EASTMARK

(formerly Mesa Proving Grounds)

MASTER TRANSPORTATION PLAN

UPDATE – MARCH 2022

Prepared For:

Brookfield Residential

DEVELOPMENT SERVICES
REVIEWED FOR CODE
COMPLIANCE
DATE 3/4/2022

APPROVED

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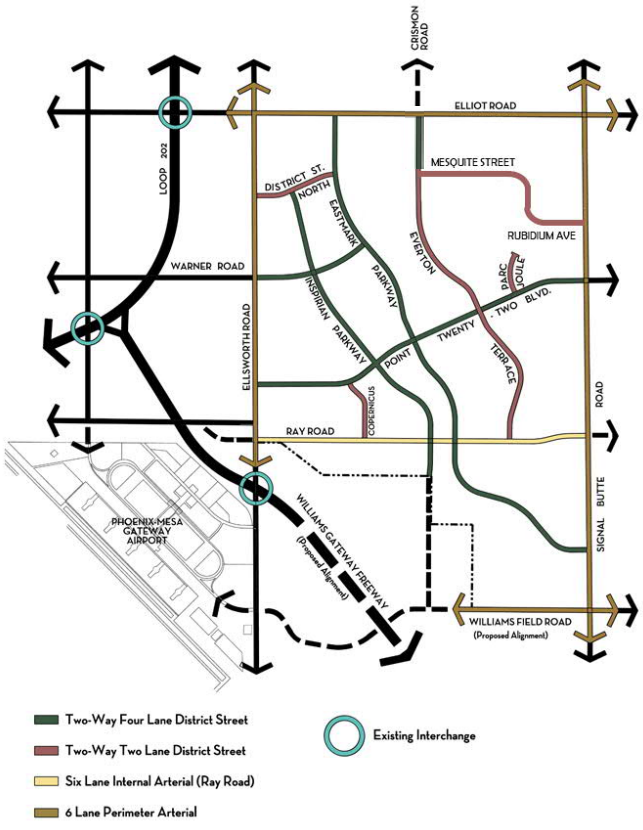
EXECUTIVE SUMMARY

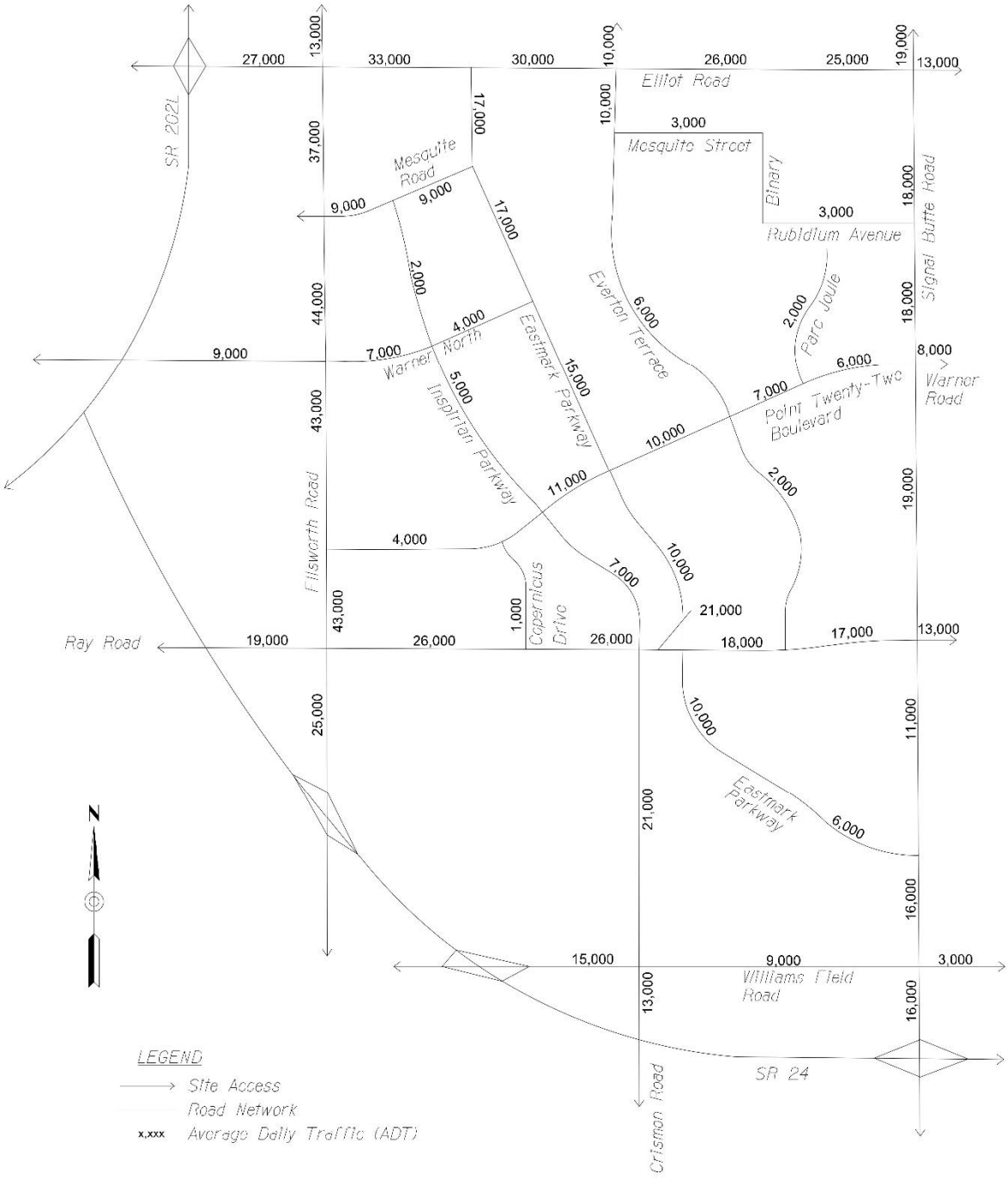
Brookfield Residential is the owner/developer of Eastmark located at the southeast corner of Elliot Road and Ellsworth Road in Mesa, Arizona. The original Master Transportation Plan (MTP) for the development was approved in 2008. Since this approval, specific portions of the site called development units have been laid out fully. Several updates to the MTP have been submitted to address these more detailed roadway and land use determinations since the original MTP. This update to the MTP is intended to reflect the most recent roadway updates to the development plan. This MTP is also intended to evaluate the impact of an alternative network alignment being considered to accommodate a proposed development within the site.

The current land use plan consists of 9,988 residential dwelling units, including single-family, multi-family and mixed-use housing. This lies between the original approved land use budget of 6,100 minimum and 22,860 maximum residential dwelling units. The current land use plan also consists of 11.01 million square feet gross floor area of non-residential development. This lies between the original land use budget of 8.6 million square feet minimum and 36.475 million square feet maximum.

The street circulation plan is provided in the figure below. This plan includes Eastmark Parkway as the primary internal north-south collector, supported by Inspirian Parkway and Everton Terrace. The plan provides Point Twenty-Two Boulevard as the primary internal east-west collector, supported by Mesquite Road, Mesquite Street, Warner Road, and Ray Road. This MTP Update addresses the addition of Mesquite Street/Binary/Rubidium Avenue which is a continuous east-west street connecting Everton Terrace to Signal Butte Road in the northeast section of the site.



Traffic projections for the internal site traffic and external boundary roads were estimated based on a combination of background traffic and site traffic. Background traffic was extracted from the Maricopa Association of Governments (MAG) approved 2040 travel demand model. Site traffic was estimated using the QRS II software for site traffic derivation and assignment. For trips generated by Eastmark, it was assumed that 15% remain internal to Eastmark, 15% travel to the north, 25% travel to the south, 25% travel to the west, and 20% travel to the east. Total traffic on the roadway network was derived as a sum of background traffic and traffic generated by the site. The resulting total 2040 traffic volumes are presented in the figure on the following page. The proposed land use concepts are reflected in this update along with the roadway networks and access points. Based on these assumptions, Eastmark is anticipated to generate roughly 144,400 daily weekday trips. This is roughly 48% of the original *Master Transportation Plan*, which anticipated 300,000 weekday trips. The trip reduction is the result of more concrete anticipated land use planning. Results of the analysis indicate that the roadway network as outlined in the Mesa General Plan will accommodate the traffic generated by Eastmark at full build-out.



Total 2040 Volumes on Eastmark Roadway Network

Based on the total traffic volumes estimated and the MAG planning level roadway capacities, the following recommendations are made for roadway size and functional classification:

- Internal major collector four-lane roadways include: Eastmark Parkway, Inspirian Parkway, Warner Road, and Point Twenty-two Boulevard.
- Mesquite Road (formerly "Gaylord Drive" and "District Street North"), Mesquite Street/Binary/ Rubidium Avenue (one continuous street), Parc Joule, Everton Terrace, and Copernicus are recommended as 2-lane roadways with left and right-turn lanes at major intersections. These streets may also be constructed as 4-lane roadways with the outside through lane used for right turning traffic.
- The adjacent arterial roadways, including Ray Road, Elliot Road, Ellsworth Road, Signal Butte Road, and Williams Field Road, will be six lanes.

This MTP Update addresses the addition of Mesquite Street/Binary/Rubidium Avenue which is a continuous east-west street connecting Everton Terrace to Signal Butte Road in the northeast section of the site. It also includes an alternative alignment option addressed in the March 2021 Update in which Mesquite Road is removed, Inspirian Parkway ends at a T-intersection with Warner Road, and Eastmark Parkway curves to the east north of Warner Road. Eastmark Parkway intersects with Elliot Road approximately 1,200 feet from the existing intersection with Everton Terrace. In this alignment option, roadway volumes remain relatively consistent with those on the currently approved network, aside from a minor shift in volume away from Eastmark Parkway onto Everton Terrace and Ellsworth Road. All recommended roadway size and functional classifications remain consistent.

In the Eastmark Parkway realignment option, the proposed intersection between Eastmark Parkway and Elliot Road occurs greater than 1/4 mile and less than 1/3 mile from the existing intersection between Everton Terrace and Elliot Road. If this alternative alignment moves forward, it is recommended that a design exception be granted for this spacing, and east-west progression between the two signalized intersections be maintained.

The addition of Mesquite Street in the northeast section of the site had a minor effect on the traffic volumes on the adjacent Everton Terrace.

1.0 INTRODUCTION

1.1 General Background

Brookfield Residential, formerly DMB Mesa Proving Grounds, LLC (DMB), is the owner/developer of Eastmark (Site) located at the southeast corner of Elliot and Ellsworth Roads, which was formerly referred to as Mesa Proving Grounds. On November 8, 2008, the City of Mesa (City) approved among other items, a rezoning of the Site to Planned Community. As part of that request, a Community Plan was also approved that identified the vision for the development of the Site with development standards and permitting processes. As part of the approval of the Community Plan, the City also accepted the Mesa Proving Grounds Master Transportation Plan, dated September 23, 2008.

The original Master Transportation Plan in September of 2008 was comprised of nine (9) Development Units (DU) as defined in the Community Plan. In this update, there are still a total of nine (9) Development Units within the site though configuration of the DU's has changed from the original plan. Development Unit Plans (DUP) are prepared and submitted to the City for review and approval prior to any development occurring within a DU. Section 5.1 of the Community Plan defines DUP Submittal Requirements. The DU Transportation Plan depicts general locations of major streets and secondary streets, proposed major intersections and secondary intersections in conformance with the Master Transportation Plan and any necessary updates. As warranted, an update or addendum to the Master Plan will be submitted when requested by the City Traffic Engineer.

The City has requested an update to the Master Transportation Plan, and this is the seventh update that has been developed. The first update was finalized in August 2014, the second in March 2016, the third in May 2017, and the fourth in August 2017, the fifth in March 2020, and the sixth in March 2021. In this update, the transportation network has been updated to include Mesquite Street/Binary/Rubidium Avenue which is a continuous east-west street connecting Everton Terrace to Signal Butte Road in the northeast section of the site.

Additionally, this MTP presents an alternative alignment option for Eastmark Parkway that can be applied to facilitate a potential industrial development in DU 1 and DU 2. This project option is referred to currently as Project Huckleberry.

The Site location is shown in **Figure 1.1**.

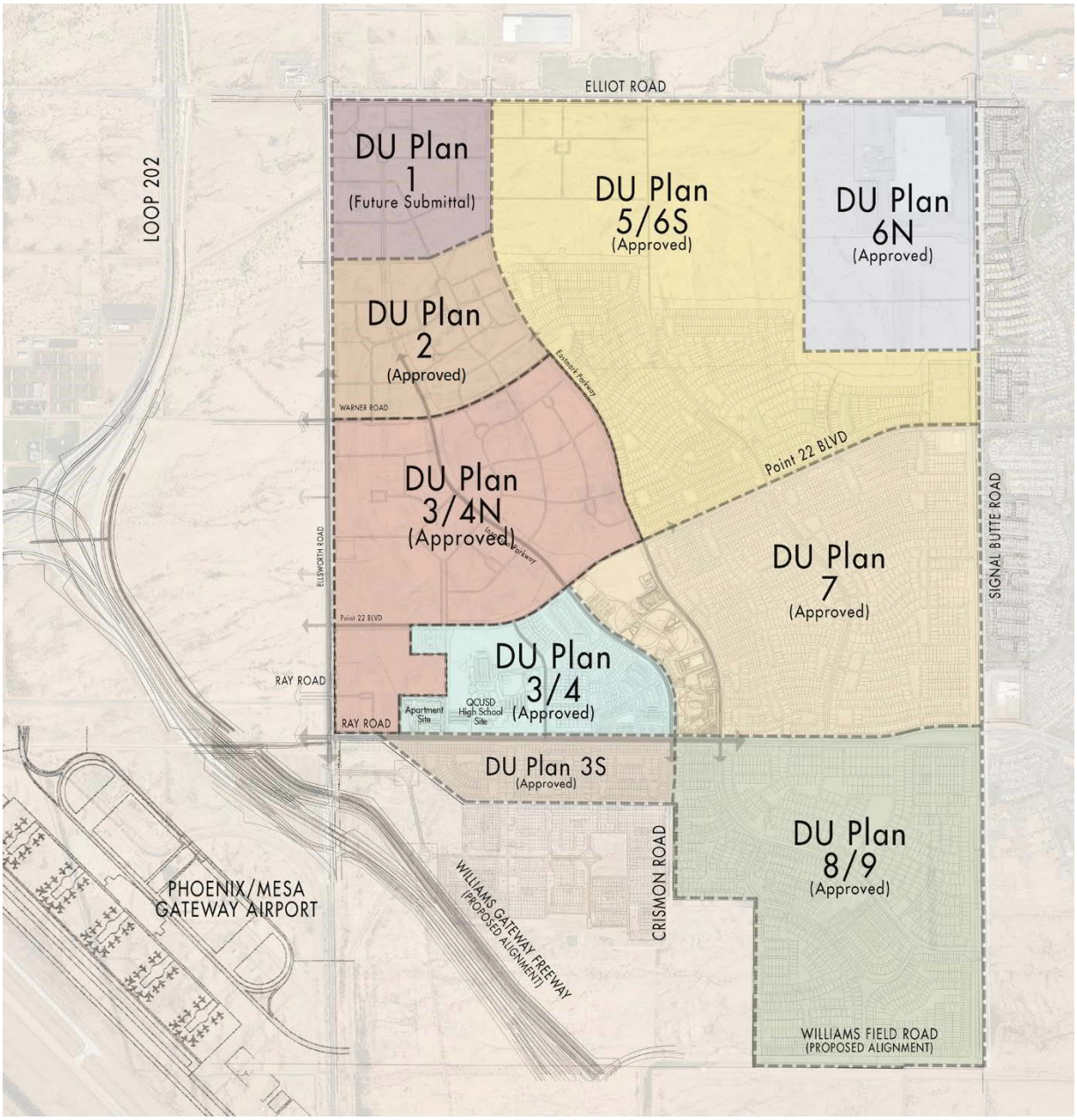


Figure 1.1: Eastmark Development Units

1.2 Preliminary Planning Concept

A preliminary framework with a proposed land use budget was developed for Eastmark as part of the Community Plan based on the nine (9) Development Units (DU). The intent was to provide a range of minimum and maximum development volumes for each DU that will be balanced amongst the DU's as development, and ultimately, redevelopment occurs. Total build-out for Eastmark will not exceed 15,000 dwelling units and 20 million square feet of commercial development. The approved land use budget for the Site is presented in **Table 1.1**.

Table 1.1 Eastmark Approved Land Use Budget

DEVELOPMENT UNIT	DWELLING UNITS MINIMUM-MAXIMUM BUDGET		GFA OF NON-RESIDENTIAL MINIMUM-MAXIMUM BUDGET		ACRES	LAND USE GROUPS
DU #1	200	2,000	4,375,000	7,000,000	130	OS,CS,GU,UC
DU #2	390	2,800	50,000	5,500,000	190	OS,CS,D,GU,UC
DU #3	1,120	3,600	50,000	1,000,000	540	OS,CS,V,D,C,GU,UC
DU #4	200	1,350	2,250,000	6,500,000	160	OS,CS,C,GU,UC
DU #5	710	1,680	1,875,000	8,750,000	500	OS,CS,C,E,V,D,R,GU,UC
DU #6	890	3,310	0	6,500,000	528	OS,CS,E,V,D,C,R,GU
DU #7	1,270	4,060	0	375,000	590	OS,CS,E,V,D,GU
DU #8	890	2,810	0	350,000	360	OS,CS,E,V,D,GU
DU #9	430	1,250	0	500,000	200	OS,CS,E,V,D,C,GU,UC

1.3 Current Planning Concept

Several of the development unit plans (DUP's) have been approved by the City, including DU 3s, DU 3/4 (including the updated Commercial Core), DU 6S, DU 6N, DU 7, and DU 8/9. The majority of the completed DU's have been developed below the assumed mid-point thresholds of the land use budget. This Master Transportation Plan Update includes the results of the traffic studies that have been prepared for each of these DU's. A summary of the approximate development levels for each are presented in **Table 1.2**. The level of development reflected here is less than the preliminary planning assumptions. However, the developer maintains approval for the original residential and commercial development levels, as Eastmark site developed densities may be increased with future re-development plans.

Table 1.2 Eastmark Updated Lane Use Scenarios

DEVELOPMENT UNIT	DWELLING UNITS	GFA ON NON-RESIDENTIAL (million sq. feet)
	APPROX ACTUAL	APPROX ACTUAL
DU #1	1,080	1.65
DU #2	993	0.27
DU #3/4	2,673	1.33
DU #3S	388	0.00
DU #5N	0	3.71
DU #6S	1,531	0.07
DU #6N	0	3.34
DU #7	1,873	0.44
DU #8/9	1,450	0.20
TOTAL	9,988	11.01

If the Project Huckleberry option is carried forward, the land use total will change. All dwelling units will be taken out of DU 1 and DU 2 and replaced with an industrial data center. The land use totals for the Project Huckleberry option are provided in **Table 1.3**. With this development option, the non-residential development area increase, but remains significantly lower than the original approved land use budget.

Table 1.3 Land Use Totals with Project Huckleberry Option

DEVELOPMENT UNIT	DWELLING UNITS	GFA ON NON-RESIDENTIAL (million sq. feet)
	APPROX ACTUAL	APPROX ACTUAL
DU #1 and #2	0	4.52
All Other DUs	7,915	9.09
TOTAL	7,915	13.61

1.4 Master Street Circulation Plan

Figure 1.2 shows the Master Street Circulation Plan for Eastmark. The current master street network is similar to the initial proposed network with a few exceptions:

- "Spine East" (now Eastmark Parkway) connects to Signal Butte Road rather than Williams Field Road. This was approved as part of DU 8/9.
- "Crismon Connection" has been replaced with "Everton Terrace".
- A new north-south district street referred to as "Copernicus" is anticipated in DU 3/4, providing a connection between Ray Road and Point Twenty-Two Boulevard.
- A new north-south district street referred to as "Parc Joule" is anticipated in DU 6s, providing a connection north of Point Twenty-Two Boulevard. This roadway will connect to residential streets and will not connect to Mesquite Street/Binary/Rubidium Avenue.
- A north-south district street referred to as "Everton Terrace" is anticipated in DU 5, DU 6 and DU 7, providing a connection between Elliot Road and Ray Road. The revised Everton Terrance is anticipated to be a 4-lane District Street cross-section from its northern termini to approximately 2,290 feet south of Elliot Road serving primarily industrial land uses, and then transition to the 2-lane District Street cross-section to the south to serve residential land uses.
- "District Street North", formerly referred to as "Gaylord Drive" in DU 2 will now be referred to as "Mesquite Road".
- Mesquite Street east of Everton Terrace is anticipated in DU 5/6S and DU 6N, turning into Binary and Rubidium Avenue, which will connect to Signal Butte Road.

In accordance with the initial Master Transportation Plan, the roadway network is designed to encourage multi-modal transportation, including, but not limited to, transit, bicycles, pedestrians, and multiple electric vehicle options, including neighborhood electric vehicles (NEVs), electric scooters, and other plug-in electrically powered vehicles.

This Master Transportation Plan Update includes an alternative network to facilitate the potential development of an industrial campus, referred to as Project Huckleberry, which was included in the March 2021 Update. In this alternative network, Inspirian Parkway ends in a T-intersection with Warner Road, the Mesquite Road is removed, and Eastmark Parkway curves to the east north of Warner Road. Eastmark Parkway intersects with Elliot Road east of the proposed location in the current master street network. This alternative alignment is depicted in **Figure 1.3**.

The transportation network follows the policies and guidelines set forth in the *Mesa 2025 Transportation Plan*, adopted by the City Council on June 24, 2002. In addition to the General Plan, the City of Mesa has developed several sub-area and neighborhood plans to refine the development policy direction for specific areas of the community. The *Mesa Gateway Strategic Development Plan*, adopted December 8, 2008, includes Eastmark and has the following strategies:

- Encourage businesses to provide or subsidize transit passes.
- Encourage projects to include covered shelters within project boundaries; include kiosks with information regarding local transit.
- Design all streets to take into consideration the needs of pedestrians and bicyclists, as well as motor vehicles. The plan's roadway network is supportive of "complete streets" characteristics that provide half of the physical space to the pedestrian realm.
- Include bike and pedestrian paths and/or connectors to existing paths for accessibility.

1.5 Master Transit Plan

Per the initial Master Transportation Plan, a regional transit system is anticipated to be implemented that will be incorporated into Eastmark. The *Mesa 2040 Transportation Plan* presents future transit improvements for this area. This includes north-south local bus service on Ellsworth Road by Year 2040. This transit corridor will provide direct service to Eastmark and provide connectivity externally. Two long-range alternatives for passenger/commuter rail are provided in the 2040 plan, one of which includes the addition of passenger rail service along the Ellsworth Road alignment. If this alternative comes to fruition, direct rail service may be provided between Eastmark and downtown Mesa, Tempe, Phoenix, and beyond. Once known, the corridors are proposed to be coordinated into the land use planning for the Site.

1.6 Master Bicycle and Urban Trail Circulation Plan

The goal of the community is to encourage alternate travel modes through narrow streets and connected roadway networks. Therefore, the transportation network within Eastmark accommodates and provides continuity to bicycle, pedestrian, transit and other vehicular networks beyond the site boundaries. The local streets and district streets may have separate bike lanes, but the roadway cross sections will be designed to encourage bicycles and vehicles to share the roadway. Bike lanes will be present on all arterial roadways. A multi-use path will be incorporated into Eastmark Great Park and will run the full length of the park. In addition, a multi-use pathways will be provided along multiple roadways within the community.

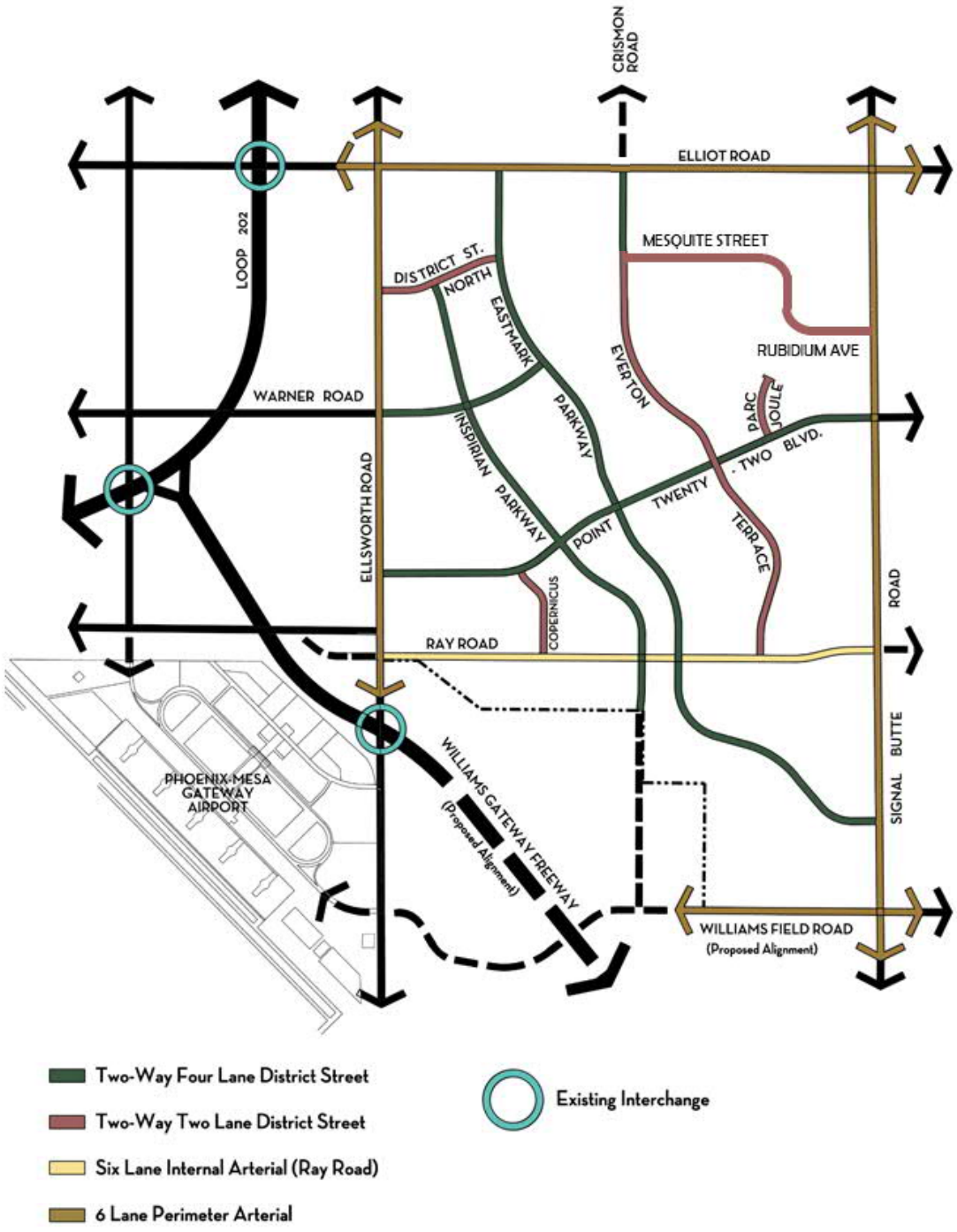


Figure 1.2 Conceptual Master Street Circulation Plan

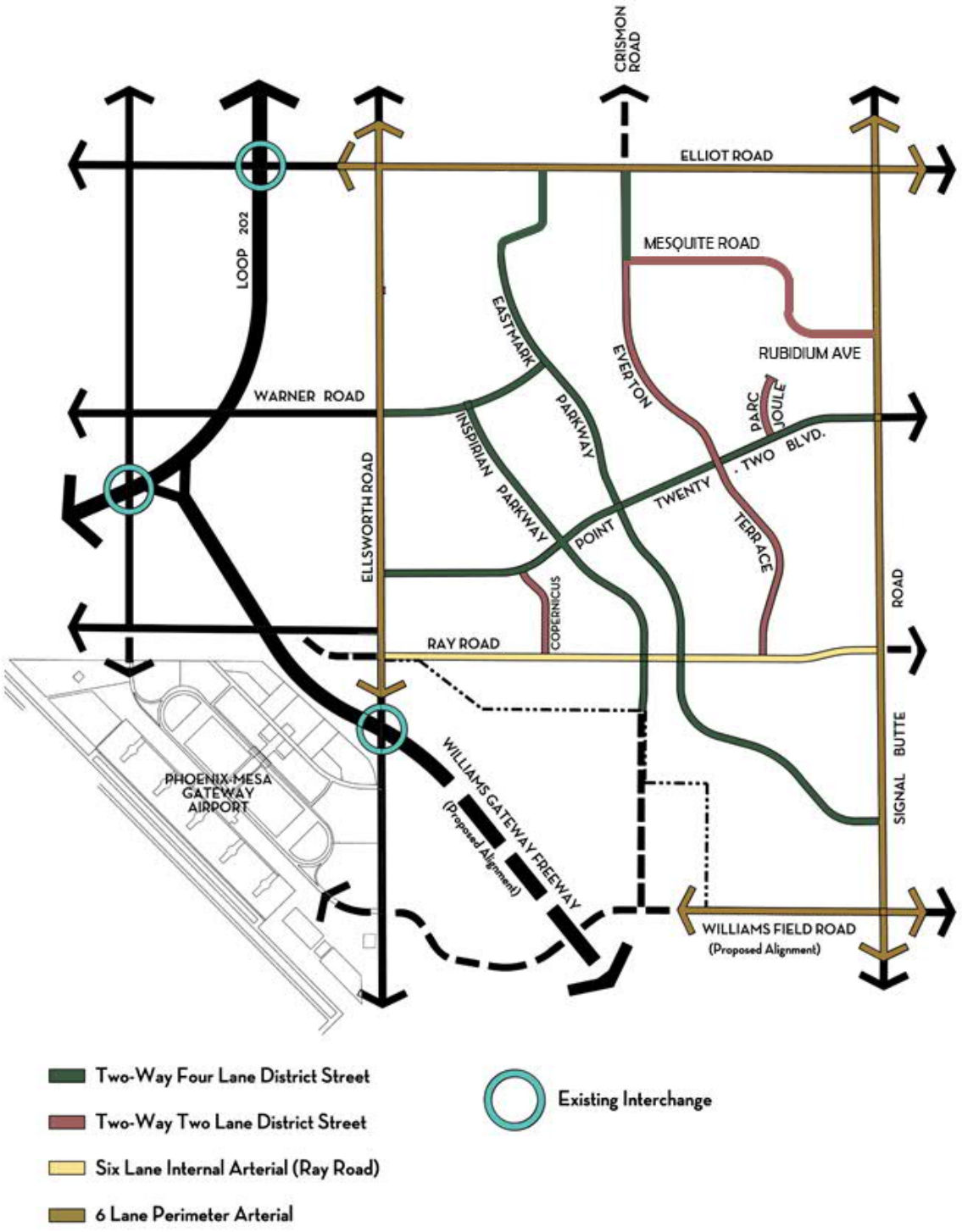


Figure 1.3 Eastmark Parkway Realignment Option

2.0 FUTURE ROADWAY NETWORK

2.1 Future Background Traffic Conditions

Future background traffic estimated to be on the major roadways adjacent to the development was obtained from MAG for year 2030 for use in the initial Master Transportation Plan. This was the 20-year design horizon established and maintained by MAG at the time of the original study. MAG uses a capacity constrained traffic model, which contains socioeconomic data in each Traffic Analysis Zone (TAZ), to estimate the volume of traffic on the future regional roadway network. In order to estimate the background traffic adjacent to the development, a unique MAG model run was conducted in September 2007 that excluded any socioeconomic data within the Eastmark boundary.

The MAG design year horizon and future traffic model is year 2040. Therefore, similar to the August 2014, March 2016, May 2017, August 2017, March 2020 and March 2021 updates, this update considers year 2040 as the ultimate build-out year for the Site. It is important to note that MAG continuously reviews traffic data, travel patterns, and changes in travel modes to update their future traffic projections.

The projected year 2040 traffic volumes previously provided by MAG to the City of Mesa are presented in **Figure 2.1**. The 2040 MAG model includes socio-economic data and development within the Eastmark Site. The trips generated by the Eastmark site in the 2040 MAG model were removed to represent background traffic. The resulting background traffic volumes excluding any development on the Eastmark Site are presented in **Figure 2.2**.

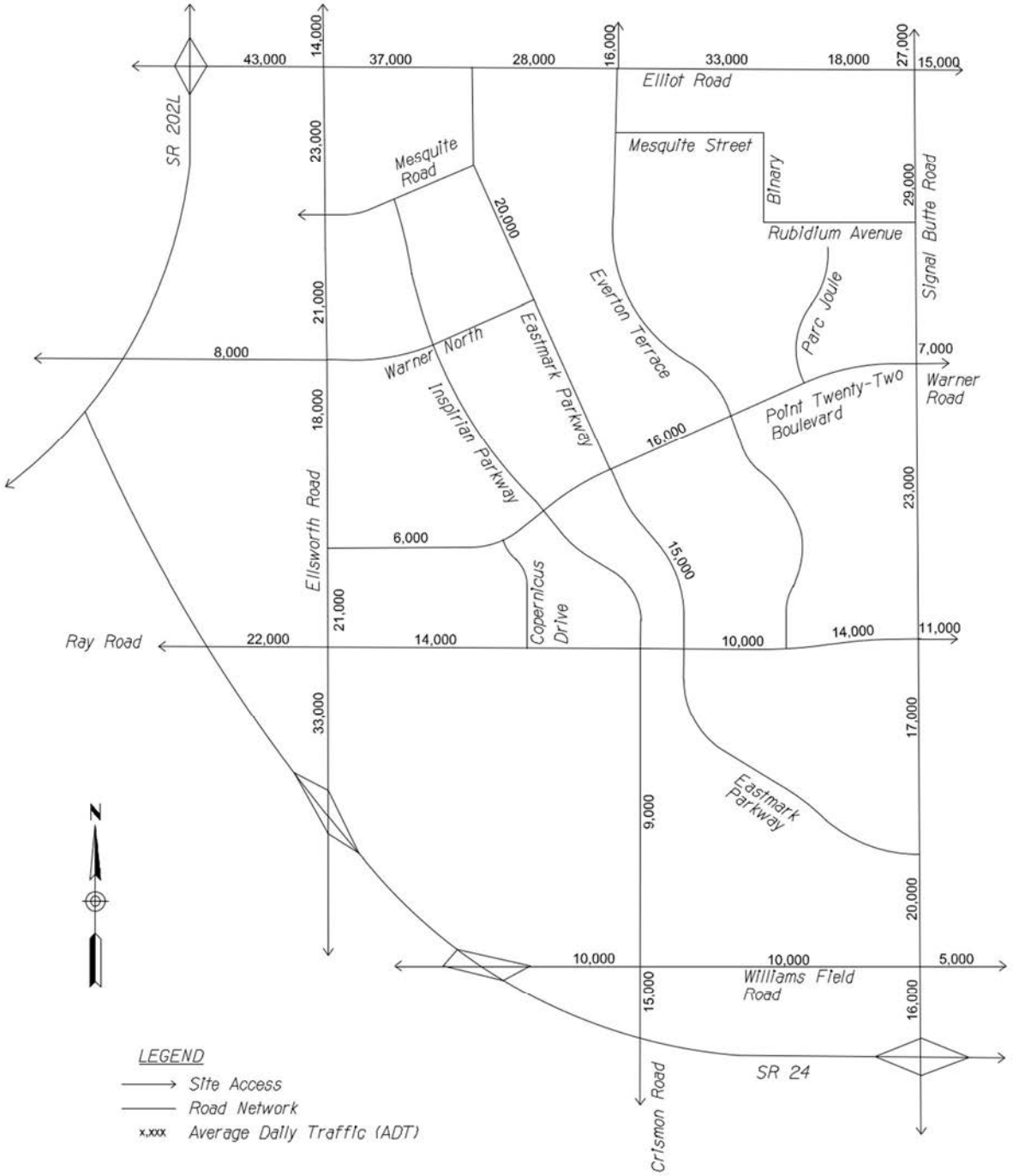


Figure 2.1 MAG Year 2040 Background Traffic Volumes

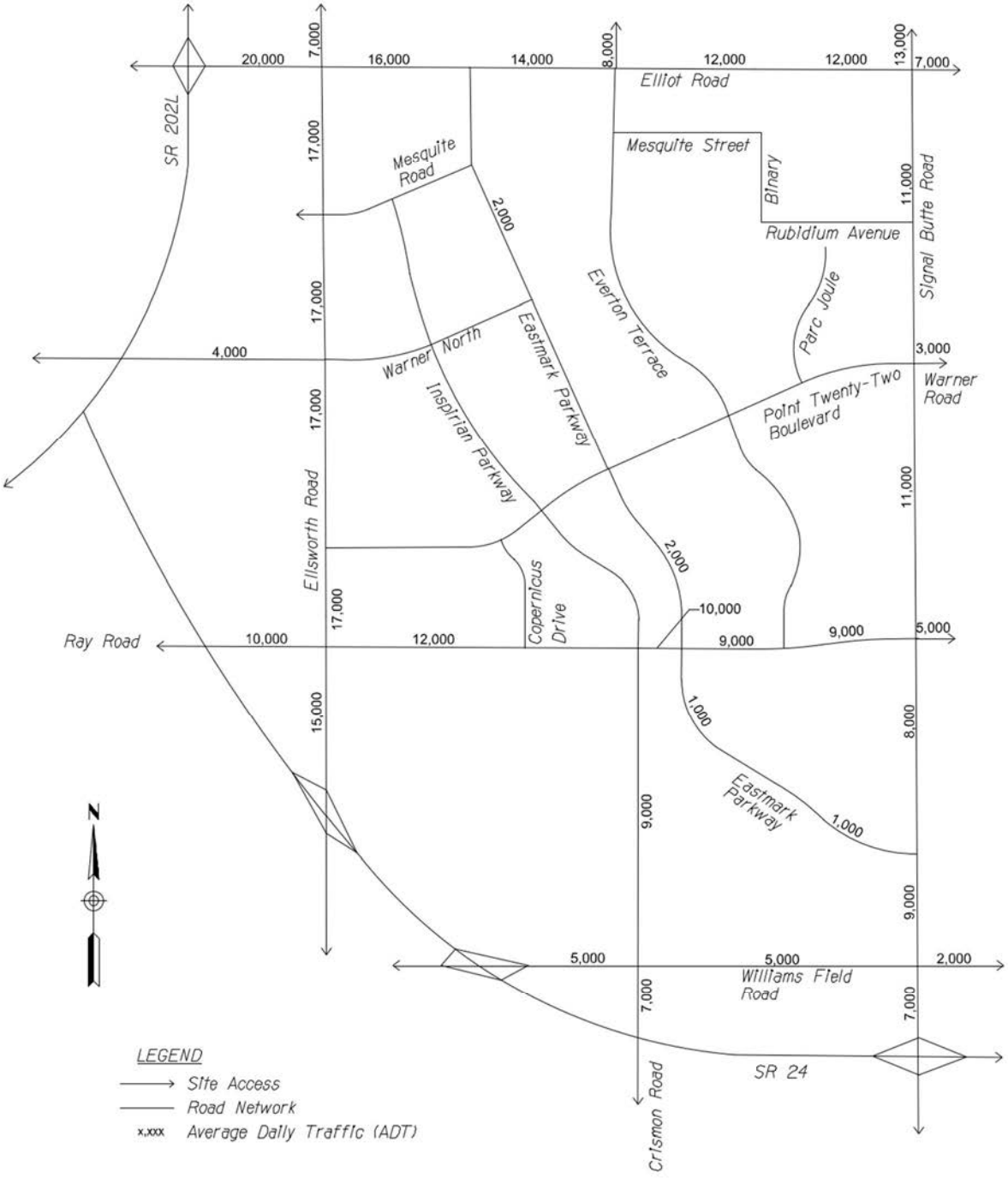


Figure 2.2 Year 2040 Background Traffic Volumes Excluding Eastmark

PROJECTED SITE TRAFFIC

2.2 Site Trip Generation

The daily weekday traffic volumes that may be generated by Eastmark were estimated based on the land use values from **Table 1.2**. The average trip generation rates published in *Trip Generation, Tenth Edition* by the Institute of Transportation Engineers (ITE) were used for this analysis, with the exception of the residential land uses. The average trip generation rate used for residential (non-mixed-use) land uses was provided by the Maricopa Association of Governments and was the result of a regional travel survey.

Table 2.1 shows an approximate volume of site traffic generated by the updated planning concept as of March 2021. It is estimated that the development may generate approximately 141,900 trips per day on an average weekday. Similar to the original *Master Transportation Plan*, a pass-by trip factor of 35% was used for the commercial land uses in the development. The percentages of pass-by trips for all other land uses are assumed to be negligible. This pass-by trip reduction was applied to the site traffic only and not background traffic; only traffic attracted to, and generated by, the on-site retail land uses were reduced. Background traffic volumes were not reduced but have diversion trips on-site.

Table 2.1 Eastmark Trip Generation, March 2021

Land Use	Trip Generation Unit	Total Trip Generation Units	Resultant Total ADT
Residential			
High Density	DU	1,407	10,299
Medium Density	DU	7,410	54,241
Low Density	DU	91	672
Mixed-Use Residential	DU	1,080	4,536
Office	Floor Area (1000 Sq. Ft)	399	3,890
Commercial	Floor Area (1000 Sq. Ft)	924	22,684
Industrial	Floor Area (1000 Sq. Ft)	10,757	34,953
Services (Church and Aquatic Center)	Floor Area (1000 Sq. Ft)	70	922
Civic Space	Employees	6	335
Schools	Floor Area (1000 Sq. Ft)	492	6,921
Parks	Acres	89	70
Hotels	Rooms	584	4,882
Total			144,405

The same adjustments for multi-modal traffic volumes were utilized for this update. No reduction was made for bike and pedestrian trips. Internal capture rates vary based on land uses within each DU. Approximately 2.5% of the total trips generated by the development are assumed to use transit. Resultant total average daily traffic (ADT) volumes shown in the table do not match the

numbers presented in previous DU transportation studies due to differing internal capture rates between the DU study and the overall master plan study.

If the Project Huckleberry option is moved forward, land uses from DU 2 and DU 3 will be converted to industrial land uses. The resulting approximate volume of site traffic generated by the Project Huckleberry concept is shown in **Table 2.2**. Overall, this alternative concept results in fewer trips generated from the Site than with the current development plan.

Table 2.2: Trip Generation, Project Huckleberry Option

Land Use	Trip Generation Unit	Total Trip Generation Units	Resultant Total ADT
Residential			
High Density	DU	1,407	10,299
Medium Density	DU	6,417	46,972
Low Density	DU	91	672
Mixed-Use Residential	DU	0	0
Office	Floor Area (1000 Sq. Ft)	147	1,428
Commercial	Floor Area (1000 Sq. Ft)	542	13,304
Industrial	Floor Area (1000 Sq. Ft)	12,565	43,920
Services (Church and Aquatic Center)	Floor Area (1000 Sq. Ft)	70	922
Civic Space	Employees	6	335
Schools	Floor Area (1000 Sq. Ft)	492	6,921
Parks	Acres	75	58
Hotels	Rooms	234	1,956
Total			126,787

2.3 Site Trip Distribution

The site trip distribution for Eastmark was initially developed by reviewing regional roadway networks and assumptions of the interaction between the proposed future developments in the surrounding area, particularly Superstition Vistas, Phoenix-Mesa Gateway Airport, and ASU Polytechnic Campus. Residential, office and commercial traffic is estimated to be distributed in each of the four cardinal directions. The assumptions used for the original *Master Transportation Plan* are still reasonable. Therefore, trip distributions assume 15% of the development trips remain internal and are distributed on the roadway network within the development, and the remaining 85% is assumed to leave the development and be distributed to the external roadway network as shown in **Table 2.3**.

Table 2.3 Trip Distribution

Distribution Percentage				
Internal	External to Eastmark			
	North	South	East	West
15%	15%	25%	20%	25%

The travel demand forecasting model QRS II was used to estimate total traffic generated by the Site and distribute to the internal and external streets. QRS II is a gravity-based transportation model that uses socioeconomic data (population and employment) to generate and distribute trips created by the land uses within the Site. The QRS II model created for Eastmark includes the local roadways as well as the major roadways in order to better assess site traffic distribution. In the August 2014, March 2016, May 2017, August 2017, March 2020, and March 2021 updates to the Master Transportation Plan, the roadway network and transportation analysis zones (TAZ) were modified from the initial model runs to account for the known roadway networks and land uses in the planned DU's. In this update, the roadway network has been updated to reflect the most recent development plan. The resultant total site generated is presented in **Figure 2.3.**

2.4 Year 2040 Total Traffic

For the purposes of this update, the total traffic is assumed to reflect the known land uses on developed DU's and anticipated land uses based on the planned build scenario. The site traffic was added to the MAG 2040 background traffic (excluding Eastmark) to obtain an estimate of the total traffic volumes on the internal and external roadway networks. **Figure 2.4** presents the resultant total traffic for Eastmark in year 2040. Compared to previous March 2021 MTP Update, traffic in this network is nearly identical except in the northeastern portion of the development. Mesquite Street in DU 6S allows traffic to route directly to Signal Butte Road and Everton Terrace.

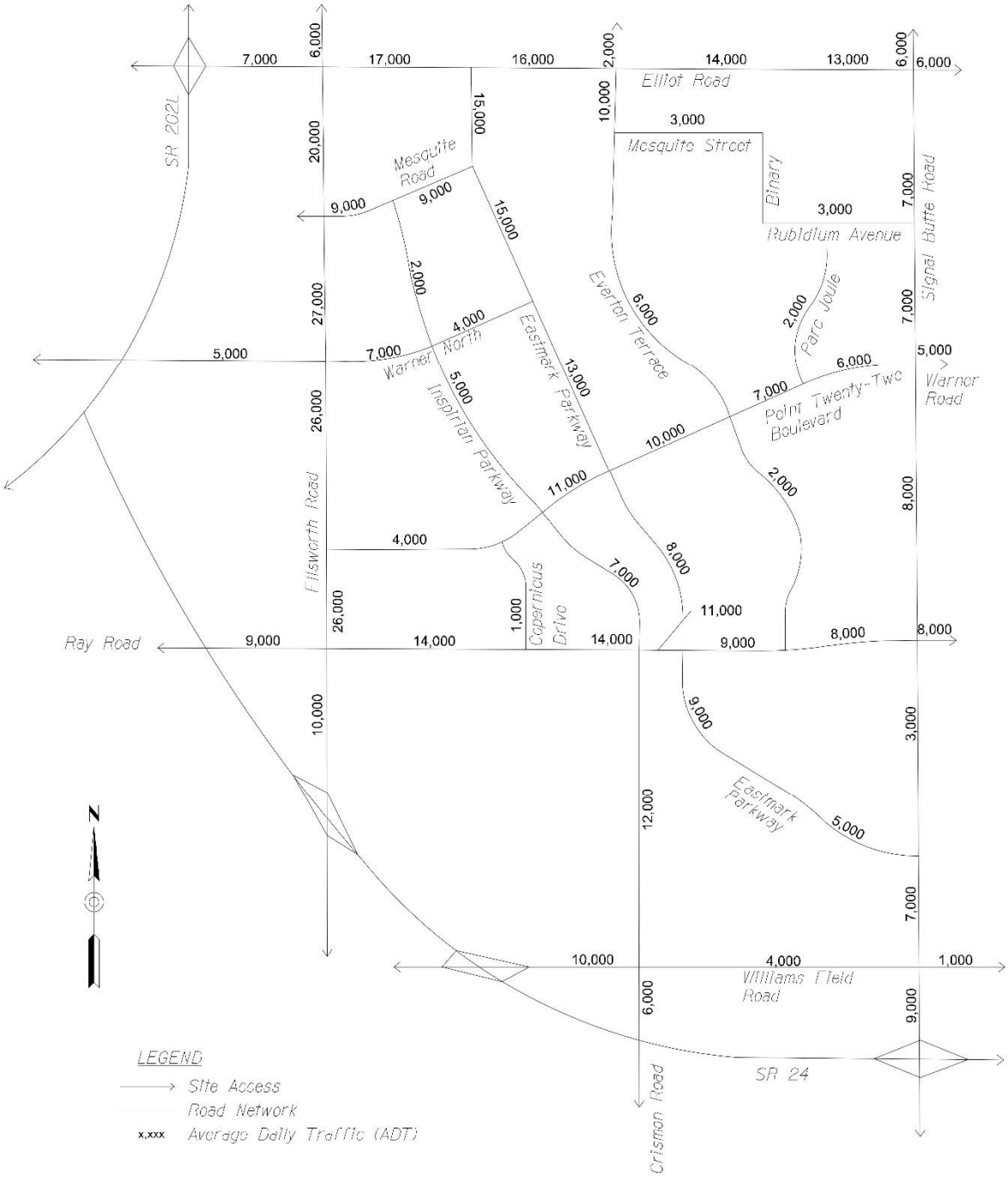


Figure 2.3 Site Traffic for Eastmark

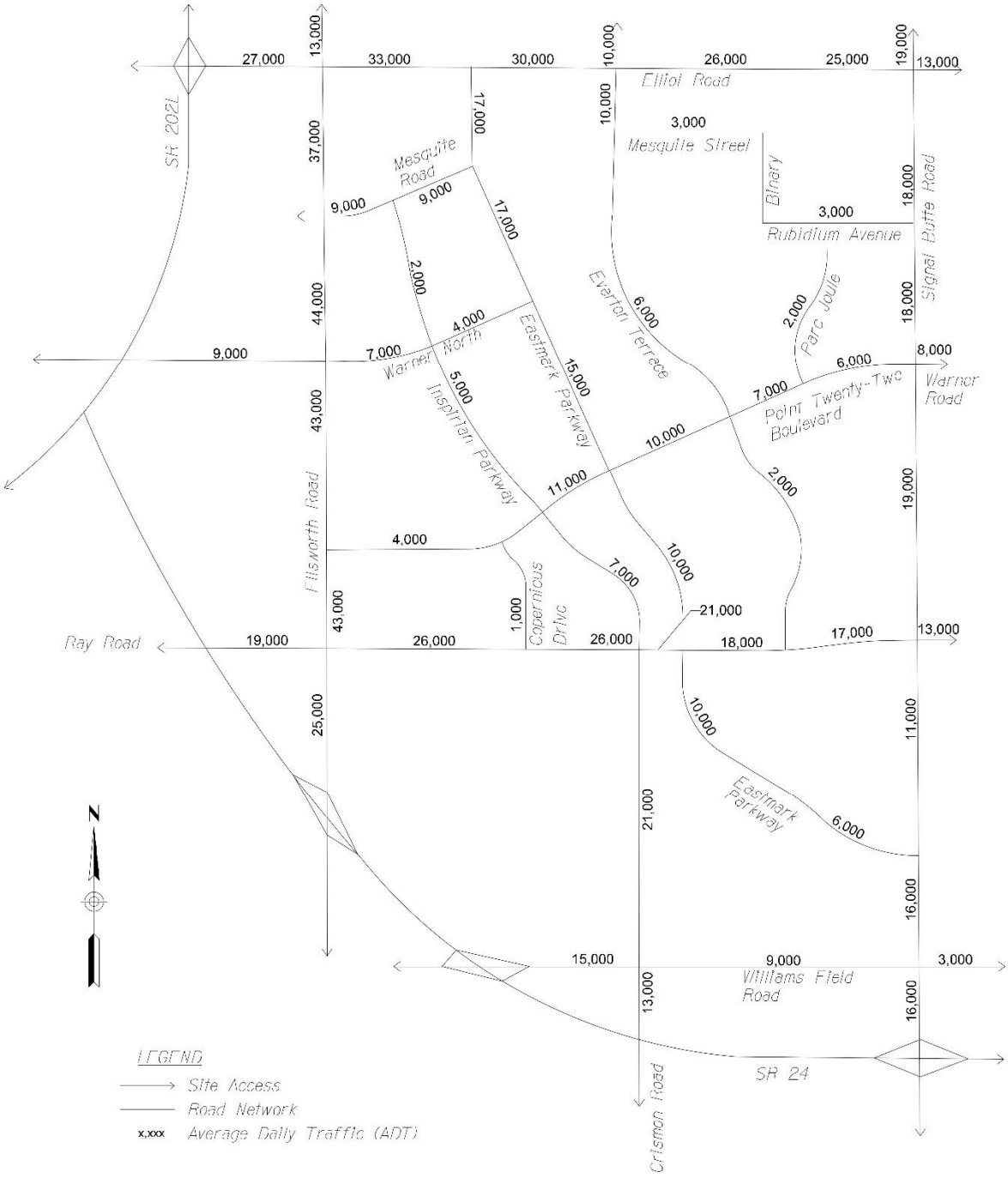


Figure 2.4 Year 2040 Total Traffic for Eastmark

2.5 Alternative Alignment of Eastmark Parkway

In order to facilitate a potential development within DU 1 and DU 2 called Project Huckleberry, this MTP Update includes an alternative option for the network configuration which was addressed in the March 2021 Update. The alternative alignment would remove Mesquite Road and end Inspirian Parkway at a T-intersection with Warner Road. Eastmark Parkway would curve to the east north of Warner Road and intersect with Elliot Road approximately 1,200 feet west of the Everton Terrace intersection. **Figure 2.5** provides the 2040 site traffic at full build-out of Eastmark with this network option. Compared to the currently approved roadway network volumes are very similar. However, some shift in volume from the realigned Eastmark Parkway onto Everton Terrace and Ellsworth Road is expected to occur. Year 2040 total traffic including the background traffic (with Eastmark removed) is provided in **Figure 2.6**.

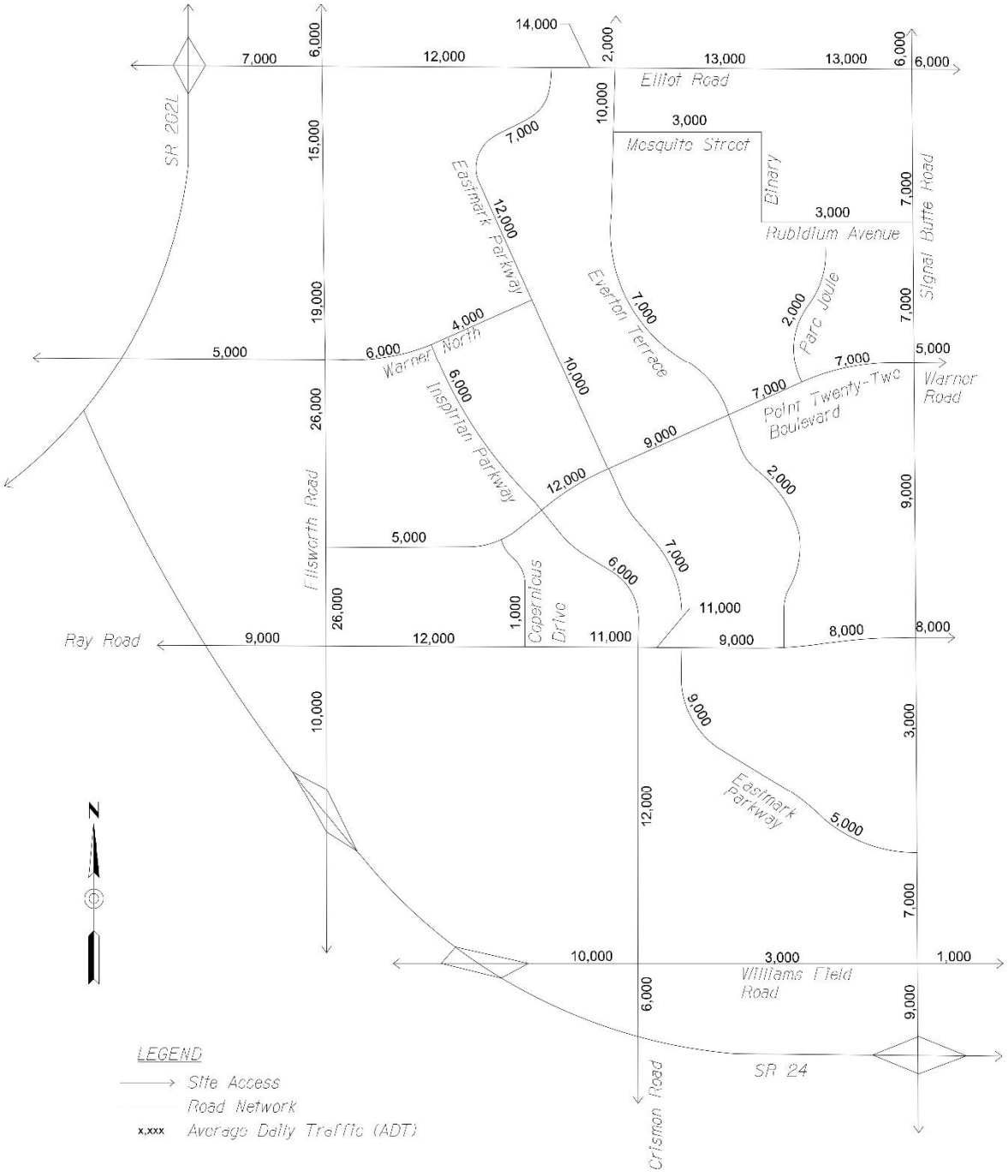


Figure 2.5 Site Traffic with Project Huckleberry Network Option

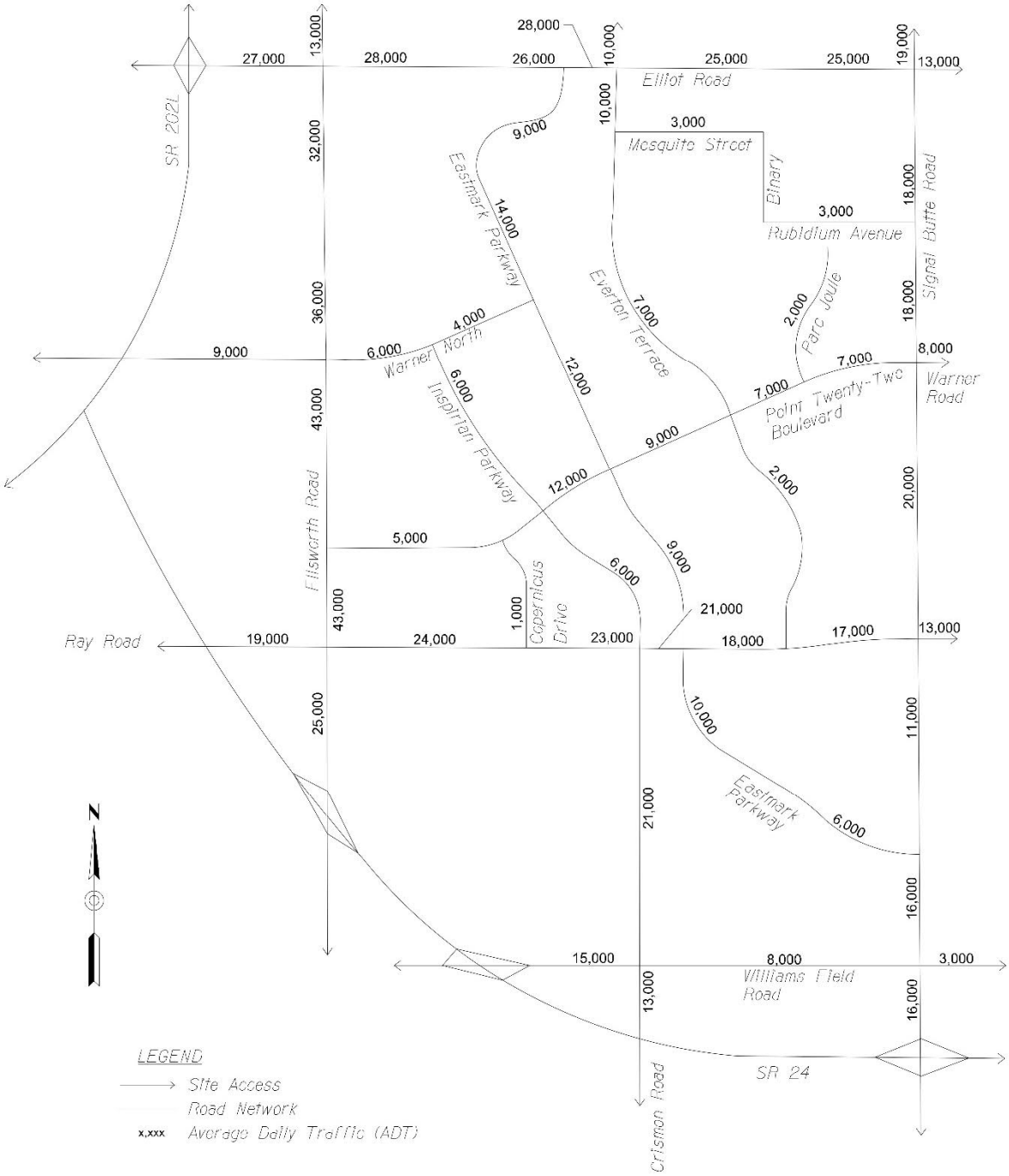


Figure 2.6 Year 2040 Total Traffic with Project Huckleberry Network Option

3.0 ROADWAY IMPROVEMENT ANALYSIS

3.1 Capacity Analysis

The total daily traffic volumes presented in **Figure 3.2** and **Figure 3.4** were analyzed for future roadway capacity needs on the internal and external roadways. In accordance with the original *Master Transportation Plan*, the MAG planning-level urban roadway level of service (LOS) capacities, as modified from the FDOT Q/LOS Handbook, were used as the capacity thresholds for the roadways in the study area. These threshold volumes are presented in **Table 4.1**. The roadway capacities reflect LOS E thresholds that are typically acceptable in developed urban areas.

Table 3.1 MAG Planning Level Urban Roadway Capacities

Roadway Classification	No. of Lanes	ADT	LOS
Minor Collector	2	16,000	E
Major Collector / Arterial	4	43,600	E
Principal Arterial	6	65,600	E

Based on the results of the anticipated total traffic presented in **Figure 3.2** and **Figure 3.4** and on the roadway capacity thresholds presented in **Table 4.1**, the roadway classifications and lane configurations recommended in the original *Master Transportation Plan* are still valid. Two-lane local internal roadways are anticipated to provide an internal grid network and connectivity throughout the site and were modeled in the QRS II capacity model.

- Internal major collector four-lane roadways include: Eastmark Parkway (formerly "Spine East"), Inspirian Parkway (formerly "Spine West"), Warner Road (formerly "Warner North"), and Point Twenty-two Boulevard (formerly "Warner South").
- Mesquite Road, Mesquite Street, Rubidium Avenue, Parc Joule, Everton Terrace, and Copernicus are recommended as 2-lane roadways with left and right-turn lanes at major intersections. These streets may also be constructed as 4-lane roadways with the outside through lane used for right turning traffic.
- The adjacent arterial roadways, including Ray Road, Elliot Road, Ellsworth Road, Signal Butte Road, and Williams Field Road, will be six lanes.

If the Project Huckleberry network option is selected, the above functional classification and lane requirements all remain.

3.2 Intersection Analysis

Peak hour intersection volumes were not developed as part of the *Master Transportation Plan*. However, an assessment of potential traffic signal locations was conducted to confirm that the major roadways as currently proposed/planned will meet City of Mesa intersection spacing requirements. The anticipated and allowable signalized intersection locations are presented in **Figure 3.1**. The figure shows the potential realignment option for Eastmark Parkway in the Project Huckleberry network configuration. The proposed location of the Eastmark Parkway and Elliot Road intersection in the Project Huckleberry option falls between 1/4 mile and 1/3 mile from the Everton Terrace and Elliot Road signalized intersection, which in an area restricted from new signalized intersections based on City of Mesa design guidelines.

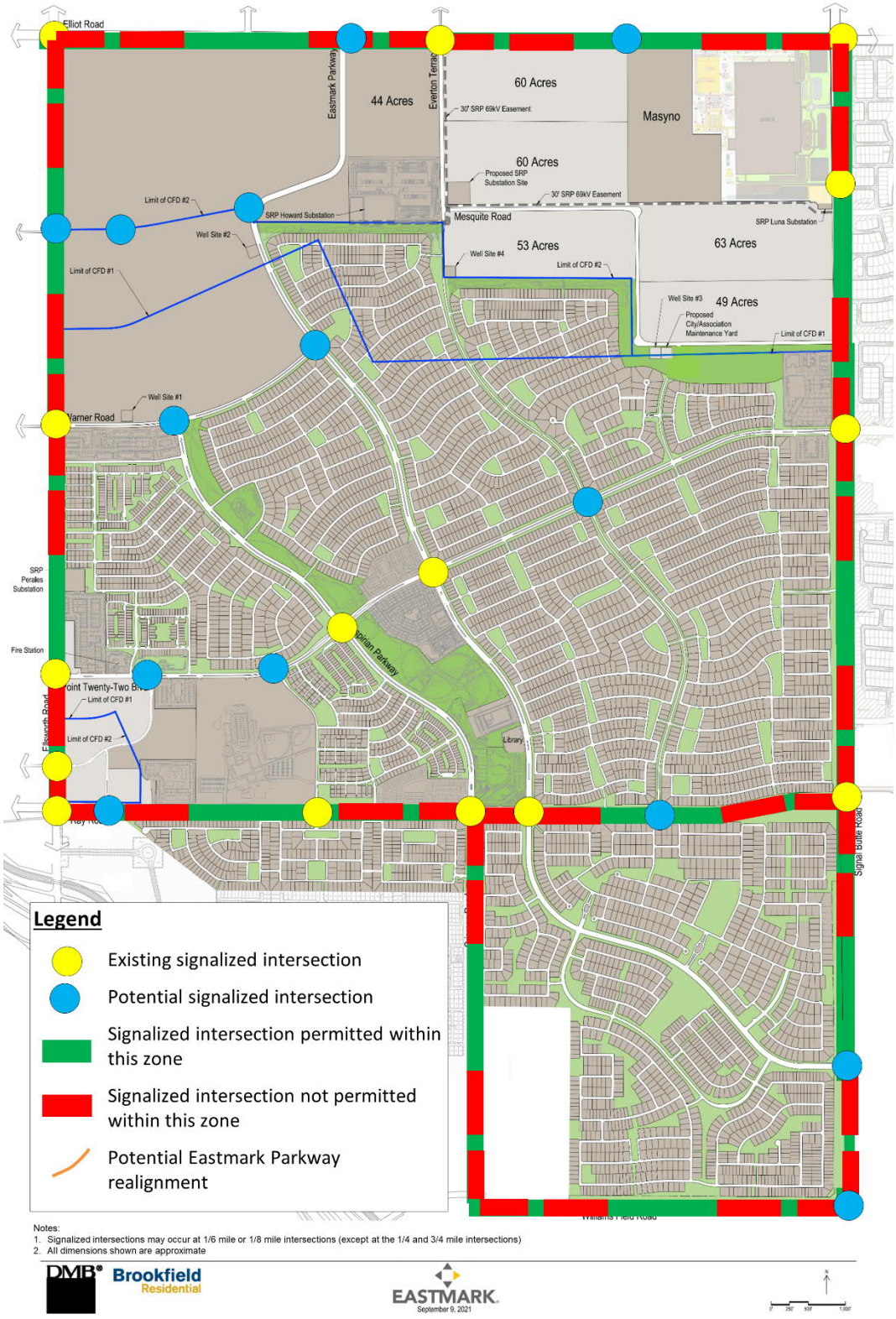


Figure 3.1 Potential and Existing Signalized Intersection Locations

4.0 CONCLUSIONS AND RECOMMENDATIONS

The *Master Transportation Plan* and its updates serve as a guide for transportation infrastructure to meet the multi-modal goals of Eastmark. The traffic analysis and resultant anticipated site trip generation for this update are based on the preliminary planning concepts for each individual development unit. The proposed land use concepts are reflected in this update along with the roadway networks and access points. Based on these assumptions, Eastmark is anticipated to generate roughly 144,400 daily weekday trips. This is roughly 48% of the original *Master Transportation Plan*, which anticipated 300,000 weekday trips. The trip reduction is the result of more concrete anticipated land use planning. The Project Huckleberry development option, which includes an industrial campus in DU 1 and DU 2, is anticipated to generate roughly 126,800 daily weekday trips, or roughly 42% of the anticipated daily weekday trips in the original *Master Transportation Plan*. Results of the analysis indicate that the roadway network as outlined in the Mesa General Plan will accommodate the traffic generated by Eastmark at full build-out with either network development option.

4.1 Master Street Circulation Plan Recommendations

The recommendations of the initial *Master Transportation Plan* are still valid for the majority of the intersections and are repeated herein:

The following arterial-to-arterial intersections are anticipated to include two (2) left turn lanes, one (1) right turn, and three (3) through lanes for each approach:

- Elliot Road and Ellsworth Road
- Elliot Road and Signal Butte Road
- Signal Butte Road and Ray Road
- Signal Butte Road and Williams Field Road

As a result of the limited amount of right-of-way available on Ellsworth Road at Ray Road, the intersection is anticipated to include the same recommendations as the arterial-to-arterial intersections, except for the northbound approach. This approach will consist of one (1) shared through/right turn lane, two (2) left turn lanes, and two (2) through lanes.

All intersections that connect a major arterial and a major collector from Eastmark are anticipated to include one (1) left turn lane, one (1) right turn lane, and three (3) through lanes for the major arterial approaches. The major collector approaches are anticipated to include one (1) left turn lane, one (1) right turn lane, and two (2) through lanes. These intersections include Ellsworth Road and Warner Road, Ellsworth Road and Point Twenty-Two Boulevard, Signal Butte Road and Point Twenty-Two Boulevard, Elliot Road and Eastmark Parkway, and Eastmark Parkway and Ray Road, Everton Terrace and Elliot Road, and Inspirian Parkway and Ray Road.

The proposed roadway cross sections are presented in Section 10 “Street Standards” of the Community Plan. The design criteria and guidelines related to the design of the roadway facilities are also presented in Section 10 of the Community Plan. All local streets that are connecting to arterials are to be 34-foot wide cross sections.

The Project Huckleberry network alternative that presents a realigned Eastmark Parkway north of Warner Road, if implemented, would function with the same number of lanes and roadway classifications as recommended in the currently approved network. If this alternative moves forward, a design exception to the City of Mesa signalized intersection spacing standards is recommended. In this situation, it is recommended that signal coordination between the Elliot Road intersections with Eastmark Parkway and Everton Terrace be maintained in the east-west directions.

The addition of Mesquite Street in the northeast section of the site had a minor effect on the traffic volumes on the adjacent Everton Terrace. This street will connect Everton Terrace to Signal Butte Road with no north/south public street connections

4.2 Master Transit Plan Recommendations

As the Gateway Area develops, a regional transit system is anticipated to be implemented that serves the area, including bus rapid transit and local bus service. The regional and local transit corridors are anticipated to provide direct service to Eastmark and are proposed to be coordinated into the land use planning for the Site.

4.3 Master Bicycle and Urban Trails Plan Recommendations

Bicyclists will be accommodated on the arterials, collector/district streets and local/neighborhood streets. Urban trails/sidewalks will also be present on roadways and within the Eastmark Great Park. Design criteria and guidelines related to the design of bicycle facilities are presented in Section 10 of the Community Plan.