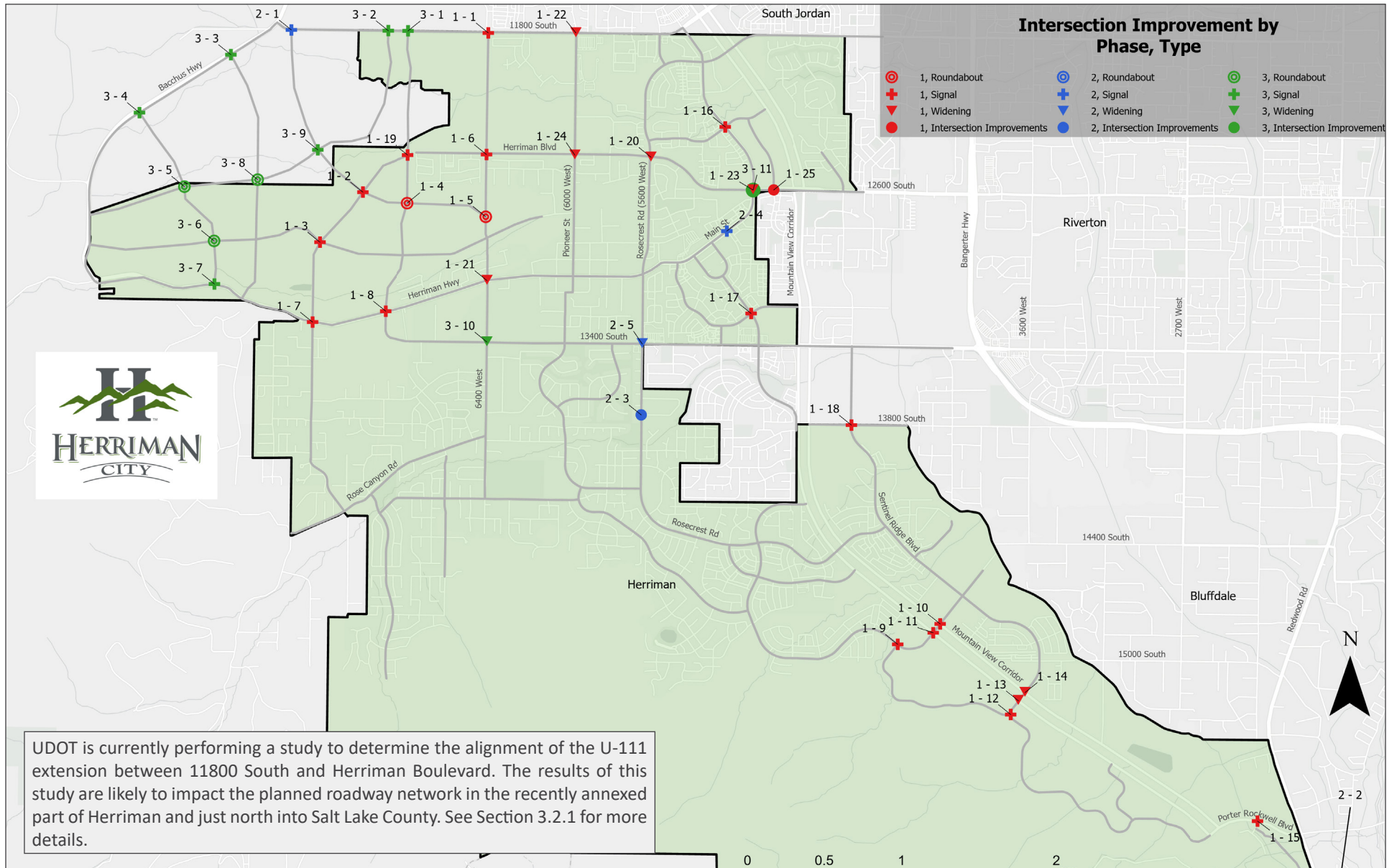


Table 11 and Table 12 list the recommended SFP projects by phase. The SFP project costs include street improvements from back-of-curb to back-of-curb, sidewalks, park strips, and drainage. Cross-section cost details can be found in Appendix B.

Table 11. Recommended Phased Facilities Plan - Roadways

Phase 1 (2022 - 2030)						
#	Roadway	From	To	Type	Functional Class	Cost
1-1	Herriman Rose Boulevard	Herriman Rose Dead End	MVC Frontage Road	New	Major Collector	\$2,600,000
1-2	Dansie Blvd	Herriman Highway	13400 South Existing	New	Minor Collector	\$3,300,000
1-3	13800 South	Mountain View Corridor	13800 South Bluffdale	New	Minor Collector	\$7,100,000
1-4	SR-111	11800 South	Herriman Parkway	New	Major Arterial	\$21,900,000
1-5	7600 West	Olympia Property Boundary	Herriman Highway	New	Minor Collector	\$2,800,000
1-6	6800 West	Olympia Property Boundary	Herriman Highway	New	Minor Collector	\$7,500,000
1-7	Mcdougall Road	Porter Rockwell Blvd	Redwood Road	New	Minor Collector	\$6,800,000
1-8	Silver Sky Drive	7300 West	Olympia Property Boundary	New	Minor Collector	\$3,600,000
1-9	Soleil Hills Drive	Juniper Crest Road	Academy Pkwy	New	Minor Collector	\$12,600,000
1-10	Soleil Hills Drive	Academy Pkwy	Porter Rockwell Blvd	New	Minor Collector	\$21,400,000
1-11	6400 West	11800 South @ Prosperity Drive	Olympia Property Boundary	New	Minor Collector	\$12,500,000
1-12	7300 West	Olympia Property Boundary	Herriman Highway	New	Minor Collector	\$4,000,000
1-13	Miller Crossing Drive	Herriman Main Street	MVC Frontage Road	New	Minor Collector	\$3,100,000
1-14	Academy Parkway	Juniper Crest Road	Mountain View Corridor	New	Major Collector	\$700,000
1-15	Juniper Crest Road	Juniper Crest Road Dead End	Mountain View Corridor	New	Major Collector	\$3,600,000
1-16	13400 South	6800 West	6000 West	Widening	Minor Collector	\$3,500,000
1-17	6000 West	Herriman Parkway	Herriman Main Street	Widening	Minor Collector	\$5,800,000
1-18	7300 West	Herriman Highway	Hawthorn Leaf Drive	Widening	Minor Collector	\$2,500,000
1-19	Herriman Main St	7300 West	6225 West	Widening	Major Collector	\$16,000,000
1-20	11800 South	MVC Southbound	MVC Northbound	Widening	Minor Arterial	\$1,500,000
1-22	11800 South	6900 West	6000 West	Widening	Major Arterial	\$6,900,000
1-23	13400 South	6400 West	Rosecrest Road	Widening	Minor Arterial	\$9,400,000
1-24	Herriman Parkway	6400 West	6000 West	Widening	Major Arterial	\$3,900,000
1-25	6400 West	Herriman Main Street	13400 South	Widening	Minor Collector	\$3,200,000
1-27	Auto Row Drive	12600 South	Miller Cross Drive	New	Minor Collector	\$5,800,000
1-28	Rose Canyon Road	Spring Canyon Drive	6400 West	Widening	Major Collector	\$1,200,000
1-29	Herriman Blvd	6800 West	U-111	New	Major Arterial	\$7,200,000
1-30	Olympia Main Street	Herriman Blvd	6400 West	New	Major Collector	\$9,600,000
1-31	6400 West	6400 West Existing	Olympia Property Boundary	New	Major Collector	\$5,200,000
1-32	Silver Sky Drive	7300 West	7600 West	New	Major Collector	\$5,400,000
1-33	12600 South	City Boundary	Herriman Main Street	Widening	Principal Arterial	\$1,900,000
1-34	6800 West	Herriman Blvd	Olympia Property Boundary	New	Minor Collector	\$4,500,000
1-35	Silver Sky Drive	Olympia Property Boundary	Olympia Property Boundary	New	Minor Collector	\$5,000,000

#	Roadway	From	To	Type	Functional Class	Cost
1-36	Silver Sky Drive	Olympia Property Boundary	Olympia Property Boundary	New	Minor Collector	\$4,100,000
1-37	Silver Sky Drive	Olympia Property Boundary	Silver Sky Existing/6000 West	New	Minor Collector	\$2,300,000
1-38	Soleil Hills Blvd	Soleil Hills Drive	Mountain View Corridor	New	Minor Collector	\$5,100,000
1-39	7300 West	U-111	Olympia Property Boundary	New	Minor Arterial	\$7,200,000
1-41	13400 South	Rosecrest Road	Mountain View Corridor	Widening	Principal Arterial	\$5,800,000
1-42	Herriman Main St	7300 West	City Boundary	Widening	Major Collector	\$5,800,000
Phase 2 (2031 - 2040)						
#	Roadway	From	To	Type	Functional Class	Cost
2-1	Mcdougall Road	McDougall Road Existing	Dead End	New	Minor Collector	\$13,200,000
2-4	7600 West	New Roadway	Olympia Property Boundary	New	Minor Collector	\$5,600,000
2-6	Rose Canyon Road	Rose Canyon Road SB	Spring Canyon Drive	Widening	Major Collector	\$3,900,000
2-8	Rosecrest Road	MVC South	MVC North	Widening	Major Collector	\$1,300,000
2-9	11800 South	Bacchus Highway	6900 West	Widening	Major Arterial	\$7,700,000
2-11	7300 West	7300 West	Rose Canyon Road	New	Minor Collector	\$4,300,000
2-13	Anthem Park Blvd	Mountain View Corridor	City Boundary	Widening	Minor Arterial	\$5,500,000
2-14	6600 West	Desert Lily Circle	Desert Wash Way	New	Minor Collector	\$1,200,000
2-15	13400 South	Rosecrest Road	Mountain View Corridor	Widening	Principal Arterial	\$6,000,000
Phase 3 (2041 - 2050)						
#	Roadway	From	To	Type	Functional Class	Cost
3-1	Silver Sky Drive	7600 West	Bacchus Hwy	New	Major Collector	\$13,700,000
3-2	7900 West	Bacchus Highway	Herriman Highway	New	Minor Collector	\$16,100,000
3-4	New Roadway	11800 South @ Bingham Rim Road	7900 West	New	Major Collector	\$25,000,000
3-5	Bacchus Hwy	11800 South	New Roadway	Widening	Minor Arterial	\$9,100,000
3-6	7600 West	New Roadway	Bacchus Hwy	New	Major Collector	\$13,400,000
3-7	New Roadway	7900 West	Bacchus Hwy	New	Minor Collector	\$8,400,000
3-8	6800 West	11800 South	Herriman Highway	New	Minor Collector	\$8,500,000
3-9	11800 South	6000 West	Freedom Park Drive	Widening	Principal Arterial	\$5,800,000
Potential Long-term						
#	Roadway	From	To	Type	Functional Class	Cost
4-1	Bruin View Drive	4000 West Dead End	4000 West Bluffdale	New	Minor Collector	\$1,600,000
4-2	Real Vista Drive	Current end of Real Vista Drive	Bluffdale	New	Major Collector	\$3,000,000

Table 12. Recommended Phased Facilities Plan - Intersections

Phase 1 (2022 - 2030)				
#	Intersection	Improvement	Improvement Details	Cost
1-1	11800 South & 6400 West	Signal	Left and right turn pockets	\$420,000
1-2	U-111 & Herriman Blvd	Signal	Dual left (SB) and right turn pockets (all)	\$460,000
1-3	7300 West & Silver Sky Drive	Signal	Left and right turn pockets	\$420,000
1-4	6800 West & Olympia Main Street	Roundabout	Single lane roundabout	\$870,000
1-5	Herriman Main Street & 6400 West	Roundabout	Single lane roundabout	\$870,000
1-6	Herriman Blvd & 6400 West	Signal	Left and right turn pockets	\$480,000
1-7	Herriman Hwy & 7300 West	Signal	Left and right turn pockets	\$330,000
1-8	Herriman Hwy & Dansie Blvd	Signal	Left turn pockets (all), right turn pockets (EB)	\$390,000
1-9	Juniper Crest Road & Soleil Hills Drive	Signal	Left and right turn pockets	\$450,000
1-10	Real Vista Drive & MVC NB	Signal	Left and right turn pockets	\$610,000
1-11	Real Vista Drive & MVC SB	Signal	Left and right turn pockets	\$1,160,000
1-12	Academy Pkwy & Soleil Hills Drive	Signal	Left and right turn pockets	\$450,000
1-13	Academy Pkwy & MVC SB	Widening	Left and right turn pockets	\$950,000
1-14	Academy Pkwy & MVC NB	Widening	Left and right turn pockets	\$260,000
1-15	Porter Rockwell Blvd & Mcdougall Road	Signal	Left and right turn pockets	\$490,000
1-16	Herriman Main Street & Miller Crossing Drive	Signal	Signal only	\$430,000
1-17	Herriman Rose Blvd & Fort Herriman Pkwy	Signal	Signal only	\$460,000
1-18	Sentinel Ridge Blvd & 13800 South	Signal	Left and right turn pockets	\$1,070,000
1-19	Herriman Blvd & 6800 West	Signal	Left and right turn pockets	\$450,000
1-20	Herriman Blvd & 5600 West	Widening	EB dual left, EB/WB right-turn lanes	\$850,000
1-21	Herriman Hwy & 6400 West	Widening	Right turn pockets (EB, WB, NB)	\$100,000
1-22	11800 South & 6000 West	Widening	Extend WBL storage	\$50,000
1-23	Herriman Blvd & Herriman Main Street	Widening	Free NBR and WBL dual lefts	\$880,000
1-24	Herriman Blvd & 6000 West	Widening	WB right turn lane	\$110,000
1-25	Herriman Blvd & Auto Row Drive	Intersection Improvements	To-be-determined	\$840,000
Phase 2 (2031 - 2040)				
#	Intersection	Improvement	Improvement Details	Cost
2-1	U-111 & 11800 South	Signal	Dual lefts (EB/WB) and right turn pockets (SB/NB)	\$470,000
2-2	Redwood Road & Mcdougall Road	Signal	Left and right turn pockets	\$1,070,000
2-3	5600 West & Rocky Point Drive	Intersection Improvements	Signal or single lane roundabout	\$1,120,000
2-4	Herriman Main Street & Brundisi Way	Signal	Signal only	\$520,000
2-5	13400 South & 5600 West	Widening	SB/WB dual lefts	\$990,000

Phase 3 (2041 - 2050)

#	Intersection	Improvement	Improvement Details	Cost
3-1	11800 South & 6800 West	Signal	Left and right turn pockets	\$240,000
3-2	11800 South & 6900 West	Signal	Left and right turn pockets	\$240,000
3-3	Bacchus Hwy & 7600 West	Signal	Left and right turn pockets	\$240,000
3-4	Bacchus Hwy & 7900 West	Signal	Left and right turn pockets	\$240,000
3-5	7900 West & New Road	Roundabout	Hybrid roundabout	\$770,000
3-6	7900 West & Silver Sky Drive	Roundabout	Single lane roundabout	\$770,000
3-7	7900 West & Herriman Hwy	Signal	Left and right turn pockets	\$1,020,000
3-8	7600 West & New Road	Roundabout	Two-lane roundabout	\$770,000
3-9	U-111 & New Road	Signal	Left turn lane (all), right turn lane (EB/WB)	\$520,000
3-10	13400 South & 6400 West	Widening	Left and right turn pockets and WB dual left	\$980,000
3-11	12600 South & Herriman Main Street	Intersection Improvements	Innovative Intersection or Fly-overs	\$5,000,000

Appendices

Roadway Project Costs

Intersection Project Costs

Wheadon Hollow Road Analysis 2022



Project Number	Description	Total Project Cost*
1-1	Herriman Rose Boulevard	\$2,628,508
1-2	Dansie Blvd	\$3,279,482
1-3	13800 South	\$7,100,432
1-4	SR-111	\$21,880,202
1-5	7600 West	\$2,830,097
1-6	6800 West	\$7,496,854
1-7	Mcdougall Road	\$6,832,500
1-8	Silver Sky Drive	\$3,603,542
1-9	South Hills Parkway	\$12,595,592
1-10	South Hills Connection	\$21,409,763
1-11	6400 West	\$12,491,534
1-12	7300 West	\$3,992,173
1-13	Miller Crossing Drive	\$3,094,744
1-14	Academy Parkway	\$686,836
1-15	Juniper Crest Road	\$3,608,363
1-16	13400 South	\$3,479,029
1-17	6000 West	\$5,779,879
1-18	7300 West	\$2,530,813
1-19	Herriman Main St	\$16,000,000**
1-20	11800 South	\$1,532,644
1-22	11800 South	\$6,925,191
1-23	13400 South	\$9,443,745
1-24	Herriman Parkway	\$3,860,220
1-25	6400 West	\$3,233,126
1-27	Auto Row Drive	\$5,831,663
1-28	Rose Canyon Road	\$1,248,313
1-29	Herriman Blvd	\$7,168,154
1-30	Olympia Main Street	\$9,561,036
1-31	6400 West	\$5,206,537
1-32	Herriman Blvd	\$5,350,284
1-33	12600 South	\$1,888,978
1-34	6800 West	\$4,507,727
1-35	Silver Sky Drive	\$4,990,384
1-36	Silver Sky Drive	\$4,141,622
1-37	Silver Sky Drive	\$2,346,120
1-38	South Hills Parkway	\$5,128,208
1-39	7300 West	\$7,226,719
1-41	13400 South	\$5,835,509
1-42	Herriman Main St	\$5,820,202
2-1	Mcdougall Road	\$13,181,580
2-4	7600 West	\$5,634,766
2-6	Rose Canyon Road	\$3,899,662
2-8	Rosecrest Road	\$1,298,020
2-9	11800 South	\$7,705,420
2-11	7300 West	\$4,344,325
2-13	Anthem Park Blvd	\$5,467,034
2-14	6600 West	\$1,219,908
2-15	13400 South	\$6,019,267
3-1	Herriman Blvd	\$13,745,134
3-2	7900 West	\$16,119,167
3-4	New Roadway	\$24,987,988
3-5	Bacchus Hwy	\$9,101,046
3-6	7300 West	\$13,403,250
3-7	New Roadway	\$8,381,211
3-8	6800 West	\$8,487,791
3-9	13400 South	\$5,786,704
4-1	Bruin View Drive	\$1,569,236
4-2	Real Vista Drive	\$2,974,263
*All in 2022 dollars		\$395,892,496

** Based on Herriman City Project

ENGINEER'S ESTIMATE (2022 COSTS)
Dansie Blvd

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$98,700.00
Public Information Services	1	lump	1.00%	\$10,400.00
Traffic Control	1	lump	2.00%	\$20,800.00
Survey	1	lump	2.00%	\$20,800.00
				\$150,700.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,339	cu yd	\$ 24.00	\$56,132.74
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,136	Ton	\$ 40.00	\$165,435.33
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,746	Ton	\$ 110.00	\$192,019.08
Pavement Marking Paint	38	gal	\$ 80.00	\$3,016.00
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	3,184	ft	\$ 35.00	\$111,440.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	15,920	sq ft	\$ 9.00	\$143,280.00
				\$680,323.15

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1707	ft	\$ 125.00	\$213,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$255,375.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
Street Lighting (spaced every 150')	11	Each	\$8,000.00	\$88,000.00
				\$98,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ \$1,189,398.15
Contingency (20%) \$ \$237,879.63
BID ITEMS TOTAL \$ \$1,427,277.78

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	108,256	sq ft	\$15.00	\$1,623,840.00
				\$1,623,840.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$114,182.22	\$114,182.22
				\$114,182.22

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$114,182.22	\$114,182.22
				\$114,182.22

BID ITEMS TOTAL \$ \$1,427,277.78
NON-BID ITEMS TOTAL \$ \$1,852,204.45
GRAND TOTAL \$ \$3,279,482.23

ENGINEER'S ESTIMATE (2022 COSTS)
13800 South

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$222,400.00
Public Information Services	1	lump	1.00%	\$23,500.00
Traffic Control	1	lump	1.00%	\$23,500.00
Survey	1	lump	2.00%	\$46,900.00
				\$316,300.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	68	ft	\$ 12.00	\$816.00
Remove Concrete Sidewalk	91	sq yd	\$ 28.00	\$2,538.67
Roadway Excavation (Plan Quantity)	4,895	cu yd	\$ 24.00	\$117,483.85
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	8,656	Ton	\$ 40.00	\$346,250.33
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	3,654	Ton	\$ 110.00	\$401,889.18
Pavement Marking Paint	79	gal	\$ 80.00	\$6,313.60
Pavement Message (Preformed Thermoplastic)	10	Each	\$ 250.00	\$2,500.00
Concrete Curb and Gutter Type B1	6,664	ft	\$ 35.00	\$233,240.00
Perpendicular/Parallel Pedestrian Access Ramp	6	Each	\$ 4,000.00	\$24,000.00
Remove Asphalt Pavement	91	sq yd	\$ 9.00	\$816.00
Concrete Sidewalk	33,320	sq ft	\$ 9.00	\$299,880.00
				\$1,435,727.63

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3571	ft	\$ 125.00	\$446,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	12	Each	\$ 5,000.00	\$60,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	12	Each	\$ 2,000.00	\$24,000.00
				\$530,375.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
		lump	\$225,000.00	\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$30,000.00	\$30,000.00
Street Lighting (spaced every 150')	23	Each	\$8,000.00	\$184,000.00
				\$214,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
Box Culvert - Canal Crossing on east end of project	1	Lump	\$150,000.00	\$150,000.00
				\$150,000.00

BID ITEMS \$ 2,656,402.63
 Contingency (20%) \$ 531,280.53
 BID ITEMS TOTAL \$ 3,187,683.16

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	226,848	sq ft	\$15.00	\$3,402,720.00
				\$3,402,720.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$255,014.65	\$255,014.65
				\$255,014.65

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$255,014.65	\$255,014.65
				\$255,014.65

BID ITEMS TOTAL \$ 3,187,683.16
 NON-BID ITEMS TOTAL \$ 3,912,749.31
 GRAND TOTAL \$ 7,100,432.46

GENERAL

ROADWAY

DRAINAGE & IRRIGATION

SIGNAL SYSTEM

UTILITIES

LANDSCAPING

Structures

BID ITEMS \$	\$7,701,035.97
Contingency (20%) \$	\$1,540,207.19
BID ITEMS TOTAL \$	\$9,241,243.16

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$739,299.45	\$739,299.45
				\$739,299.45

BID ITEMS TOTAL \$ 9,241,243.16
NON-BID ITEMS TOTAL \$ 12,638,958.91
GRAND TOTAL \$ 21,880,202.06

ENGINEER'S ESTIMATE (2022 COSTS)
7600 West

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$78,600.00
Public Information Services	1	lump	2.50%	\$20,700.00
Traffic Control	1	lump	7.50%	\$62,000.00
Survey	1	lump	2.00%	\$16,600.00
				\$177,900.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,063	cu yd	\$ 24.00	\$49,504.00
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	3,647	Ton	\$ 40.00	\$145,899.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,539	Ton	\$ 110.00	\$169,343.46
Pavement Marking Paint	33	gal	\$ 80.00	\$2,660.80
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	2,808	ft	\$ 35.00	\$98,280.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	14,040	sq ft	\$ 9.00	\$126,360.00
				\$601,047.26

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	803	ft	\$ 125.00	\$100,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	5	Each	\$ 5,000.00	\$25,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	5	Each	\$ 2,000.00	\$10,000.00
				\$135,375.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	10	Each	\$8,000.00	\$80,000.00
				\$85,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$1,004,322.26
 Contingency (20%) \$ \$200,864.45
 BID ITEMS TOTAL \$ \$1,205,186.71

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	95,472	sq ft	\$15.00	\$1,432,080.00
				\$1,432,080.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$96,414.94	\$96,414.94
				\$96,414.94

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$96,414.94	\$96,414.94
				\$96,414.94

BID ITEMS TOTAL \$ \$1,205,186.71
 NON-BID ITEMS TOTAL \$ \$1,624,909.87
 GRAND TOTAL \$ \$2,830,096.59

ENGINEER'S ESTIMATE (2022 COSTS)
Mcdougall Road

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$206,200.00
Public Information Services	1	lump	1.00%	\$21,800.00
Traffic Control	1	lump	1.00%	\$21,800.00
Survey	1	lump	1.00%	\$21,800.00
				\$271,600.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	4,776	cu yd	\$ 24.00	\$114,627.85
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	8,446	Ton	\$ 40.00	\$337,833.08
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	3,565	Ton	\$ 110.00	\$392,119.37
Pavement Marking Paint	77	gal	\$ 80.00	\$6,160.00
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	6,502	ft	\$ 35.00	\$227,570.00
Perpendicular/Parallel Pedestrian Access Ramp	6	Each	\$ 4,000.00	\$24,000.00
Concrete Sidewalk	32,510	sq ft	\$ 9.00	\$292,590.00
				\$1,396,900.30

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3484	ft	\$ 125.00	\$435,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	11	Each	\$ 5,000.00	\$55,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	11	Each	\$ 2,000.00	\$22,000.00
				\$512,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal modifications at Camp Williams Road	1	lump	\$50,000.00	\$50,000.00
				\$50,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$25,000.00	\$25,000.00
Street Lighting (spaced every 150')	22	Each	\$8,000.00	\$176,000.00
				\$201,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
None	1	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ \$2,442,000.30
Contingency (20%) \$ \$488,400.06
BID ITEMS TOTAL \$ \$2,930,400.36

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	221,068	sq ft	\$15.00	\$3,316,020.00
				\$3,316,020.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$293,040.04	\$293,040.04
				\$293,040.04

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$293,040.04	\$293,040.04
				\$293,040.04

BID ITEMS TOTAL \$ \$2,930,400.36
NON-BID ITEMS TOTAL \$ \$3,902,100.07
GRAND TOTAL \$ \$6,832,500.43

ENGINEER'S ESTIMATE (2022 COSTS)
Silver Sky Drive

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$99,300.00
Public Information Services	1	lump	2.50%	\$26,200.00
Traffic Control	1	lump	7.50%	\$78,400.00
Survey	1	lump	2.00%	\$20,900.00
				\$224,800.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,644	cu yd	\$ 24.00	\$63,466.67
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,676	Ton	\$ 40.00	\$187,050.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,974	Ton	\$ 110.00	\$217,107.00
Pavement Marking Paint	47	gal	\$ 80.00	\$3,737.60
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	3,600	ft	\$ 35.00	\$126,000.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	18,000	sq ft	\$ 9.00	\$162,000.00
				\$768,361.27

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1029	ft	\$ 125.00	\$128,625.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$170,625.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	12	Each	\$8,000.00	\$96,000.00
				\$101,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
None	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,269,786.27
Contingency (20%) \$ 253,957.25
BID ITEMS TOTAL \$ 1,523,743.52

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	122,400	sq ft	\$15.00	\$1,836,000.00
				\$1,836,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$121,899.48	\$121,899.48
				\$121,899.48

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$121,899.48	\$121,899.48
				\$121,899.48

BID ITEMS TOTAL \$ 1,523,743.52
NON-BID ITEMS TOTAL \$ 2,079,798.96
GRAND TOTAL \$ 3,603,542.48

ENGINEER'S ESTIMATE (2022 COSTS)
South Hills Parkway

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$364,600.00
Public Information Services	1	lump	1.00%	\$38,400.00
Traffic Control	1	lump	1.00%	\$38,400.00
Survey	1	lump	1.00%	\$38,400.00
				\$479,800.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	9,188	cu yd	\$ 24.00	\$220,511.41
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	16,247	Ton	\$ 40.00	\$649,894.83
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	6,858	Ton	\$ 110.00	\$754,326.21
Pavement Marking Paint	148	gal	\$ 80.00	\$11,849.60
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	12,508	ft	\$ 35.00	\$437,780.00
Perpendicular/Parallel Pedestrian Access Ramp	12	Each	\$ 4,000.00	\$48,000.00
Concrete Sidewalk	62,540	sq ft	\$ 9.00	\$562,860.00
Borrow/Earthwork	10,000	cu yd	\$ 20.00	\$200,000.00
				\$2,887,222.05

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3576	ft	\$ 125.00	\$447,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	21	Each	\$ 5,000.00	\$105,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	21	Each	\$ 2,000.00	\$42,000.00
				\$594,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
Street Lighting (spaced every 150')	42	Each	\$8,000.00	\$336,000.00
				\$346,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
None	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ \$4,317,022.05
Contingency (20%) \$ \$863,404.41
BID ITEMS TOTAL \$ \$5,180,426.46

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	425,272	sq ft	\$15.00	\$6,379,080.00
				\$6,379,080.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$518,042.65	\$518,042.65
				\$518,042.65

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$518,042.65	\$518,042.65
				\$518,042.65

BID ITEMS TOTAL \$ \$5,180,426.46
NON-BID ITEMS TOTAL \$ \$7,415,165.29
GRAND TOTAL \$ \$12,595,591.75

ENGINEER'S ESTIMATE (2022 COSTS)
South Hills Connection

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$639,400.00
Public Information Services	1	lump	1.00%	\$67,400.00
Traffic Control	1	lump	1.00%	\$67,400.00
Survey	1	lump	1.00%	\$67,400.00
				\$841,600.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	15,132	cu yd	\$ 24.00	\$363,170.37
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	26,759	Ton	\$ 40.00	\$1,070,341.67
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	11,294	Ton	\$ 110.00	\$1,242,334.50
Pavement Marking Paint	69	gal	\$ 80.00	\$5,486.40
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	20,600	ft	\$ 35.00	\$721,000.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	103,000	sq ft	\$ 9.00	\$927,000.00
Borrow/Earthwork	30,000	cu yd	\$ 20.00	\$600,000.00
				\$4,947,332.94

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	5889	ft	\$ 125.00	\$736,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	35	Each	\$ 5,000.00	\$175,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	35	Each	\$ 2,000.00	\$70,000.00
				\$981,125.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Minor signal modifications at Porter Rockwell	1	lump	\$150,000.00	\$150,000.00
Street Lighting (spaced every 150')	69	Each	\$8,000.00	\$552,000.00
				\$702,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$25,000.00	\$25,000.00
				\$25,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$75,000.00	\$75,000.00
				\$75,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
None	1	Lump		\$0.00
				\$0.00

BID ITEMS \$ \$7,572,057.94
Contingency (20%) \$ \$1,514,411.59
BID ITEMS TOTAL \$ \$9,086,469.52

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	700,400	sq ft	\$15.00	\$10,506,000.00
				\$10,506,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$908,646.95	\$908,646.95
				\$908,646.95

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$908,646.95	\$908,646.95
				\$908,646.95

BID ITEMS TOTAL \$ \$9,086,469.52
NON-BID ITEMS TOTAL \$ \$12,323,293.91
GRAND TOTAL \$ \$21,409,763.43

BID ITEMS TOTAL \$ \$5,139,611.30
NON-BID ITEMS TOTAL \$ \$7,351,922.26
GRAND TOTAL \$ \$12,491,533.56

ENGINEER'S ESTIMATE (2022 COSTS)
7300 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$112,600.00
Public Information Services	1	lump	1.00%	\$11,900.00
Traffic Control	1	lump	2.00%	\$23,700.00
Survey	1	lump	1.00%	\$11,900.00
				\$160,100.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,962	cu yd	\$ 24.00	\$71,082.67
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	5,237	Ton	\$ 40.00	\$209,496.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,211	Ton	\$ 110.00	\$243,159.84
Pavement Marking Paint	48	gal	\$ 80.00	\$3,819.20
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	4,032	ft	\$ 35.00	\$141,120.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	20,160	sq ft	\$ 9.00	\$181,440.00
				\$859,117.71

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1153	ft	\$ 125.00	\$144,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	7	Each	\$ 5,000.00	\$35,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	7	Each	\$ 2,000.00	\$14,000.00
				\$193,125.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
		lump	\$225,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
Street Lighting (spaced every 150')	14	Each	\$8,000.00	\$112,000.00
				\$122,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
None		Lump		\$0.00
				\$0.00

BID ITEMS \$ \$1,344,342.71
Contingency (20%) \$ \$268,868.54
BID ITEMS TOTAL \$ \$1,613,211.25

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	137,088	sq ft	\$15.00	\$2,056,320.00
				\$2,056,320.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$161,321.12	\$161,321.12
				\$161,321.12

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$161,321.12	\$161,321.12
				\$161,321.12

BID ITEMS TOTAL \$ \$1,613,211.25
NON-BID ITEMS TOTAL \$ \$2,378,962.25
GRAND TOTAL \$ \$3,992,173.50

ENGINEER'S ESTIMATE (2022 COSTS)
Miller Crossing Drive

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$88,200.00
Public Information Services	1	lump	1.00%	\$9,300.00
Traffic Control	1	lump	2.00%	\$18,600.00
Survey	1	lump	2.00%	\$18,600.00
				\$134,700.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	68	ft	\$ 12.00	\$816.00
Remove Concrete Sidewalk	91	sq yd	\$ 28.00	\$2,538.67
Roadway Excavation (Plan Quantity)	2,254	cu yd	\$ 24.00	\$54,087.70
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	3,985	Ton	\$ 40.00	\$159,408.17
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,682	Ton	\$ 110.00	\$185,023.41
Pavement Marking Paint	36	gal	\$ 80.00	\$2,905.60
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	3,068	ft	\$ 35.00	\$107,380.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	15,340	sq ft	\$ 9.00	\$138,060.00
				\$668,219.55

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	877	ft	\$ 125.00	\$109,625.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$151,625.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
Street Lighting (spaced every 150')	11	Each	\$8,000.00	\$88,000.00
				\$98,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,062,544.55
Contingency (20%) \$ 212,508.91
BID ITEMS TOTAL \$ 1,275,053.46

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	104,312	sq ft	\$15.00	\$1,564,680.00
				\$1,564,680.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$127,505.35	\$127,505.35
				\$127,505.35

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$127,505.35	\$127,505.35
				\$127,505.35

BID ITEMS TOTAL \$ 1,275,053.46
NON-BID ITEMS TOTAL \$ 1,819,690.69
GRAND TOTAL \$ 3,094,744.15

ENGINEER'S ESTIMATE (2022 COSTS)
Academy Parkway

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$21,900.00
Public Information Services	1	lump	1.00%	\$2,300.00
Traffic Control	1	lump	2.00%	\$4,600.00
Survey	1	lump	2.00%	\$4,600.00
				\$33,400.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	80	ft	\$ 12.00	\$960.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	406	cu yd	\$ 24.00	\$9,733.33
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	728	Ton	\$ 40.00	\$29,108.75
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	384	Ton	\$ 110.00	\$42,232.78
Pavement Marking Paint	40	gal	\$ 80.00	\$3,200.00
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	438	ft	\$ 35.00	\$15,330.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	2,190	sq ft	\$ 9.00	\$19,710.00
Excavation/Earthwork	2,000	cu yd	\$ 20.00	\$40,000.00
				\$169,274.86

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	139	ft	\$ 125.00	\$17,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	1	Each	\$ 5,000.00	\$5,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	1	Each	\$ 2,000.00	\$2,000.00
				\$24,375.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal modifications at Mountain View Corridor		lump	\$350,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
Street Lighting (spaced every 150')	2	Each	\$8,000.00	\$16,000.00
				\$26,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ \$263,049.86
Contingency (30%) \$ \$78,914.96
BID ITEMS TOTAL \$ \$341,964.82

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	17,520	sq ft	\$15.00	\$262,800.00
				\$262,800.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$41,035.78	\$41,035.78
				\$41,035.78

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$41,035.78	\$41,035.78
				\$41,035.78

BID ITEMS TOTAL \$ \$341,964.82
NON-BID ITEMS TOTAL \$ \$344,871.56
GRAND TOTAL \$ \$686,836.38

ENGINEER'S ESTIMATE (2022 COSTS)
Juniper Crest Road

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$105,100.00
Public Information Services	1	lump	1.00%	\$11,100.00
Traffic Control	1	lump	1.00%	\$11,100.00
Survey	1	lump	2.00%	\$22,200.00
				\$149,500.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,778	cu yd	\$ 24.00	\$66,666.67
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,984	Ton	\$ 40.00	\$199,375.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,630	Ton	\$ 110.00	\$289,265.63
Pavement Marking Paint	50	gal	\$ 80.00	\$4,000.00
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	3,000	ft	\$ 35.00	\$105,000.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	18,000	sq ft	\$ 9.00	\$162,000.00
				\$835,307.29

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	888	ft	\$ 125.00	\$111,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	5	Each	\$ 5,000.00	\$25,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	5	Each	\$ 2,000.00	\$10,000.00
				\$146,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
		lump	\$350,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$35,000.00	\$35,000.00
Street Lighting (spaced every 150')	10	Each	\$8,000.00	\$80,000.00
				\$115,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
		Lump	\$75,000.00	\$0.00
				\$0.00

BID ITEMS \$ 1,255,807.29
 Contingency (20%) \$ 251,161.46
 BID ITEMS TOTAL \$ 1,506,968.75

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk) (No right of way req'd on MVC section)	120,000	sq ft	\$15.00	\$1,800,000.00
				\$1,800,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$150,696.88	\$150,696.88
				\$150,696.88

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$150,696.88	\$150,696.88
				\$150,696.88

BID ITEMS TOTAL \$ 1,506,968.75
 NON-BID ITEMS TOTAL \$ 2,101,393.75
 GRAND TOTAL \$ 3,608,362.50

ENGINEER'S ESTIMATE (2022 COSTS)
13400 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$164,900.00
Public Information Services	1	lump	2.00%	\$34,800.00
Traffic Control	1	lump	7.00%	\$121,500.00
Survey	1	lump	5.00%	\$86,800.00
				\$408,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	4,440	cu yd	\$ 24.00	\$106,557.63
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	2,124	Ton	\$ 40.00	\$84,950.67
Remove Concrete Driveway	92	sq yd	\$ 28.00	\$2,568.16
HMA - 1/2 inch	1,931	Ton	\$ 110.00	\$212,372.16
Pavement Marking Paint	64	gal	\$ 80.00	\$5,123.20
Pavement Message (Preformed Thermoplastic)	14	Each	\$ 250.00	\$3,500.00
Concrete Curb and Gutter Type B1	5,408	ft	\$ 35.00	\$189,280.00
Perpendicular/Parallel Pedestrian Access Ramp	5	Each	\$ 4,000.00	\$20,000.00
Concrete Sidewalk	27,040	sq ft	\$ 9.00	\$243,360.00
Remove Concrete Curb	279	ft	\$ 10.00	\$2,786.00
Remove Asphalt Pavement	80	sq yd	\$ 20.00	\$1,600.00
Remove Fence	326	ft	\$ 5.00	\$1,632.00
Remove Tree	2	Each	\$ 2,000.00	\$4,000.00
Concrete Driveway Flared, 6 inch Thick	35.00	Each	\$ 3,500.00	\$122,500.00
				\$1,000,229.82

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1546	ft	\$ 125.00	\$193,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	10	Each	\$ 5,000.00	\$50,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	10	Each	\$ 2,000.00	\$20,000.00
				\$263,250.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal modifications at 6400 West	1	lump	\$75,000.00	\$75,000.00
				\$75,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	10	Each	\$15,000.00	\$150,000.00
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$75,000.00	\$75,000.00
Street Lighting (spaced every 150')	19	Each	\$8,000.00	\$152,000.00
				\$377,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 2,143,479.82
Contingency (30%) \$ 643,043.94
BID ITEMS TOTAL \$ 2,786,523.76

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per County Website there appears to be sufficient (right of way - No right of way included)	0	sq ft	\$0.00	\$0.00
Assuming 5' wide construction easement required for length of project	27,040	sq ft	\$5.00	\$135,200.00
				\$135,200.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$278,652.38	\$278,652.38
				\$278,652.38

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$278,652.38	\$278,652.38
				\$278,652.38

BID ITEMS TOTAL \$ 2,786,523.76
NON-BID ITEMS TOTAL \$ 692,504.75
GRAND TOTAL \$ 3,479,028.51

ENGINEER'S ESTIMATE (2022 COSTS)
6000 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$200,200.00
Public Information Services	1	lump	2.00%	\$42,200.00
Traffic Control	1	lump	7.00%	\$147,500.00
Survey	1	lump	5.00%	\$105,400.00
				\$495,300.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	3,562	cu yd	\$ 24.00	\$85,481.02
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	1,980	Ton	\$ 40.00	\$79,208.67
Remove Concrete Driveway	84	sq yd	\$ 28.00	\$2,351.16
HMA - 1/2 inch	2,925	Ton	\$ 110.00	\$321,778.38
Pavement Marking Paint	97	gal	\$ 80.00	\$7,761.60
Pavement Message (Preformed Thermoplastic)	38	Each	\$ 250.00	\$9,500.00
Concrete Curb and Gutter Type B1	5,611	ft	\$ 35.00	\$196,383.95
Perpendicular/Parallel Pedestrian Access Ramp	10	Each	\$ 4,000.00	\$40,000.00
Concrete Sidewalk	28,055	sq ft	\$ 9.00	\$252,493.65
Remove Concrete Curb	300	ft	\$ 10.00	\$3,000.00
Remove Asphalt Pavement	362	sq yd	\$ 20.00	\$7,242.00
Remove Fence	400	ft	\$ 5.00	\$2,000.00
Concrete Driveway Flared, 6 inch Thick	40	Each	\$ 3,500.00	\$140,000.00
				\$1,147,200.43

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	2343	ft	\$ 125.00	\$292,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	14	Each	\$ 5,000.00	\$70,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	14	Each	\$ 2,000.00	\$28,000.00
				\$390,875.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal modifications at Main Street	1	lump	\$75,000.00	\$75,000.00
		lump	\$75,000.00	\$0.00
				\$75,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	6	Each	\$15,000.00	\$90,000.00
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$150,000.00	\$150,000.00
Street Lighting (spaced every 150')	28	Each	\$8,000.00	\$224,000.00
				\$464,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$30,000.00	\$30,000.00
				\$30,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 2,602,375.43
Contingency (30%) \$ 780,712.63
BID ITEMS TOTAL \$ 3,383,088.05

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per County Website, some right of way required on north end of project. (Assume 3000' x 23' wide)	69,000	sq ft	\$20.00	\$1,380,000.00
Assuming 5' wide construction easement required for length of project	40,970	sq ft	\$5.00	\$204,850.00
				\$1,584,850.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$405,970.57	\$405,970.57
				\$405,970.57

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$405,970.57	\$405,970.57
				\$405,970.57

BID ITEMS TOTAL \$ 3,383,088.05
NON-BID ITEMS TOTAL \$ 2,396,791.13
GRAND TOTAL \$ 5,779,879.19

ENGINEER'S ESTIMATE (2022 COSTS)
7300 West

BID ITEMS

GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$109,000.00
Public Information Services	1	lump	2.50%	\$28,700.00
Traffic Control	1	lump	7.50%	\$86,000.00
Survey	1	lump	2.00%	\$23,000.00
				\$246,700.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	70	ft	\$ 12.00	\$835.20
Remove Concrete Sidewalk	32	sq yd	\$ 28.00	\$900.48
Roadway Excavation (Plan Quantity)	3,078	cu yd	\$ 24.00	\$73,883.44
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	1,958	Ton	\$ 40.00	\$78,300.00
Remove Concrete Driveway	170	sq yd	\$ 28.00	\$4,768.96
HMA - 1/2 inch	1,854	Ton	\$ 110.00	\$203,951.55
Pavement Marking Paint	38	gal	\$ 80.00	\$3,070.40
Pavement Message (Preformed Thermoplastic)	6	Each	\$ 250.00	\$1,500.00
Concrete Curb and Gutter Type B1	3,108	ft	\$ 35.00	\$108,765.30
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	15,538	sq ft	\$ 9.00	\$139,841.10
Remove Asphalt Pavement	365	sq yd	\$ 20.00	\$7,306.00
Remove Fence	897	ft	\$ 5.00	\$4,486.50
Remove Tree	6	Each	\$ 2,000.00	\$12,000.00
Concrete Driveway Flared, 6 inch Thick	18	Each	\$ 3,500.00	\$63,000.00
				\$710,608.93

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	927	ft	\$ 125.00	\$115,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$157,875.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
No Signals	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	2	Each	\$15,000.00	\$30,000.00
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$150,000.00	\$150,000.00
Street Lighting (spaced every 150')	11	Each	\$8,000.00	\$88,000.00
				\$268,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,393,183.93
Contingency (30%) \$ 417,955.18
BID ITEMS TOTAL \$ 1,811,139.11

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per County Website, some minor right of way may be required on undeveloped parcels. (Assume 300' x 24' wide)	10,200	sq ft	\$20.00	\$204,000.00
Assuming 5' wide construction easement required for length of project	16,200	sq ft	\$5.00	\$81,000.00
				\$285,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$217,336.69	\$217,336.69
				\$217,336.69

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$217,336.69	\$217,336.69
				\$217,336.69

BID ITEMS TOTAL \$ 1,811,139.11
NON-BID ITEMS TOTAL \$ 719,673.39
GRAND TOTAL \$ 2,530,812.50

ENGINEER'S ESTIMATE (2022 COSTS)
11800 South

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$71,400.00
Public Information Services	1	lump	2.00%	\$15,100.00
Traffic Control	1	lump	10.00%	\$75,200.00
Survey	1	lump	5.00%	\$37,600.00
				\$199,300.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	700	ft	\$ 12.00	\$8,400.00
Remove Concrete Sidewalk	448	sq yd	\$ 28.00	\$12,544.00
Roadway Excavation (Plan Quantity)	1,825	cu yd	\$ 24.00	\$43,809.04
Granular Borrow (Plan Quantity)	476	cu yd	\$ 35.00	\$16,666.48
Untreated Base Course	466	Ton	\$ 40.00	\$18,642.65
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	837	Ton	\$ 110.00	\$92,119.71
Pavement Marking Paint	18	gal	\$ 80.00	\$1,412.80
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	1,118	ft	\$ 35.00	\$39,130.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	6,708	sq ft	\$ 9.00	\$60,372.00
				\$311,096.67

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	355	ft	\$ 125.00	\$44,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	2	Each	\$ 5,000.00	\$10,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	2	Each	\$ 2,000.00	\$4,000.00
				\$58,375.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
Signal Modifications at MVC Northbound	1	lump	\$150,000.00	\$150,000.00
Signal Modifications at MVC Southbound	1	lump	\$150,000.00	\$150,000.00
				\$300,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities such as telephone,ATMS relocates)	1	lump	\$30,000.00	\$30,000.00
Street Lighting (spaced every 150')	4	Each	\$8,000.00	\$32,000.00
				\$62,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ **\$950,771.67**
 Contingency (30%) \$ **\$285,231.50**
 BID ITEMS TOTAL \$ **\$1,236,003.18**

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assuming no Right of way since it is within a UDOT corridor	0	sq ft	\$0.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$148,320.38	\$148,320.38
				\$148,320.38

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$148,320.38	\$148,320.38
				\$148,320.38

BID ITEMS TOTAL \$ **\$1,236,003.18**
 NON-BID ITEMS TOTAL \$ **\$296,640.76**
 GRAND TOTAL \$ **\$1,532,643.94**

ENGINEER'S ESTIMATE (2022 COSTS)
11800 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$368,400.00
Public Information Services	1	lump	1.00%	\$38,800.00
Traffic Control	1	lump	3.00%	\$116,400.00
Survey	1	lump	3.00%	\$116,400.00
				\$640,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	22,517	cu yd	\$ 24.00	\$540,396.07
Granular Borrow (Plan Quantity)	11,748	cu yd	\$ 35.00	\$411,170.93
Untreated Base Course	7,057	Ton	\$ 40.00	\$282,277.30
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	7,936	Ton	\$ 110.00	\$872,930.03
Pavement Marking Paint	129	gal	\$ 80.00	\$10,306.40
Pavement Message (Preformed Thermoplastic)	30	Each	\$ 250.00	\$7,500.00
Concrete Curb and Gutter Type B1	7,033	ft	\$ 35.00	\$246,155.00
Perpendicular/Parallel Pedestrian Access Ramp	10	Each	\$ 4,000.00	\$40,000.00
Concrete Sidewalk	76,968	sq ft	\$ 9.00	\$692,712.00
Remove Fence	128	ft	\$ 5.00	\$640.00
Concrete Driveway Flared, 6 inch Thick	2	Each	\$ 3,500.00	\$7,000.00
				\$3,111,087.73

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	2591	ft	\$ 125.00	\$323,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	14	Each	\$ 5,000.00	\$70,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	14	Each	\$ 2,000.00	\$28,000.00
				\$421,875.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
		Lump	\$75,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$75,000.00	\$75,000.00
Street Lighting (spaced every 150')	28	Each	\$8,000.00	\$224,000.00
				\$299,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$35,000.00	\$35,000.00
				\$35,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 4,516,962.73
Contingency (20%) \$ 903,392.55
BID ITEMS TOTAL \$ 5,420,355.27

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per County Website, some minor right of way may be required on undeveloped parcels. (Assume 500' x 25' wide)	0	sq ft	\$0.00	\$0.00
Assuming 5' wide construction easement required for length of project	40,790	sq ft	\$5.00	\$203,950.00
				\$203,950.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$650,442.63	\$650,442.63
				\$650,442.63

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$650,442.63	\$650,442.63
				\$650,442.63

BID ITEMS TOTAL \$ 5,420,355.27
NON-BID ITEMS TOTAL \$ 1,504,835.26
GRAND TOTAL \$ 6,925,190.53

ENGINEER'S ESTIMATE (2022 COSTS)
13400 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$464,200.00
Public Information Services	1	lump	2.00%	\$97,800.00
Traffic Control	1	lump	10.00%	\$488,600.00
Survey	1	lump	5.00%	\$244,300.00
				\$1,294,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	6,080	ft	\$ 12.00	\$72,960.00
Remove Concrete Sidewalk	3,260	sq yd	\$ 28.00	\$91,290.89
Roadway Excavation (Plan Quantity)	17,372	cu yd	\$ 24.00	\$416,925.57
Granular Borrow (Plan Quantity)	4,790	cu yd	\$ 35.00	\$167,648.50
Untreated Base Course	4,688	Ton	\$ 40.00	\$187,526.82
Remove Concrete Driveway	501	sq yd	\$ 28.00	\$14,014.00
HMA - 1/2 inch	7,709	Ton	\$ 110.00	\$848,016.37
Pavement Marking Paint	160	gal	\$ 80.00	\$12,806.40
Pavement Message (Preformed Thermoplastic)	34	Each	\$ 250.00	\$8,500.00
Concrete Curb and Gutter Type B1	9,266	ft	\$ 35.00	\$324,310.35
Perpendicular/Parallel Pedestrian Access Ramp	11	Each	\$ 4,000.00	\$44,000.00
Concrete Sidewalk	55,596	sq ft	\$ 9.00	\$500,364.54
Remove Asphalt Pavement	664	sq yd	\$ 20.00	\$13,284.00
Remove Fence	1,347	ft	\$ 5.00	\$6,732.50
Remove Tree	82	Each	\$ 2,000.00	\$164,000.00
Concrete Driveway Flared, 6 inch Thick	20	Each	\$ 3,500.00	\$70,000.00
				\$2,942,379.92

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3364	ft	\$ 125.00	\$420,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	18	Each	\$ 5,000.00	\$90,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	18	Each	\$ 2,000.00	\$36,000.00
				\$546,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal modifications at 6400 West	1	lump	\$150,000.00	\$150,000.00
Signal modifications at Pioneer St	1	lump	\$150,000.00	\$150,000.00
Signal modifications at RoseCrest Road	1	lump	\$150,000.00	\$150,000.00
				\$450,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (telephone,ATMS relocates, manholes, third party utilities)	1	lump	\$150,000.00	\$150,000.00
Power Pole Relocation along north side of road (approx 22 poles) (assume 20,000 per pole)	1	lump	\$440,000.00	\$440,000.00
Street Lighting (spaced every 150')	34	Each	\$8,000.00	\$272,000.00
				\$862,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$75,000.00	\$75,000.00
				\$75,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 6,180,779.92
Contingency (20%) \$ 1,236,155.98
BID ITEMS TOTAL \$ 7,416,935.91

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Minor right of way may be required per County parcel maps (assuming 800' x 10')	8,000	sq ft	\$15.00	\$120,000.00
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/	25,349	sq ft	\$5.00	\$126,744.75
				\$246,744.75

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$890,032.31	\$890,032.31
				\$890,032.31

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$890,032.31	\$890,032.31
				\$890,032.31

BID ITEMS TOTAL \$ 7,416,935.91
NON-BID ITEMS TOTAL \$ 2,026,809.37
GRAND TOTAL \$ 9,443,745.27

ENGINEER'S ESTIMATE (2022 COSTS)
Herriman Parkway

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$191,800.00
Public Information Services	1	lump	2.00%	\$40,400.00
Traffic Control	1	lump	7.00%	\$141,300.00
Survey	1	lump	5.00%	\$101,000.00
				\$474,500.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	3,015	ft	\$ 12.00	\$36,180.00
Remove Concrete Sidewalk	1,675	sq yd	\$ 28.00	\$46,900.00
Roadway Excavation (Plan Quantity)	13,912	cu yd	\$ 24.00	\$333,883.33
Granular Borrow (Plan Quantity)	4,578	cu yd	\$ 35.00	\$160,241.67
Untreated Base Course	4,481	Ton	\$ 40.00	\$179,241.75
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,044	Ton	\$ 110.00	\$224,838.28
Pavement Marking Paint	95	gal	\$ 80.00	\$7,618.40
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	3,015	ft	\$ 35.00	\$105,525.00
Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$ 4,000.00	\$0.00
Concrete Sidewalk	36,180	sq ft	\$ 9.00	\$325,620.00
				\$1,424,048.43

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1915	ft	\$ 125.00	\$239,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$281,375.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No Signals	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (telephone, ATMS relocates, manholes, third party utilities)	1	lump	\$100,000.00	\$100,000.00
Street Lighting (spaced every 150')	21	Each	\$8,000.00	\$168,000.00
				\$268,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$35,000.00	\$35,000.00
				\$35,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 2,492,923.43
 Contingency (20%) \$ 498,584.69
 BID ITEMS TOTAL \$ 2,991,508.12

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per county website, it appears there is sufficient right of way.	0	sq ft	\$0.00	\$0.00
Assuming 5' wide construction easement required for length of project	30,150	sq ft	\$5.00	\$150,750.00
				\$150,750.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$358,980.97	\$358,980.97
				\$358,980.97

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$358,980.97	\$358,980.97
				\$358,980.97

BID ITEMS TOTAL \$ 2,991,508.12
 NON-BID ITEMS TOTAL \$ 868,711.95
 GRAND TOTAL \$ 3,860,220.07

ENGINEER'S ESTIMATE (2022 COSTS)
6400 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$142,000.00
Public Information Services	1	lump	2.00%	\$29,900.00
Traffic Control	1	lump	7.00%	\$104,600.00
Survey	1	lump	5.00%	\$74,700.00
				\$351,200.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	1	sq yd	\$ 28.00	\$36.96
Roadway Excavation (Plan Quantity)	2,547	cu yd	\$ 24.00	\$61,122.96
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	1,017	Ton	\$ 40.00	\$40,696.67
Remove Concrete Driveway	10	sq yd	\$ 28.00	\$276.36
HMA - 1/2 inch	1,931	Ton	\$ 110.00	\$212,372.16
Pavement Marking Paint	50	gal	\$ 80.00	\$3,988.80
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	3,954	ft	\$ 35.00	\$138,390.00
Perpendicular/Parallel Pedestrian Access Ramp	5	Each	\$ 4,000.00	\$20,000.00
Concrete Sidewalk	19,770	sq ft	\$ 9.00	\$177,930.00
Remove Asphalt Pavement	115	sq yd	\$ 20.00	\$2,300.00
Remove Fence	135	ft	\$ 5.00	\$677.10
Remove Tree	7	Each	\$ 2,000.00	\$14,000.00
Concrete Driveway Flared, 6 inch Thick	16	Each	\$ 3,500.00	\$56,000.00
				\$730,791.01

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1280	ft	\$ 125.00	\$160,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	4	Each	\$ 5,000.00	\$20,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	4	Each	\$ 2,000.00	\$8,000.00
				\$188,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal Modification at 13400 South	1	lump	\$100,000.00	\$100,000.00
Signal at Main Street	1	lump	225000	\$225,000.00
				\$325,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$75,000.00	\$75,000.00
Street Lighting (spaced every 150')	15	Each	\$8,000.00	\$120,000.00
Assuming large poles along east side will be in parkstrip and will not be relocated. Assume 5 service lines to be relocated.	5	Each	\$7,000.00	\$35,000.00
				\$230,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,844,991.01
Contingency (30%) \$ 553,497.30
BID ITEMS TOTAL \$ 2,398,488.31

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per County Website there appears to be some right of way required (Assume 250' frontage)	10,250	sq ft	\$15.00	\$153,750.00
Assuming 5' wide construction easement required for length of project	21,050	sq ft	\$5.00	\$105,250.00
				\$259,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$287,818.60	\$287,818.60
				\$287,818.60

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$287,818.60	\$287,818.60
				\$287,818.60

BID ITEMS TOTAL \$ 2,398,488.31
NON-BID ITEMS TOTAL \$ 834,637.20
GRAND TOTAL \$ 3,233,125.51

BID ITEMS	
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GENERAL

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$57,100.00
Public Information Services	1	lump	1.00%	\$6,100.00
Traffic Control	1	lump	2.00%	\$12,100.00
Survey	1	lump	2.00%	\$12,100.00
				\$87,400.00

ROADWAY

[illegible]

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	108	ft	\$ 125.00	\$13,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	5	Each	\$ 5,000.00	\$25,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	5	Each	\$ 2,000.00	\$10,000.00
				\$48,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Assumed no signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since road is mostly constructed)	1	lump	\$15,000.00	\$15,000.00
				\$15,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$	\$688,342.50
Contingency (20%) \$	\$137,668.50
BID ITEMS TOTAL \$	\$826,011.00

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (per county records, it appears minor strip takes bay be required, assue an average of 5' for the length of new curb and gutter)	12,855	sq ft	\$15.00	\$192,825.00
Assuming 5' wide construction easement required for length of new construction	12,855	sq ft	\$5.00	\$64,275.00
				\$257,100.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$82,601.10	\$82,601.10
				\$82,601.10

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$82,601.10	\$82,601.10
				\$82,601.10

BID ITEMS TOTAL \$	\$826,011.00
NON-BID ITEMS TOTAL \$	\$422,302.20
GRAND TOTAL \$	\$1,248,313.20

GENERAL

ROADWAY

DRAINAGE & IRRIGATION

SIGNAL SYSTEM

UTILITIES

LANDSCAPING

Structures

Structures				
Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (7% of Bid Items)	1	lump	\$200,665.92	\$200,665.92

BID ITEMS TOTAL \$	\$2,866,655.99
NON-BID ITEMS TOTAL \$	\$4,301,498.40
GRAND TOTAL \$	\$7,168,154.39

BID ITEMS

GENERAL

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$259,400.00
Public Information Services	1	lump	0.50%	\$13,700.00
Traffic Control	1	lump	1.00%	\$27,300.00
Survey	1	lump	2.00%	\$54,600.00
				\$355,000.00

ROADWAY

[illegible]

DRAINAGE & IRRIGATION

[illegible]

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No signals included	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$	\$3,084,608.14
Contingency (20%) \$	\$616,921.63
BID ITEMS TOTAL \$	\$3,701,529.77

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	341,280	sq ft	\$15.00	\$5,119,200.00
				\$5,119,200.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$370,152.98	\$370,152.98
				\$370,152.98

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$370,152.98	\$370,152.98
				\$370,152.98

BID ITEMS TOTAL \$ \$3,701,529.77
NON-BID ITEMS TOTAL \$ \$5,859,505.95
GRAND TOTAL \$ \$9,561,035.72

ENGINEER'S ESTIMATE (2022 COSTS)
12600 South

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$81,400.00
Public Information Services	1	lump	1.00%	\$8,600.00
Traffic Control	1	lump	15.00%	\$128,500.00
Survey	1	lump	5.00%	\$42,900.00
				\$261,400.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	800	ft	\$ 12.00	\$9,600.00
Remove Concrete Sidewalk	533	sq yd	\$ 28.00	\$14,933.33
Roadway Excavation (Plan Quantity)	889	cu yd	\$ 24.00	\$21,333.33
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	2,320	Ton	\$ 40.00	\$92,800.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,224	Ton	\$ 110.00	\$134,640.00
Pavement Marking Paint	67	gal	\$ 80.00	\$5,381.60
Pavement Message (Preformed Thermoplastic)	60	Each	\$ 250.00	\$15,000.00
Concrete Curb and Gutter Type B1	1,600	ft	\$ 35.00	\$56,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	9,600	sq ft	\$ 9.00	\$86,400.00
				\$468,088.27

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	458	ft	\$ 125.00	\$57,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	3	Each	\$ 5,000.00	\$15,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	3	Each	\$ 2,000.00	\$6,000.00
				\$78,250.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
Signal Modifications at NB MVC	1	lump	\$100,000.00	\$100,000.00
Signal Modifications at SB MVC	1	lump	\$100,000.00	\$100,000.00
				\$200,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (Misc. utilities such as fiber optic, telephone, etc.)	1	lump	\$100,000.00	\$100,000.00
				\$100,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,117,738.27
Contingency (30%) \$ 335,321.48
BID ITEMS TOTAL \$ 1,453,059.75

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming no right of way required and that all is owned by UDOT)	0	sq ft	\$0.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (15% of Bid Items)	1	lump	\$217,958.96	\$217,958.96
				\$217,958.96

Description	Quantity	Unit	Unit Price	Amount
Construction Management (15% of Bid Items)	1	lump	\$217,958.96	\$217,958.96
				\$217,958.96

BID ITEMS TOTAL \$ 1,453,059.75
NON-BID ITEMS TOTAL \$ 435,917.92
GRAND TOTAL \$ 1,888,977.67

ENGINEER'S ESTIMATE (2022 COSTS)
Silver Sky Drive

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$134,200.00
Public Information Services	1	lump	0.50%	\$7,100.00
Traffic Control	1	lump	1.00%	\$14,200.00
Survey	1	lump	1.00%	\$14,200.00
				\$169,700.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	3,906	cu yd	\$ 24.00	\$93,754.37
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	6,908	Ton	\$ 40.00	\$276,314.42
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,916	Ton	\$ 110.00	\$320,715.29
Pavement Marking Paint	63	gal	\$ 80.00	\$5,036.80
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	5,318	ft	\$ 35.00	\$186,130.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	26,590	sq ft	\$ 9.00	\$239,310.00
				\$1,139,260.87

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1521	ft	\$ 125.00	\$190,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	9	Each	\$ 5,000.00	\$45,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	9	Each	\$ 2,000.00	\$18,000.00
				\$253,125.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Assumed no signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,582,085.87
 Contingency (20%) \$ 316,417.17
BID ITEMS TOTAL \$ 1,898,503.05

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	180,812	sq ft	\$15.00	\$2,712,180.00
				\$2,712,180.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$189,850.30	\$189,850.30
				\$189,850.30

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$189,850.30	\$189,850.30
				\$189,850.30

BID ITEMS TOTAL \$ 1,898,503.05
NON-BID ITEMS TOTAL \$ 3,091,880.61
GRAND TOTAL \$ 4,990,383.66

ENGINEER'S ESTIMATE (2022 COSTS)
Silver Sky Drive

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$111,100.00
Public Information Services	1	lump	0.50%	\$5,900.00
Traffic Control	1	lump	1.00%	\$11,700.00
Survey	1	lump	1.00%	\$11,700.00
				\$140,400.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	3,250	cu yd	\$ 24.00	\$77,993.48
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	5,747	Ton	\$ 40.00	\$229,863.67
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,425	Ton	\$ 110.00	\$266,800.38
Pavement Marking Paint	52	gal	\$ 80.00	\$4,190.40
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	4,424	ft	\$ 35.00	\$154,840.00
Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$ 4,000.00	\$0.00
Concrete Sidewalk	22,120	sq ft	\$ 9.00	\$199,080.00
				\$934,767.93

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1265	ft	\$ 125.00	\$158,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$214,125.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
Assumed no signals		lump		\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ \$1,309,292.93
Contingency (20%) \$ \$261,858.59
BID ITEMS TOTAL \$ \$1,571,151.51

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	150,416	sq ft	\$15.00	\$2,256,240.00
				\$2,256,240.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$157,115.15	\$157,115.15
				\$157,115.15

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$157,115.15	\$157,115.15
				\$157,115.15

BID ITEMS TOTAL \$ \$1,571,151.51
NON-BID ITEMS TOTAL \$ \$2,570,470.30
GRAND TOTAL \$ \$4,141,621.82

ENGINEER'S ESTIMATE (2022 COSTS)
Silver Sky Drive

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$64,000.00
Public Information Services	1	lump	0.50%	\$3,400.00
Traffic Control	1	lump	1.00%	\$6,800.00
Survey	1	lump	1.00%	\$6,800.00
				\$81,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	1,814	cu yd	\$ 24.00	\$43,545.19
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	3,208	Ton	\$ 40.00	\$128,337.08
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	1,354	Ton	\$ 110.00	\$148,959.53
Pavement Marking Paint	46	gal	\$ 80.00	\$3,641.60
Pavement Message (Preformed Thermoplastic)	0	Each	\$ 250.00	\$0.00
Concrete Curb and Gutter Type B1	2,470	ft	\$ 35.00	\$86,450.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	12,350	sq ft	\$ 9.00	\$111,150.00
				\$530,083.39

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	707	ft	\$ 125.00	\$88,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	5	Each	\$ 5,000.00	\$25,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	5	Each	\$ 2,000.00	\$10,000.00
				\$123,375.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Assumed no signals		lump		\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 754,458.39
Contingency (20%) \$ 150,891.68
BID ITEMS TOTAL \$ 905,350.07

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	83,980	sq ft	\$15.00	\$1,259,700.00
				\$1,259,700.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$90,535.01	\$90,535.01
				\$90,535.01

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$90,535.01	\$90,535.01
				\$90,535.01

BID ITEMS TOTAL \$ 905,350.07
NON-BID ITEMS TOTAL \$ 1,440,770.01
GRAND TOTAL \$ 2,346,120.09

ENGINEER'S ESTIMATE (2022 COSTS)
South Hills Parkway

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$136,100.00
Public Information Services	1	lump	2.50%	\$35,800.00
Traffic Control	1	lump	7.50%	\$107,400.00
Survey	1	lump	2.00%	\$28,700.00
				\$308,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	3,673	cu yd	\$ 24.00	\$88,148.15
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	6,495	Ton	\$ 40.00	\$259,791.67
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,741	Ton	\$ 110.00	\$301,537.50
Pavement Marking Paint	231	gal	\$ 80.00	\$18,454.40
Pavement Message (Preformed Thermoplastic)	8	Each	\$ 250.00	\$2,000.00
Concrete Curb and Gutter Type B1	5,000	ft	\$ 35.00	\$175,000.00
Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$ 4,000.00	\$0.00
Concrete Sidewalk	25,000	sq ft	\$ 9.00	\$225,000.00
Borrow/Earthwork	5,000	cu yd	\$ 20.00	\$100,000.00
				\$1,169,931.71

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1430	ft	\$ 125.00	\$178,750.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	9	Each	\$ 5,000.00	\$45,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	9	Each	\$ 2,000.00	\$18,000.00
				\$241,750.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No Signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 1,739,681.71
Contingency (30%) \$ 521,904.51
BID ITEMS TOTAL \$ 2,261,586.23

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	170,000	sq ft	\$15.00	\$2,550,000.00
				\$2,550,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (7% of Bid Items)	1	lump	\$158,311.04	\$158,311.04
				\$158,311.04

Description	Quantity	Unit	Unit Price	Amount
Construction Management (7% of Bid Items)	1	lump	\$158,311.04	\$158,311.04
				\$158,311.04

BID ITEMS TOTAL \$ 2,261,586.23
NON-BID ITEMS TOTAL \$ 2,866,622.07
GRAND TOTAL \$ 5,128,208.30

ENGINEER'S ESTIMATE (2022 COSTS)
7300 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$245,500.00
Public Information Services	1	lump	0.50%	\$13,000.00
Traffic Control	1	lump	1.00%	\$25,900.00
Survey	1	lump	1.00%	\$25,900.00
				\$310,300.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	10,796	cu yd	\$ 24.00	\$259,111.11
Granular Borrow (Plan Quantity)	9,000	cu yd	\$ 35.00	\$315,000.00
Untreated Base Course	8,809	Ton	\$ 40.00	\$352,350.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	7,746	Ton	\$ 110.00	\$852,018.75
Pavement Marking Paint	80	gal	\$ 80.00	\$6,400.00
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	6,000	ft	\$ 35.00	\$210,000.00
Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$ 4,000.00	\$0.00
Concrete Sidewalk	30,000	sq ft	\$ 9.00	\$270,000.00
				\$2,268,879.86

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1715	ft	\$ 125.00	\$214,375.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	10	Each	\$ 5,000.00	\$50,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	10	Each	\$ 2,000.00	\$20,000.00
				\$284,375.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Assumed no signals		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No structures	0	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 2,893,554.86
Contingency (20%) \$ 578,710.97
BID ITEMS TOTAL \$ 3,472,265.83

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	204,000	sq ft	\$15.00	\$3,060,000.00
				\$3,060,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$347,226.58	\$347,226.58
				\$347,226.58

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$347,226.58	\$347,226.58
				\$347,226.58

BID ITEMS TOTAL \$ 3,472,265.83
NON-BID ITEMS TOTAL \$ 3,754,453.17
GRAND TOTAL \$ 7,226,719.00

ENGINEER'S ESTIMATE (2022 COSTS)
13400 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$197,200.00
Public Information Services	1	lump	4.00%	\$83,100.00
Traffic Control	1	lump	9.00%	\$186,800.00
Survey	1	lump	7.00%	\$145,300.00
				\$612,400.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	5,374	ft	\$ 12.00	\$64,488.00
Remove Concrete Sidewalk	8,790	sq yd	\$ 28.00	\$246,120.00
Roadway Excavation (Plan Quantity)	4,680	cu yd	\$ 24.00	\$112,316.67
Granular Borrow (Plan Quantity)	2,442	cu yd	\$ 35.00	\$85,458.33
Untreated Base Course	956	Ton	\$ 40.00	\$38,236.50
Remove Concrete Driveway	265	sq yd	\$ 28.00	\$7,411.60
HMA - 1/2 inch	3,564	Ton	\$ 110.00	\$392,029.61
Pavement Marking Paint	78	gal	\$ 80.00	\$6,224.00
Pavement Message (Preformed Thermoplastic)	20	Each	\$ 250.00	\$5,000.00
Concrete Curb and Gutter Type B1	5,274	ft	\$ 35.00	\$184,590.00
Perpendicular/Parallel Pedestrian Access Ramp	16	Each	\$ 4,000.00	\$64,000.00
Concrete Sidewalk	26,370	sq ft	\$ 9.00	\$237,330.00
Remove Fence	0	ft	\$ 5.00	\$0.00
Remove Tree	0	Each	\$ 2,000.00	\$0.00
Concrete Driveway Flared, 6 inch Thick	2	Each	\$ 3,500.00	\$7,000.00
				\$1,450,204.71

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
Assume Pipe extensions only (extend by 10' at each catch basin)	80	ft	\$ 125.00	\$10,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$66,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Modify signal at Fort Herriman Parkway	1	lump	\$100,000.00	\$100,000.00
Modify signal at MVC	1	lump	\$150,000.00	\$100,000.00
				\$200,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$175,000.00	\$175,000.00
Street Lighting (spaced every 150')	18	Each	\$8,000.00	\$144,000.00
				\$319,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$40,000.00	\$40,000.00
				\$40,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ 2,687,604.71
 Contingency (30%) \$ 806,281.41
 BID ITEMS TOTAL \$ 3,493,886.12

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/ sq ft)	300,618	sq ft	\$5.00	\$1,503,090.00
				\$1,503,090.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$419,266.33	\$419,266.33
				\$419,266.33

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$419,266.33	\$419,266.33
				\$419,266.33

BID ITEMS TOTAL \$ 3,493,886.12
 NON-BID ITEMS TOTAL \$ 2,341,622.67
 GRAND TOTAL \$ 5,835,508.78

ENGINEER'S ESTIMATE (2022 COSTS)
Herriman Main St

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$213,100.00
Public Information Services	1	lump	2.50%	\$56,100.00
Traffic Control	1	lump	7.50%	\$168,300.00
Survey	1	lump	2.00%	\$44,900.00
				\$482,400.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	6,996	cu yd	\$ 24.00	\$167,906.67
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,348	Ton	\$ 40.00	\$173,903.33
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,018	Ton	\$ 110.00	\$222,032.58
Pavement Marking Paint	100	gal	\$ 80.00	\$8,000.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	7,196	ft	\$ 35.00	\$251,860.00
Perpendicular/Parallel Pedestrian Access Ramp	6	Each	\$ 4,000.00	\$24,000.00
Concrete Sidewalk	35,980	sq ft	\$ 9.00	\$323,820.00
Remove Asphalt Pavement	0	sq yd	\$ 20.00	\$0.00
Roadway Excavation (additional excavation/earthwork for hills)	7,000	cu yd	\$ 24.00	\$168,000.00
				\$1,342,522.58

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	2,057	ft	\$ 125.00	\$257,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	26	Each	\$ 5,933.38	\$154,267.88
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	26	Each	\$ 2,000.00	\$52,000.00
				\$463,392.88

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
No signals	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations (assume up to 10 poles)	10	Each	\$15,000.00	\$150,000.00
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$75,000.00	\$75,000.00
Street Lighting (spaced every 150')	24	Each	\$8,000.00	\$192,000.00
				\$417,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
No structures	1	Lump	\$0.00	\$0.00
				\$0.00

BID ITEMS \$ 2,725,315.46
Contingency (30%) \$ 817,594.64
BID ITEMS TOTAL \$ 3,542,910.10

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming an average existing right of way of 40', will need an additional 30' for length of project)	107,940	sq ft	\$15.00	\$1,619,100.00
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/ sq ft)	35,980	sq ft	\$5.00	\$179,900.00
				\$1,799,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$239,146.18	\$239,146.18
				\$239,146.18

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$239,146.18	\$239,146.18
				\$239,146.18

BID ITEMS TOTAL \$ 3,542,910.10
NON-BID ITEMS TOTAL \$ 2,277,292.36
GRAND TOTAL \$ 5,820,202.46

ENGINEER'S ESTIMATE (2022 COSTS)
Mcdougall Road

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$368,800.00
Public Information Services	1	lump	2.50%	\$97,100.00
Traffic Control	1	lump	7.50%	\$291,200.00
Survey	1	lump	2.00%	\$77,700.00
				\$834,800.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	9,529	cu yd	\$ 24.00	\$228,691.56
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	16,850	Ton	\$ 40.00	\$674,003.50
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	7,112	Ton	\$ 110.00	\$782,308.89
Pavement Marking Paint	154	gal	\$ 80.00	\$12,289.60
Pavement Message (Preformed Thermoplastic)	6	Each	\$ 250.00	\$1,500.00
Concrete Curb and Gutter Type B1	12,972	ft	\$ 35.00	\$454,020.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	64,860	sq ft	\$ 9.00	\$583,740.00
				\$2,752,553.55

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3708	ft	\$ 125.00	\$463,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	22	Each	\$ 5,000.00	\$110,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	22	Each	\$ 2,000.00	\$44,000.00
				\$617,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	44	Each	\$8,000.00	\$352,000.00
				\$357,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
Box Culvert - Canal Crossing	1	Lump	\$150,000.00	\$150,000.00
				\$150,000.00

BID ITEMS \$ \$4,716,853.55
Contingency (20%) \$ \$943,370.71
BID ITEMS TOTAL \$ \$5,660,224.25

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	441,048	sq ft	\$15.00	\$6,615,720.00
				\$6,615,720.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$452,817.94	\$452,817.94
				\$452,817.94

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$452,817.94	\$452,817.94
				\$452,817.94

BID ITEMS TOTAL \$ \$5,660,224.25
NON-BID ITEMS TOTAL \$ \$7,521,355.88
GRAND TOTAL \$ \$13,181,580.14

ENGINEER'S ESTIMATE (2022 COSTS)
7600 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$155,500.00
Public Information Services	1	lump	2.50%	\$41,000.00
Traffic Control	1	lump	7.50%	\$122,800.00
Survey	1	lump	2.00%	\$32,800.00
				\$352,100.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	4,128	cu yd	\$ 24.00	\$99,078.52
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	7,300	Ton	\$ 40.00	\$292,005.83
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	3,081	Ton	\$ 110.00	\$338,928.15
Pavement Marking Paint	67	gal	\$ 80.00	\$5,324.80
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	5,620	ft	\$ 35.00	\$196,700.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	28,100	sq ft	\$ 9.00	\$252,900.00
				\$1,203,937.30

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1607	ft	\$ 125.00	\$200,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	10	Each	\$ 5,000.00	\$50,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	10	Each	\$ 2,000.00	\$20,000.00
				\$270,875.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	19	Each	\$8,000.00	\$152,000.00
				\$157,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$1,988,912.30
 Contingency (20%) \$ \$397,782.46
 BID ITEMS TOTAL \$ \$2,386,694.76

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	191,080	sq ft	\$15.00	\$2,866,200.00
				\$2,866,200.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$190,935.58	\$190,935.58
				\$190,935.58

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$190,935.58	\$190,935.58
				\$190,935.58

BID ITEMS TOTAL \$ \$2,386,694.76
 NON-BID ITEMS TOTAL \$ \$3,248,071.16
 GRAND TOTAL \$ \$5,634,765.92

ENGINEER'S ESTIMATE (2022 COSTS)
Rose Canyon Road

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$197,800.00
Public Information Services	1	lump	2.50%	\$52,100.00
Traffic Control	1	lump	7.50%	\$156,200.00
Survey	1	lump	2.00%	\$41,700.00
				\$447,800.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	2,665	ft	\$ 12.00	\$31,984.20
Remove Concrete Sidewalk	1,777	sq yd	\$ 28.00	\$49,753.20
Roadway Excavation (Plan Quantity)	7,111	cu yd	\$ 24.00	\$170,666.67
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,645	Ton	\$ 40.00	\$185,781.25
Remove Concrete Driveway	66	sq yd	\$ 28.00	\$1,850.80
HMA - 1/2 inch	3,623	Ton	\$ 110.00	\$398,534.40
Pavement Marking Paint	89	gal	\$ 80.00	\$7,114.40
Pavement Message (Preformed Thermoplastic)	20	Each	\$ 250.00	\$5,000.00
Concrete Curb and Gutter Type B1	6,144	ft	\$ 35.00	\$215,040.00
Perpendicular/Parallel Pedestrian Access Ramp	10	Each	\$ 4,000.00	\$40,000.00
Concrete Sidewalk	30,720	sq ft	\$ 9.00	\$276,480.00
Remove Asphalt Pavement	1,016	sq yd	\$ 20.00	\$20,319.00
Remove Fence	250	ft	\$ 5.00	\$1,250.00
Remove Tree	4	Each	\$ 2,000.00	\$8,000.00
Concrete Driveway Flared, 6 inch Thick	5	Each	\$ 3,500.00	\$17,500.00
				\$1,429,273.92

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	1,757	ft	\$ 125.00	\$219,625.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	12	Each	\$ 5,933.38	\$71,200.56
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	12	Each	\$ 2,000.00	\$24,000.00
				\$314,825.56

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	0	Each	\$15,000.00	\$0.00
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$150,000.00	\$150,000.00
Street Lighting (spaced every 150')	21	Each	\$8,000.00	\$168,000.00
				\$318,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 2,529,899.48
Contingency (30%) \$ 758,969.84
BID ITEMS TOTAL \$ 3,288,869.32

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/	26,500	sq ft	\$5.00	\$132,500.00
				\$132,500.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$239,146.18	\$239,146.18
				\$239,146.18

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$239,146.18	\$239,146.18
				\$239,146.18

BID ITEMS TOTAL \$ 3,288,869.32
NON-BID ITEMS TOTAL \$ 610,792.36
GRAND TOTAL \$ 3,899,661.68

ENGINEER'S ESTIMATE (2022 COSTS)
Rosecrest Road

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$60,500.00
Public Information Services	1	lump	2.00%	\$12,800.00
Traffic Control	1	lump	10.00%	\$63,700.00
Survey	1	lump	5.00%	\$31,900.00
				\$168,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	1,534	cu yd	\$ 24.00	\$36,811.93
Granular Borrow (Plan Quantity)	312	cu yd	\$ 35.00	\$10,930.37
Untreated Base Course	306	Ton	\$ 40.00	\$12,226.40
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	706	Ton	\$ 110.00	\$77,607.34
Pavement Marking Paint	28	gal	\$ 80.00	\$2,219.20
Pavement Message (Preformed Thermoplastic)	15	Each	\$ 250.00	\$3,750.00
Concrete Curb and Gutter Type B1	527	ft	\$ 35.00	\$18,445.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	3,162	sq ft	\$ 9.00	\$28,458.00
				\$198,448.23

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	335	ft	\$ 125.00	\$41,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	2	Each	\$ 5,000.00	\$10,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	2	Each	\$ 2,000.00	\$4,000.00
				\$55,875.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Signal Modifications at MVC Northbound	1	lump	\$150,000.00	\$150,000.00
Signal Modifications at MVC Southbound	1	lump	\$150,000.00	\$150,000.00
				\$300,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities such as telephone,ATMS relocates)	1	lump	\$30,000.00	\$30,000.00
Street Lighting (spaced every 150')	4	Each	\$8,000.00	\$32,000.00
				\$62,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 805,223.23
Contingency (30%) \$ 241,566.97
BID ITEMS TOTAL \$ 1,046,790.20

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Assuming no Right of way since it is within a UDOT corridor	0	sq ft	\$0.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$125,614.82	\$125,614.82
				\$125,614.82

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$125,614.82	\$125,614.82
				\$125,614.82

BID ITEMS TOTAL \$ 1,046,790.20
NON-BID ITEMS TOTAL \$ 251,229.65
GRAND TOTAL \$ 1,298,019.85

ENGINEER'S ESTIMATE (2022 COSTS)
11800 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$386,500.00
Public Information Services	1	lump	2.00%	\$81,400.00
Traffic Control	1	lump	7.00%	\$284,800.00
Survey	1	lump	5.00%	\$203,500.00
				\$956,200.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	867	ft	\$ 12.00	\$10,398.00
Remove Concrete Sidewalk	101	sq yd	\$ 28.00	\$2,828.00
Roadway Excavation (Plan Quantity)	26,375	cu yd	\$ 24.00	\$632,990.67
Granular Borrow (Plan Quantity)	7,820	cu yd	\$ 35.00	\$273,690.93
Untreated Base Course	7,654	Ton	\$ 40.00	\$306,142.85
Remove Concrete Driveway	680	sq yd	\$ 28.00	\$19,034.40
HMA - 1/2 inch	9,491	Ton	\$ 110.00	\$1,044,052.56
Pavement Marking Paint	145	gal	\$ 80.00	\$11,577.60
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	9,166	ft	\$ 35.00	\$320,810.00
Perpendicular/Parallel Pedestrian Access Ramp	6	Each	\$ 4,000.00	\$24,000.00
Concrete Sidewalk	58,236	sq ft	\$ 9.00	\$524,124.00
Remove Asphalt Pavement	163	sq yd	\$ 20.00	\$3,265.80
Remove Fence	3,277	ft	\$ 5.00	\$16,385.00
Concrete Driveway Flared, 6 inch Thick	2	Each	\$ 3,500.00	\$7,000.00
				\$3,199,299.80

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	2,911	ft	\$ 125.00	\$363,875.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	16	Each	\$ 5,000.00	\$80,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	16	Each	\$ 2,000.00	\$32,000.00
				\$475,875.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No Signals	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	8	Each	\$15,000.00	\$120,000.00
Utility Contingency (telephone, ATMS relocates, manholes, third party utilities)	1	lump	\$100,000.00	\$100,000.00
Street Lighting (spaced every 150')	31	Each	\$8,000.00	\$248,000.00
				\$348,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$35,000.00	\$35,000.00
				\$35,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 5,024,374.80
 Contingency (20%) \$ 1,004,874.96
 BID ITEMS TOTAL \$ 6,029,249.76

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Per county website, it appears there is sufficient right of way.	0	sq ft	\$0.00	\$0.00
Assuming 5' wide construction easement required for length of project	45,830	sq ft	\$5.00	\$229,150.00
				\$229,150.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$723,509.97	\$723,509.97
				\$723,509.97

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$723,509.97	\$723,509.97
				\$723,509.97

BID ITEMS TOTAL \$ 6,029,249.76
 NON-BID ITEMS TOTAL \$ 1,676,169.94
 GRAND TOTAL \$ 7,705,419.70

ENGINEER'S ESTIMATE (2022 COSTS)
7300 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$120,600.00
Public Information Services	1	lump	2.50%	\$31,800.00
Traffic Control	1	lump	7.50%	\$95,300.00
Survey	1	lump	2.00%	\$25,400.00
				\$273,100.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	3,165	cu yd	\$ 24.00	\$75,948.44
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	5,596	Ton	\$ 40.00	\$223,836.50
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,362	Ton	\$ 110.00	\$259,804.71
Pavement Marking Paint	67	gal	\$ 80.00	\$5,324.80
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	4,308	ft	\$ 35.00	\$150,780.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	21,540	sq ft	\$ 9.00	\$193,860.00
Remove Asphalt Pavement	45	sq yd	\$ 20.00	\$906.67
				\$929,461.12

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	1232	ft	\$ 125.00	\$154,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$210,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	15	Each	\$8,000.00	\$120,000.00
				\$125,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$1,542,561.12
 Contingency (20%) \$ \$308,512.22
 BID ITEMS TOTAL \$ \$1,851,073.34

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	146,472	sq ft	\$15.00	\$2,197,080.00
				\$2,197,080.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$148,085.87	\$148,085.87
				\$148,085.87

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$148,085.87	\$148,085.87
				\$148,085.87

BID ITEMS TOTAL \$ \$1,851,073.34
 NON-BID ITEMS TOTAL \$ \$2,493,251.74
 GRAND TOTAL \$ \$4,344,325.08

ENGINEER'S ESTIMATE (2022 COSTS)
Anthem Park Blvd

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$273,400.00
Public Information Services	1	lump	2.00%	\$57,600.00
Traffic Control	1	lump	7.00%	\$201,400.00
Survey	1	lump	5.00%	\$143,900.00
				\$676,300.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	6,608	ft	\$ 12.00	\$79,293.60
Remove Concrete Sidewalk	3,543	sq yd	\$ 28.00	\$99,208.66
Roadway Excavation (Plan Quantity)	14,303	cu yd	\$ 24.00	\$343,275.85
Granular Borrow (Plan Quantity)	4,131	cu yd	\$ 35.00	\$144,586.30
Untreated Base Course	4,043	Ton	\$ 40.00	\$161,730.10
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	5,849	Ton	\$ 110.00	\$643,389.86
Pavement Marking Paint	114	gal	\$ 80.00	\$9,089.60
Pavement Message (Preformed Thermoplastic)	22	Each	\$ 250.00	\$5,500.00
Concrete Curb and Gutter Type B1	6,662	ft	\$ 35.00	\$233,163.00
Perpendicular/Parallel Pedestrian Access Ramp	10	Each	\$ 4,000.00	\$40,000.00
Concrete Sidewalk	39,971	sq ft	\$ 9.00	\$359,737.20
Remove Concrete Curb	165	ft	\$ 10.00	\$1,650.00
Remove Fence	326	ft	\$ 5.00	\$1,632.00
Remove Tree	45	Each	\$ 2,000.00	\$90,000.00
				\$2,212,256.18

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	2285	ft	\$ 125.00	\$285,625.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	6	Each	\$ 5,000.00	\$30,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	6	Each	\$ 2,000.00	\$12,000.00
				\$327,625.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
No Signals	0	lump	\$0.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility pole relocations	7	Each	\$15,000.00	\$105,000.00
Utility Contingency (telephone, ATMS relocates, manholes, third party utilities)	1	lump	\$100,000.00	\$100,000.00
Street Lighting (spaced every 150')	24	Each	\$8,000.00	\$192,000.00
				\$292,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$35,000.00	\$35,000.00
				\$35,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
Decorative Subdivision Wall Removal	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 3,553,181.18
 Contingency (20%) \$ 710,636.24
 BID ITEMS TOTAL \$ 4,263,817.41

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
	0	sq ft	\$0.00	\$0.00
Assuming 5' wide construction easement required for length of project	35,980	sq ft	\$5.00	\$179,900.00
				\$179,900.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$511,658.09	\$511,658.09
				\$511,658.09

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$511,658.09	\$511,658.09
				\$511,658.09

BID ITEMS TOTAL \$ 4,263,817.41
 NON-BID ITEMS TOTAL \$ 1,203,216.18
 GRAND TOTAL \$ 5,467,033.59

ENGINEER'S ESTIMATE (2022 COSTS)
6600 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$51,400.00
Public Information Services	1	lump	1.00%	\$5,500.00
Traffic Control	1	lump	1.00%	\$5,500.00
Survey	1	lump	1.00%	\$5,500.00
				\$67,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	389	cu yd	\$ 24.00	\$9,328.00
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	585	Ton	\$ 40.00	\$23,385.60
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	231	Ton	\$ 110.00	\$25,446.96
Pavement Marking Paint	10	gal	\$ 80.00	\$817.60
Pavement Message (Preformed Thermoplastic)	0	Each	\$ 250.00	\$0.00
Concrete Curb and Gutter Type B1	864	ft	\$ 35.00	\$30,240.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	4,320	sq ft	\$ 9.00	\$38,880.00
Borrow	8,958	cu yd	\$ 20.00	\$179,160.00
				\$315,258.16

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	100	ft	\$ 125.00	\$12,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	2	Each	\$ 5,000.00	\$10,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	2	Each	\$ 2,000.00	\$4,000.00
				\$26,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
		lump	\$0.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Assume no utilities	0	lump	\$0.00	\$0.00
Street Lighting (spaced every 150')	3	Each	\$8,000.00	\$24,000.00
				\$24,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$0.00	\$0.00
				\$0.00

Structures

Description	Quantity	Unit	Unit Price	Amount
Rose Creek Box Culvert	1	Lump	\$175,000.00	\$175,000.00
				\$175,000.00

BID ITEMS \$ \$608,658.16
 Contingency (20%) \$ \$121,731.63
 BID ITEMS TOTAL \$ \$730,389.79

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/	22,896	sq ft	\$15.00	\$343,440.00
				\$343,440.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$73,038.98	\$73,038.98
				\$73,038.98

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$73,038.98	\$73,038.98
				\$73,038.98

BID ITEMS TOTAL \$ \$730,389.79
 NON-BID ITEMS TOTAL \$ \$489,517.96
 GRAND TOTAL \$ \$1,219,907.75

ENGINEER'S ESTIMATE (2022 COSTS)
13400 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$204,300.00
Public Information Services	1	lump	4.00%	\$86,000.00
Traffic Control	1	lump	9.00%	\$193,500.00
Survey	1	lump	7.00%	\$150,500.00
				\$634,300.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	5,374	ft	\$ 12.00	\$64,488.00
Remove Concrete Sidewalk	2,986	sq yd	\$ 28.00	\$83,595.56
Roadway Excavation (Plan Quantity)	6,676	cu yd	\$ 24.00	\$160,224.81
Granular Borrow (Plan Quantity)	3,483	cu yd	\$ 35.00	\$121,910.19
Untreated Base Course	974	Ton	\$ 40.00	\$38,961.50
Remove Concrete Driveway	265	sq yd	\$ 28.00	\$7,411.60
HMA - 1/2 inch	3,631	Ton	\$ 110.00	\$399,462.86
Pavement Marking Paint	78	gal	\$ 80.00	\$6,224.00
Pavement Message (Preformed Thermoplastic)	20	Each	\$ 250.00	\$5,000.00
Concrete Curb and Gutter Type B1	5,374	ft	\$ 35.00	\$188,090.00
Perpendicular/Parallel Pedestrian Access Ramp	16	Each	\$ 4,000.00	\$64,000.00
Concrete Sidewalk	18,770	sq ft	\$ 9.00	\$168,930.00
Remove Fence	364	ft	\$ 5.00	\$1,820.00
Remove Tree	32	Each	\$ 2,000.00	\$64,000.00
Concrete Driveway Flared, 6 inch Thick	5	Each	\$ 3,500.00	\$17,500.00
				\$1,391,618.51

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
Assume Pipe extensions only (extend by 10' at each catch basin)	120	ft	\$ 125.00	\$15,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	12	Each	\$ 5,000.00	\$60,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	12	Each	\$ 2,000.00	\$24,000.00
				\$99,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Modify signal at Rosecrest	1	lump	\$150,000.00	\$150,000.00
Modify signal at 5200 West	1	lump	\$150,000.00	\$150,000.00
				\$300,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$175,000.00	\$175,000.00
Street Lighting (spaced every 150')	18	Each	\$8,000.00	\$144,000.00
				\$319,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$40,000.00	\$40,000.00
				\$40,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ 2,783,918.51
 Contingency (30%) \$ 835,175.55
 BID ITEMS TOTAL \$ 3,619,094.06

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/ sq ft)	306,318	sq ft	\$5.00	\$1,531,590.00
				\$1,531,590.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$434,291.29	\$434,291.29
				\$434,291.29

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$434,291.29	\$434,291.29
				\$434,291.29

BID ITEMS TOTAL \$ 3,619,094.06
 NON-BID ITEMS TOTAL \$ 2,400,172.58
 GRAND TOTAL \$ 6,019,266.64

ENGINEER'S ESTIMATE (2022 COSTS)
Herriman Blvd

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$411,200.00
Public Information Services	1	lump	1.00%	\$43,300.00
Traffic Control	1	lump	2.00%	\$86,600.00
Survey	1	lump	2.00%	\$86,600.00
				\$627,700.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	10,567	cu yd	\$ 24.00	\$253,600.00
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	18,961	Ton	\$ 40.00	\$758,422.50
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	10,003	Ton	\$ 110.00	\$1,100,366.44
Pavement Marking Paint	165	gal	\$ 80.00	\$13,213.60
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	11,412	ft	\$ 35.00	\$399,420.00
Perpendicular/Parallel Pedestrian Access Ramp	6	Each	\$ 4,000.00	\$24,000.00
Concrete Sidewalk	57,060	sq ft	\$ 9.00	\$513,540.00
Remove Fence	80	ft	\$ 5.00	\$400.00
				\$3,066,962.54

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	6,230	ft	\$ 125.00	\$778,750.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	20	Each	\$ 5,000.00	\$100,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	20	Each	\$ 2,000.00	\$40,000.00
				\$918,750.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$20,000.00	\$20,000.00
Street Lighting (spaced every 150')	39	Each	\$8,000.00	\$312,000.00
				\$332,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
None		Lump		\$0.00
				\$0.00

BID ITEMS \$ 4,955,412.54
 Contingency (20%) \$ 991,082.51
 BID ITEMS TOTAL \$ 5,946,495.05

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	456,480	sq ft	\$15.00	\$6,847,200.00
				\$6,847,200.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$475,719.60	\$475,719.60
				\$475,719.60

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$475,719.60	\$475,719.60
				\$475,719.60

BID ITEMS TOTAL \$ 5,946,495.05
 NON-BID ITEMS TOTAL \$ 7,798,639.21
 GRAND TOTAL \$ 13,745,134.26

ENGINEER'S ESTIMATE (2022 COSTS)
7900 West

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$481,700.00
Public Information Services	1	lump	1.00%	\$50,800.00
Traffic Control	1	lump	2.00%	\$101,500.00
Survey	1	lump	2.00%	\$101,500.00
				\$735,500.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	12,404	cu yd	\$ 24.00	\$297,688.89
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	22,257	Ton	\$ 40.00	\$890,275.83
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	11,742	Ton	\$ 110.00	\$1,291,667.44
Pavement Marking Paint	194	gal	\$ 80.00	\$15,511.20
Pavement Message (Preformed Thermoplastic)	24	Each	\$ 250.00	\$6,000.00
Concrete Curb and Gutter Type B1	13,396	ft	\$ 35.00	\$468,860.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	66,980	sq ft	\$ 9.00	\$602,820.00
Remove Fence	80	ft	\$ 5.00	\$400.00
				\$3,605,223.36

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	7,312	ft	\$ 125.00	\$914,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	23	Each	\$ 5,000.00	\$115,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	23	Each	\$ 2,000.00	\$46,000.00
				\$1,075,000.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$20,000.00	\$20,000.00
Street Lighting (spaced every 150')	45	Each	\$8,000.00	\$360,000.00
				\$380,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
None		Lump		\$0.00
				\$0.00

BID ITEMS \$ \$5,805,723.36
Contingency (20%) \$ \$1,161,144.67
BID ITEMS TOTAL \$ \$6,966,868.03

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	535,840	sq ft	\$15.00	\$8,037,600.00
				\$8,037,600.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$557,349.44	\$557,349.44
				\$557,349.44

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$557,349.44	\$557,349.44
				\$557,349.44

BID ITEMS TOTAL \$ \$6,966,868.03
NON-BID ITEMS TOTAL \$ \$9,152,298.89
GRAND TOTAL \$ \$16,119,166.92

GENERAL

GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$744,400.00
Public Information Services	1	lump	1.00%	\$78,400.00
Traffic Control	1	lump	2.00%	\$156,700.00
Survey	1	lump	2.00%	\$156,700.00
				\$1,136,200.00

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DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	11,372	ft	\$ 125.00	\$1,421,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	35	Each	\$ 5,000.00	\$175,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	35	Each	\$ 2,000.00	\$70,000.00
				\$1,666,500.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$20,000.00	\$20,000.00
Street Lighting (spaced every 150')	70	Each	\$8,000.00	\$560,000.00
				\$580,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Contract				
Description	Quantity	Unit	Unit Price	Amount
None		Lump		\$0.00
				\$0.00

BID ITEMS \$	\$8,970,968.04
Contingency (20%) \$	\$1,794,193.61
BID ITEMS TOTAL \$	\$10,765,161.65

Item Description				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	833,360	sq ft	\$15.00	\$12,500,400.00
				\$12,500,400.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$861,212.93	\$861,212.93
				\$861,212.93

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$861,212.93	\$861,212.93
				\$861,212.93

BID ITEMS TOTAL \$ \$10,765,161.65
NON-BID ITEMS TOTAL \$ \$14,222,825.88
GRAND TOTAL \$ \$24,987,987.53

ENGINEER'S ESTIMATE (2022 COSTS)
Bacchus Hwy

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$446,900.00
Public Information Services	1	lump	2.00%	\$94,100.00
Traffic Control	1	lump	10.00%	\$470,400.00
Survey	1	lump	5.00%	\$235,200.00
				\$1,246,600.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	27,226	cu yd	\$ 24.00	\$653,414.67
Granular Borrow (Plan Quantity)	8,824	cu yd	\$ 35.00	\$308,843.89
Untreated Base Course	8,637	Ton	\$ 40.00	\$345,463.95
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	10,558	Ton	\$ 110.00	\$1,161,364.67
Pavement Marking Paint	184	gal	\$ 80.00	\$14,680.00
Pavement Message (Preformed Thermoplastic)	10	Each	\$ 250.00	\$2,500.00
Concrete Curb and Gutter Type B1	11,622	ft	\$ 35.00	\$406,770.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	69,732	sq ft	\$ 9.00	\$627,588.00
Remove Tree	3	Each	\$ 2,000.00	\$6,000.00
Concrete Driveway Flared, 6 inch Thick	5	Each	\$ 3,500.00	\$17,500.00
Remove Guardrail	1,150	ft	\$ 3.04	\$3,496.00
				\$3,555,621.17

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	3690	ft	\$ 125.00	\$461,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	20	Each	\$ 5,000.00	\$100,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	20	Each	\$ 2,000.00	\$40,000.00
				\$601,250.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None	0	lump	\$150,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (telephone,ATMS relocates, manholes, third party utilities)	1	lump	\$150,000.00	\$150,000.00
Street Lighting (spaced every 150')	39	Each	\$8,000.00	\$312,000.00
				\$462,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$75,000.00	\$75,000.00
				\$75,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
No Structures	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$ 5,950,471.17
Contingency (20%) \$ 1,190,094.23
BID ITEMS TOTAL \$ 7,140,565.41

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Minor right of way may be required per County parcel maps (assuming 800' x 10')	8,000	sq ft	\$15.00	\$120,000.00
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/	25,349	sq ft	\$5.00	\$126,744.75
				\$246,744.75

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$856,867.85	\$856,867.85
				\$856,867.85

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$856,867.85	\$856,867.85
				\$856,867.85

BID ITEMS TOTAL \$ 7,140,565.41
NON-BID ITEMS TOTAL \$ 1,960,480.45
GRAND TOTAL \$ 9,101,045.86

ENGINEER'S ESTIMATE (2022 COSTS)
6800 West

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$233,100.00
Public Information Services	1	lump	2.50%	\$61,400.00
Traffic Control	1	lump	7.50%	\$184,100.00
Survey	1	lump	2.00%	\$49,100.00
				\$527,700.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	6,248	cu yd	\$ 24.00	\$149,957.63
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	11,049	Ton	\$ 40.00	\$441,957.58
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	4,663	Ton	\$ 110.00	\$512,975.60
Pavement Marking Paint	101	gal	\$ 80.00	\$8,057.60
Pavement Message (Preformed Thermoplastic)	4	Each	\$ 250.00	\$1,000.00
Concrete Curb and Gutter Type B1	8,506	ft	\$ 35.00	\$297,710.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk	42,530	sq ft	\$ 9.00	\$382,770.00
				\$1,802,428.41

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	2432	ft	\$ 125.00	\$304,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	15	Each	\$ 5,000.00	\$75,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	15	Each	\$ 2,000.00	\$30,000.00
				\$409,000.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	29	Each	\$8,000.00	\$232,000.00
				\$237,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures				
Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$2,981,128.41
 Contingency (20%) \$ \$596,225.68
 BID ITEMS TOTAL \$ \$3,577,354.09

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	289,204	sq ft	\$15.00	\$4,338,060.00
				\$4,338,060.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$286,188.33	\$286,188.33
				\$286,188.33

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$286,188.33	\$286,188.33
				\$286,188.33

BID ITEMS TOTAL \$ \$3,577,354.09
 NON-BID ITEMS TOTAL \$ \$4,910,436.65
 GRAND TOTAL \$ \$8,487,790.74

ENGINEER'S ESTIMATE (2022 COSTS)
13400 South

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$189,000.00
Public Information Services	1	lump	4.00%	\$79,600.00
Traffic Control	1	lump	9.00%	\$179,100.00
Survey	1	lump	7.00%	\$139,300.00
				\$587,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	5,732	ft	\$ 12.00	\$68,784.00
Remove Concrete Sidewalk	2,279	sq yd	\$ 28.00	\$63,824.91
Roadway Excavation (Plan Quantity)	7,324	cu yd	\$ 24.00	\$175,781.33
Granular Borrow (Plan Quantity)	1,168	cu yd	\$ 35.00	\$40,867.04
Untreated Base Course	1,143	Ton	\$ 40.00	\$45,712.70
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	3,928	Ton	\$ 110.00	\$432,103.24
Pavement Marking Paint	83	gal	\$ 80.00	\$6,636.80
Pavement Message (Preformed Thermoplastic)	32	Each	\$ 250.00	\$8,000.00
Concrete Curb and Gutter Type B1	5,732	ft	\$ 35.00	\$200,620.00
Perpendicular/Parallel Pedestrian Access Ramp	11	Each	\$ 4,000.00	\$44,000.00
Concrete Sidewalk	20,515	sq ft	\$ 9.00	\$184,636.35
Remove Concrete Curb	1,118	ft	\$ 10.00	\$11,182.00
Remove Fence	1,729	ft	\$ 5.00	\$8,645.00
Remove Tree	24	Each	\$ 2,000.00	\$48,000.00
Remove Concrete Pavement	239	sq yd	\$ 40.04	\$9,561.55
				\$1,348,354.92

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
Assume Pipe extensions only (extend by 10' at each catch basin)	80	ft	\$ 125.00	\$10,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$66,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
Modify signal at Mustang Trail Way	1	lump	\$100,000.00	\$100,000.00
Modify signal at Freedom Park Dr	1	lump	\$150,000.00	\$150,000.00
				\$200,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Misc. relocations (fire hydrants, Manhole Reconstructs, third party relocations)	1	lump	\$175,000.00	\$175,000.00
Street Lighting (spaced every 150')	20	Each	\$8,000.00	\$160,000.00
				\$335,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$40,000.00	\$40,000.00
				\$40,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ 2,576,354.92

Contingency (30%) \$ 772,906.48

BID ITEMS TOTAL \$ 3,349,261.40

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right-of-way Easements (Assuming 5' wide easement required for length of project at \$5/ sq ft)	326,724	sq ft	\$5.00	\$1,633,620.00
				\$1,633,620.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$401,911.37	\$401,911.37
				\$401,911.37

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$401,911.37	\$401,911.37
				\$401,911.37

BID ITEMS TOTAL \$ 3,349,261.40

NON-BID ITEMS TOTAL \$ 2,437,442.74

GRAND TOTAL \$ 5,786,704.13

ENGINEER'S ESTIMATE (2022 COSTS)
Bruin View Drive

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$52,100.00
Public Information Services	1	lump	2.50%	\$13,700.00
Traffic Control	1	lump	7.50%	\$41,100.00
Survey	1	lump	2.00%	\$11,000.00
				\$117,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	926	cu yd	\$ 24.00	\$22,213.33
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	1,637	Ton	\$ 40.00	\$65,467.50
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	691	Ton	\$ 110.00	\$75,987.45
Pavement Marking Paint	15	gal	\$ 80.00	\$1,193.60
Pavement Message (Preformed Thermoplastic)	0	Each	\$ 250.00	\$0.00
Concrete Curb and Gutter Type B1	1,260	ft	\$ 35.00	\$44,100.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	6,300	sq ft	\$ 9.00	\$56,700.00
				\$281,661.88

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	361	ft	\$ 125.00	\$45,125.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	3	Each	\$ 5,000.00	\$15,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	3	Each	\$ 2,000.00	\$6,000.00
				\$66,125.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$5,000.00	\$5,000.00
Street Lighting (spaced every 150')	5	Each	\$8,000.00	\$40,000.00
				\$45,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
Box Culvert - Canal Crossing	1	Lump	\$150,000.00	\$150,000.00
				\$150,000.00

BID ITEMS \$ \$665,686.88
 Contingency (20%) \$ \$133,137.38
 BID ITEMS TOTAL \$ \$798,824.26

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	42,840	sq ft	\$15.00	\$642,600.00
				\$642,600.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (8% of Bid Items)	1	lump	\$63,905.94	\$63,905.94
				\$63,905.94

Description	Quantity	Unit	Unit Price	Amount
Construction Management (8% of Bid Items)	1	lump	\$63,905.94	\$63,905.94
				\$63,905.94

BID ITEMS TOTAL \$ \$798,824.26
 NON-BID ITEMS TOTAL \$ \$770,411.88
 GRAND TOTAL \$ \$1,569,236.14

ENGINEER'S ESTIMATE (2022 COSTS)
Real Vista Drive

BID ITEMS

GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$90,700.00
Public Information Services	1	lump	1.00%	\$9,600.00
Traffic Control	1	lump	1.00%	\$9,600.00
Survey	1	lump	2.00%	\$19,100.00
				\$129,000.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	2,142	cu yd	\$ 24.00	\$51,410.00
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	4,272	Ton	\$ 40.00	\$170,889.75
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	2,254	Ton	\$ 110.00	\$247,937.46
Pavement Marking Paint	28	gal	\$ 80.00	\$2,204.00
Pavement Message (Preformed Thermoplastic)	0	Each	\$ 250.00	\$0.00
Concrete Curb and Gutter Type B1	1,746	ft	\$ 35.00	\$61,110.00
Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$ 4,000.00	\$0.00
Concrete Sidewalk	10,476	sq ft	\$ 9.00	\$94,284.00
				\$627,835.21

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
18 Inch Irrigation HDPE Pipe	500	ft	\$ 125.00	\$62,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	3	Each	\$ 5,000.00	\$15,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	3	Each	\$ 2,000.00	\$6,000.00
				\$83,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$35,000.00	\$35,000.00
Street Lighting (spaced every 150')	6	Each	\$8,000.00	\$48,000.00
				\$83,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
Box Culvert - Canal Crossing	1	Lump	\$150,000.00	\$150,000.00
				\$150,000.00

BID ITEMS \$ 1,083,335.21
 Contingency (20%) \$ 216,667.04
 BID ITEMS TOTAL \$ 1,300,002.25

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming full roadway area to 1' behind walk)	94,284	sq ft	\$15.00	\$1,414,260.00
				\$1,414,260.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$130,000.22	\$130,000.22
				\$130,000.22

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$130,000.22	\$130,000.22
				\$130,000.22

BID ITEMS TOTAL \$ 1,300,002.25
 NON-BID ITEMS TOTAL \$ 1,674,260.45
 GRAND TOTAL \$ 2,974,262.70

Project Number	Description	Total Project Cost*
1-1	11800 South/Prosperity Road	\$421,278
1-2	Herriman Blvd/Olympia Main St	\$455,532
1-3	Herriman Blvd/7300 West	\$420,314
1-4	Olympia Main St/6800 West	\$874,474
1-5	Olympia Main St/6800 West	\$874,474
1-6	Herriman Blvd/6400 West	\$476,884
1-7	Herriman Main St/7300 West	\$330,994
1-8	Herriman Main St/6800 West	\$394,284
1-9	Juniper Crest Road/South Hills Parkway	\$445,962
1-10	MVC NB/Real Vista Dr	\$614,602
1-11	MVC SB/Real Vista Dr	\$1,164,324
1-12	South Hills Pkwy/Academy Pkwy	\$445,962
1-13	MVC SB/Academy Pkwy	\$947,425
1-14	MVC NB/Academy Pkwy	\$255,840
1-15	Porter Rockwell Blvd/Rockwell Pk Ln	\$488,013
1-16	Herriman Main St/Miller Crossing	\$426,000
1-17	Herriman and Rose Blvd/Fort Herriman Pkwy	\$460,962
1-18	Sentinel Ridge Blvd/13800 South	\$1,071,235
1-19	Herriman Blvd/6800 West	\$454,384
1-20	Herriman Blvd/Anthem Park Blvd	\$852,154
1-21	Herriman and Main St/6400 West	\$104,075
1-22	11800 South/Mustang Trail Way	\$45,808
1-23	12600 South/Herriman Main Street	\$882,802
1-24	Herriman Blvd/6000 West	\$108,641
1-25	12600 South/Western Hills Dr.	\$837,870
2-1	11800 South/SR-111	\$474,034
2-2	Redwood Rd/Mcdougall Rd	\$1,071,235
2-3	Rosecrest Rd/Rocky Point Dr	\$1,120,053
2-4	Main Street/Brundis Way	\$519,752
2-5	13400 South/Rosecrest Rd	\$987,857
3-1	11800 South/6800 West	\$242,267
3-2	11800 South/7900 West	\$242,267
3-3	Bacchus Hwy/7300 West	\$242,267
3-4	Bacchus Hwy/7900 West	\$242,267
3-5	New Road/7900 West	\$771,234
3-6	Herriman Blvd/7900 West	\$771,234
3-7	Herriman Main St/7900 West	\$1,016,313
3-8	New Road/7300 West	\$771,234
3-9	New Road/SR-111	\$522,017
3-10	13400 South/6400 West	\$980,789
3-11	12600 South & Herriman Main Street	\$5,000,000**
<i>*All in 2022 dollars</i>		\$28,829,111

***Rough estimate, to be refined by UDOT study*

ENGINEER'S ESTIMATE (2022 COSTS)
Olympia Main St/6800 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$39,700.00
Public Information Services	1	lump	1.00%	\$4,200.00
Traffic Control	1	lump	8.00%	\$33,400.00
Survey	1	lump	5.00%	\$20,900.00
				\$98,200.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	75	sq yd	\$ 28.00	\$2,100.00
HMA - 1/2 inch	439	Ton	\$ 150.00	\$65,885.47
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	800	ft	\$ 35.00	\$28,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	4,000	sq ft	\$ 9.00	\$36,000.00
Concrete Curb and Gutter Type M1	436.32	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3,000.00	ft	\$ 10.00	\$30,000.00
				\$229,964.87

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	300	ft	\$ 125.00	\$37,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$93,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations		Lump	\$20,000.00	\$0.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate	1	Lump	\$15,000.00	\$15,000.00
Pipe or relocate irrigation ditch		Lump	\$50,000.00	\$0.00
				\$79,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$515,664.87
 Contingency (30%) \$ \$154,699.46
 BID ITEMS TOTAL \$ \$670,364.33

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming right of way donated/coordinated with developer)		sq ft	\$15.00	\$0.00
Assuming 5' wide construction easement	1,000	sq ft	\$3.00	\$3,000.00
				\$3,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$120,665.58	\$120,665.58
				\$120,665.58

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$80,443.72	\$80,443.72
				\$80,443.72

BID ITEMS TOTAL \$ \$670,364.33
 NON-BID ITEMS TOTAL \$ \$204,109.30
 GRAND TOTAL \$ \$874,473.63

ENGINEER'S ESTIMATE (2022 COSTS)
Olympia Main St/6800 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$39,700.00
Public Information Services	1	lump	1.00%	\$4,200.00
Traffic Control	1	lump	8.00%	\$33,400.00
Survey	1	lump	5.00%	\$20,900.00
				\$98,200.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	0	ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk	0	sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	75	sq yd	\$ 28.00	\$2,100.00
HMA - 1/2 inch	439	Ton	\$ 150.00	\$65,885.47
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	800	ft	\$ 35.00	\$28,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	4,000	sq ft	\$ 9.00	\$36,000.00
Concrete Curb and Gutter Type M1	436.32	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3,000.00	ft	\$ 10.00	\$30,000.00
				\$229,964.87

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	300	ft	\$ 125.00	\$37,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$93,500.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations		Lump	\$20,000.00	\$0.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate	1	Lump	\$15,000.00	\$15,000.00
Pipe or relocate irrigation ditch		Lump	\$50,000.00	\$0.00
				\$79,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$515,664.87
 Contingency (30%) \$ \$154,699.46
 BID ITEMS TOTAL \$ \$670,364.33

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming right of way donated/coordinated with developer)		sq ft	\$15.00	\$0.00
Assuming 5' wide construction easement	1,000	sq ft	\$3.00	\$3,000.00
				\$3,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$120,665.58	\$120,665.58
				\$120,665.58

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$80,443.72	\$80,443.72
				\$80,443.72

BID ITEMS TOTAL \$ \$670,364.33
 NON-BID ITEMS TOTAL \$ \$204,109.30
 GRAND TOTAL \$ \$874,473.63

ENGINEER'S ESTIMATE (2022 COSTS)

Herriman Main St/7300 West

BID ITEMS

GENERAL

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$11,800.00
Public Information Services	1	lump	1.00%	\$2,400.00
Traffic Control	1	lump	2.00%	\$4,800.00
Survey	1	lump	2.00%	\$4,800.00
				\$23,800.00

ROADWAY

[illegible]

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$200,000.00	\$200,000.00
				\$200,000.00

UTILITIES

[illegible]

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

BID ITEMS \$	\$259,400.00
Contingency (10%) \$	\$25,940.00
BID ITEMS TOTAL \$	\$285,340.00

NON-BID ITEMS

IRON DIS. NAME				
Description	Quantity	Unit	Unit Price	Amount
Assuming Right of Way clips will be coordinated with roadway design	0	sq ft	\$15.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$28,534.00	\$28,534.00
				\$28,534.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$17,120.40	\$17,120.40
				\$17,120.40

BID ITEMS TOTAL \$	\$285,340.00
NON-BID ITEMS TOTAL \$	\$45,654.40
GRAND TOTAL \$	\$330,994.40

ENGINEER'S ESTIMATE (2022 COSTS)

Juniper Crest Road/South Hills Parkway

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$15,900.00
Public Information Services	1	lump	1.00%	\$3,200.00
Traffic Control	1	lump	2.00%	\$6,400.00
Survey	1	lump	2.00%	\$6,400.00
				\$31,900.00

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DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$275,000.00	\$275,000.00
				\$275,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

BID ITEMS \$	\$349,500.00
Contingency (10%) \$	\$34,950.00
BID ITEMS TOTAL \$	\$384,450.00

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assuming Right of Way clips will be coordinated with roadway design	0	sq ft	\$15.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$38,445.00	\$38,445.00
				\$38,445.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$23,067.00	\$23,067.00
				\$23,067.00

BID ITEMS TOTAL \$	\$384,450.00
NON-BID ITEMS TOTAL \$	\$61,512.00
GRAND TOTAL \$	\$445,962.00

BID ITEMS	
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GENERAL

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$16,900.00
Public Information Services	1	lump	1.00%	\$3,400.00
Traffic Control	1	lump	2.00%	\$6,800.00
Survey	1	lump	2.00%	\$6,800.00
				\$33,900.00

ROADWAY

[illegible]

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$300,000.00	\$300,000.00
				\$300,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
		Each	\$1,000.00	\$0.00
				\$10,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS

Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$10,000.00	\$10,000.00
				\$10,000.00

BID ITEMS \$	\$370,700.00
Contingency (10%) \$	\$37,070.00
BID ITEMS TOTAL \$	\$407,770.00

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Potential right of way clips for signal foundations	1,000	sq ft	\$15.00	\$15,000.00
				\$15,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$40,777.00	\$40,777.00
				\$40,777.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$24,466.20	\$24,466.20
				\$24,466.20

BID ITEMS TOTAL \$	\$407,770.00
NON-BID ITEMS TOTAL \$	\$80,243.20
GRAND TOTAL \$	\$488,013.20

ENGINEER'S ESTIMATE (2022 COSTS)
Sentinel Ridge Blvd/13800 South

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$28,700.00
Public Information Services	1	lump	1.00%	\$5,800.00
Traffic Control	1	lump	2.00%	\$11,500.00
Survey	1	lump	2.00%	\$11,500.00
				\$57,500.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	880	ft	\$ 12.00	\$10,560.00
Remove Concrete Sidewalk		sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	531	cu yd	\$ 24.00	\$12,743.70
Granular Borrow (Plan Quantity)	3,324	cu yd	\$ 35.00	\$116,355.56
Untreated Base Course	271	Ton	\$ 40.00	\$10,846.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	238	Ton	\$ 110.00	\$26,226.75
Pavement Marking Paint	40	gal	\$ 80.00	\$3,200.00
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	880	ft	\$ 35.00	\$30,800.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	2200	sq ft	\$ 9.00	\$19,800.00
				\$250,532.01

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	20	ft	\$ 125.00	\$2,500.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	2	Each	\$ 5,000.00	\$10,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	2	Each	\$ 2,000.00	\$4,000.00
				\$16,500.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$275,000.00	\$275,000.00
				\$275,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

BID ITEMS \$ 629,532.01
Contingency (20%) \$ 125,906.40
BID ITEMS TOTAL \$ 755,438.41

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assuming Right of Way clips for corners in order to place signal equipment	7,480	sq ft	\$20.00	\$149,600.00
				\$149,600.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$90,652.61	\$90,652.61
				\$90,652.61

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$75,543.84	\$75,543.84
				\$75,543.84

BID ITEMS TOTAL \$ 755,438.41
NON-BID ITEMS TOTAL \$ 315,796.45
GRAND TOTAL \$ 1,071,234.86

ENGINEER'S ESTIMATE (2022 COSTS)
11800 South/Mustang Trail Way

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$1,500.00
Public Information Services	1	lump	1.00%	\$300.00
Traffic Control	1	lump	15.00%	\$4,400.00
Survey	1	lump	2.00%	\$600.00
				\$6,800.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	500	ft	\$ 12.00	\$6,000.00
Remove Concrete Sidewalk		sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)		cu yd	\$ 24.00	\$0.00
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course		Ton	\$ 40.00	\$0.00
Remove Concrete Driveway		sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch		Ton	\$ 110.00	\$0.00
Pavement Marking Paint	20	gal	\$ 80.00	\$1,600.00
Pavement Message (Preformed Thermoplastic)	6	Each	\$ 250.00	\$1,500.00
Concrete Curb and Gutter Type B1		ft	\$ 35.00	\$0.00
Perpendicular/Parallel Pedestrian Access Ramp		Each	\$ 4,000.00	\$0.00
Concrete Sidewalk		sq ft	\$ 9.00	\$0.00
Asphalt Repair	100.00	sq yd	\$ 50.00	\$5,000.00
Concrete Curb Type B5 (back to back)	500	ft	\$ 30.00	\$15,000.00
				\$29,100.00

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
New Signal		lump	\$275,000.00	\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)		lump	\$15,000.00	\$0.00
				\$0.00
				\$0.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS

Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)		Lump	\$20,000.00	\$0.00
				\$0.00

BID ITEMS \$ \$35,900.00
Contingency (10%) \$ \$3,590.00
BID ITEMS TOTAL \$ \$39,490.00

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Assuming Right of Way clips will be coordinated with roadway design	0	sq ft	\$15.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$3,949.00	\$3,949.00
				\$3,949.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$2,369.40	\$2,369.40
				\$2,369.40

BID ITEMS TOTAL \$ \$39,490.00
NON-BID ITEMS TOTAL \$ \$6,318.40
GRAND TOTAL \$ \$45,808.40

GENERAL

ROADWAY

DRAINAGE & IRRIGATION

SIGNAL SYSTEM

UTILITIES

LANDSCAPING

ATMS

BID ITEMS \$	\$371,500.00
Contingency (10%) \$	\$37,150.00
BID ITEMS TOTAL \$	\$408,650.00

BID ITEMS TOTAL \$	\$408,650.00
NON-BID ITEMS TOTAL \$	\$65,384.00
GRAND TOTAL \$	\$474,034.00

GENERAL

GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$28,700.00
Public Information Services	1	lump	1.00%	\$5,800.00
Traffic Control	1	lump	2.00%	\$11,500.00
Survey	1	lump	2.00%	\$11,500.00
				\$57,500.00

[illegible]

DRAINAGE

[illegible]

SIGNAL 5

Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$275,000.00	\$275,000.00
				\$275,000.00

STREETS

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPE

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMIO

Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$20,000.00	\$20,000.00
				\$20,000.00

BID ITEMS \$	\$629,532.01
Contingency (20%) \$	\$125,906.40
BID ITEMS TOTAL \$	\$755,438.41

NON DID I

Description	Quantity	Unit	Unit Price	Amount
Assuming Right of Way clips for corners in order to place signal equipment	7,480	sq ft	\$20.00	\$149,600.00
				\$149,600.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (12% of Bid Items)	1	lump	\$90,652.61	\$90,652.61
				\$90,652.61

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$75,543.84	\$75,543.84
				\$75,543.84

BID ITEMS TOTAL \$	\$755,438.41
NON-BID ITEMS TOTAL \$	\$315,796.45
GRAND TOTAL \$	\$1,071,234.86

ENGINEER'S ESTIMATE (2022 COSTS)
Rosecrest Rd/Rocky Point Dr

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$46,100.00
Public Information Services	1	lump	1.00%	\$4,900.00
Traffic Control	1	lump	8.00%	\$38,800.00
Survey	1	lump	5.00%	\$24,300.00
				\$114,100.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	700	ft	\$ 12.00	\$8,400.00
Remove Concrete Sidewalk	250	sq yd	\$ 28.00	\$7,000.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	30	sq yd	\$ 28.00	\$840.00
HMA - 1/2 inch	597	Ton	\$ 150.00	\$89,528.72
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	700	ft	\$ 35.00	\$24,500.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	3,500	sq ft	\$ 9.00	\$31,500.00
Concrete Curb and Gutter Type M1	436.32	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3,000.00	sq ft	\$ 10.00	\$30,000.00
				\$259,748.11

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	200	ft	\$ 125.00	\$25,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$81,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations	1	lump	\$50,000.00	\$50,000.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate	1	lump	\$15,000.00	\$15,000.00
				\$129,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ 598,848.11
Contingency (30%) \$ 179,654.43
BID ITEMS TOTAL \$ 778,502.54

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming corner clips on three corners to allow room for roundabout)	7,000	sq ft	\$15.00	\$105,000.00
Assuming 5' wide construction easement	1,000	sq ft	\$3.00	\$3,000.00
				\$108,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$140,130.46	\$140,130.46
				\$140,130.46

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$93,420.31	\$93,420.31
				\$93,420.31

BID ITEMS TOTAL \$ 778,502.54
NON-BID ITEMS TOTAL \$ 341,550.76
GRAND TOTAL \$ 1,120,053.31

GENERAL

GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$24,500.00
Public Information Services	1	lump	1.00%	\$4,900.00
Traffic Control	1	lump	2.00%	\$9,800.00
Survey	1	lump	2.00%	\$9,800.00
				\$49,000.00

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DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	50	ft	\$ 125.00	\$6,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	3	Each	\$ 5,000.00	\$15,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	3	Each	\$ 2,000.00	\$6,000.00
				\$27,250.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
Signal modifications to account for dual lefts	1	lump	\$200,000.00	\$200,000.00
				\$200,000.00

ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency	1	lump	\$25,000.00	\$25,000.00
				\$0.00
				\$25,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Updates to tie into modified signal)	1	Lump	\$5,000.00	\$5,000.00
				\$5,000.00

BID ITEMS \$	\$537,143.06
Contingency (30%) \$	\$161,142.92
BID ITEMS TOTAL \$	\$698,285.97

Item Description				
Description	Quantity	Unit	Unit Price	Amount
New right of way along 2 corners	6,000	sq ft	\$15.00	\$90,000.00
5' construction easement	5,000	sq ft	\$5.00	\$25,000.00
				\$115,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (15% of Bid Items)	1	lump	\$104,742.90	\$104,742.90
				\$104,742.90

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$69,828.60	\$69,828.60

BID ITEMS TOTAL \$	\$698,285.97
NON-BID ITEMS TOTAL \$	\$289,571.49
GRAND TOTAL \$	\$987,857.47

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$16,900.00
Public Information Services	1	lump	1.00%	\$3,400.00
Traffic Control	1	lump	2.00%	\$6,800.00
Survey	1	lump	2.00%	\$6,800.00
				\$33,900.00

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DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$300,000.00	\$300,000.00
				\$300,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

BID ITEMS \$	\$371,500.00
Contingency (10%) \$	\$37,150.00
BID ITEMS TOTAL \$	\$408,650.00

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assume some corner clips for signal foundations	700	sq ft	\$15.00	\$10,500.00
				\$10,500.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$40,865.00	\$40,865.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$24,519.00	\$24,519.00
				\$24,519.00

BID ITEMS TOTAL \$	\$408,650.00
NON-BID ITEMS TOTAL \$	\$75,884.00
GRAND TOTAL \$	\$242,267.00

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$16,900.00
Public Information Services	1	lump	1.00%	\$3,400.00
Traffic Control	1	lump	2.00%	\$6,800.00
Survey	1	lump	2.00%	\$6,800.00
				\$33,900.00

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DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$300,000.00	\$300,000.00
				\$300,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

BID ITEMS \$	\$371,500.00
Contingency (10%) \$	\$37,150.00
BID ITEMS TOTAL \$	\$408,650.00

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assume some corner clips for signal foundations	700	sq ft	\$15.00	\$10,500.00
				\$10,500.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$40,865.00	\$40,865.00
				\$40,865.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$24,519.00	\$24,519.00
				\$24,519.00

BID ITEMS TOTAL \$	\$408,650.00
NON-BID ITEMS TOTAL \$	\$75,884.00
GRAND TOTAL \$	\$242,267.00

ENGINEER'S ESTIMATE (2022 COSTS)
Bacchus Hwy/7900 West

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$16,900.00
Public Information Services	1	lump	1.00%	\$3,400.00
Traffic Control	1	lump	2.00%	\$6,800.00
Survey	1	lump	2.00%	\$6,800.00
				\$33,900.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter		ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk		sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	0	cu yd	\$ 24.00	\$0.00
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	0	Ton	\$ 40.00	\$0.00
Remove Concrete Driveway	0	sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	0	Ton	\$ 110.00	\$0.00
Pavement Marking Paint	20	gal	\$ 80.00	\$1,600.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1		ft	\$ 35.00	\$0.00
Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$ 4,000.00	\$8,000.00
Concrete Sidewalk		sq ft	\$ 9.00	\$0.00
				\$12,600.00

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe		ft	\$ 125.00	\$0.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9		Each	\$ 5,000.00	\$0.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3		Each	\$ 2,000.00	\$0.00
				\$0.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New Signal	1	lump	\$300,000.00	\$300,000.00
				\$300,000.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency (assume minimal utilities since it is a green field road)	1	lump	\$10,000.00	\$10,000.00
				\$0.00
				\$10,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Will likely include running ATMS along mainline to tie into system)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

BID ITEMS \$ \$371,500.00
 Contingency (10%) \$ \$37,150.00
 BID ITEMS TOTAL \$ \$408,650.00

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
Assume some corner clips for signal foundations	700	sq ft	\$15.00	\$10,500.00
				\$10,500.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (10% of Bid Items)	1	lump	\$40,865.00	\$40,865.00
				\$40,865.00

Description	Quantity	Unit	Unit Price	Amount
Construction Management (6% of Bid Items)	1	lump	\$24,519.00	\$24,519.00
				\$24,519.00

BID ITEMS TOTAL \$ \$408,650.00
 NON-BID ITEMS TOTAL \$ \$75,884.00
 GRAND TOTAL \$ \$242,267.00

ENGINEER'S ESTIMATE (2022 COSTS)
New Road/7900 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$35,100.00
Public Information Services	1	lump	1.00%	\$3,700.00
Traffic Control	1	lump	8.00%	\$29,600.00
Survey	1	lump	5.00%	\$18,500.00
				\$86,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	700	ft	\$ 12.00	\$8,400.00
Remove Concrete Sidewalk	250	sq yd	\$ 28.00	\$7,000.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	30	sq yd	\$ 28.00	\$840.00
HMA - 1/2 inch	422	Ton	\$ 150.00	\$63,231.84
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	400	ft	\$ 35.00	\$14,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	2,000	sq ft	\$ 9.00	\$18,000.00
Concrete Curb and Gutter Type M1	436	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3000	sq ft	\$ 10.00	\$30,000.00
				\$209,451.24

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	200	ft	\$ 125.00	\$25,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$81,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations		lump	\$50,000.00	\$0.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate		lump	\$15,000.00	\$0.00
				\$64,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$456,351.24
 Contingency (30%) \$ \$136,905.37
 BID ITEMS TOTAL \$ \$593,256.61

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming corner clips on three corners to allow room for roundabout)		sq ft	\$15.00	\$0.00
Assuming 5' wide construction easement		sq ft	\$3.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$106,786.19	\$106,786.19
				\$106,786.19

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$71,190.79	\$71,190.79
				\$71,190.79

BID ITEMS TOTAL \$ \$593,256.61
 NON-BID ITEMS TOTAL \$ \$177,976.98
 GRAND TOTAL \$ \$771,233.59

ENGINEER'S ESTIMATE (2022 COSTS)
Herriman Blvd/7900 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$35,100.00
Public Information Services	1	lump	1.00%	\$3,700.00
Traffic Control	1	lump	8.00%	\$29,600.00
Survey	1	lump	5.00%	\$18,500.00
				\$86,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	700	ft	\$ 12.00	\$8,400.00
Remove Concrete Sidewalk	250	sq yd	\$ 28.00	\$7,000.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	30	sq yd	\$ 28.00	\$840.00
HMA - 1/2 inch	422	Ton	\$ 150.00	\$63,231.84
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	400	ft	\$ 35.00	\$14,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	2,000	sq ft	\$ 9.00	\$18,000.00
Concrete Curb and Gutter Type M1	436	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3000	sq ft	\$ 10.00	\$30,000.00
				\$209,451.24

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	200	ft	\$ 125.00	\$25,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$81,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations		lump	\$50,000.00	\$0.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate		lump	\$15,000.00	\$0.00
				\$64,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$456,351.24
 Contingency (30%) \$ \$136,905.37
 BID ITEMS TOTAL \$ \$593,256.61

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming corner clips on three corners to allow room for roundabout)		sq ft	\$15.00	\$0.00
Assuming 5' wide construction easement		sq ft	\$3.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$106,786.19	\$106,786.19
				\$106,786.19

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$71,190.79	\$71,190.79
				\$71,190.79

BID ITEMS TOTAL \$ \$593,256.61
 NON-BID ITEMS TOTAL \$ \$177,976.98
 GRAND TOTAL \$ \$771,233.59

ENGINEER'S ESTIMATE (2022 COSTS)
Herriman Main St/7900 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$25,300.00
Public Information Services	1	lump	1.00%	\$5,100.00
Traffic Control	1	lump	2.00%	\$10,100.00
Survey	1	lump	2.00%	\$10,100.00
				\$50,600.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter		ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk		sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	278	cu yd	\$ 24.00	\$6,666.67
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	363	Ton	\$ 40.00	\$14,500.00
Remove Concrete Driveway		sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	191	Ton	\$ 110.00	\$21,037.50
Pavement Marking Paint	20	gal	\$ 80.00	\$1,600.00
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	1000	ft	\$ 35.00	\$35,000.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	5000	sq ft	\$ 9.00	\$45,000.00
				\$143,804.17

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	50	ft	\$ 125.00	\$6,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	2	Each	\$ 5,000.00	\$10,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	2	Each	\$ 2,000.00	\$4,000.00
				\$20,250.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
New signal system	1	lump	\$300,000.00	\$300,000.00
				\$300,000.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Utility Contingency	1	lump	\$25,000.00	\$25,000.00
				\$0.00
				\$25,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS

Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Updates to tie into modified signal)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

BID ITEMS \$ \$554,654.17
Contingency (30%) \$ \$166,396.25
BID ITEMS TOTAL \$ \$721,050.42

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
New right of way along 2 corners	6,000	sq ft	\$15.00	\$90,000.00
5' construction easement	5,000	sq ft	\$5.00	\$25,000.00
				\$115,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (15% of Bid Items)	1	lump	\$108,157.56	\$108,157.56
				\$108,157.56

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$72,105.04	\$72,105.04
				\$72,105.04

BID ITEMS TOTAL \$ \$721,050.42
NON-BID ITEMS TOTAL \$ \$295,262.60
GRAND TOTAL \$ \$1,016,313.02

ENGINEER'S ESTIMATE (2022 COSTS)
New Road/7300 West

BID ITEMS**GENERAL**

Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	9.50%	\$35,100.00
Public Information Services	1	lump	1.00%	\$3,700.00
Traffic Control	1	lump	8.00%	\$29,600.00
Survey	1	lump	5.00%	\$18,500.00
				\$86,900.00

ROADWAY

Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter	700	ft	\$ 12.00	\$8,400.00
Remove Concrete Sidewalk	250	sq yd	\$ 28.00	\$7,000.00
Roadway Excavation (Plan Quantity)	194	cu yd	\$ 24.00	\$4,644.41
Granular Borrow (Plan Quantity)		cu yd	\$ 35.00	\$0.00
Untreated Base Course	316	Ton	\$ 40.00	\$12,626.99
Remove Concrete Driveway	30	sq yd	\$ 28.00	\$840.00
HMA - 1/2 inch	422	Ton	\$ 150.00	\$63,231.84
Pavement Marking Paint	60	gal	\$ 80.00	\$4,800.00
Pavement Message (Preformed Thermoplastic)	12	Each	\$ 250.00	\$3,000.00
Concrete Curb and Gutter Type B1	400	ft	\$ 35.00	\$14,000.00
Perpendicular/Parallel Pedestrian Access Ramp	8	Each	\$ 4,000.00	\$32,000.00
Concrete Sidewalk	2,000	sq ft	\$ 9.00	\$18,000.00
Concrete Curb and Gutter Type M1	436	ft	\$ 25.00	\$10,908.00
Concrete Flatwork, 6 inch Thick	3000	sq ft	\$ 10.00	\$30,000.00
				\$209,451.24

DRAINAGE & IRRIGATION

Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	200	ft	\$ 125.00	\$25,000.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	8	Each	\$ 5,000.00	\$40,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	8	Each	\$ 2,000.00	\$16,000.00
				\$81,000.00

SIGNAL SYSTEM

Description	Quantity	Unit	Unit Price	Amount
None		lump		\$0.00
				\$0.00

UTILITIES

Description	Quantity	Unit	Unit Price	Amount
Power Pole relocations		lump	\$50,000.00	\$0.00
Lighting at roundabout (assume 8 lights)	8	Each	\$8,000.00	\$64,000.00
Misc utility relocate		lump	\$15,000.00	\$0.00
				\$64,000.00

LANDSCAPING

Description	Quantity	Unit	Unit Price	Amount
Landscaping (assume higher price to landscape medians)	1	Lump	\$15,000.00	\$15,000.00
				\$15,000.00

Structures

Description	Quantity	Unit	Unit Price	Amount
				\$0.00

BID ITEMS \$ \$456,351.24
 Contingency (30%) \$ \$136,905.37
 BID ITEMS TOTAL \$ \$593,256.61

NON-BID ITEMS

Description	Quantity	Unit	Unit Price	Amount
Right of Way (assuming corner clips on three corners to allow room for roundabout)		sq ft	\$15.00	\$0.00
Assuming 5' wide construction easement		sq ft	\$3.00	\$0.00
				\$0.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (18% of Bid Items)	1	lump	\$106,786.19	\$106,786.19
				\$106,786.19

Description	Quantity	Unit	Unit Price	Amount
Construction Management (12% of Bid Items)	1	lump	\$71,190.79	\$71,190.79
				\$71,190.79

BID ITEMS TOTAL \$ \$593,256.61
 NON-BID ITEMS TOTAL \$ \$177,976.98
 GRAND TOTAL \$ \$771,233.59

ENGINEER'S ESTIMATE (2022 COSTS)
New Road/SR-111

BID ITEMS				
GENERAL				
Description	Quantity	Unit	Unit Price	Amount
Mobilization	1	lump	5.00%	\$10,900.00
Public Information Services	1	lump	1.00%	\$2,200.00
Traffic Control	1	lump	2.00%	\$4,400.00
Survey	1	lump	2.00%	\$4,400.00
				\$21,900.00

ROADWAY				
Description	Quantity	Unit	Unit Price	Amount
Remove Concrete Curb and Gutter		ft	\$ 12.00	\$0.00
Remove Concrete Sidewalk		sq yd	\$ 28.00	\$0.00
Roadway Excavation (Plan Quantity)	333	cu yd	\$ 24.00	\$8,000.00
Granular Borrow (Plan Quantity)	0	cu yd	\$ 35.00	\$0.00
Untreated Base Course	435	Ton	\$ 40.00	\$17,400.00
Remove Concrete Driveway		sq yd	\$ 28.00	\$0.00
HMA - 1/2 inch	230	Ton	\$ 110.00	\$25,245.00
Pavement Marking Paint	20	gal	\$ 80.00	\$1,600.00
Pavement Message (Preformed Thermoplastic)	16	Each	\$ 250.00	\$4,000.00
Concrete Curb and Gutter Type B1	1200	ft	\$ 35.00	\$42,000.00
Perpendicular/Parallel Pedestrian Access Ramp	4	Each	\$ 4,000.00	\$16,000.00
Concrete Sidewalk	6000	sq ft	\$ 9.00	\$54,000.00
				\$168,245.00

DRAINAGE & IRRIGATION				
Description	Quantity	Unit	Unit Price	Amount
24 Inch Irrigation HDPE Pipe	50	ft	\$ 125.00	\$6,250.00
Concrete Drainage Structure 3 ft to 5 ft Deep - CB 9	4	Each	\$ 5,000.00	\$20,000.00
Rectangular Grate And Frame (Bicycle Safe Grating) - GF 3	4	Each	\$ 2,000.00	\$8,000.00
				\$34,250.00

SIGNAL SYSTEM				
Description	Quantity	Unit	Unit Price	Amount
New signal system		lump	\$300,000.00	\$0.00
				\$0.00

UTILITIES				
Description	Quantity	Unit	Unit Price	Amount
Utility Contingency	1	lump	\$15,000.00	\$15,000.00
				\$0.00
				\$15,000.00

LANDSCAPING				
Description	Quantity	Unit	Unit Price	Amount
Misc. Landscaping		Lump	\$10,000.00	\$0.00
				\$0.00

ATMS				
Description	Quantity	Unit	Unit Price	Amount
ATMS integration (Updates to tie into modified signal)		Lump	\$15,000.00	\$0.00
				\$0.00

BID ITEMS \$ \$239,395.00
Contingency (30%) \$ \$71,818.50
BID ITEMS TOTAL \$ \$311,213.50

NON-BID ITEMS				
Description	Quantity	Unit	Unit Price	Amount
New right of way along 2 corners	7,200	sq ft	\$15.00	\$108,000.00
5' construction easement	5,000	sq ft	\$5.00	\$25,000.00
				\$133,000.00

Description	Quantity	Unit	Unit Price	Amount
Design Engineering (15% of Bid Items)	1	lump	\$46,682.03	\$46,682.03
				\$46,682.03

Description	Quantity	Unit	Unit Price	Amount
Construction Management (10% of Bid Items)	1	lump	\$31,121.35	\$31,121.35
				\$31,121.35

BID ITEMS TOTAL \$ \$311,213.50
NON-BID ITEMS TOTAL \$ \$210,803.38
GRAND TOTAL \$ \$522,016.88



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Salt Lake City, UT 84119

801-456-3847
wcg.us

Date: March 10, 2022
To: Herriman City; Bryce Terry
From: Jeremy Searle, PE, PTOE, Austin Feula, PE, PTOE
Subject: Wheadon Hollow Road Analysis

WCG has examined the impacts of the proposed Wheadon Hollow Road connection on the regional transportation network.

In summary:

- Wheadon Hollow Road would offer a direct connection between Mountain View Corridor (SR-85), Porter Rockwell Boulevard, and South Hills Parkway.
- Based on future plans, it is projected that the currently undeveloped southwest bench study area will generate approximately 10,000 daily vehicle trips.
- These 10,000 daily vehicle trips would be mostly distributed between two accesses: the South Hills Parkway right-in / right-out and the Wheadon Hollow Road full access. It is estimated that 80% (8,000) of vehicles would utilize Wheadon Hollow Road.
- If Wheadon Hollow Road was not connected it is assumed that most vehicles would utilize the South Hills Parkway right-in / right-out. A smaller percentage of vehicles would likely reroute north to Academy Parkway. This could lead to operational and safety concerns at the South Hills Parkway right-in / right-out.
- The proposed cul-de-sac at the end of Porter Rockwell Boulevard would be approximately 2,000 feet in length and thus not meet Herriman City standards.
- Without the Wheadon Hollow Road connection, most trips will be more circuitous and thus produce greater VMT, longer travel times, and slower emergency response.
- The proposed cul-de-sac would not connect to any Herriman City roadways (only UDOT roadways) and could lead to inefficiency for snow plowing, maintenance access, emergency response, etc.
- Based on these factors, **it is recommended that Herriman City maintain the Wheadon Hollow Road connection** between Porter Rockwell Boulevard and South Hills Parkway.

Background

As the southwest bench of Herriman City builds out, a robust roadway network will be necessary. Given the steep grades, restricted access of Camp Williams to the south, and Mountain View Corridor to the northeast, access connectivity is a challenge in this area. The current plan (Figure 1) is for a roadway to wind along the mountainside between Real Vista Drive and Porter Rockwell Boulevard, with two additional accesses to Mountain View Corridor frontage roads at Academy Parkway (full access), and South Hills Parkway (right-in / right-out).

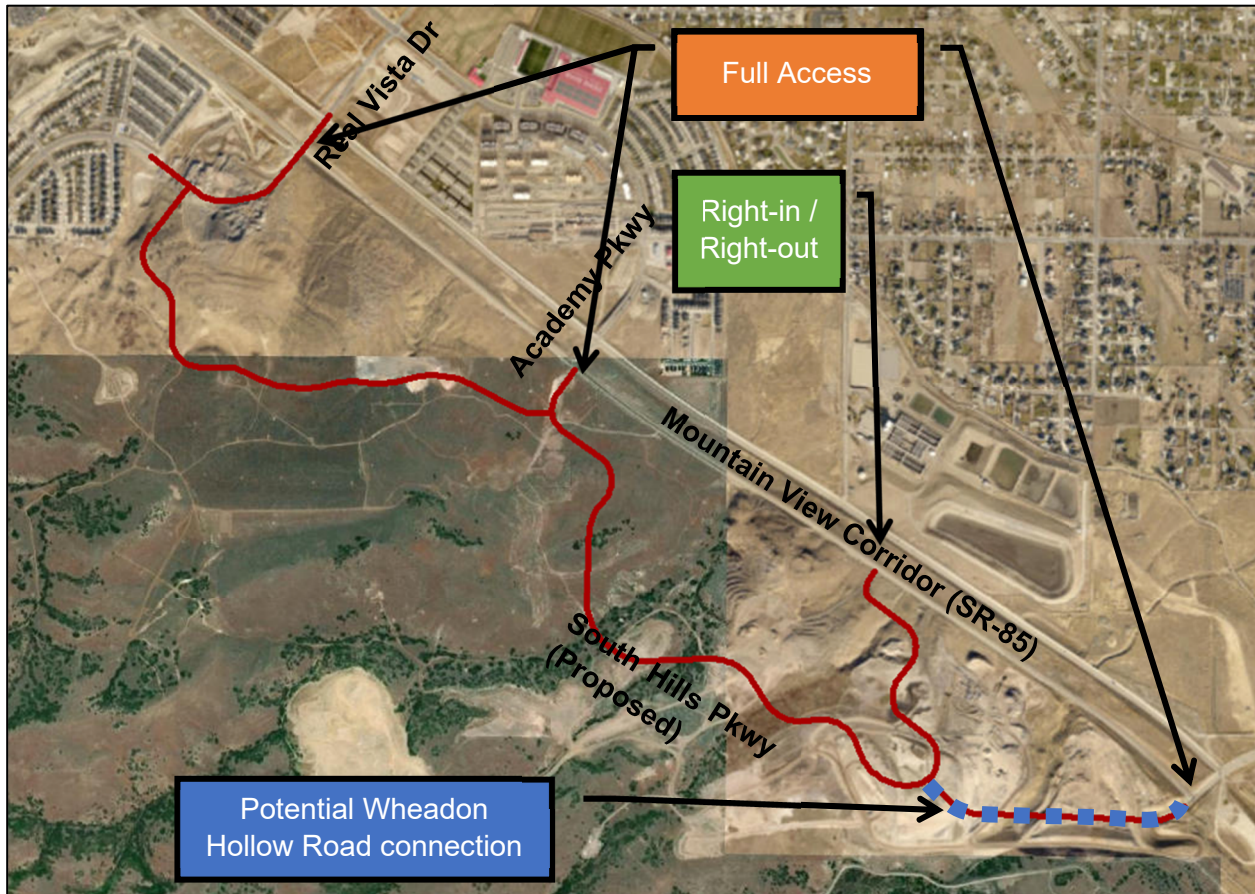


Figure 1: Future roadway network plan for southwest bench of Herriman City

Figure 2 is provided to show the proposed site plan for the residential development along South Hills Parkway. This site plan does not include the Wheaddon Hollow Road connection, but it is drawn in for context.

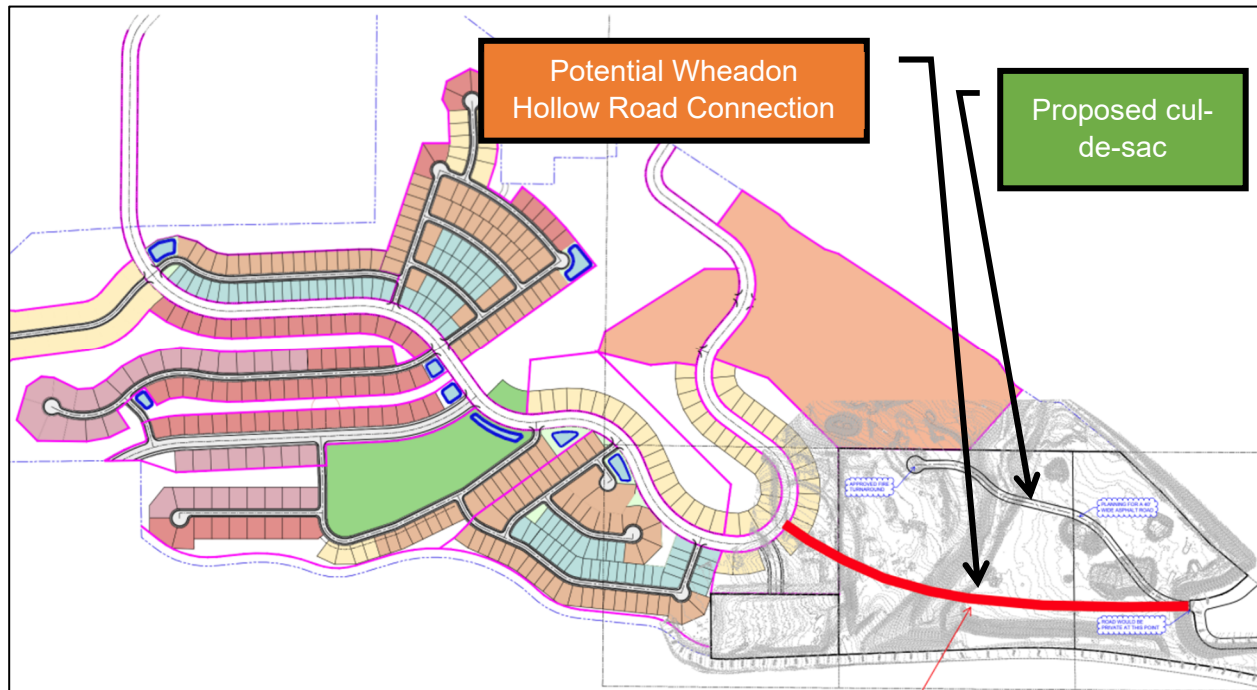


Figure 2: Site Plan

Travel Demand Model

All modeling was performed in version 8.3.1 (dated August 17, 2020) of the Wasatch Front Travel Demand Model and Bentley Cube version 6.5.0. The model utilized for this study was refined for the Herriman Transportation Master Plan Update and includes socioeconomic, transportation analysis zone (TAZ), and roadway network updates within Herriman and the surrounding area. Updates to the model include roadway network changes, vehicle loading locations, TAZ splits, and socioeconomic projection updates.

Future Trip Generation

Based on the Herriman City future land use plan and private development plans it is projected that the hillside southwest of Mountain View Corridor will generate approximately 10,000 daily vehicle trips. Figure 3 outlines this approximate area. The exact number of trips could vary based on the type and density of future development, and the amount of undevelopable land due to steep grades.

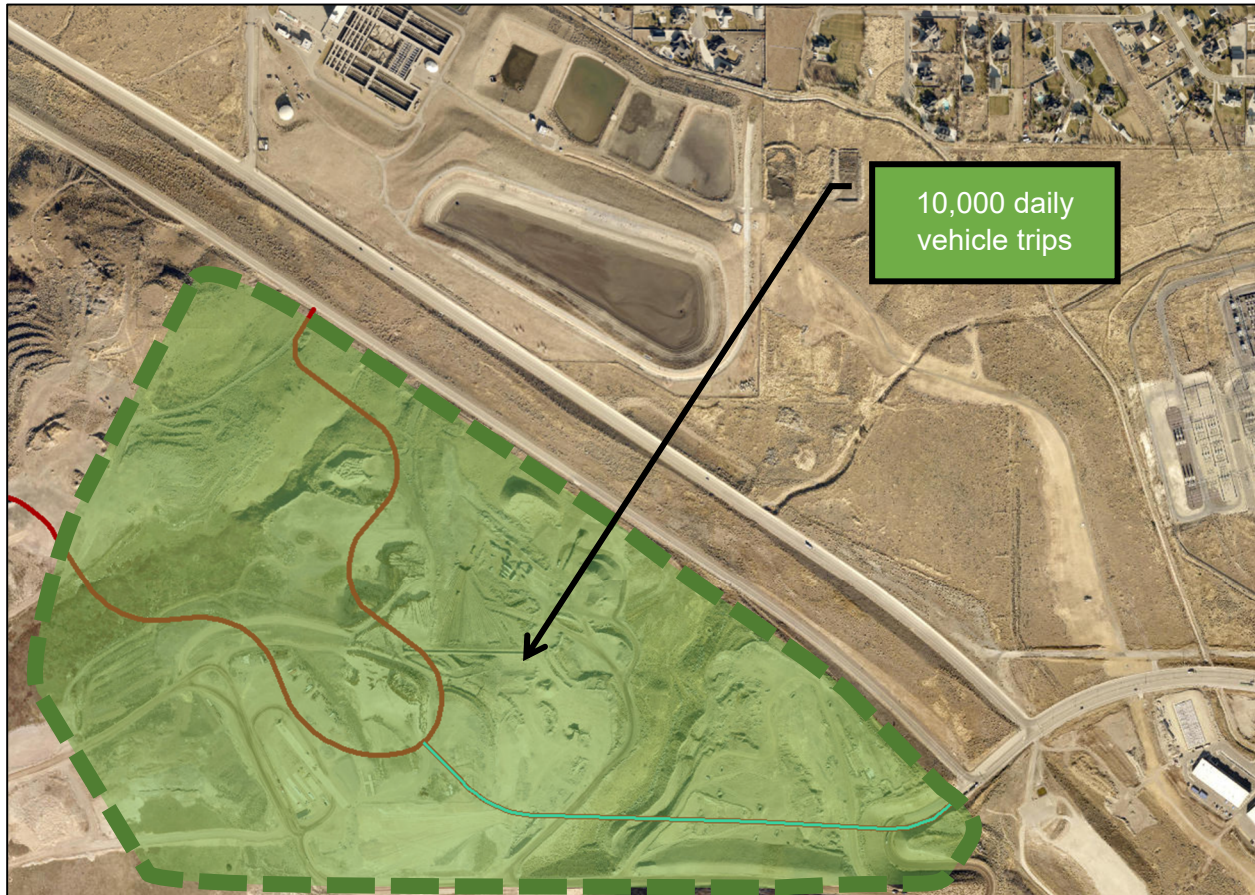


Figure 3: Daily vehicle trip generation

Future Traffic Volumes

The proposed Wheaddon Hollow Road connection is projected to carry a daily traffic volume of approximately 8,000 vehicles in 2050. These are higher traffic volumes than South Hills Parkway, which is projected to have daily traffic volumes of 2,000 to 3,000 vehicles in 2050. This is due to Wheaddon Hollow Road offering a direct connection to a Mountain View Corridor (SR-85) interchange and Porter Rockwell Boulevard which offers access to Redwood Road (SR-68) and I-15. Alternatively, South Hills Parkway offers only a right-in / right-out connection to Mountain View Corridor on the southern end, then a somewhat circuitous connection to Academy Parkway. Academy Parkway has full access to the Mountain View Corridor frontage road system, although on/off ramps to the freeway are over a mile away in either direction along the frontage road system.

Figure 4 shows the projected 2050 volumes with the Wheaddon Hollow Road connection. Figure 5 shows how the traffic volumes would reroute without the Wheaddon Hollow Road connection.

Without the Wheaddon Hollow Road connection (Figure 5) it is assumed that most vehicles would reroute to South Hills Parkway and utilize the right-in / right-out access. While this roadway (assumed to be a 3-lane cross section) could handle the projected 8,000 daily vehicles, issues could arise at the right-in / right-out access to the Mountain View Corridor southbound frontage road. This access would be unsignalized and speeds along the frontage road would likely be high. This could lead to both operational and safety concerns at this location.



Figure 4: 2050 Average Daily Traffic Volumes – with Wheaddon Hollow Road connection

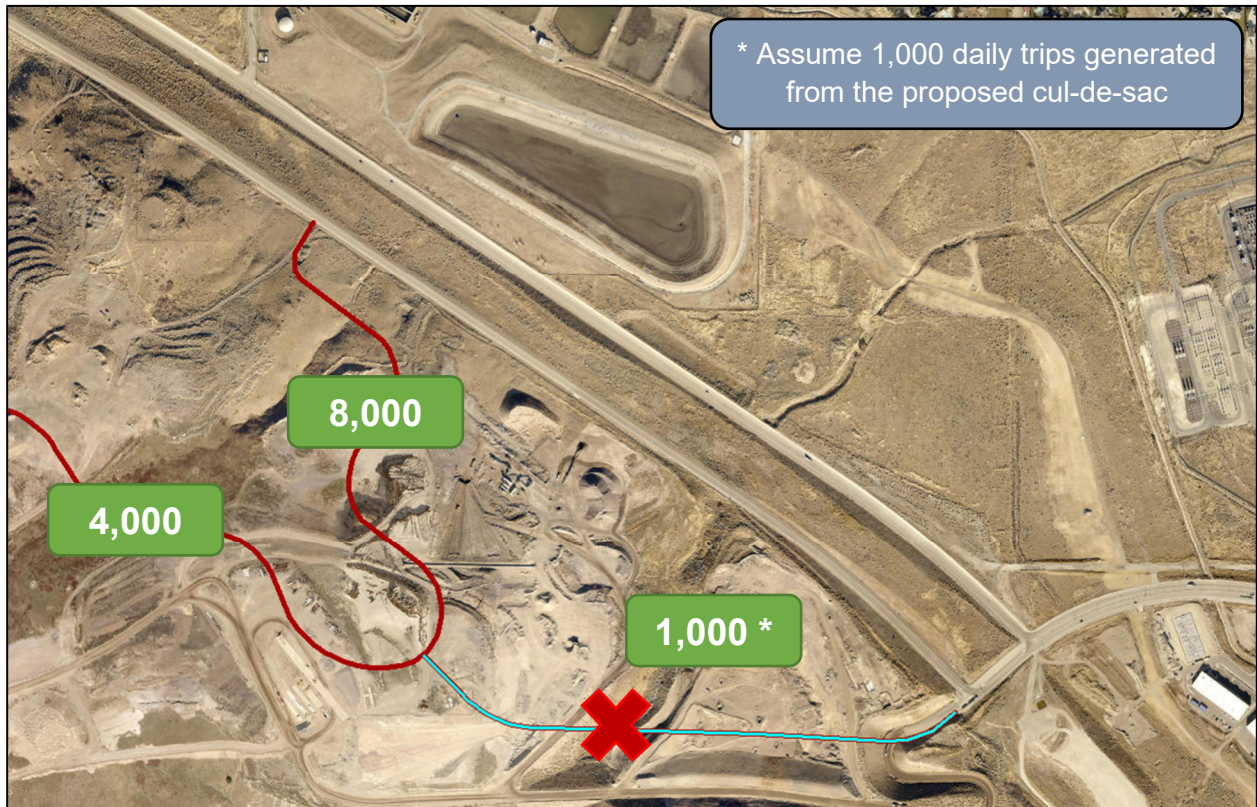


Figure 5: 2050 Average Daily Traffic Volumes - without Wheaddon Hollow Road connection

It should be noted that future traffic volumes could vary significantly based on where non-residential land-uses build out (employment centers, general retail, and office mixed use). For example, if most of the more intense land uses develop directly adjacent to the South Hills Parkway right-in / right-out onto the Mountain View Corridor frontage road a significant portion of the 8,000 daily vehicles on Wheaddon Hollow Road would likely reroute to South Hills Parkway.

Cul-de-sac Standards

The Herriman City Standards & Specifications Manual (2021 edition) states in section 4.05.11.c that “Cul-de-sacs shall not be longer than 600 feet from the centerline of the adjoining street to the center of the cul-de-sac”. Based on the site plan provided the proposed cul-de-sac at the end of Porter Rockwell Boulevard is approximately 2,000 feet in length, thus it does not meet Herriman City standards.

Other Considerations

Beyond typical roadway capacity and safety issues there are other potential issues with having a cul-de-sac isolated from the rest of the Herriman City roadway network. The proposed cul-de-sac would only access the roadway network via UDOT roadways (SR-85) and would not connect to any Herriman City roadways.

If this proposed cul-de-sac were under city control this could lead to additional inefficiency for snow plowing, maintenance access, emergency response, etc. Additionally, without a direct connection to both directions of Mountain View Corridor, travel times to/from South Hills Parkway will be longer from most locations.

If Wheaddon Hollow Road is not connected to South Hills Parkway, Herriman City should work with UDOT to construct Texas U-turns along Mountain View Corridor at the following locations:

- Porter Rockwell Boulevard (north side of interchange)
- Real Vista Drive (south side of interchange)

These Texas U-turns would allow for vehicles utilizing the South Hills Parkway right-in / right-out to access Mountain View corridor mainline without traveling through a signalized intersection. 2100 North (SR-194) and 3600 West in Lehi provides a good example of a Texas U-turn configuration.

If the Wheaddon Hollow Road connection is made, Herriman City could consider making Wheaddon Hollow Road a through leg at the connection point with South Hills Parkway as traffic volumes along Wheaddon Hollow Road are projected to be higher than the South Hills Parkway connection to the Mountain View Corridor right-in / right-out.