Baseline Roadway Network Conditions

Southeast Mesa Land Use and Transportation Plan

November 2018

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Baseline Roadway Network Conditions

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Baseline Roadway Network Conditions

Introduction

In 2008, the City of Mesa completed the *Mesa Gateway Strategic Development Plan* (MGSDP), which provided a planning analysis and vision for future growth in the southeast portion of Mesa. Since that time, southeast Mesa has developed into a major economic, employment, and educational center for the region.

The *Southeast Mesa Land Use and Transportation Plan* (LUTP) will update the land use and transportation portions of the MGSDP. Through the LUTP, the City of Mesa is seeking to enhance the quality of life in southeast Mesa through the programming and delivery of timely multimodal transportation enhancements.

This interim LUTP document, *Baseline Roadway Network Conditions*, describes the existing and planned roadway network within southeast Mesa.

Study Area

Figure 1 shows the LUTP study area boundary. The study area encompasses approximately 50 square miles. Portions of the study area are bounded by the City of Apache Junction, Town of Gilbert, Town of Queen Creek, and Pinal County. Portions of the Loop 202, State Route (SR) 24, and US 60 freeways are within the study area. The study area also includes the Phoenix-Mesa Gateway Airport (PMGA) and the Arizona State University (ASU) Polytechnic campus.

Existing Conditions

The roadway network within the northern and eastern portions of the study area is fairly well developed with arterial, collector, and residential streets. Much of the southern portion of the study area (south of Elliot Road), however, is less-developed or undeveloped.

Freeways and Streets

This section describes the following characteristics of the existing roadways in the study area: functional classification, number of through lanes, and daily traffic volumes based on recent traffic counts.

Figure 2 shows the current functional classification (i.e., freeways, arterials, and collectors) for the study area segments of the roadway network. Where new roadway segments are planned or a change of functional classification is anticipated, the future functional classification is also shown in the same figure.

Table 1 shows the number of miles of roadway of each functional classification within the study area.

Table 1: Roadway Miles by Current Functional Classification

Functional Classification	Miles
Freeway	16
Arterial	93
Collector	43

Figure 3 shows the number of through travel lanes on each arterial or collector roadway segment. This laneage information was developed in coordination with the City of Mesa and confirmed using aerial photography or field reviews. Most of the arterial streets north of Elliot Road are built out with four or more through lanes. South of Elliot Road, there are many arterial roadway segments that have not been built or that are only two-lane roadways.

Figure 4 shows the daily traffic volumes on study area roadways. These volumes were derived from traffic counts collected in 2017 and 2018 by the City of Mesa, Town of Gilbert, Maricopa County Department of Transportation (MCDOT), and Arizona Department of Transportation (ADOT).

The highest recorded daily traffic volumes occur on the freeway segments and on arterial segments near freeway traffic interchanges. The highest arterial traffic volumes occur along Power Road near the US 60/Loop 202 traffic interchanges and on Ellsworth Road south of SR 24.

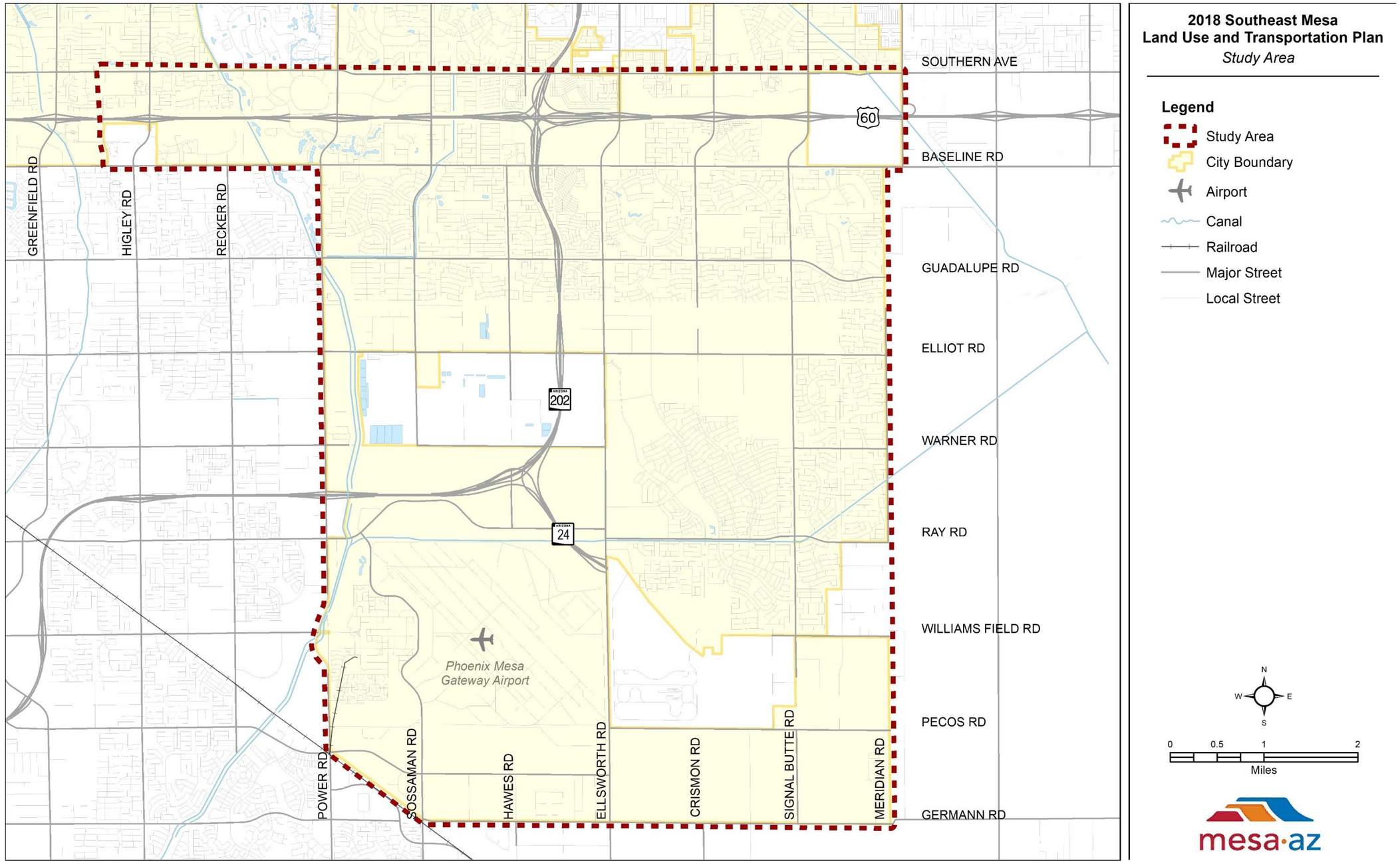


Figure 1: Study Area

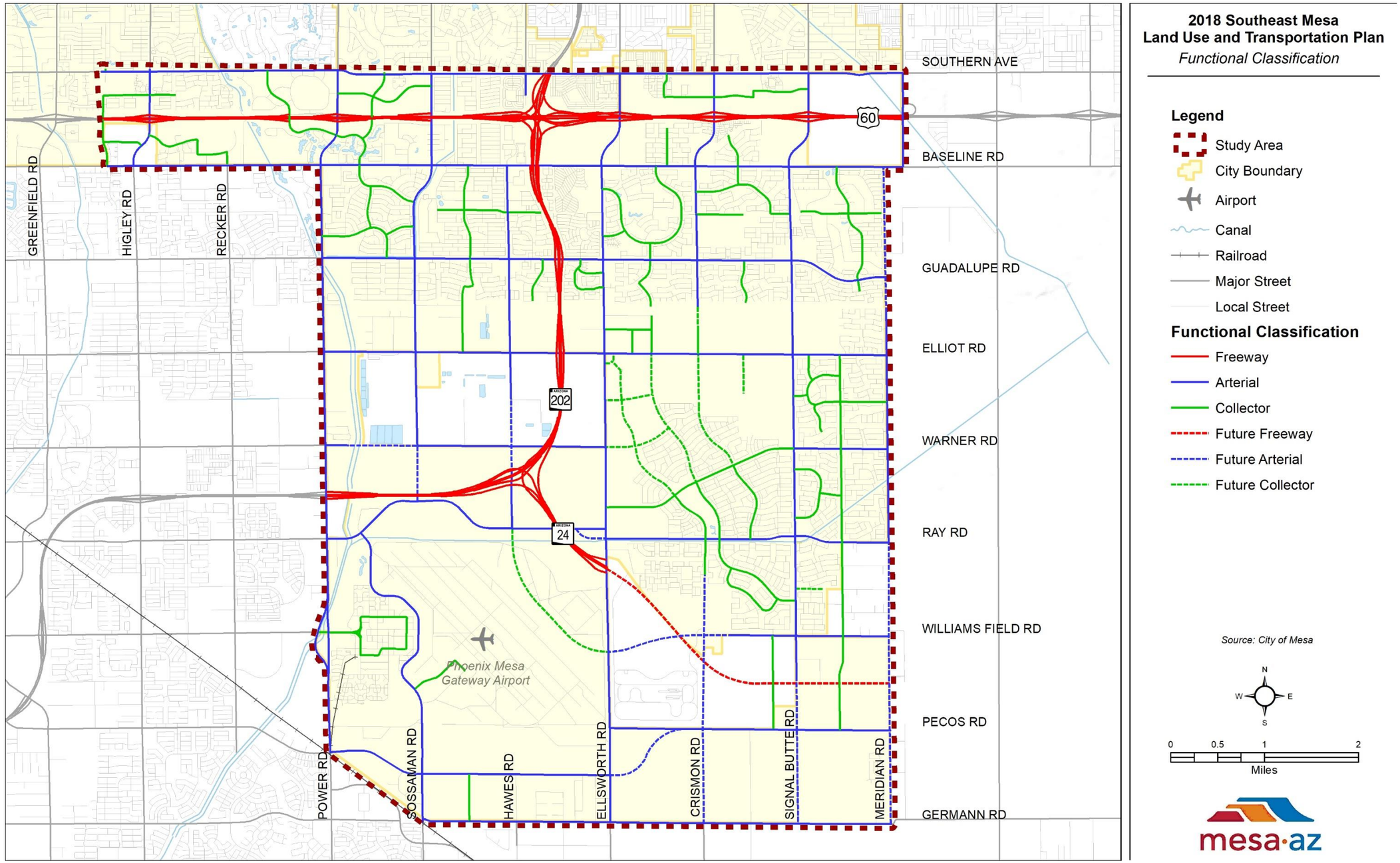


Figure 2: Roadway Functional Classification

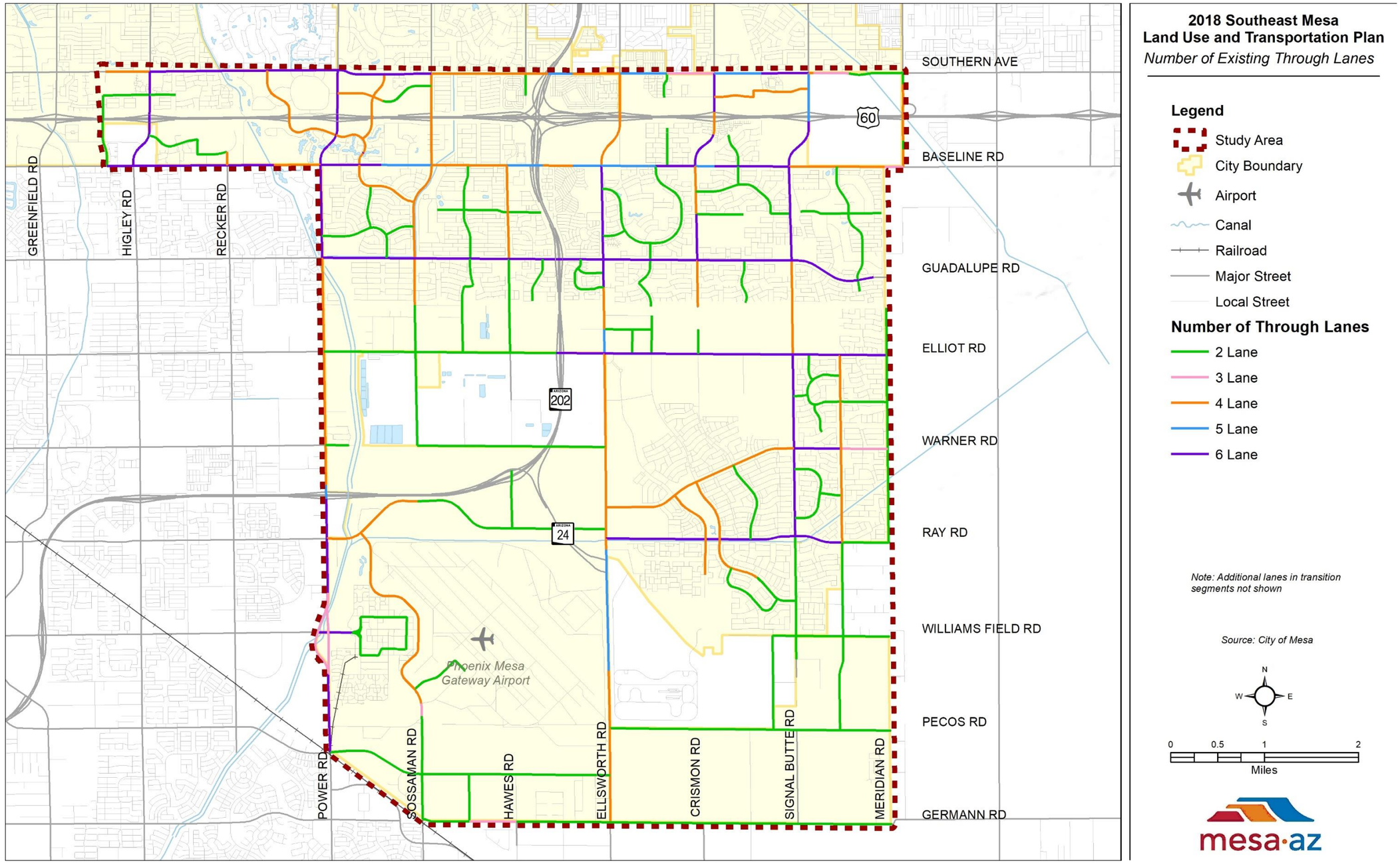
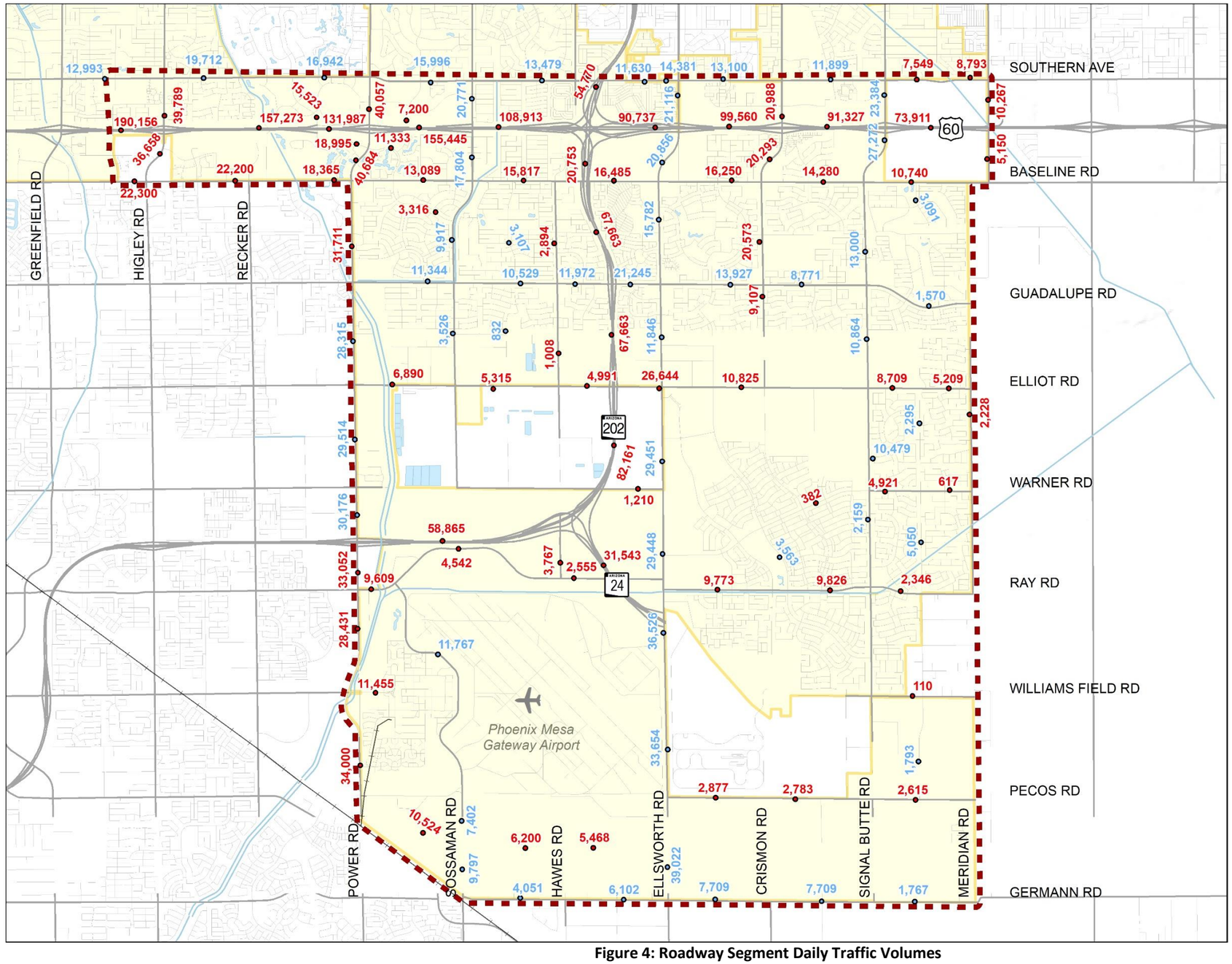


Figure 3: Number of Through Lanes



2018 Southeast Mesa Land Use and Transportation Plan

Traffic Counts

Legend

- Study Area
- City Boundary
- Airport
- Canal
- Railroad
- Major Street
- Local Street

2018 Traffic Counts

- # 2018 Traffic Counts

2017 Traffic Counts

- # 2017 Traffic Counts

Source: City of Mesa, MCDOT, ADOT, Town of Gilbert

N W E S

0 0.5 1 2

Miles

Figure 4: Roadway Segment Daily Traffic Volumes

Planned Roadway Improvements

Within the study area, there are several roadway improvement projects that are underway or within the current five-year plan for the City of Mesa (*2019-2023 Capital Improvement Program* (CIP)) and the Maricopa Association of Governments (MAG) *(2018-2022 Transportation Improvement Program* (TIP)). There are also several impending developer-funded roadway improvements and longer-term public agency planned improvements in the study area. These improvement projects will influence traffic patterns and operations within the study area. The major planned roadway improvements include the following:

City of Mesa 2019-2023 CIP

Southern Avenue Improvements: Greenfield Road to Higley Road (CP0700) – Improve Southern Avenue, including widening the Southern Avenue/Higley Road intersection to three through lanes in each direction

Eastside Improvements at PMGA (CP0217) – Develop the east side of the airport to increase capacity and economic development opportunities

Signal Butte Road Improvements: Williams Field Road to Pecos Road (CP0729) – Construct Signal Butte Road to provide two through lanes in each direction and coordinate improvements with the future SR 24/Signal Butte Road traffic interchange; work will include completing any roadway segments that have not been completed by adjacent development and setting the roadway up to ultimately be a six-lane facility

Signal Butte Road Improvements: Pecos Road to Germann Road (CP0885) – Construct Signal Butte Road to provide two through lanes in each direction; work will include completing any roadway sections that have not been completed by adjacent development and setting the roadway up to ultimately be a six-lane facility

Power Road Improvements: East Maricopa Floodway to Loop 202 (CP0104) – Widen Power Road to six through lanes with a raised median, completing any segments that have not been completed by adjacent development; this is a joint project with the Town of Gilbert and MCDOT

MAG 2018-2022 TIP (Public Funding)

SR 24: Ellsworth Road to Ironwood Road, Phase 1 – Extend SR 24 from Ellsworth Road to Ironwood Road as an interim four-lane facility that ultimately will include five grade-separated traffic interchanges – funded by ADOT

MAG 2018-2022 TIP (Private Development Funding)

Elliot Road: Hawes Road to Loop 202 – Widen Elliot Road to six through lanes with a raised median

Hawes Road: Elliot Road to Paloma Avenue Alignment – Widen Hawes Road to two through lanes in each direction

Power Road: Mesquite Street to ¼-mile north of Mesquite Street – Add a third northbound through lane

Other Major Projects

These projects are development-driven, so the timing of these improvements is dependent on when development in the area occurs.

Eastmark Roadway Network – The remainder of the planned roadway network within the Eastmark master planned community will be completed by private development

Ray Road Realignment – The City of Mesa has plans to ultimately realign Ray Road, adding a reverse curve to Ray Road west of Ellsworth Road so Ray Road is continuous across Ellsworth Road

Pecos Road Realignment – The City of Mesa has plans to ultimately realign Pecos Road, adding a reverse curve to Pecos Road east of Ellsworth Road so Pecos Road is continuous across Ellsworth Road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