



TRAFFIC IMPACT STUDY
Westgate Multifamily
SWC of 99th Avenue and Myrtle Avenue
Glendale, Arizona

September 13, 2023
Revision #1: March 8, 2024
Revision #2: May 9, 2024

PREPARED FOR
Mattson Construction
175 South Hamilton Place
Building 7, Suite 115
Gilbert, AZ 85233

PREPARED BY

United Civil Group

The image shows the logo for United Civil Group (UCG). It features the letters 'UCG' in white, bold, sans-serif font inside a blue square. To the right of the square are three horizontal red bars of equal length. Below the logo, the text 'United Civil Group' is written in a smaller, black, sans-serif font.

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I. EXECUTIVE SUMMARY

Mattson Construction retained United Civil Group (UCG) to perform this Traffic Impact Study (TIS) for the planned Westgate Multifamily Development located on the southwest corner of 99th Avenue and Myrtle Avenue in Glendale, Arizona. The site is approximately 19 acres of vacant land, Maricopa County Assessor's parcels (142-57-022, 142-57-022A, 142-57-003Z, 142-57-003H, 142-57-002D, a portion of 142-57-003U, and a portion of 142-57-002F). The site will be developed as (4) four-story buildings with a total of 457 multifamily units. In addition, 13,000 square feet of retail development is proposed on the east side of the site.

It is assumed that this development will be constructed in two phases. Phase I will consist of 239 units constructed and occupied by 2026. Phase II consists of the remaining 218 units plus the retail which will be constructed and occupied by the year 2029.

Three new site accesses and one existing access are proposed for this development. Two new site accesses are planned for Phase I of the development. The main access for Phase I (Access A) is planned on Myrtle Avenue with secondary exit only access (Access B) on 99th Avenue. For Phase II of the development, the site will obtain access from the existing middle driveway on Glendale Avenue (Access C) with secondary exit only access (Access B) on 99th Avenue. A new access is proposed for the retail development (Access D) that will align with the existing bus-only driveway for the park and ride on the east side of 99th Avenue.

A. Study Guidelines

This TIS has been performed in general conformance with the City of Glendale's Guide for the Submittal of Traffic Statements and Traffic Impact Analysis dated March 2023, and per scoping information provided by City of Glendale Transportation Department, locally accepted standards, and industry practice. Per the City's Guide, this planned multifamily residential development is characterized as an Analysis Category I, small development which generates 100 or more peak hour trips but fewer than 499 peak hour trips. As such, the study horizon years for this development are the opening year 2026, and the full build out year 2029 plus 10 years after opening, year 2039. The minimum study area is defined as all site access driveways and all signal-controlled intersections within 1 mile of either side of the development.

Within these parameters and based on discussions with the City of Glendale, the intersections of 99th Avenue/Cardinals Way, 99th Avenue/Glendale Avenue, 99th Avenue/Hospital Driveway, 99th Avenue/Maryland Avenue, 99th Avenue/Myrtle Avenue alignment, Glendale Avenue/West Access, Glendale Avenue/Middle Access,

Glendale Avenue/East Access, and SR 101L/Glendale Avenue are included in the study area.

B. Study Objectives

This study is intended to investigate the existing and future traffic conditions and identify any potential roadway improvements necessary to serve the proposed development. Major study objectives of this traffic report are as follows:

- Analyze the existing study area intersections and site accessibility for the development.
- Determine the site traffic volumes generated by the proposed development and their impacts on the surrounding study area and roadway network.
- Where applicable, recommend safety, intersection and/or roadway improvements, sufficient to meet the needs of the development and adjacent roadway network due to the additional site generated traffic volumes.

C. Findings and Recommendations

Based on the analyses within this TIA, the following findings are presented.

The forecasted trip generation for a multifamily 457-unit development plus 13,000 square feet of retail development was calculated based on values presented within the ITE Trip Generation Manual, 11th Edition. On a weekday, after full build-out of the site, it is anticipated that the overall development will generate a total of 2,856 daily trips with 206 trips occurring in the morning peak hour and 273 trips occurring in the evening peak hour.

Crash history was assessed for a 3-year period, year 2020 through 2022 at the study area intersections of 99th Avenue/Maryland Avenue, 99th Avenue/Glendale Avenue and 99th Avenue/Cardinals Way. At the reviewed study area intersections, a total of 74 reportable crashes occurred. Of the 74 reportable crashes, 47 were noted as no injury, 17 were noted as possible injury, 8 were noted as suspected minor injury, one was suspected serious injury, and one was fatal. The collision manner with the highest type of crash was Angle (19), followed by Rear End (16) and Left Turn (15).

A right turn deceleration lane is warranted and recommended on the major arterial roadway, 99th Avenue, for southbound traffic at Access D.

Based on traffic signal warrants, a traffic signal is not warranted at the middle site access/Glendale Road through the study horizon. The signal warrant was based on forecasted traffic volumes generated by increasing the existing traffic counts and including other known developments plus the trips that will be generated by this proposed multifamily and retail development.

Through the study horizon 2039, the study area intersections operate at acceptable LOS D or better except for the existing driveways on Glendale Avenue. Similar to the background conditions, the southbound left turn movements operate with some delay through the horizon year. For the unsignalized intersections, stop-control on the minor roads and driveways that intersect with major streets typically experience greater delay for short periods of time in the peak hours due to the wait time experienced for acceptable gaps on the major street, while the free-flowing major streets experience minimal to no delay. In addition, signals on Glendale Avenue within close proximity to the site will provide additional gaps in traffic that are not accounted for in the modeling software. These gaps will assist in allowing motorists to exit the site during the peak periods.

Proper intersection sight distance and sight triangles shall be provided and maintained at the site accesses and intersections of the proposed development to give drivers exiting the accesses a clear view of oncoming traffic. The landscape and hardscape within the sight triangles must not obstruct the driver's view of the adjacent travel lanes. To ensure adequate sight distances and sight distance triangles, AASHTO's *A Policy on Geometric Design of Highways and Streets* Section 9.5 should be followed as appropriate when designing the accesses and landscaping.

Based on the findings of this TIA, the following recommendations apply:

- **99th Avenue** - Reserve 65 feet of right of way measured centerline to right of way line along the site's eastern boundary. Construct half street improvements per City of Glendale Detail G-303 Major Arterial Section A-4.
- **Myrtle Avenue** – Reserve 35 feet of right of way measured centerline to right of way line along the site's northern boundary. Construct half street improvements per City of Glendale Detail G-304 Collector Section C-1.
- **Right Turn Lane** – Install right turn lane for southbound traffic on 99th Avenue at Access D. The right turn lane at Access D should be designed with a minimum of 150 feet of storage with a 150' radius S-curve taper, approximately 84 feet.
- **Access B** – Design Access B as a right out only driveway. Limit right in movements by the design of the driveway access.