



BUILDING LEGACIES SINCE 1984

**One Scottsdale
Amendment to Zoning
Project Narrative
December 11, 2023**

REQUEST

One Scottsdale Investors, LLC and RKCCLL Investments LLC, BDCCLL Investments LLC, CCFCLL Investments LLC and SMCCLL Investments (collectively, the “**Owners**”) are owners of portions of the One Scottsdale mixed-use development project (“**One Scottsdale**”) located at the northeast corner of Scottsdale Road and the Loop 101 freeway. The Owners have authorized Berry Riddel, Tiffany Bosco and DMB Associates, Inc. (“**Applicant**”) to process a request to amend the existing Planned Community District with comparable Planned Regional Center (“**PCD-PRC**”) zoning district. The request is to update Schedule “C” which is the approved Land Use Budget (“**LUB**”) to add 500 additional residences and to decrease non-residential square footage by 1,300,000 square feet on the portion of One Scottsdale south of Legacy Boulevard (“**Request**”). The goal is to ‘right size’ the approved residential and commercial entitlements to create the critical mass necessary to support the future mixed-use plans for the overall project. The proposed entitlements are in conformance with current City of Scottsdale (“**City**”) General Plan and Greater Airport Character Area Plan (“**GACAP**”). The following narrative expands on the Request and its necessity to allow for the continued development of this mixed-use development core at one of the City’s major intersections at Scottsdale Road and the Loop 101 freeway.

ONE SCOTTSDALE

Background/History

In 2002, the City approved DMB’s request for a development proposal that would create a retail based, mixed-use core at the intersection of the Loop 101 freeway and the City’s signature roadway, Scottsdale Road. The approval created flexible zoning entitlements that allowed approximately 1.8 million square feet of commercial, office and retail uses, 400 hotel rooms and up to 1,100 residential units (“**2002 Entitlements**”). The 2002 Entitlements include requirements for master plans for water, wastewater, drainage, transportation and environmental design, all of which have been prepared and approved by the City.

One of the key components that allowed for the 2002 Entitlements was the comprehensive traffic analysis and recommendations that evolved from the zoning process. As a result, significant transportation infrastructure was required for the One Scottsdale project. Most of the required regional transportation improvements were constructed prior to any significant development occurring within One Scottsdale and have been in place for many years. In addition, the 2002 Entitlements allowed the City and DMB to



successfully attract a significant corporate user to the site, Henkel (previously Dial Corporation and now the Illume building).

With the development of the Henkel headquarters underway, DMB actively marketed the site as a pedestrian focused mixed-use development with luxury retail, residential and lodging. Given positive market response, pre-development began on the site including significant grading, drainage and utilities to serve the Henkel building as well as major earthwork for proposed underground parking garages. In addition, the 2002 Entitlements included significant regional transportation improvements. These improvements included the widening of Scottsdale Road on the east side, new traffic signals at Scottsdale Road and Henkel's main entrance, and at the intersection of Legacy Boulevard and Scottsdale Road, construction of Legacy Boulevard, coordination of Legacy Boulevard to Hayden Road through Arizona State Land parcels and the Loop 101 Freeway frontage road from Hayden Road to Scottsdale Road and others.

In 2016, the City approved an amendment to the zoning to allow for additional residential and non-residential entitlement. An additional 1,066,145 square feet of non-residential and 900 residential units (for PU II) was approved as well as the ability to go up to 90' in height in some restricted areas of PU II. As part of this approval, additional stipulations were approved including the need to potentially widen the west lane of Scottsdale Road to achieve a full 6-lane condition.

With all of the built infrastructure and future transportation improvements, and with development finally occurring at the site, One Scottsdale is poised to provide for a signature development within the City. The Illume campus in the southern portion of the property and the One North Scottsdale and Avion at Legacy residential developments in the northeastern portion of the property were the first properties to develop at One Scottsdale. Since 2021, additional properties have developed including the Home-to-Suites Hotel, construction of the Streetlights residential project, the Portico Condominiums and the retail shops and Ryan medical office building currently under construction. Additional properties have been sold with projects in various stages of the permitting and approval process.

Planning Unit III

One Scottsdale, north of the Loop 101 freeway, is divided into two (2) separate planning units, Planning Unit II and Planning Unit III. Planning Unit III within One Scottsdale is bounded by Thompson Peak Parkway on the north, Scottsdale Road on the west, Legacy Boulevard on the south and the western boundary of the Grayhawk community on the east. The LUB for One Scottsdale allows for a mixture of residential, hotel and commercial/retail/office uses within Planning Unit III. The LUB is specific for Planning Unit III as to the maximum number of residences (750 maximum), residential densities in certain areas and varying height limitations. The One North Scottsdale/Avion residential projects have utilized approximately 710 residential dwelling units allocated within Planning Unit III.

The Home-to-Suites hotel was constructed and opened in 2023 in the middle portion of PU III and is a 4-story, 130-room extended stay hotel. The Ryan Company has received approvals and is constructing One Scottsdale Medical, a two-story, 101,000 square foot office building. The office will be the home to the

City of Hope Cancer Center and Exalt Health. Additional projects that have received approval by the Development Review Board (“DRB”) and within PU III include the Quick Trip gas facility, a 10,700 square foot retail building; and a 17,000 square foot, 2-story medical office building. Approximately, 12 acres of property exist to be developed in PU III.

Planning Unit II

The Illume building is currently the only built and occupied development within Planning Unit II. Planning Unit II is bounded by Legacy Boulevard on the north, Scottsdale Road on the west, Arizona State Land Department (“ASLD”) property (“Crossroads East”) to the east and the Loop 101 to the south. Based on the 2002 Entitlements and with the amendment in 2016, Planning Unit II was envisioned as an intense and dense retail destination mixed-use development. Planning Unit II was afforded the highest building allowances (90 feet not including rooftop appurtenances which are allowed up to 100 feet in height), along with the ability to develop all or most of the allowed 2.8 million square feet of commercial/retail/office land uses and 1,250 residences.

Since 2016, several properties have been sold and are currently under construction. The Streetlights residential project consists of 314-residences being developed at the northeast portion of PU II just south of Legacy Boulevard and east of 73rd Way. Immediately south of Streetlights, the Portico condominium project is also under construction that includes 112 residences consisting of 1, 2, and 3 bedroom condos. Both projects will be completed in 2024. Immediately south of Portico, is the Grand Peaks residential project which has received approvals from the DRB). This residential project consists of 280 residences and is planned to start construction in the 3rd quarter of 2023. The fourth residential project that has been sold and will be submitted for DRB approval in the near future is the Talos project. They will propose a maximum of 352 residences. Approximately, 38 acres of land is remaining to be developed in PU II.





Surrounding Uses

To the north of Planning Unit III is the Discount Tire headquarters and Honor Health hospital (formerly Scottsdale Healthcare Thompson Peak). To the west, across Scottsdale Road is the City of Phoenix that is planned for dense and intense mixture of land uses with significant building heights (190 feet). To the south of Planning Unit II is the Loop 101 Freeway with the recently approved Optima project south of the freeway. To the east (of Planning Unit II) is the Crossroads East ASLD future mixed-use development with the ability to develop 60-foot high buildings adjacent to Planning Unit II. The Cavasson mixed-use project has been developed further east at the northwest corner of Hayden and the Loop 101. The closest off-site residential uses are the Villages at Grayhawk condominium development and Vi independent and assisted living facility that are located immediately adjacent to the Jefferson residences within Planning Unit III.

REQUEST

Amendment to Zoning

The existing PCD-PRC zoning district that was granted in 2002 and amended in 2016, afforded One Scottsdale the most flexible zoning option available in the City's Zoning Ordinance to develop an intense, dense, mixed-use project. The entitlements created a specific set of development standards, land use mix and off-site requirements which are utilized to guide development on the site.

The current request is to update the Project's existing zoning district (PCD-PRC) to significantly reduce the intensity of use allowed on the property by decreasing non-residential intensity and increasing the number of residences resulting in a significant overall reduction in intensity. The request continues to comply with the City's latest General Plan updates and Character Area planning efforts, including the GACAP. Due to its location, the Character Area Plan designates One Scottsdale as a higher scale development and regional core, which allows for the greatest intensity and density.

Our request is to update the existing approved entitlements to better implement the City's current General Plan and Character Area planning efforts. In doing so, we intend to request an overall reduction in intensity resulting in a more sustainable, compatible and appropriate development for this area. The requested additional residential and reduction in commercial/office square footage within the core of Planning Unit II is also supported by the City's Character Area planning efforts and will result in less impact on City infrastructure. This includes a 42% reduction in water use, 16% reduction in wastewater use, and a 15% reduction in weekday vehicle trips and 23% reduction in am and pm peak traffic times to and from the Property.



PROPOSED AMENDMENT TO THE EXISTING LAND USE ENTITLEMENTS

- Remove approximately 1,000,000 non-residential square feet from PU-II and PU-III
- Add 500 residences in PU-II

City of Scottsdale General Plan Analysis

Since the 2002 Entitlements for One Scottsdale and in compliance with the Growing Smarter state statutes, the City has continuously reviewed and updated their existing General Plan and Zoning Ordinance. The General Plan 2035 states:

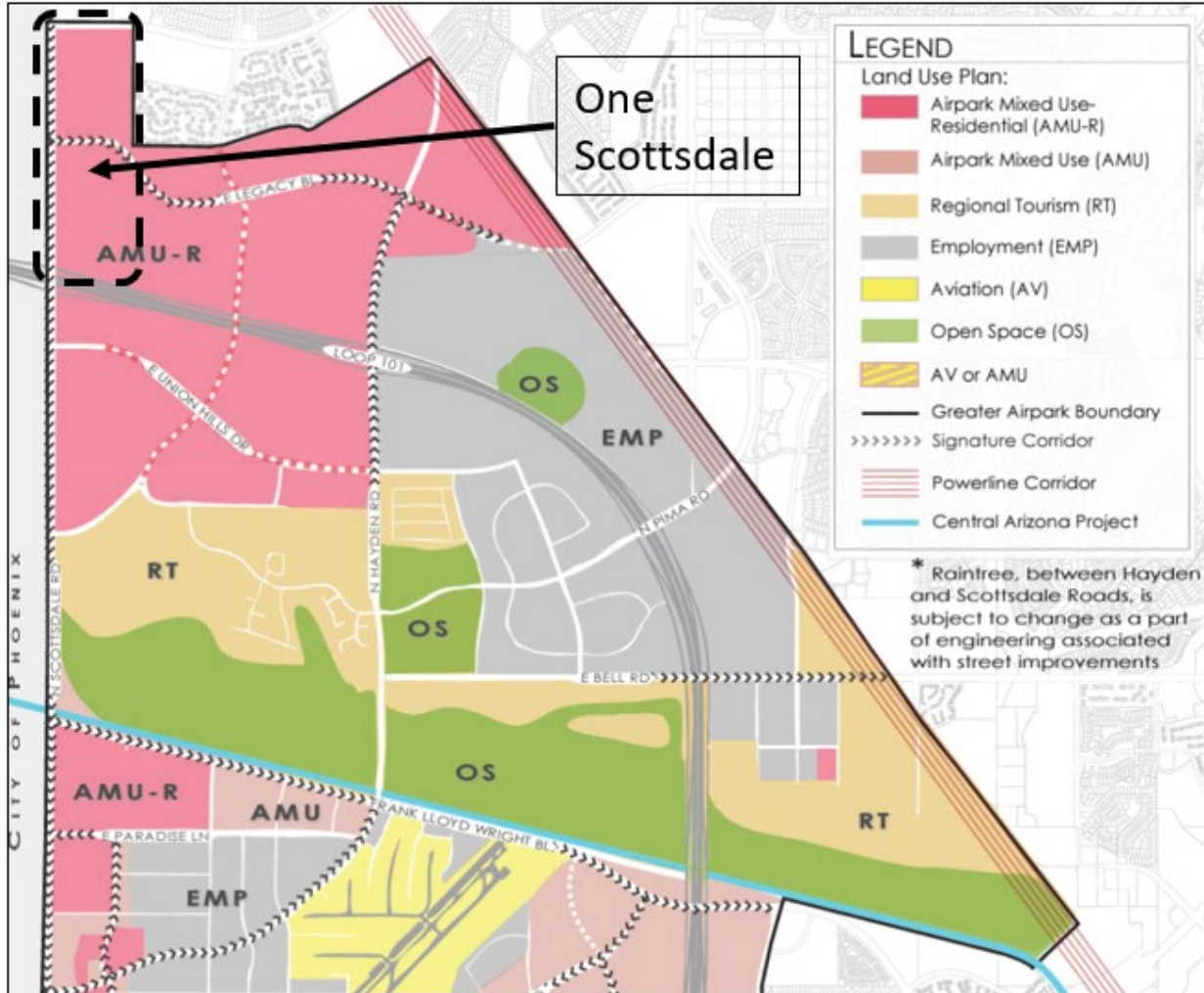
The General Plan is designed to be a broad, flexible document. Over time the General Plan is a living document that is legally amendable and manifested by many specific decisions and events that cause it to respond to the changing conditions, needs, and desires of the community.



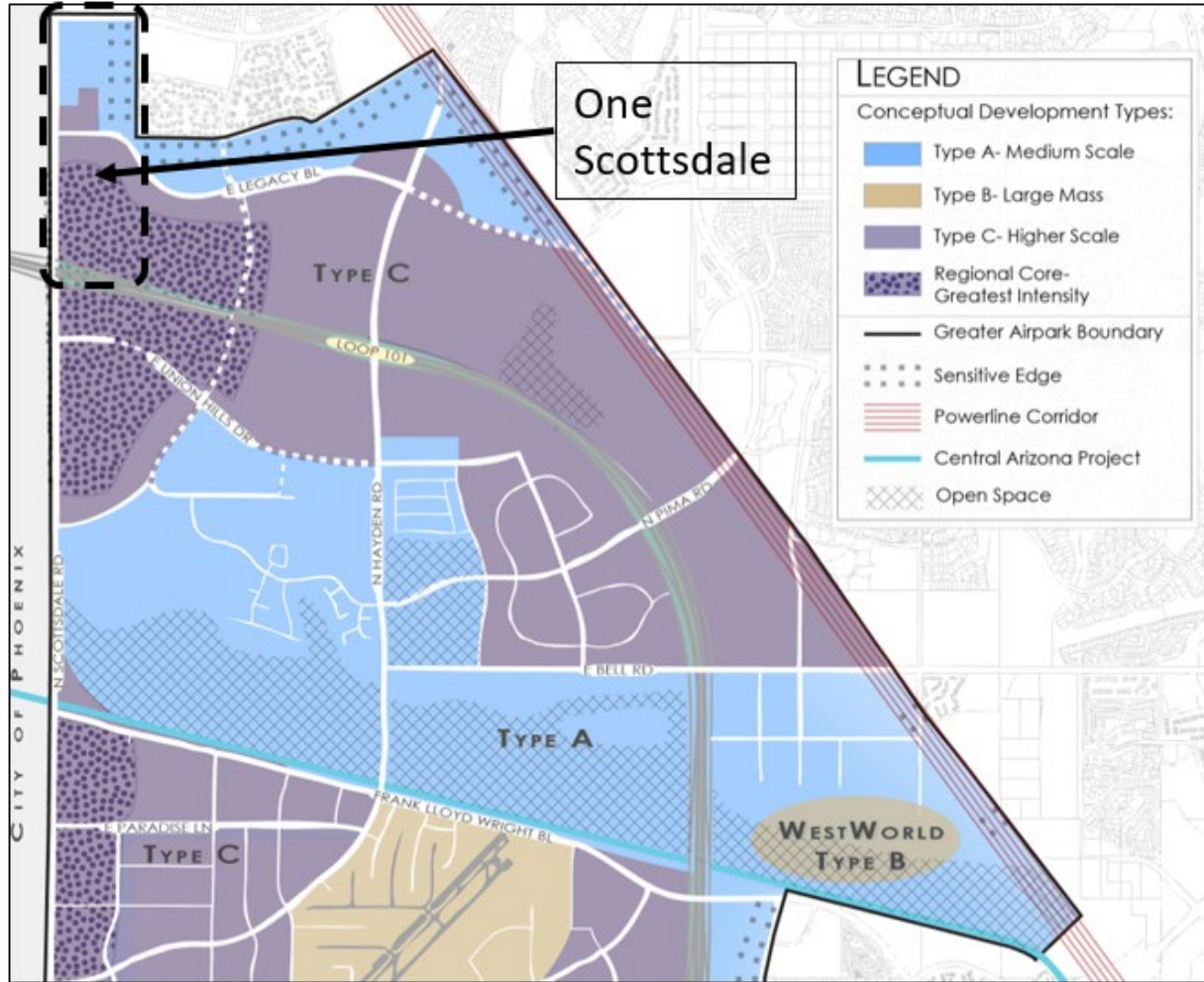
As stated above, the General Plan is designed to be updated to respond to changing conditions, needs and desires of the community. The City experienced significant growth during the early 2,000's and then a significant downturn in overall City growth during the late 2,000's. As a response to the downturn in the real estate market, the City focused on updating the General Plan along the freeway corridor and the greater airpark region in an effort to recognize the important role this area plays in providing employment uses, mixed use, including residential to the City and the region.

One Scottsdale complies with the City's existing 2035 General Plan. The Property is still designated as Mixed-Use Neighborhoods with a Regional Use District overlay on the City's Conceptual Land Use Map. The 2002 Entitlements met all of the criteria of these two (2) land use designations by creating a development plan that included commercial/retail/office square footage, hotel uses and residential to create a mixed-use core development at the freeway interchange and Scottsdale Road. This vision, land use designation, current entitlements and requested entitlements continue to meet the land use element, along with the goals and policies, of the City's 2035 General Plan.

The request is to update the Project's zoning district (PCD-PRC) to comply with the City's latest General Plan updates and Character Area planning efforts. The Project lies within the City's GACAP. The Project's entitlements conform to the Airpark Mixed-Use Residential (AMU-R) land use designation. See GACAP Land Use Plan below. The Character Area Plan designates One Scottsdale as a higher scale development and regional core, which allows for the greatest intensity and density. The request for more housing and 'right-sizing' the number of residents within the mixed-use community complies with the Conceptual Development Types identified in the GACAP for the Property.



GACAP Conceptual Development Types Map



Greater Airpark Character Area Plan Analysis

From the **General Purpose** provision of the City’s General Plan, it states that there are three (3) levels of planning in the City: citywide, character area, and neighborhood. Character area planning description includes the following:

Level 2 - Character Area Planning: Develops Character Plans on a priority basis over a period of time and speaks specifically to the goals and special attributes of an identifiable and functional area; i.e., its land uses, infrastructure, broadly defined urban architectural design philosophy, and transitions. Character Plans will ensure that quality of development and consistency of character drive Scottsdale’s General Plan at the Character Plan level, all within the context of community-wide goals.



The City Council, in 2007, embarked on creating a character area plan to address the changing conditions in the real estate market for one of the City’s largest and most important employment cores. The goals of the GACAP included:

- Enhance mobility and wayfinding;
- Sustain existing neighborhoods;
- Encourage a variety of land uses and activities;
- Support and expand business diversity;
- Sustain and enhance aviation;
- Encourage recreation and open space;
- Promote sustainability and “green” design;
- Enhance identity and architecture; and
- Maintain and enhance the area’s regional economic role.

Some of the items in the GACAP’s purpose statement include maintaining the Greater Airpark as a national and international center for commerce and tourism; sustaining and enhancing the area as a major employment and aviation center; providing opportunities for the private sector to assume a strong leadership role and partnering with the City in building the future success of the Greater Airpark. The Request for One Scottsdale intends to further implement all of the items in GACAP’s purpose statement. As part of the 2002 Entitlements, significant transportation infrastructure was constructed and completed to address regional linkages and capacity for development at One Scottsdale and the surrounding ASLD properties within Scottsdale and Phoenix. In doing so, the roadway improvements enhanced mobility in this area of the Greater Airpark, sustained existing neighborhoods by reducing regional traffic on neighborhood streets, and enhanced the area’s regional economic role by creating a shovel ready site with operational roadway access.

The GACAP is drafted with specific chapters to fulfill the plans goals. The plan is divided into various topics including land use, neighborhoods and housing, aviation, community mobility, economic vitality, environmental planning, character and design, and public services and facilities. The GACAP is an update to the Greater Airpark area and General Plan that provides greater direction and development expectations for properties within this area of the City. The Request is an update to the 2002 Entitlements to further the recommendations set forth in the GACAP update.

GACAP Land Use

The Land Use chapter of the GACAP conceptualizes the Greater Airpark as a multi-faceted hub of commerce, employment, aviation, tourism, and recreation, as well as a center for growth in Scottsdale.

The Land Use chapter further states that characteristics of successful employment centers often include clusters of mutually supportive businesses, areas to relax and recreate, nearby access to a well-educated workforce, and transportation systems. The vision for the Greater Airpark includes a mix of uses and development types, standards to accommodate new types of development, and land uses flexible enough



to accommodate new technologies, innovative business enterprises, and market pressures without interfering with Airport operations.

In order to achieve the above GACAP direction, the GACAP Land Use Plan designates where certain land uses should be located within the Greater Airpark area. One Scottsdale is designated as an Airpark Mixed Use-Residential (AMU-R) land use designation. The AMU-R designations are appropriate for the greatest variety of uses that may include a combination of personal and business services, employment, office, institutional, cultural amenities, retail, hotel, and higher density residential. Developments in AMU-R areas should be pedestrian-oriented, have access to multiple modes of transportation, and should be located outside of the Airport's 55 DNL contour.

One Scottsdale's existing zoning is PCD-PRC which allows for an intense and dense mixed-use development plan and complies with the General Plan's Regional Use Overlay. One Scottsdale's existing zoning also complies with the GACAP's new AMU-R land use designation. Furthermore, the Request, to amend the land use budget within the existing zoning district is consistent with the GACAP Land Use Plan and the vision articulated by the City. One Scottsdale exemplifies the characteristics of the AMU-R. The 2002 and 2016 Entitlements proposed a mixed-use destination of retail, employment, hotel, and residential uses. The Request is to further enhance this goal and provide a dynamic campus with support retail, restaurants, and corporate and employee housing options, all in accordance with City goals and policies.

Finally, Scottsdale Road and Legacy Boulevard are designated as 'signature corridors' on the GACAP Land Use Plan. One Scottsdale has an existing requirement to dedicate a significant scenic corridor along its Scottsdale Road frontage. The scenic setback from the roadway provides a natural, vegetated buffer to what is proposed to be a built environment consistent with the purpose, goals and vision of the GACAP. Scottsdale Road and Legacy Boulevard were widened and built by DMB for the purpose of providing the City with significant transportation infrastructure.

The Land Use chapter further lays out the character of development in each of the areas within the Greater Airpark. The GACAP Character Area Plan identifies three (3) conceptual development types on a map. Refer above to the GACAP Conceptual Development Types Map. The three development types are medium scale, larger mass and higher scales. Within the higher scale development areas, there are two (2) main 'Regional Core – Greatest Intensity' areas. One is along Scottsdale Road from Frank Lloyd Wright Boulevard south to Butherus Road. The other is from One Scottsdale (south of Legacy Boulevard) from Scottsdale Road on the west into the ASLD lands to the east on the north side of the Loop 101 Freeway.

As recognized by the City's goals and policies, the goal of the Request is to create a core south of Legacy Boulevard. The GACAP designates the land south of Legacy Boulevard as a Higher Scale, Regional Core-Greatest Intensity designation. This creates a unique opportunity for the future of property south of Legacy Boulevard. The GACAP states that development within the Higher Scale designated areas should be encouraged in areas with access to multiple modes of transportation, served by regional transportation networks (i.e. freeways), and where the scale will complement the area's character. Type C development is appropriate in areas next to both Types A and B development. Type C is not recommended immediately

adjacent to the Scottsdale Airport. The Regional Core designation (Land Use, Conceptual Development Types Map, land use description page 16) means areas appropriate for the greatest development intensity in the Greater Airpark to support major regional land uses. Regional Core is only appropriate in Type C areas that are or will be served by high-capacity transit or a freeway. Regional Core areas should not be located adjacent to single-family residential areas or within Type A or B development areas.

Furthermore, One Scottsdale’s existing and proposed entitlements meet all of the criteria and descriptions of the both the GACAP’s Land Use Plan and the Conceptual Development Types Map. The northern portions of One Scottsdale are entitled for lower building intensity and heights to buffer and transition to nearby adjacent development within Grayhawk. An additional ‘not to exceed’ height is also incorporated into the One Scottsdale entitlement that matches the existing height of 1710 feet of the Discount Tire headquarters roof line at the northeast corner of Scottsdale Road and Thompson Peak Parkway. These restrictions are in accordance with the GACAP Conceptual Development Types Map, which allows for a mixture of higher scale development adjacent to Legacy Boulevard (north of Legacy Boulevard) while providing for Medium Scale and Sensitive Edge conditions adjacent to the Grayhawk community.

In addition, the Higher Scales designation on the Conceptual Development Types Map is also labeled with a ‘Type C’ designation. Refer to Development Types Map above. Type C development represents more intensity with taller buildings with varying mass and a pedestrian orientation. The proposed development plan will implement the strategies outlined in the GACAP with the intention of building a pedestrian oriented project that creates open space plazas within a higher scale development. One Scottsdale is seeking to further implement the GACAP by modifying existing entitlements to better implement the purpose, goals, and vision of the Greater Airpark area.



GENERAL PLAN

The General Plan (Scottsdale General Plan 2035) was adopted by City Council on June 8, 2021 and ratified by the Scottsdale voters in November 2021. Building upon decades of planning and thousands of hours of community involvement, General Plan 2035 guides the physical development of Scottsdale and acts as a blueprint to enhance our community aspirations—Exceptional Experience, Outstanding Livability, Community Prosperity, and Distinctive Character. The General Plan is a broad, flexible document that changes as community needs, conditions, and direction change.

Scottsdale’s General Plan promotes the community’s vision by establishing goals and policies for each of its 24 elements. The following is an analysis of the requested update to the One Scottsdale development plan and its conformance with the General Plan 2035. The following are excerpts from the applicable 24 elements of the City’s General Plan.

CHARACTER & DESIGN ELEMENT

Introductory Excerpt: Scottsdale residents and visitors place extraordinary value on the diverse character and unique design qualities of our Sonoran Desert community. Each neighborhood setting holds an important image that, when grouped together, completes the Scottsdale mosaic. Whether in urban, suburban, rural, or native desert settings, the community provides a broad palette of experiences, visual expressions, and quality design. Scottsdale’s rich design heritage is a product of proactive, creative, and inspired solutions to community design opportunities and issues. Examples include strong signage and landscaping standards, the Development Review Board, the Environmentally Sensitive Lands Ordinance (ESLO), the Indian Bend Wash Greenbelt, Scenic Corridors, and Scottsdale Sensitive Design Principles. Good design sensitively responds to and strikes a balance among the character of the surrounding natural and built settings and the community’s historical, cultural, and environmental resources. The beauty of our natural features, including the Sonoran Desert, mountains, and desert washes, provides a unique backdrop to the community. Our well-designed neighborhoods, businesses, recreational and cultural facilities, and public spaces combine to further make Scottsdale a desirable and memorable community. The goals and policies of the Character & Design Element focus on the important aspects, connections, transitions, and blending of characters that ensure our community evolves as an integrated mosaic.

Response: One Scottsdale is located at Scottsdale’s signature roadway and the Loop 101 Freeway. The Greater Airpark Character Area Plan (“GACAP”) and General Plan designate the Property as urban. Since, 2002, One Scottsdale has been approved as an urban, mixed-use project. The proposal enhances One Scottsdale status as a mixed-use project that will continue to create a broad palette of experiences, visual expressions, and quality design. The Project is at the gateway of the City’s scenic corridor along the east side of Scottsdale Road. The proposal maintains a balance between the natural and built environments on the City’s signature roadway.

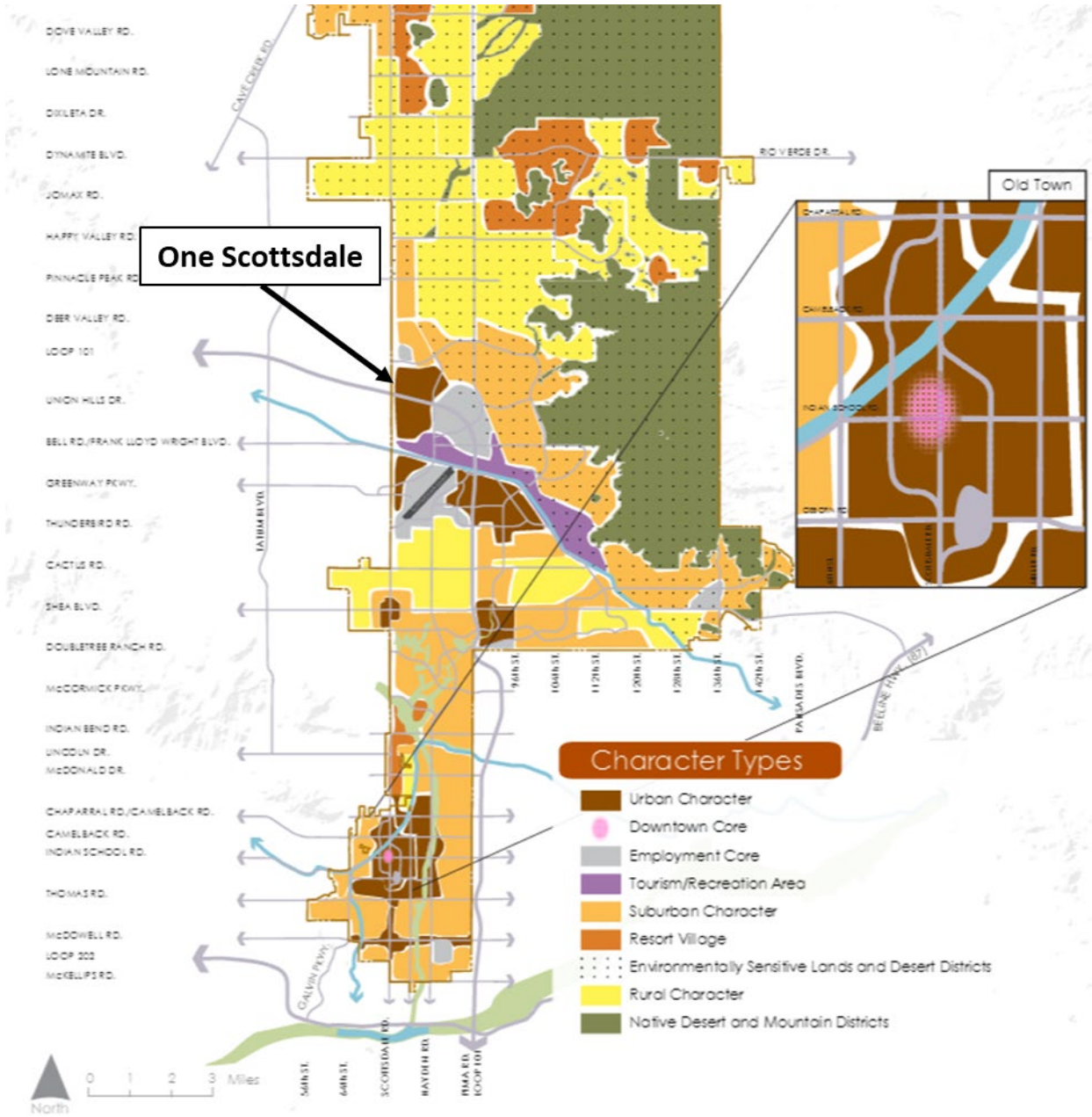
Character Types Excerpt: CHARACTER TYPES: Character Types describe the general pattern, form, and intensity of development. Character Types are distinct from zoning districts and land use categories. The Zoning Ordinance will govern specific development standards, such as building height, by zoning district.

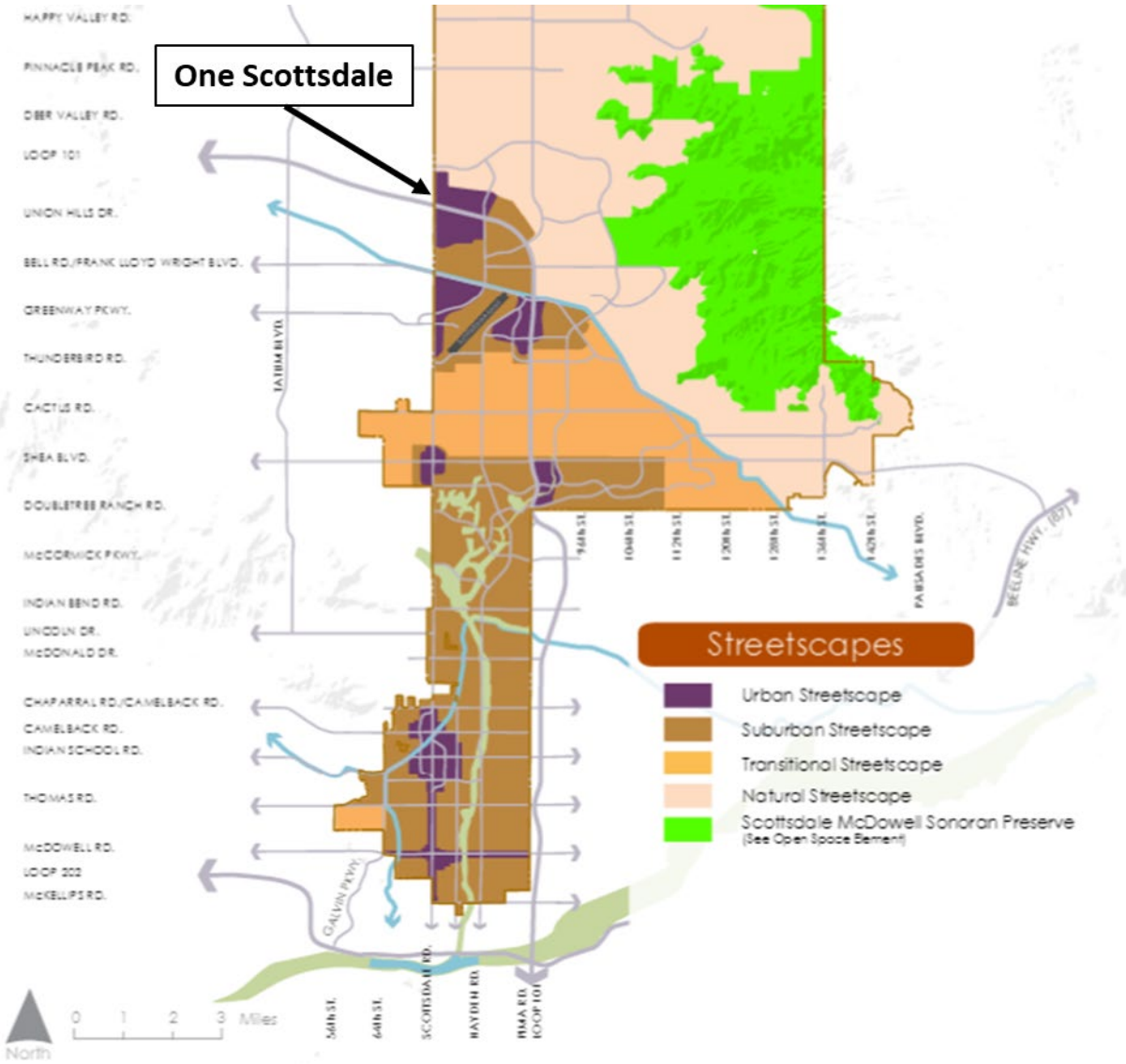


Per State Statute, Scottsdale must designate and maintain a broad variety of land uses and include density standards pertaining to land use categories that have such. Please reference the Land Use Element for that information.

■ Urban Character Types consist of higher-density residential, non-residential, and mixed-use neighborhoods, including apartments, high-density townhouses, business and employment centers, and resorts. Development in Urban Character Types should have pedestrian orientation, shade, activity nodes, and useable open spaces that encourage interaction among people. Building form and heights typically transition to adjacent Rural and Suburban Character Types. Taller buildings may be appropriate in Growth Areas, depending on context (see Growth Areas Element). Examples include Old Town Scottsdale, a mixed-use center of distinct urban districts; mixed-use portions of the Greater Airpark, particularly along Scottsdale Road; areas within the Scottsdale Road and Shea Boulevard Couplet; and the HonorHealth hospital/medical campus near Shea Boulevard and 90th Street.

Response: One Scottsdale's existing approved entitlements are designed to create an urbanesk, mixed-use core within Planning Unit II. With the Property's designation as an urban character type, the proposal seeks to 'right-size' the mix of residential units within the Project. Creating the appropriate 'critical mass' of residential and non-residential uses will enable One Scottsdale to fulfill the character type designed for this area of the City. The development will create a building form that creates a mixed-use neighborhood, including multi-family, townhouses, condominiums, business and employment uses, and hospitality. One Scottsdale will have pedestrian orientation, shade, activity nodes, and useable open spaces that encourage interaction among people as envisioned in this Character Type.





Employment Core Excerpt: Employment Cores are primary employment centers for the city. These areas are predominately concentrated in the Greater Airpark Character Area, a mixed-use employment core with primary freeway access, as well as around other major employment campuses, such as the Mayo Clinic and General Dynamics. Employment Cores support a wide range of activities, such as aviation, light-industrial, and regional- and community-level employment uses. These areas consist of multi-functional buildings with an emphasis on technology and corporate character. Taller building heights are found within the core, and low-scale building heights are typically found within the transition areas adjacent to Rural and Suburban Character Types. The Greater Airpark Character Area Plan denotes appropriate locations for height and intensity in the Airpark area. (See also: Growth Areas Element).

Response: The Employment Core within the GACAP is described as a mixed-use employment core with primary freeway access. The Property's location within the GACAP supports the nearby employment cores



of the airpark, Cure Corridor, and nearby Cavasson project. One Scottsdale will continue to provide the mixture of uses that supports the employment core with residential, service, restaurant, and retail uses.

Goal CD 1 Determine the appropriateness of all development in terms of community goals, surrounding area character, and context.

CD 1.2 Consider the effects of building height, overall development density, and building orientation on adjacent neighborhood character, privacy, and viewsheds

Response: One Scottsdale is strategically positioned at a major arterial and freeway, an area long designed for more intense development. Adjacent lands to the west and east are planned for more intense uses similar to One Scottsdale and the areas to the north is built with low scale office and medical use. Sensitivity to uses to the east in Grayhawk have long impacted the One Scottsdale project resulting in compatible residential uses abutting the long existing residential in Grayhawk. The proposed additional housing will be placed south of Legacy Boulevard within Planning Unit II. For over twenty years, One Scottsdale has considered the effects of building height by providing for lower building heights, intensity, and density north of Legacy Boulevard while providing for greater building heights and density south of Legacy Boulevard away from established neighborhoods in Grayhawk. The proposal does not seek to increase building height and concentrates the increase in housing away from adjacent neighborhoods with lower building height while reducing non-residential building massing and intensity.

CD 1.3 Ensure that all development is a part of and contributes to established Character Types.

Response: The Property is within the urban character type and when completed, One Scottsdale will be a part of and contribute to the established Character Type in a manner that complements and is consistent with other uses north of the Loop 101..

CD 3.1 Strengthen Scottsdale’s economic and environmental attributes, distinctive character, and attractiveness through collaborative site planning and design.

Response: One Scottsdale has developed over time with a distinctive character transitioning from a more suburban character on the north to a more urban character on the south as you get closer to the Loop 101. The adjustment in residential units and non-residential square footage for the Project provides for an environmental attribute with lower water usage than the existing approved land use entitlements. With a major corporate headquarters building to the south, an acute care facility to strengthen Scottsdale’s Cure Corridor on the north, and quality mixed-uses in between, the Project will strengthen Scottsdale’s economic stature. One Scottsdale’s approved architectural styles and diversity of architecture will also create an even more attractive mixed-use development.

Goal CD 4 Enhance the design of streets and public spaces to improve Scottsdale’s visual quality, experience, Sonoran Desert context, and social life.

Response: One Scottsdale’s private streets are designed with an urban, pedestrian feel to add to Scottsdale’s social life within the Project. With the scenic corridor and paths and trails throughout the



Project, One Scottsdale provides public and open spaces to improve Scottsdale’s visual quality and to experience its Sonoran Desert context. These features, including the significant Scenic Corridor along Scottsdale Road provide a gateway to north Scottsdale, announcing the importance of the desert openness of this area. Additionally, within the site, comfortable walkways and paths offer opportunities for people to traverse the area and provide for social gathering spots.

CD 4.3 Establish new, and maintain existing, guidelines and policies for the design and maintenance of Visually Significant Roadways and major city streets, including Scenic Corridors, Buffered Roadways, Desert Scenic Roadways (in ESLO districts), and streets with themed streetscape designs.

Response: One Scottsdale is the first development north of the Loop 101 Freeway on Scottsdale’s signature road. Since 2002, the Project has provide a substantial scenic corridor along the east side of Scottsdale Road. The significant Scenic Corridor along Scottsdale Road provide a gateway to north Scottsdale, announcing the importance of the desert habitat of this area.

LAND USE ELEMENT

Goal LU 1 Enhance Scottsdale’s economic viability by encouraging land uses that reinforce the City’s reputation as the premier international tourist destination in the Southwest and sustain the City’s role as a regional cultural center and economic hub. Land uses should be compatible with Scottsdale’s character and physical appearance.

Response: One Scottsdale is located at northeast corner of Scottsdale Road and the Loop 101. The Property’s approved entitlements include a substantial scenic corridor, building height transitions from Scottsdale Road to the nearby Grayhawk development, master planned access points, trails and paths around the Project and a unique mixed-use land plan. The proposed changes enhance these Project attributes.

LU 1.1 Encourage land uses that preserve a high quality of life and further define Scottsdale’s sense of place within the region.

Response: One Scottsdale has been planned for a mixture of land uses at the City’s signature road and the City’s only freeway. ‘Right sizing’ the residential component and non-residential component of the Project will further refine Scottsdale’s sense of place within the region while providing additional housing intended to serve existing and future employment in the area.

LU 1.2 Celebrate Scottsdale’s desert city image by preserving natural open space and natural ecosystems.

Response: The Project’s scenic corridor and provision of internal and perimeter open spaces accentuates Scottsdale’s desert city image. The significant Scenic Corridor along Scottsdale Road provide a gateway to north Scottsdale, announcing the importance of the desert habitat of this area.

LU 1.4 Collaborate with adjacent jurisdictions to understand the dynamics of, and coordinate on, emerging and redeveloping areas adjacent to the City boundary.



Response: The community goals for One Scottsdale and the surrounding area have been revised with the City's update to the General Plan and the adoption of the GACAP. This area, from Scottsdale Road east along both sides of the Loop 101 Freeway corridor to Bell Road allows for 'Higher Scale' development. The area inclusive of a majority of One Scottsdale south of Legacy Boulevard east to Miller Road within the Crossroads East land area on both sides of the Loop 101 Freeway is designated as a Regional Core designation. This designation denotes areas appropriate for the greatest development intensity in the Greater Airpark to support major regional land uses. Regional Core is only appropriate in Type C areas that are or will be served by high-capacity transit or a freeway. The request does not include any additional building height for the Project. The request for additional housing and reduction in commercial square footage continues to meet the goals set forth in the GACAP Regional Core designation. The amendment request respects the natural environment, site conditions and unique character of the area. Furthermore, the amendment is consistent with the land plan for the Crossroads East development to the east. Finally, the amendment respects the heights, residential density, and intensity adjacent to the multi-family areas east of One Scottsdale within Grayhawk.

LU 2.1 Ensure neighborhood "edges" transition to one another through compatible land uses and development patterns.

Response: The proposal does not impact any of the edges of One Scottsdale. A majority of the eastern boundary of One Scottsdale is either developed, under development, or approved for development. The proposed additional housing reduction in non-residential square footage impacts internal areas of the Project.

LU 3.1 Allow for the diversity and innovative development patterns of residential uses and supporting services to provide for the needs of the community.

Response: One Scottsdale's existing approved entitlements provides for a diversity of land uses within a master planned community. The request seeks additional residential uses at a location in Scottsdale along a major thoroughfare (Scottsdale Road) and the City's Loop 101 freeway. One Scottsdale will provide for a mixture of land uses that will allow for residents to live, work, and play in the area.

LU 3.2 Integrate housing, employment, and supporting infrastructure, primarily in mixed-use neighborhoods and Growth and Activity Areas, to support a jobs/housing balance.

Response: One Scottsdale meets this policy by integrating housing, employment, and supporting infrastructure within the limits of the development. One Scottsdale is located just to the south of Grayhawk and west of the Cavasson master planned developments. Together, they create a connected network of land uses that support each other and connects needed infrastructure. The mixture of uses will support the City's jobs/housing balance.

LU 4.1 Integrate land uses and transportation systems to allow for a variety of mobility choices.

Response: One Scottsdale built its significant transportation infrastructure upfront in the early 2000's. As a result, the surrounding Grayhawk and north Scottsdale traffic has been able to utilize wider lanes on



Scottsdale Road and a Legacy Boulevard connection from Scottsdale Road east to Hayden Road for approximately twenty (20) years. Growth in the area has utilized the benefits of the improved roadway system in and around the Project. One Scottsdale's compact design will include sidewalks internal to the Project with a pedestrian system throughout, around, and within the Project. Bus stops and electric vehicle charging stations are now developed or proposed as part of the evolving Project and future mobility enhancements will be included in the Project.

LU 4.2 Provide opportunities for pedestrian-oriented development, reduced parking demand, and context appropriate mobility choices.

Response: One Scottsdale's master pedestrian circulation plan, sidewalks, paths, and trails provide for various internal and external pedestrian access opportunities. The continued and refined mix of land use will also result in reduced parking demand and greater use of multi-modal travel options.

LU 4.3 Locate regional land uses and intensities in Growth and Activity Areas to provide the greatest access to various modes of transportation.

Response: One Scottsdale's prime location at Scottsdale Road and the Loop 101 Freeway allows for the greatest access to various modes of transportation and in keeping with city plans, concentrates intensity at the major transportation corridors. The request ultimately reduces the overall vehicular traffic impacts to the area by eliminating a significant amount of development intensity.

LU 5.1 Encourage a variety of compatible mixed-use land uses within or next to Growth and Activity Areas, along major streets, and within particular Character Areas to reduce automobile use and improve air quality.

LU 5.2 Concentrate greater development intensities in Growth and Activity Areas, thereby reducing development pressures in low-density areas and conserving energy.

Response: One Scottsdale includes corporate office, medical office, hospitality, retail, restaurants, and for-sale and rental residential within a soon to be built mixed-use core. The proposal intends to concentrate greater development intensities within Planning Unit II, south of Legacy Boulevard. The additional residential units will provide for employer and employee housing for the surrounding Growth and Activity Centers, much of which will be developed in the future on ASLD lands. The pedestrian trails, paths, and numerous internal sidewalks within the Project will reduce automobile use and improve air quality.

LU 6.3 Encourage commercial land uses of similar scale and character in proximity to or within medium- to high-density residential areas to promote walkable connections.

Response: With the proposed additional housing, a significant core of medium- to high-density residential development within the Project will have ample walkable connections to the surrounding commercial and employment core.

ARTS, CULTURE & CREATIVE COMMUNITY ELEMENT

Goal ACC 3 Promote creative placemaking to revitalize neighborhoods, enhance sense of place, celebrate cultural heritage, and strengthen community character.

ACC 3.1 Integrate art into public programs, natural features, civic buildings, infrastructure, and other community assets to strengthen sense of place.

ACC 3.4 Integrate public art at various scales into the built environment citywide.

Response: One Scottsdale has an approved Master Environmental Design Concept Plan (“MEDCP”) that will continue to guide placemaking opportunities within the Project. For example, a recent Development Review Board approval of a residential project within Planning Unit II has four (4) locations for the placement of public art.

SUSTAINABILITY & ENVIRONMENT

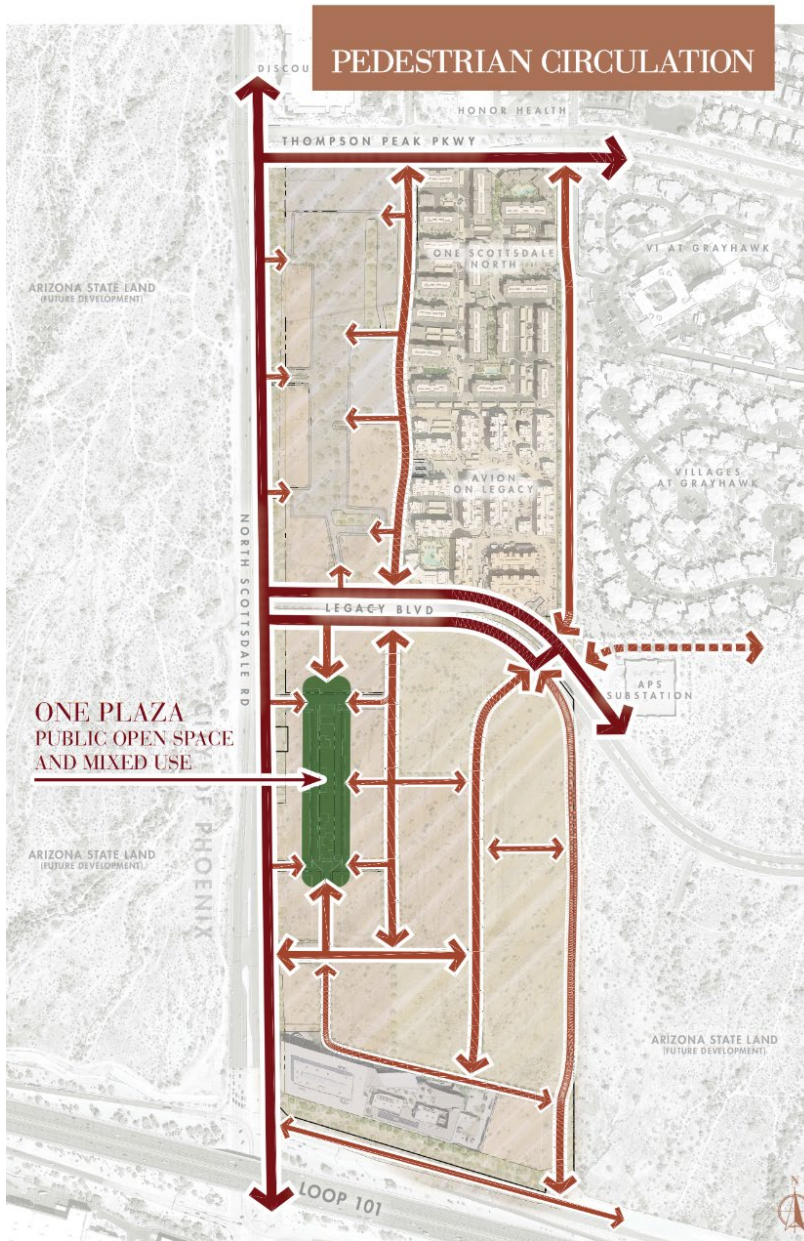
OS 1.3 Continuous Open Spaces. Develop a system of continuous open spaces that connect citywide and regionally. Such open spaces include washes (inclusive of Vista Corridors), streetscapes, wildlife corridors, trails, and canals.

OS 1.4 Developed Open Space. Offer public and private parks and open spaces to accommodate both active and passive recreation.

Response: One Scottsdale is implementing a scenic corridor along the Scottsdale Road frontage. Within that scenic corridor and other open space areas, the Project will provide trails, passive recreation, and seating areas for residents, employees, and visitors.

OS 4.1 Develop a public trail and path system that links to other City and regional systems.

Response: One Scottsdale has developed a path and trail system through the scenic corridor and along the east side open space area to allow for public access around the entire Property. Numerous internal sidewalks and paths provide for direct access throughout the Project. The paths, trails, and sidewalks all connect to the north and east for the use of neighborhoods.



OS 4.3 As development and redevelopment occurs along transportation corridors, ensure the preservation of mountain viewsheds, the Sonoran Desert, natural features, and landmarks that enhance the unique image and aesthetics of major streets through open space buffering. The following Visually Significant Roadway designations should be applied:

- Scenic Corridors should be designated along major streets where a significant landscaped buffer is needed between streets and adjacent land uses, where an enhanced streetscape appearance is desired, and where views to mountains and natural or man-made features will be maximized. Scenic Corridors may provide enhanced opportunities for open space, scenic viewing, trails, and pathways in the community.

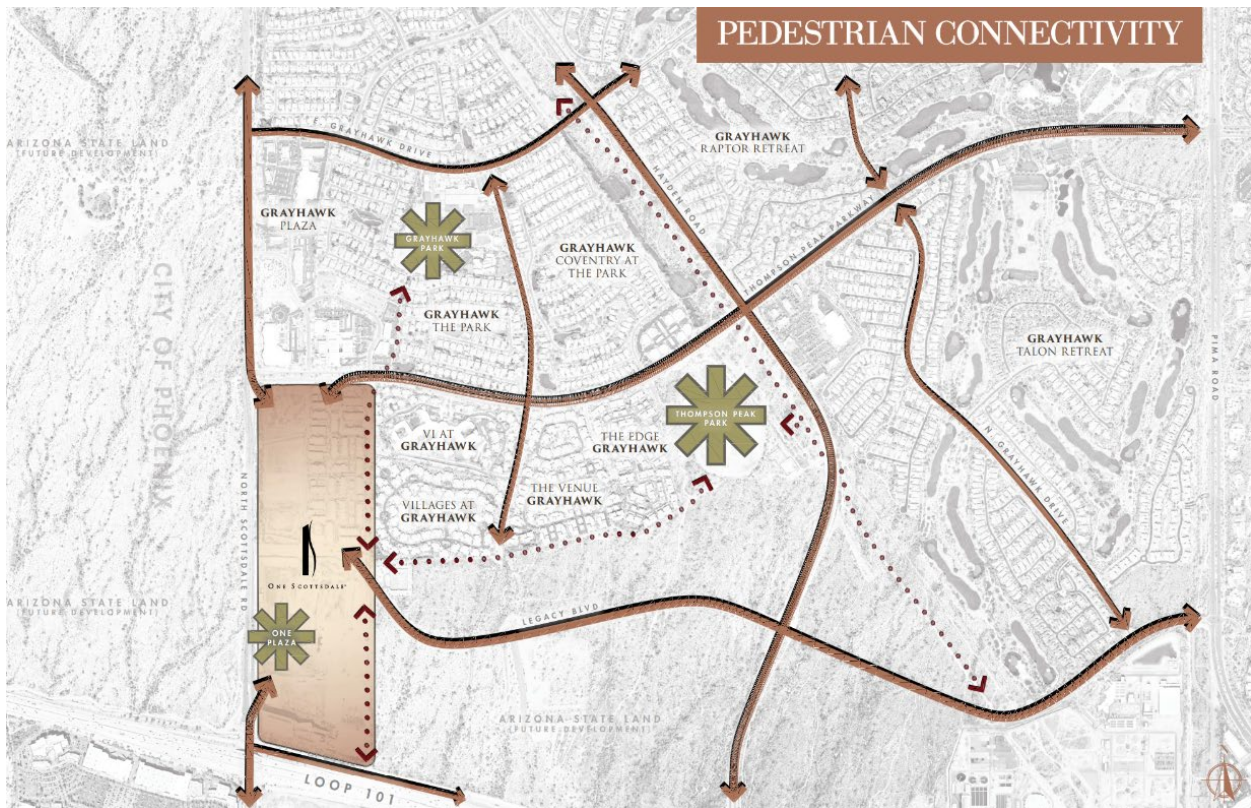
Response: One Scottsdale provides for a significant scenic corridor along the City's signature roadway. The provision of a scenic corridor directly north of the City's lone freeway creates a constant scenic corridor along the east side of the road consistent with this policy. In addition, building heights/elevations are stepped back from the scenic corridor along Scottsdale Road.

OS 4.4 Encourage the use of drainage areas, Vista Corridors, and transmission line corridors as open space opportunities.

Response: To better utilize drainage areas on the site, the Property owner undergrounded some of the drainage and provided a more walkable open space and pedestrian corridor along the entire east side of the Project. Some drainage is contained in the northern portion of the path.

OS 5.2 Locate publicly accessible and useable open spaces within Growth and Activity Areas and established neighborhoods.

Response: All paths, trails, and sidewalks along the internal streets are accessible to the public.





OS 8.5 Create usable open spaces from existing rights-of-way, sidewalk widening, street realignment, development of trails, and other creative solutions.

Response: One Scottsdale is designed with internal private streets and enhanced sidewalks with public access.

ENVIRONMENTAL PLANNING

EP 3.1 Reduce automobile emissions through traffic management; transportation improvements; promotion of a wide variety of mobility options; travel demand reduction strategies; expansion of regional connectivity; and use of electric and alternative fuel vehicles.

Response: The Request seeks to add housing and reduce non-residential intensity, and thereby decrease traffic to and from the site. With the transportation infrastructure in place, this ‘down-zoning’, as it relates to traffic, will reduce automobile emissions through strong pedestrian and bike connectivity within and to and from adjacent development. Electric vehicle charging stations will be provided.

EP 5.5 Expand Green Building construction standards to include all new and remodeled residential and commercial buildings

Response: New construction at One Scottsdale will comply with the City’s green building construction standards.

Goal EP 7 Identify and reduce heat islands.

Response: One Scottsdale is designed with private tree lined streets and driveways and surrounded by scenic corridors and landscaped walking paths. The lack of large, paved parking lots within Planning Unit II as part of this Request will help reduce the urban heat island effect.

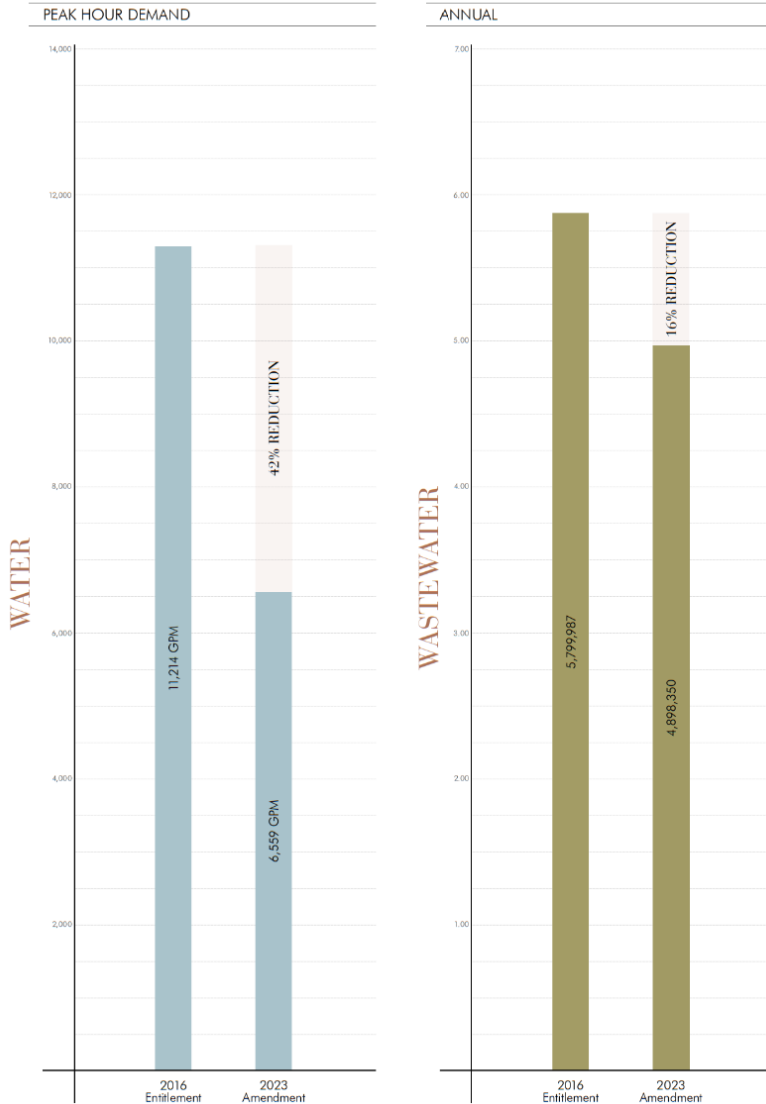
CONSERVATION ELEMENT

Goal Consv 4 Conserve water and encourage the reuse of wastewater.

Response: The adjustment to the land use budget, reduction of significant non-residential square footage and the addition of housing, will result in an approximately forty-two percent (42%) reduction in water use compared to the existing and approved land use entitlements. In addition, there is net decrease of sixteen percent (16%) in wastewater from the Project.



WATER & WASTEWATER



COMMUNITY INVOLVEMENT

Goal CI 1 Seek early and ongoing community involvement through broad public input in project and policy-making discussions.

CI 1.1 Maximize opportunities for early notification of proposed projects using a variety of methods.

Response: Our outreach started with our most direct residential neighbors/community, Grayhawk. We contacted their homeowners association (“HOA”) board of directors and had an initial meeting to kick-off our community involvement. The HOA board of directors recommended an initial Grayhawk resident open house and informational meeting prior to the required City open house. We conducted an open house in



the Grayhawk board offices as our initial outreach meeting. There were approximately twenty-five (25) attendees to discuss our proposal. As was done when One Scottsdale was initially entitled in 2002, the Grayhawk community was our initial outreach.

CI 4.3 Seek to involve community groups, HOAs, and other organizations in the sharing of both City and project information.

Response: We engaged with the Grayhawk community and their HOA on our land use proposal before our required City open house. We will continue to share with Grayhawk and other community groups through the entire process.

HOUSING ELEMENT

Goal H1 Support diverse, safe, resource-efficient, and high-quality housing options.

Policy H1.4 Support the creation of mixed-use projects, primarily in Growth and Activity Areas, to increase housing supply within walking distance of employment, transportation options, and services.

Response: One Scottsdale is located within a designated Growth and Activity Area. The mixed-use core of the Project is generally south of Legacy Boulevard. It is within this area of the Project (Planning Unit II) that the additional housing is proposed which in turn will be within walking distance of employment, transportation options, and services.

H 1.5 Encourage a variety of housing densities in context-appropriate locations throughout Scottsdale to accommodate projected population growth.

Response: One Scottsdale has many different residential projects built, under construction and planned. All have unique and differing qualities and characteristics and densities that are in context appropriate locations.

Goal H2 Provide a variety of housing options that meet the socioeconomic needs of people who live and work in Scottsdale.

H 2.7 Encourage the development of workforce housing with the new development and/or expansion of hotels, resorts, and other generators of service-level employment.

Response: The addition of additional housing options at varying densities and residence size will help accommodate the need for more attainable housing for teachers, first responders, health care workers, and others critical to our economy.

Goal H 3 Provide housing options that allow for all generations of Scottsdale residents to continue to live here, regardless of life stage or ability.

Response: Although One Scottsdale’s housing options are not specifically geared to seniors, the amenities, walkable environment, services, and nearby medical facilities support the goal of allowing all generations to live within the community.

CIRCULATION ELEMENT

C 1.2 Coordinate transportation and land use planning to enhance an integrated, sustainable transportation system that promotes livable neighborhoods, economic vitality, safety, efficiency, mode choice, and adequate parking.

Response: One Scottsdale is ideally situated along major transportation corridors (Scottsdale Road and Loop 101 Freeway) and is planned for a live/work environment. This combination promotes livable neighborhoods, economic vitality, safety, efficiency, and mode choice that enhances parking availability.

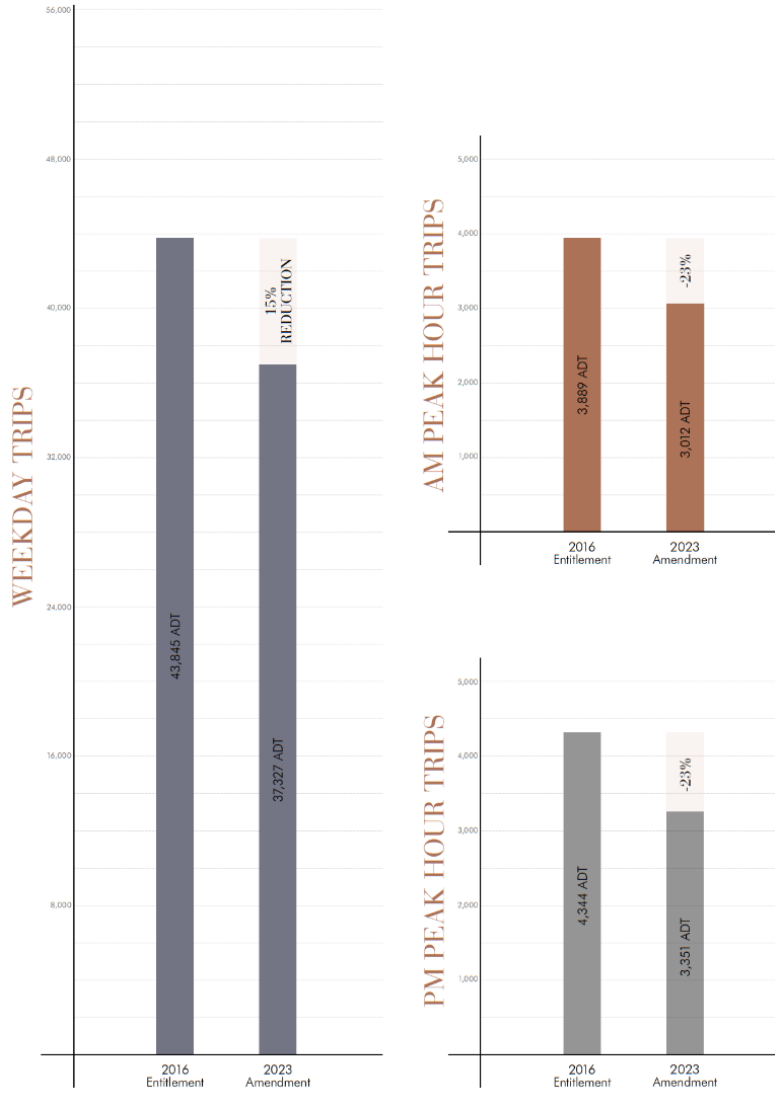
C 1.10 Control access to and from arterial streets and regional transportation corridors to protect their abilities to move multimodal traffic efficiently.

Response: One Scottsdale's access points were established with the Project's approval in 2002. A central street, Legacy Boulevard, was constructed in the early 2000's to provide an east/west connection from Scottsdale Road to Hayden Road. Internal streets within the Project allow for north/south traffic, excellent bicycle and pedestrian movement within the community is established as well. Finally, the Project has direct access to the freeway frontage road.

C 2.1 Encourage a mix of land uses that will reduce the distance and frequency of automobile trips and support mobility choices.

Response: One Scottsdale has always been planned for, and built with, a mix of land uses. The request for a reduction in non-residential square footage and additional residential provides for an approximate fifteen percent (15%) reduction in weekday trips and over twenty percent (20%) reduction in peak hour trips.

TRAFFIC



C 3.2 Create a diversity of mobility choices in Growth and Activity Areas, which have the greatest intensity of development.

Response: One Scottsdale utilizes numerous pedestrian and bicycle mobility options to and from and within the Project.

C 4.1 Provide and maintain expansion and modification options for existing and future transportation networks to efficiently serve future mobility needs.

Response: Although One Scottsdale constructed all of the required public infrastructure required by their 2002 entitlements, the developer will be constructing the west lanes of Scottsdale Road to improve traffic



flow. Additionally, in 2016, the developer was asked to provide interim street improvements on the west side of Scottsdale Road so that there were three (3) lanes of traffic across the Property frontage in both directions. Currently, Scottsdale Road transitions from three (3) lanes at the freeway to two (2) lanes in each direction. These improvements, planned for Spring of 2024, will provide and maintain expansion and modification options for existing and future transportation networks to efficiently serve future mobility needs.

C 4.5 Advance partnerships and privatization to provide additional choices for addressing gaps in the mobility system.

Response: In 2002, One Scottsdale agreed to financially participate in the construction of Miller Road to the east. Miller Road is approximately one-quarter (¼) mile east of One Scottsdale.

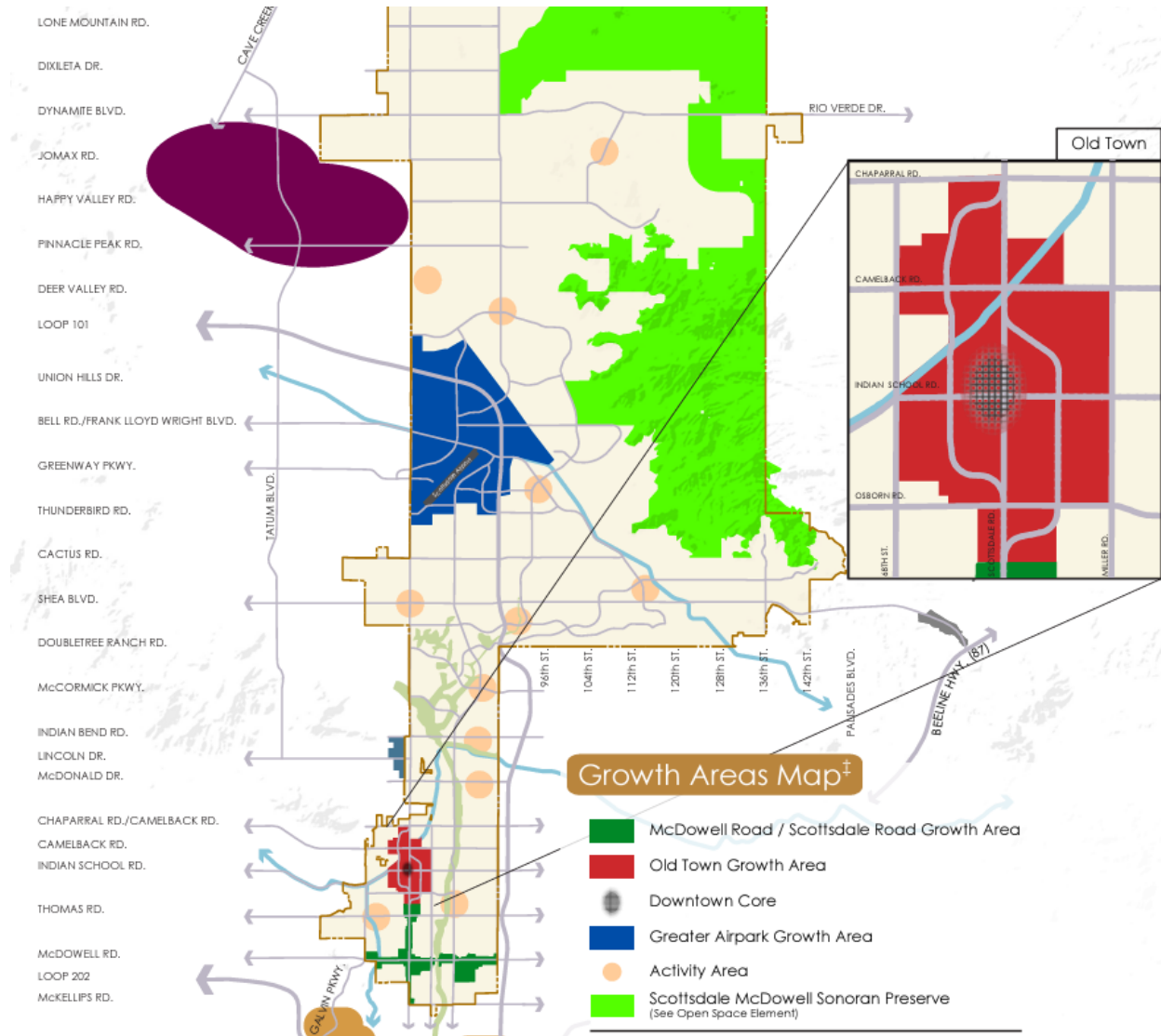
C 6.1 Coordinate regional transportation planning and implementation strategies in partnership with neighboring jurisdictions and regional, State, and Federal governmental agencies.

Response: One Scottsdale coordinated with the state department of transportation in constructing the north side freeway frontage road from Hayden Road on the east to Scottsdale Road. This connection demonstrated the developer's continuing commitment to coordinating and partnering with other jurisdictions for the betterment of the regional transportation system.

GROWTH AREAS

GA 1.4 Accommodate the highest intensity of development in designated Growth Areas. In some cases, Character Area Plans may be more specific on appropriate locations for higher intensity development within both Growth and Activity Areas.

Response: One Scottsdale is located in the Greater Airpark Growth Area. With higher intensity and density adjacent to One Scottsdale to the east (multi-family dwellings in Grayhawk and Crossroads East state land entitlements), the requested changes to the land use budget is an appropriate location for additional density and restructuring of non-residential square footage.



GA 1.5 Identify Growth and Activity Area “edges,” and incorporate context-appropriate transitions between these “edges” and adjacent neighborhoods to minimize the impacts of higher-intensity development.

GA 5.1 Support land use compatibility with nearby neighborhoods through context appropriate development within Growth and Activity Areas.

Response: One Scottsdale’s original 2002 entitlements, provide for height, density, and intensity transitions from the Grayhawk community north and east of the Project. The proposal maintains these already approved transitions. In addition, the majority of the eastern edge of Planning Unit II is allowed for building heights of up to ninety (90) feet. Current Development Review Board approvals and construction are only utilizing a maximum of sixty (60) feet in height for an even better transition to the Grayhawk community.

GA 3.1 Provide useable public open space as an integral part of Growth and Activity Areas to encourage public gathering, enhance aesthetics, preserve viewsheds, and serve as buffers between differing land uses and intensities.

Response: One Scottsdale is committed to a scenic corridor along its Scottsdale Road frontage. There are trails and paths that encircle the 134+-acre Project. Future public open space will be provided within Planning Unit II at full build-out.



COST OF DEVELOPMENT ELEMENT

COD 1.2 Public infrastructure provided by development should be reasonable, fair, and mutually beneficial to the City.

COD 2.1 Plan and promote the orderly building of infrastructure, such as water, sewer, drainage, streets, and transit shelters.

Response: One Scottsdale was originally approved in 2002. A few years later, Scottsdale Road and Legacy Boulevard were constructed at One Scottsdale’s expense. These roadways and improvements have been in place for approximately twenty (20) years. Regional drainage was also constructed for the area by One Scottsdale in the early 2000’s.



COD 2.4 Promote private-sector participation in the development of needed public facilities and amenities through required fees, dedication of land, and construction of facilities.

Response: One Scottsdale is committed to working with the City to provide needed facilities.

PUBLIC SERVICES & FACILITIES ELEMENT

PSF 2.3 Encourage the undergrounding of all new and existing electrical distribution lines carrying voltages of 69kV and lower.

Response: One Scottsdale had 69 KV power lines in front of the Project along the east side of Scottsdale Road. One of the initial public improvements was to underground that power line at a substantial cost to One Scottsdale. With the scenic corridor taking shape along portions of the Project’s frontage, the undergrounding of the power lines has benefitted the aesthetics to the users of this roadway.

ECONOMIC VITALITY ELEMENT

EV 1.2 Support retention and expansion of established businesses, and provide resources for businesses to adapt to changing market conditions.

Response: The additional housing and their household spending power will assist local businesses.

EV 3.8 Promote orderly, planned growth to reduce service costs, maximize use of existing and proposed public facilities, and enhance available revenues.

Response: One Scottsdale can now be considered “infill” development with all of the recognized benefits of such development patterns on infrastructure.

Neighborhood Outreach

As with our 2002 and 2016 Entitlements, we continue to strive to ensure all affected stakeholders are made aware of our proposed Request. Prior to our official submittal, we reached out to the Grayhawk Community Association (“Grayhawk Board”) to preview our request to amend our development plan. From that meeting, we coordinated with the Grayhawk Board, a Grayhawk only neighborhood outreach meeting at the Grayhawk Board offices. The Grayhawk Board sent notices to approximately 3,800 residences within Grayhawk. This meeting was conducted on November 15th, 2023 in the evening. There were approximately 25 attendees at this open house. On November 29th, 2023, we also conducted the City required neighborhood open house at the Grayhawk Boys & Girls Club. Again, there were approximately 25-30 attendees at this open house. Post submittal, our outreach will include updates to the Grayhawk Board, adjacent property owners including Discount Tire, Stockdale – the owner of the Illume building, Honor Health, the Vi, ASLD, Paradise Valley Unified School District, Coalition of Greater Scottsdale (“COG’s”) and many others. Please refer to the Citizen Involvement Plan and Report submitted with this application.

Summary

The Request is to update One Scottsdale's existing PRC zoning district to substantially reduce the intensity of One Scottsdale by approximately 1.3M square feet of non-residential intensity and increase the amounts of housing by 500 residences. These residences can only be developed in PU II. The intent of the Request is to remove overall intensity while at the same time reducing impacts to the City's infrastructure including traffic, water use and sewer use. The changes continue to be consistent with and implement the City's current General Plan and Character Area Plan goals, policies and vision. In doing so, additional housing and significantly less non-residential square footage will provide for development at one of the most important intersection in the City. The proposed intensity will still create a mixed core.

The modifications to increase residential and decrease non-residential square footage will be reflected in a revised Budget. Refer to the attached revised land use budget within this application.

The Request will create an economically sound development plan that implements the General Plan and the GACAP goals, policies and vision for this area of Scottsdale. We respectfully request the City's approval of the Request.

REQUEST

DISCOUNT TIRE HQ HONOR HEALTH

THOMPSON PEAK PKWY

NORTH SCOTTSDALE RD

CITY OF PHOENIX

PROPOSED AMENDMENT TO THE EXISTING LAND USE ENTITLEMENTS

- Remove approximately 1,000,000 non-residential square feet from PU-II and PU-III
- Add 500 residences in PU-II



LOOP 101



NOVEMBER 15, 2023

20-ZN-2002#5

12/18/2023

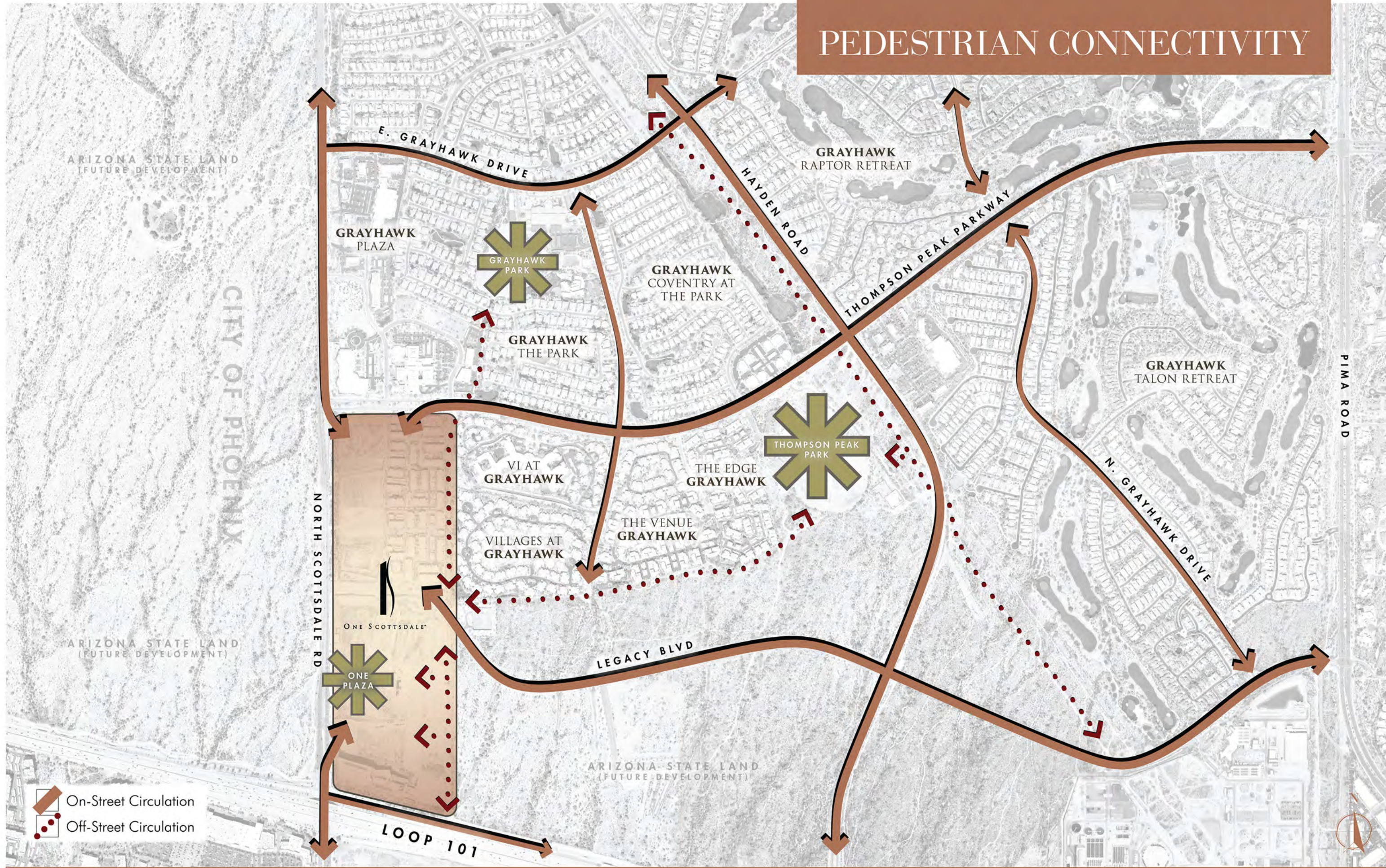
ONE PLAZA



ONE PLAZA



PEDESTRIAN CONNECTIVITY



- On-Street Circulation
- Off-Street Circulation

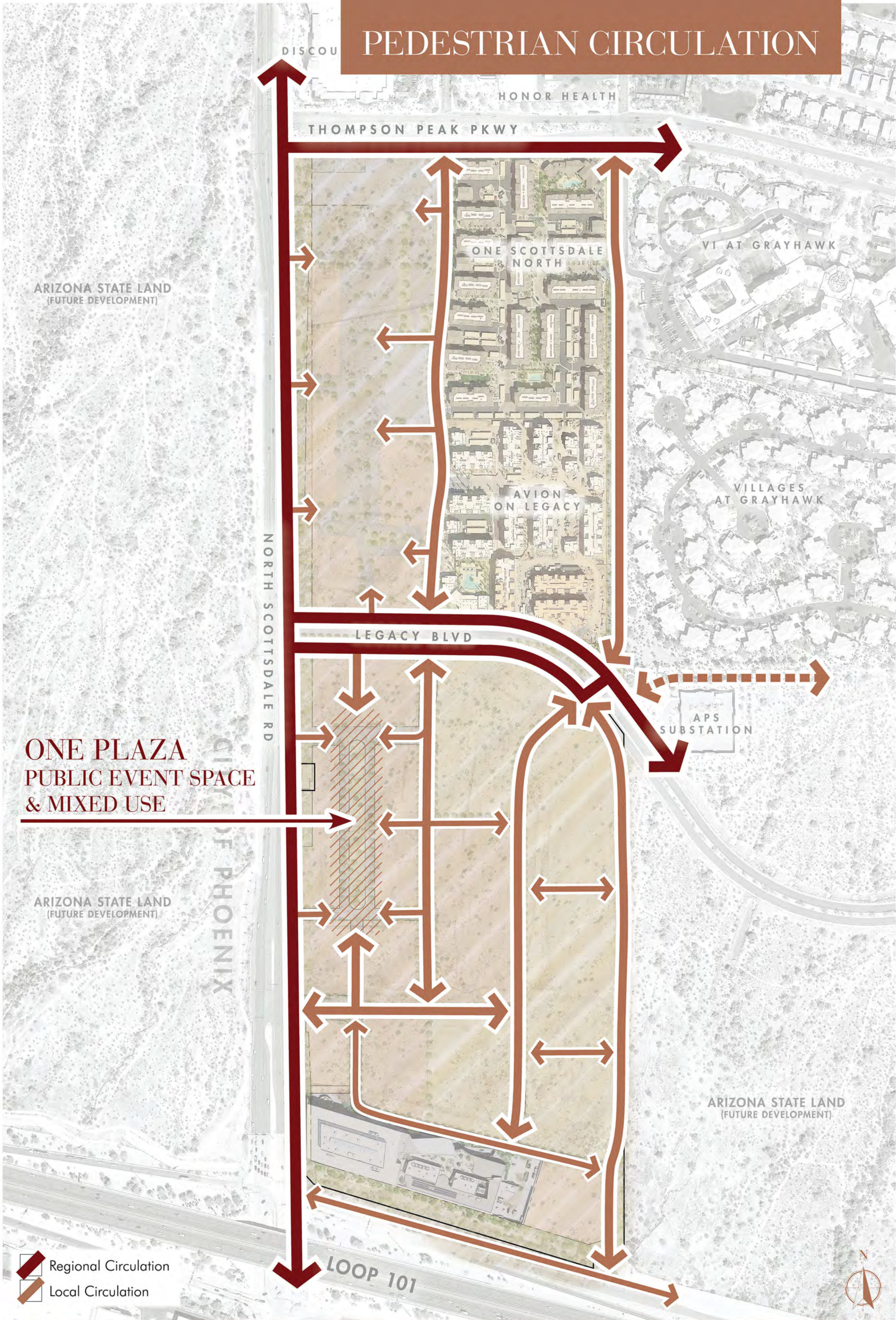


NOVEMBER 15, 2023

20-ZN-2002#5

12/18/2023

PEDESTRIAN CIRCULATION





One Scottsdale

Update to Case No. 20-ZN-2002#3
Traffic Impact and Mitigation
Analysis

Prepared for:



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Project Number: 22.5355
December 8, 2023



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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

Lōkahi, LLC (Lōkahi) was retained by DMB Associates, Inc. to complete an update to the Traffic Impact and Mitigation Analysis (TI&MA) completed for the One Scottsdale development (Case No. 20-ZN-2002#3) dated May 27, 2016, and approved June 21, 2016. The TI&MA update will be prepared for submittal to the City of Scottsdale and the Arizona Department of Transportation (ADOT). It has been coordinated with the City that the analysis does not need to extend beyond the site boundaries.

Planning Unit (PU) II and III of the proposed One Scottsdale development are located on the northeast corner of State Route 101 Loop (SR 101L/Loop 101) and Scottsdale Road and on the northeast corner of Legacy Boulevard and Scottsdale Road, respectively. See **Figure 1** for the vicinity map.

The objective of this TI&MA is to update traffic volume projections based on current standards and data collection to ultimately analyze the traffic related impacts of the proposed development to the adjacent roadway network.

This Traffic Impact and Mitigation Analysis includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Trip generation for the proposed development
- Trip generation comparison for the previously approved vs. proposed development
- Level of service analysis for the build-out year (2028) weekday AM and PM peak hours
- Traffic signal warrant

1.2. EXECUTIVE SUMMARY

A Traffic Impact and Mitigation Analysis (TI&MA), dated May 27, 2016, was completed for the One Scottsdale development (Case No. 20-ZN-2002#3) and was approved June 21, 2016. This report serves as an update to the previously approved TI&MA. Planning Unit (PU) II and III of the One Scottsdale development are evaluated in this report. PU II is located on the northeast corner of Loop 101 and Scottsdale Road and PU III on the northeast corner of Legacy Boulevard and Scottsdale Road in Scottsdale, Arizona. For the purpose of the TI&MA, the build-out year of One Scottsdale is assumed to occur in the year 2028 and to consist of the following land uses and units:



| | | |
|---|---|--|
| <p>PLANNING UNIT II</p> <ul style="list-style-type: none"> • Retail • Office • Restaurant • Hotel • Multifamily Residential | <p><u>PROPOSED</u></p> <p>42,500 square feet</p> <p>749,844 square feet</p> <p>102,500 square feet</p> <p>270 rooms</p> <p>1,750 dwelling units</p> | <p><u>(EXISTING)</u></p> <p>-</p> <p>(325,156 square feet)</p> <p>-</p> <p>-</p> <p>-</p> |
| <p>PLANNING UNIT III</p> <ul style="list-style-type: none"> • Retail • Office • Restaurant • Hotel • Multifamily Residential | <p><u>PROPOSED</u></p> <p>38,000 square feet</p> <p>223,000 square feet</p> <p>13,000 square feet</p> <p>-</p> <p>-</p> | <p><u>(EXISTING)</u></p> <p>-</p> <p>-</p> <p>-</p> <p>(130 rooms)</p> <p>(750 dwelling units)</p> |

Trip Generation

The trip generation for the proposed development was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 11th Edition* and *NCHRP Report 684 – Enhancing Internal Trip Capture Estimation of Mixed-Use Developments*.

The existing land uses are removed from the total trip generation considered in the analysis as they are assumed to be accounted for with the existing traffic count data.

The proposed One Scottsdale development is anticipated to generate the following new trips:

Trip Generation – Proposed One Scottsdale

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|-------------------------|---------------|--------------|-------|-----|--------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Proposed One Scottsdale | 29,986 | 2,338 | 1,533 | 805 | 2,666 | 1,003 | 1,663 |

To quantify the trip generation difference between the previously proposed One Scottsdale development and the proposed One Scottsdale development, the former trip generation is modified to take into consideration the changes in the proposed site. This includes the build-out of the hotel in PU III, which did not exist in 2016. Therefore, the trip generation for a 130-room hotel was removed from the former One Scottsdale development trip generation calculation. The previously proposed One Scottsdale development was anticipated to generate the following new trips:



Trip Generation – Previously Proposed One Scottsdale – Modified

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|------------------------------------|---------------|--------------|-------|-------|--------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Previously Proposed One Scottsdale | 30,547 | 3,911 | 2,754 | 1,157 | 3,909 | 1,288 | 2,621 |

The following table shows the trip generation comparison between the previously proposed and proposed One Scottsdale development.

Trip Generation – Comparison

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|------------------------------------|---------------|---------------|--------|-------|---------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Previously Proposed One Scottsdale | 30,547 | 3,911 | 2,754 | 1,157 | 3,909 | 1,288 | 2,621 |
| Proposed One Scottsdale | 29,986 | 2,338 | 1,533 | 805 | 2,666 | 1,003 | 1,663 |
| Difference | -561 | -1,573 | -1,221 | -352 | -1,243 | -285 | -958 |

The overall weekday, AM and PM peak hour trips of the proposed One Scottsdale development are **2%, 40%, and 32% less** than the previously proposed One Scottsdale development approved in 2016.

Therefore, the proposed One Scottsdale development will have less impact to the adjacent roadway network during the average weekday than the previously approved One Scottsdale development.

This report presents the existing and build-out year, assumed in the year 2028, capacity analyses for the AM and PM peak hours for the following intersections:

EXISTING INTERSECTIONS

- Scottsdale Road and Thompson Peak Parkway (1)
- Scottsdale Road and Driveway A (2)
- Scottsdale Road and Driveway B (3)
- Scottsdale Road and Driveway C (4)
- Scottsdale Road and Legacy Boulevard (5)
- Scottsdale Road and Henkel Way (6)
- Loop 101 WB Ramps (7)
- Loop 101 EB Ramps (8)
- Thompson Peak Parkway and 73rd Street (9)
- Legacy Boulevard and 73rd Street (10)
- Legacy Boulevard and Driveway D (11)



- Loop 101 Frontage Road and Henkel Way (12)

PROPOSED INTERSECTIONS

- Scottsdale Road and Driveway F (13)
- Scottsdale Road and Driveway G (14)
- Scottsdale Road and Driveway H (15)
- Legacy Boulevard and Driveway E (16)
- Legacy Boulevard and Driveway I (17)

Recommendations

The following are the recommendations with the build-out of the proposed One Scottsdale:

Scottsdale Road and Henkel Way (6)

- Improve southbound signal head to include permitted – protected left turn phasing

Legacy Boulevard and 73rd Street (10)

- Modify striping to include a through lane on the north and south approaches
- Although a traffic signal is warranted, the signal control is not incorporated in the build capacity analysis as acceptable levels of service are achieved in the AM peak hour and adequate storage is provided for the queued vehicles in the PM peak hour. It is recommended that additional traffic signal warrant analyses be conducted in the future as surrounding development progresses and forecasted traffic volumes are realized to determine the appropriate timing for signal control.

Scottsdale Road and Driveway F (13)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane

Scottsdale Road and Driveway G (14)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane

Scottsdale Road and Driveway H (15)

- Construct a one-way stop-controlled driveway, which allows for right-in/right-out/left-in movements
- Install westbound right turn lane

Legacy Boulevard and Driveway E (16)

- Construct a two-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane



Legacy Boulevard and Driveway I (17)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane



2. PROPOSED DEVELOPMENT

The proposed One Scottsdale development is located in North Scottsdale, Arizona and is comprised of two planning units. Planning Unit II is bound by Legacy Boulevard to the north, Loop 101 to the south, Scottsdale Road to the west, and Scottsdale Healthcare Drive to the east. Planning Unit III is bound by Thompson Peak Parkway to the north, Legacy Boulevard to the south, Scottsdale Road to the west, and 73rd Street to the east. See **Figure 1** for a vicinity map.

For the purpose of the TIMA, the build-out year of One Scottsdale is assumed to occur in the year 2028 and to consist of the following land uses and units:

| PLANNING UNIT II | <u>PROPOSED</u> | <u>(EXISTING)</u> |
|---------------------------|----------------------|-----------------------|
| • Retail | 42,500 square feet | - |
| • Office | 749,844 square feet | (325,156 square feet) |
| • Restaurant | 102,500 square feet | - |
| • Hotel | 270 rooms | - |
| • Multifamily Residential | 1,750 dwelling units | - |
| | | |
| PLANNING UNIT III | <u>PROPOSED</u> | <u>(EXISTING)</u> |
| • Retail | 38,000 square feet | - |
| • Office | 223,000 square feet | - |
| • Restaurant | 13,000 square feet | - |
| • Hotel | - | (130 rooms) |
| • Multifamily Residential | - | (750 dwelling units) |

See **Figure 2**, **Figure 3**, and **Appendix A** for the proposed One Scottsdale Planning Unit II and III site plans.

2.1. MASTER STREET CIRCULATION

The Master Street Circulation Plan is represented in the site plans (**Figure 2** and **Figure 3**) as well as **Figure 11**, which includes the existing and potential future private roadway network within Planning Unit II and III, as well as the existing regional and local roadway network adjacent to the One Scottsdale development. There are five proposed and eight (8) existing site access points to the One Scottsdale development evaluated in this study; seven are located along Scottsdale Road, one along Thompson Peak Parkway, four along Legacy Boulevard, and one along the Loop 101 Frontage Road.

EXISTING SITE ACCESS

Scottsdale Road and Driveway A (2) is one-way stop-controlled and allows for right-in, right-out movements.



Scottsdale Road and Driveway B (3) is one-way stop-controlled and allows for right-in, right-out, and left-in movements.

Scottsdale Road and Driveway C (4) is one-way stop-controlled and allows for right-in, right-out movements.

Scottsdale Road and Henkel Way (5) is signal controlled and allows for full access movements.

Thompson Peak Parkway and 73rd Street (9) is two-way stop-controlled and allows for right-in, right-out movements. With the build-out of the proposed One Scottsdale development, this driveway will allow for left-in movements.

Legacy Boulevard and 73rd Street (10) is currently two-way stop-controlled and allows for full access movements. Legacy Boulevard and 73rd Street has been previously approved by the City as a potential signal location.

Legacy Boulevard and Driveway D (11) is currently one-way stop-controlled and allows for full access movements. Legacy Boulevard and Driveway D has been previously approved by the City as a potential signal location.

Loop 101 Frontage Road and Henkel Way (12) is one-way stop-controlled and allows for right-in, right-out movements.

PROPOSED SITE ACCESS

Scottsdale Road and Driveway F (13) will be one-way stop-controlled and allow for right-in, right-out movements.

Scottsdale Road and Driveway G (14) will be one-way stop-controlled and allow for right-in, right-out movements.

Scottsdale Road and Driveway H (15) will be one-way stop-controlled and allow for right-in, right-out, and left-in movements.

Legacy Boulevard and Driveway E (16) will be two-way stop-controlled and allow for right-in, right-out movements from the north and south sides of Legacy Boulevard.

Legacy Boulevard and Driveway I (17) will be one-way stop-controlled and allow for right-in, right-out movements.



FIGURE 1 | VICINITY MAP



FIGURE 2 | ONE SCOTTSDALE PU II SITE PLAN



FIGURE 3 | ONE SCOTTSDALE PU III SITE PLAN

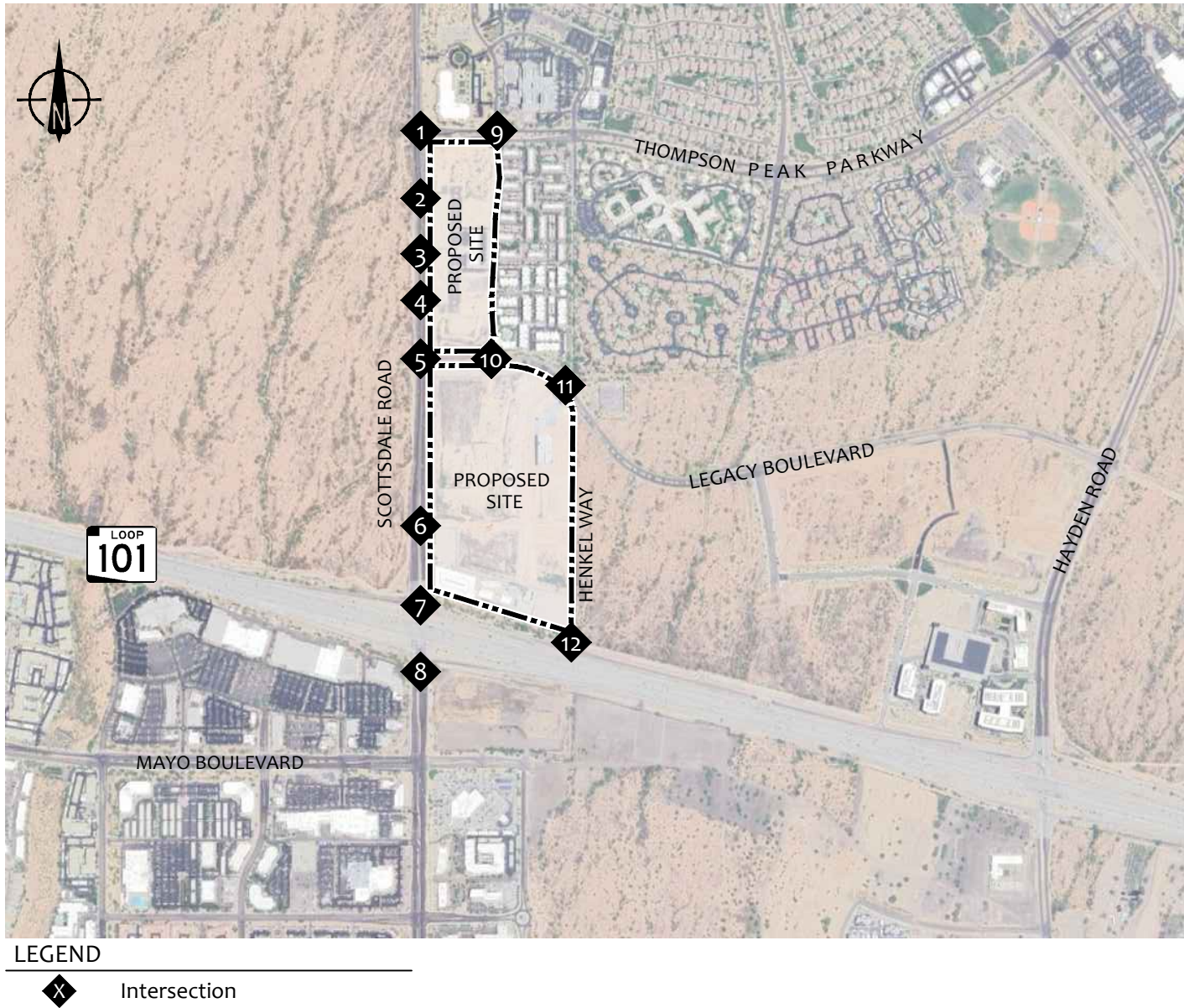


FIGURE 4 | STUDY AREA



3. AREA CONDITIONS

The study area is located in North Scottsdale, Arizona. **Sections 3.1** and **3.2** provide detailed descriptions of the existing study roadway segments and intersections. See **Figure 4** for the Master Circulation Plan which includes the study area.

3.1. STUDY ROADWAY SEGMENTS

The existing roadway segments within the study area include Scottsdale Road, 73rd Street, Thompson Peak Parkway, Legacy Boulevard, and Loop 101. It has been coordinated with the City that the analysis does not need to extend beyond the site boundaries as the trip generation is less than previously approved.

Scottsdale Road is a north-south roadway that provides three (3) through lanes in each direction of travel, divided with a raised median, directly north and south of Henkel Way and two (2) through lanes in each direction, divided with a two-way left-turn lane (TWLTL), north of Henkel Way. According to the City Scottsdale *Functional Classification Map*, Scottsdale Road is classified as a Major Arterial, south of Happy Valley Road. All Traffic Data Services, LLC collected traffic counts along Scottsdale Road, on Wednesday, October 18, 2023. The recorded counts indicate an average daily traffic (ADT) of 43,363 vehicles per day (vpd) and 44,280 vpd, along Scottsdale Road, north of Loop 101 and north of Legacy Boulevard, respectively. There is a posted speed limit of 45 miles per hour (mph).

73rd Street is a north-south roadway that provides one (1) through lane in each direction of travel, with on-street parking on the east side of the roadway, between Legacy Boulevard and Thompson Peak Parkway. All Traffic Data Services, LLC collected traffic counts along 73rd Street, north of Legacy Boulevard, on Wednesday, October 18, 2023. The recorded counts indicate an ADT of 2,062 vpd.

Thompson Peak Parkway is an east-west roadway, within the study area, that provides two (2) through lanes in each direction of travel, divided with a raised median. Thompson Peak Parkway begins at Scottsdale Road and continues east. According to the City Scottsdale *Functional Classification Map*, Thompson Peak Parkway is classified as a Minor Arterial. All Traffic Data Services, LLC collected traffic counts along Thompson Peak Parkway, east of Scottsdale Road, on Wednesday, October 18, 2023. The recorded counts indicate an ADT of 13,497 vpd. There is a posted speed limit of 45 mph.

Legacy Boulevard is an east-west roadway, that provides two (2) through lanes in each direction of travel, divided with a raised median. Legacy Boulevard begins at Scottsdale Road and continues east to Hayden Road, where the alignment currently ends. According to the City Scottsdale *Functional Classification Map*, Legacy Boulevard is classified as a Minor Arterial. All Traffic Data Services, LLC collected traffic counts along Legacy Boulevard, east of Scottsdale Road, on



Wednesday, October 18, 2023. The recorded counts indicate an ADT of 2,206 vpd. There is a posted speed limit of 30 mph.

The **Pima Freeway** segment of **State Route 101L (Loop 101)** is an east-west freeway with access to the site via traffic interchanges at Scottsdale Road and Hayden Boulevard. A westbound frontage road extends from the westbound on ramp at Hayden Road to the westbound off ramp at Scottsdale Road. The Loop 101 mainline provides four (4) through lanes and a High Occupancy Vehicle (HOV) lane for each direction of travel, within the vicinity of the study area.

3.2. STUDY INTERSECTIONS

Scottsdale Road and Thompson Peak Parkway (1) operates as a signalized T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane and two (2) through lanes. The westbound approach provides two (2) dedicated left turn lanes and one (1) dedicated right turn lane.

Scottsdale Road and Driveway A (2) operates as a one-way stop-controlled T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides two (2) through lanes. The westbound approach provides one (1) dedicated right turn lane.

Scottsdale Road and Driveway B (3) operates as a one-way stop-controlled T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated right turn lane and two (2) through lanes. The westbound approach provides one (1) dedicated right turn lane.

Scottsdale Road and Driveway C (4) operates as a one-way stop-controlled T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides two (2) through lanes. The westbound approach provides one (1) dedicated right turn lane.

Scottsdale Road and Legacy Boulevard (5) operates as a signalized T-intersection. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane and two (2) through lanes. The westbound approach provides two (2) dedicated left turn lanes and one (1) dedicated right turn lane.

Scottsdale Road and Henkel Way (6) operates as a signalized T-intersection. The northbound approach provides three (3) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane and three (3) through



lanes. The westbound approach provides two (2) dedicated left turn lanes and one (1) dedicated right turn lane.

Scottsdale Road and Loop 101 WB Ramps (7) operates as a clustered signalized intersection as a part of the Loop 101 and Scottsdale Road traffic interchange. The northbound approach provides two (2) dedicated left turn lanes and three (3) through lanes. The southbound approach provides two (2) left turn trap lanes, three (3) through lanes, and one (1) dedicated right turn lane. The westbound approach provides two (2) dedicated left turn lanes, one (1) shared through-right turn lane, and one (1) dedicated right turn lane.

Scottsdale Road and Loop 101 EB Ramps (8) operates as a clustered signalized intersection as a part of the Loop 101 and Scottsdale Road traffic interchange. The northbound approach provides two (2) left turn trap lanes, three (3) through lanes, and one (1) dedicated right turn lane. The southbound approach provides two (2) dedicated left turn lanes and three (3) through lanes. The eastbound approach provides two (2) dedicated left turn lanes, one (1) shared through-right turn lane, and one (1) dedicated right turn lane.

Thompson Peak Parkway and 73rd Street (9) operates as a two-way stop-controlled intersection. The northbound and southbound approaches each provide one (1) dedicated right turn lane. The eastbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The westbound approach provides two (2) through lanes and one (1) dedicated right turn lane.

Legacy Boulevard and 73rd Street (10) operates as a one-way stop-controlled T-intersection. The southbound approach provides one (1) dedicated left turn lane and one (1) dedicated right turn lane. The eastbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The westbound approach provides one (1) dedicated left turn lane, one (1) through lane and one (1) shared through-right turn lane. The northbound approach provides approximately 40 feet of pavement in length and 50 feet of pavement in width and is not currently operational.

Legacy Boulevard and Driveway D (11) operates as a one-way stop-controlled intersection. The northbound approach provides one (1) dedicated left turn lane and one (1) dedicated right turn lane. The eastbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The westbound approach provides one (1) dedicated left turn lane and two (2) through lanes.

Loop 101 WB Frontage Road and Henkel Way (12) operates as a one-way stop-controlled intersection. The southbound approach provides one (1) dedicated right turn lane. The westbound approach provides one (1) through lane and one (1) dedicated right turn lane.



3.3. COLLISION RATES

The City of Scottsdale’s 2022 *Traffic Volume & Collision Report* provides traffic volume and collision information for the City of Scottsdale on arterial and collector roadway segments and major intersections within the city. Segment collisions are defined as collisions that occur on major streets more than 100 feet from the segment’s termini intersections, including those that occur at minor intersections within the segment. Intersection collisions are defined as collisions that occur at or within 100 feet of the intersection.

The collision rates and city-wide rankings, sorted by descending collision rate, for the study roadway segments and intersections are shown in **Table 1** and **Table 2**, respectively.

Table 1 – Segment Collision Rates

| Segment | From | To | Collision Rate | Rank |
|---------------------------------|-------------|-----------------------|----------------|------|
| Scottsdale Road | 101 Freeway | Thompson Peak Parkway | 0.97 | 150 |
| 2022 City of Scottsdale Average | | | 1.17 | |

Table 2 – Intersection Collision Rates

| Intersection | Collision Rate | Rank |
|---|----------------|------|
| Scottsdale Road and Thompson Peak Parkway | 0.28 | 149 |
| Scottsdale Road and 101 Freeway | 1.49 | 5 |
| 2022 City of Scottsdale Average | | 0.51 |

3.4. STUDY AREA LAND USE

The study area includes a mix of land uses, but primarily consists of vacant and residential land uses. Arizona State Land Department (ASLD) State Trust Land is located west of PU III and east of PU II. Medical, office, lodging, retail, and restaurant land uses are located within the study area.

3.5. SITE ACCESSIBILITY

Roadway System

The project is accessible via Scottsdale Road, Thompson Peak Parkway, Legacy Boulevard, the Loop 101 WB Frontage Road, and 73rd Street. Regional accessibility is provided via Scottsdale Road and Loop 101. The Pima Freeway (Loop 101) extends east of the Interstate 17 (I-17) traffic interchange (TI), in north Phoenix, to Pima Road, where it transitions south, and ends at the Loop 202 TI, in south Scottsdale. Loop 101 is a major transportation corridor, located adjacent to the southern border of the site. The surrounding transportation system includes the typical “grid” roadway



network common to the Phoenix metropolitan area with arterial roadways running north-south and east-west at one-mile intervals. However, within the vicinity of the site there are currently limited roadways which provide continuous east-west and north-south connectivity.

Pedestrian and Bicycle Facilities

On-street bicycle lanes currently exist along both sides of Legacy Boulevard and Thompson Peak Parkway. A paved multi-use path currently exists along the east side of Scottsdale Road and north side of the Loop 101 westbound off-ramp. Sidewalks are generally provided along the study roadway segments adjacent to the frontage of developed parcels.

Transit Facilities

Valley Metro Route 72 – Scottsdale Road/Rural Road operates within the study area and provides stops at Scottsdale Road and Pima Freeway, Thompson Peak Parkway and Scottsdale Healthcare Drive, and Scottsdale Healthcare Drive and 73rd Street.



4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

The existing land uses within the One Scottsdale site include residential, lodging, and office land, although the majority of the existing land is vacant. The proposed development is zones for Planned Regional Center (PRC).

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, All Traffic Data Services, LLC, was utilized to collect traffic counts. On Wednesday, October 18, 2023, 4 hours of typical weekday turning movement counts were obtained during the AM (7:00 to 9:00 am) and PM (4:00 to 6:00 pm) peak hours at the following intersections:

- Scottsdale Road and Thompson Peak Parkway (1)
- Scottsdale Road and Driveway A (2)
- Scottsdale Road and Driveway B (3)
- Scottsdale Road and Driveway C (4)
- Scottsdale Road and Legacy Boulevard (5)
- Scottsdale Road and Henkel Way (6)
- Loop 101 WB Ramps (7)
- Loop 101 EB Ramps (8)
- Thompson Peak Parkway and 73rd Street (9)
- Legacy Boulevard and 73rd Street (10)
- Legacy Boulevard and Driveway D (11)
- Loop 101 Frontage Road and Henkel Way (12)

The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

| | |
|--------------|-------------------|
| AM Peak Hour | 7:15 am – 8:15 am |
| PM Peak Hour | 4:30 pm – 5:30 pm |

On Wednesday, October 18, 2023, weekday bi-directional tube counts for 24-hours in 15-minute intervals were collected along the following roadway segments:

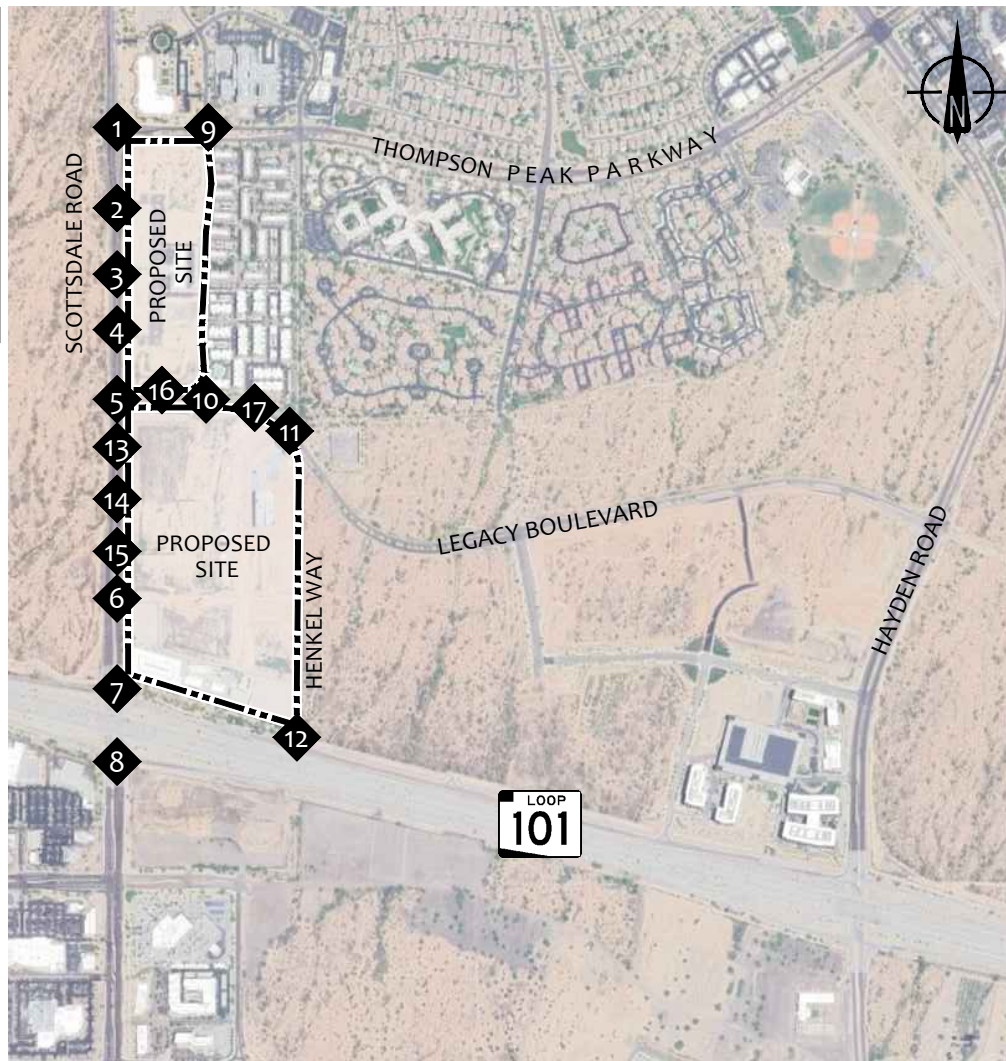
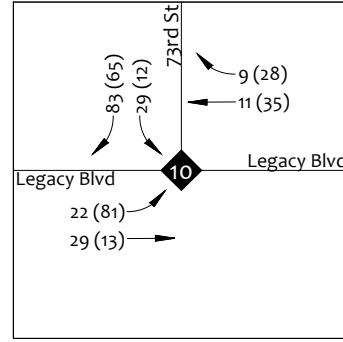
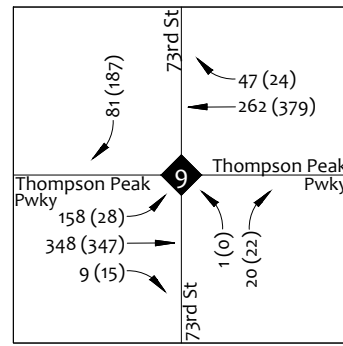
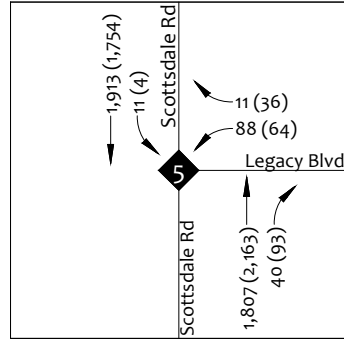
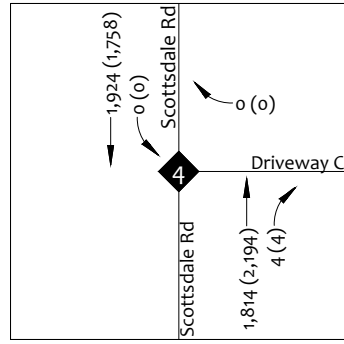
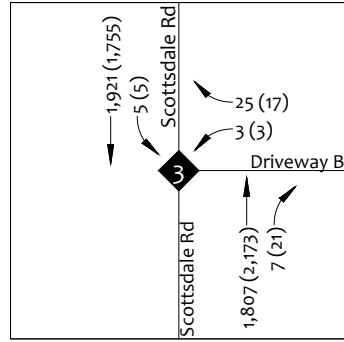
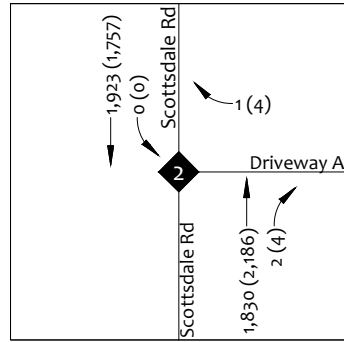
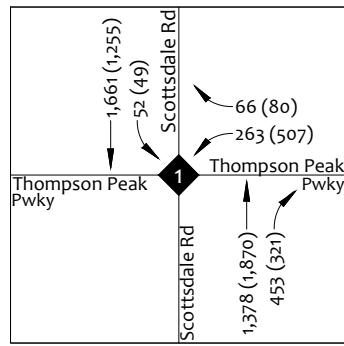
- Scottsdale Road, north of Legacy Boulevard
- Scottsdale Road, north of Loop 101
- Thompson Peak Parkway, east of Scottsdale Road
- Legacy Boulevard, east of Scottsdale Road
- 73rd Street, north of Legacy Boulevard



- Henkel Way, north of Loop 101 WB Frontage Road

The City of Scottsdale seasonal adjustment factors, as shown on the *2020 Average Daily Intersection and Segment Traffic Volumes* maps, were used to adjust the existing traffic counts based on the month the counts were taken. The existing traffic counts were divided by the North Scottsdale monthly adjustment factor for October, resulting in increased traffic volumes.

See **Figure 5** for the existing adjusted weekday, AM and PM peak hour traffic volumes. See **Appendix C** for detailed raw traffic count data.



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

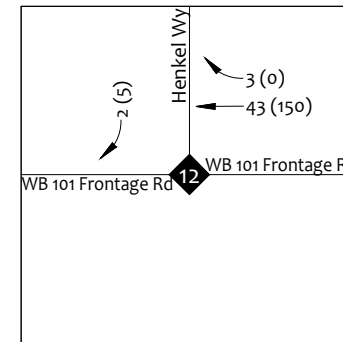
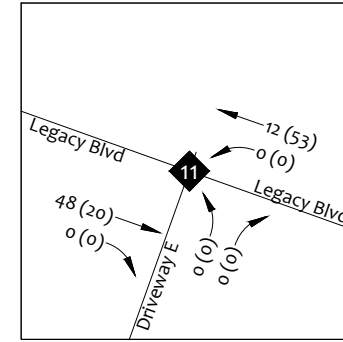
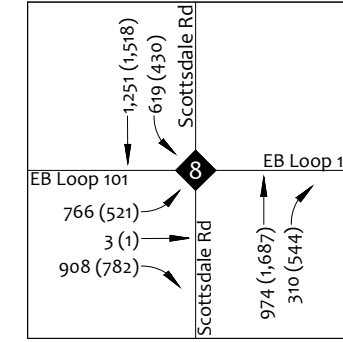
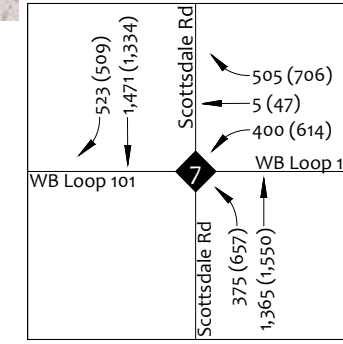
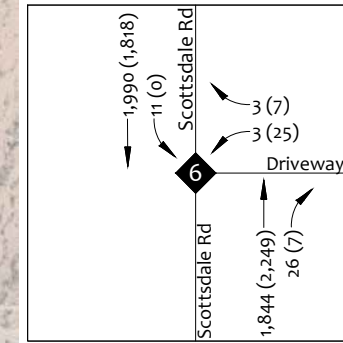


FIGURE 5 | EXISTING TRAFFIC VOLUMES



4.3. EXISTING CAPACITY ANALYSIS

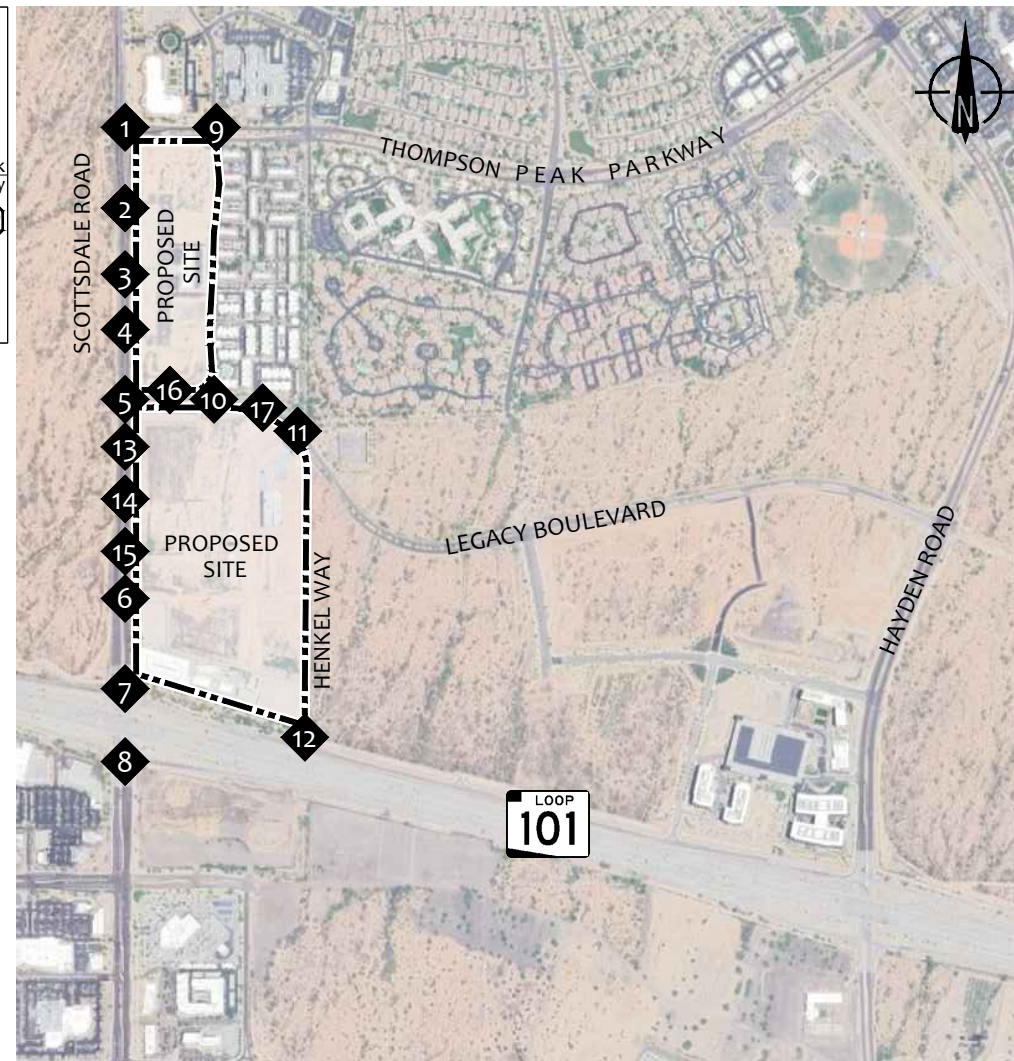
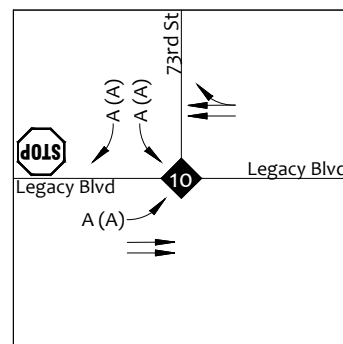
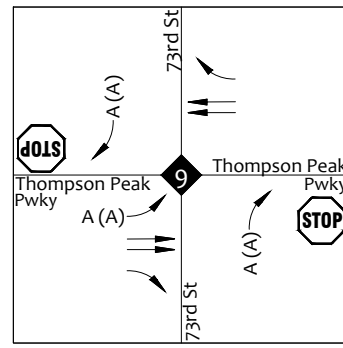
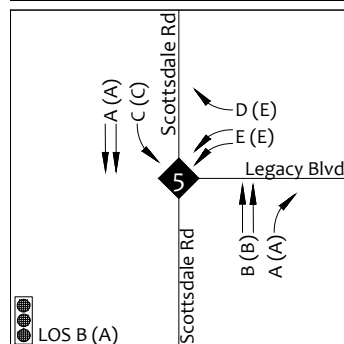
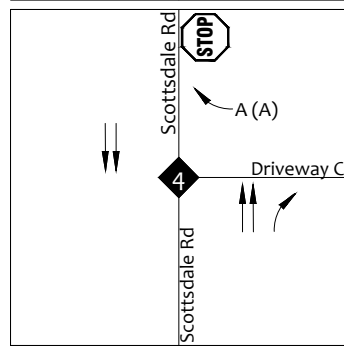
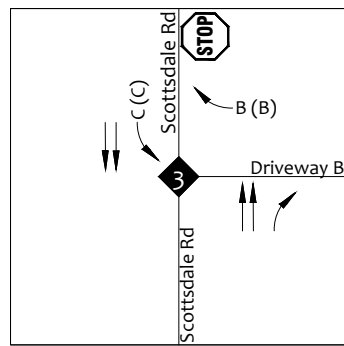
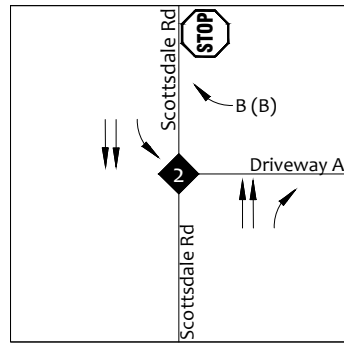
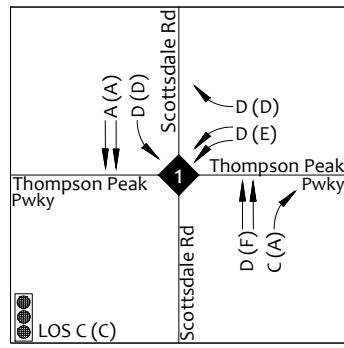
A capacity analysis was performed for the existing study intersections with traffic analysis software, *Synchro Version 12*. The level of service for the study area intersections, with the exception of the clustered intersections, were evaluated using the methodology presented in the 7th Edition of the *Highway Capacity Manual (HCM)*. HCM 7th Edition methodology does not support the clustered signalized freeway ramp intersections. Thus, the level of service for the clustered intersections were evaluated using *Synchro Version 12* methodologies. The peak hour factors (PHF) obtained from the traffic counts were utilized for the existing capacity analysis. See **Appendix D** for the existing signal timing obtained from the City of Scottsdale.

Table 3 is from the 7th Edition of the *Highway Capacity Manual* Exhibit 19-8 and 20-2, which lists the Level of Service (LOS) thresholds for signalized and stop-controlled intersections.

Table 3 – Level of Service Criteria

| Level of Service | Control Delay per Vehicle (s/veh) | |
|------------------|-----------------------------------|----------------------------|
| | Signalized Intersections | Unsignalized Intersections |
| A | ≤ 10 | 0 - 10 |
| B | > 10-20 | > 10-15 |
| C | > 20-35 | > 15-25 |
| D | > 35-55 | > 25-35 |
| E | > 55-80 | > 35-50 |
| F | > 80 | > 50 |

See **Figure 6** for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix E**.



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

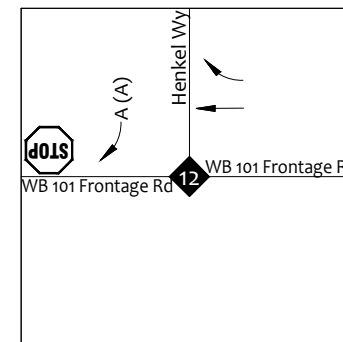
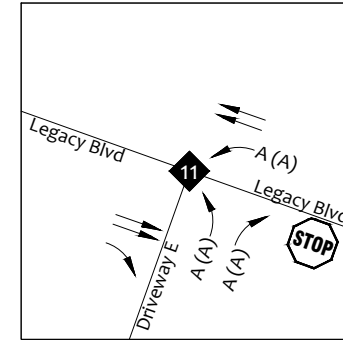
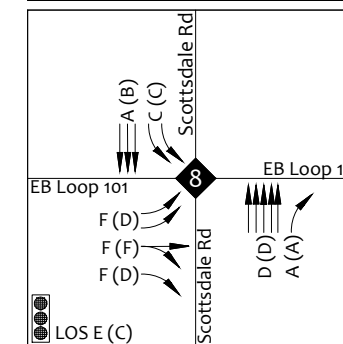
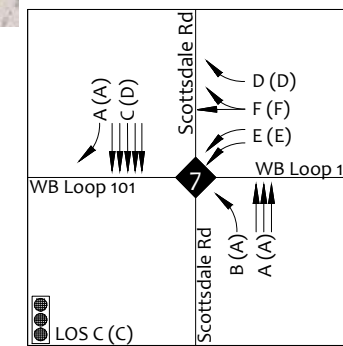
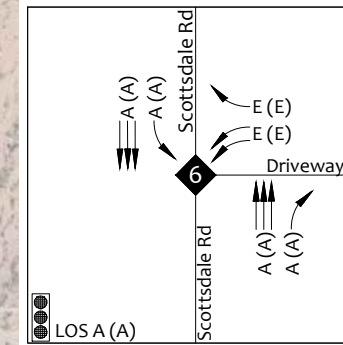


FIGURE 6 | EXISTING CAPACITY ANALYSIS



5. PREVIOUSLY PROJECTED TRAFFIC

A Traffic Impact and Mitigation Analysis (TI&MA), dated May 27, 2016, was completed for the One Scottsdale development (Case No. 20-ZN-2002#3) and was approved June 21, 2016. The prior study calculated the anticipated trips generated by the previously proposed One Scottsdale development.

The previously proposed One Scottsdale development included the following land uses:

- Retail 269,900 square feet
- Office 2,171,089 square feet
- Restaurant 100,000 square feet
- Hotel 400 rooms
- Multifamily Residential 1,716 dwelling units

As reported in the prior study, the previously proposed One Scottsdale development was anticipated to generate the following trips:

Table 4 – Trip Generation – Previously Proposed One Scottsdale - Original

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|------------------------------------|---------|--------------|-------|-------|--------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Previously Proposed One Scottsdale | 31,184 | 3,960 | 2,781 | 1,179 | 3,961 | 1,311 | 2,650 |

To quantify the trip generation difference between the previously proposed One Scottsdale and proposed One Scottsdale development, the former trip generation is modified to take into consideration the changes in the proposed site. This includes the build-out of the hotel in PU III, which did not exist in 2016. Therefore, the trip generation for a 130-room hotel was removed from the former One Scottsdale development calculation. The previously proposed One Scottsdale development was anticipated to generate the following trips:

Table 5 – Trip Generation – Previously Proposed One Scottsdale - Modified

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|------------------------------------|---------|--------------|-------|-------|--------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Previously Proposed One Scottsdale | 30,547 | 3,911 | 2,754 | 1,157 | 3,909 | 1,288 | 2,621 |



6. PROJECTED TRAFFIC

6.1. TRIP GENERATION

The trip generation for the proposed development was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 11th Edition*. The ITE rates are based on studies that measured the trip generation characteristics for various types of land uses. The rates are expressed in terms of trips per unit of land use type. This publication is considered to be the standard for the transportation engineering profession.

The proposed One Scottsdale development is assumed to consist of the following land uses and units:

| PLANNING UNIT II | <u>PROPOSED</u> | <u>(EXISTING)</u> |
|---------------------------|----------------------|-----------------------|
| • Retail | 42,500 square feet | - |
| • Office | 749,844 square feet | (325,156 square feet) |
| • Restaurant | 102,500 square feet | - |
| • Hotel | 270 rooms | - |
| • Multifamily Residential | 1,750 dwelling units | - |
| | | |
| PLANNING UNIT III | <u>PROPOSED</u> | <u>(EXISTING)</u> |
| • Retail | 38,000 square feet | - |
| • Office | 223,000 square feet | - |
| • Restaurant | 13,000 square feet | - |
| • Hotel | - | (130 rooms) |
| • Multifamily Residential | - | (750 dwelling units) |

General assumptions were made regarding the land use subcategories to calculate the trip generation utilizing ITE.

INTERNAL CAPTURE

Given the mixed-use nature of the proposed development which includes retail, restaurant, office, hotel, and residential land uses in each planning unit, it is anticipated that a portion of the trips will be internal, i.e. beginning and ending within the development. Based on the *NCHRP Report 684 – Enhancing Internal Trip Capture Estimation of Mixed-Use Developments*, the internal capture rates for trip origins and trip destinations within a multi-use development were applied for the AM and PM peak hours. The internal capture calculations were calculated separately for Planning Unit II and Planning Unit III. The existing land uses within the One Scottsdale development were included in the internal capture calculations.



PASS-BY TRIPS

Pass-by trips are intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from the existing traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These trips are not considered to add new traffic to the adjacent street network and may be reduced from the total external trips generated by the proposed development. Pass-by rates were based on the Pass-By Data and Rate Tables/2021 Pass-By Tables provided in the Trip Generation Manual Appendix. These rates were applied to the AM and PM peak hours.

The proposed development’s total peak hour trips, including pass-by trips, are considered in the site driveway volumes.

6.1.1. PROPOSED DEVELOPMENT

PLANNING UNIT II

Planning Unit II of the proposed One Scottsdale development is anticipated to generate a total of 21,829 weekday trips, with 1,809 trips occurring during the AM peak hour and 1,798 trips occurring during the PM peak hour. The trip generation for PU II of the proposed One Scottsdale development is shown in **Table 6**.

Table 6 – Trip Generation – Proposed One Scottsdale - PU II

| Land Use | ITE LUC | Qty | Unit | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|--|---------|--------|----------------|---------------|--------------|--------------|------------|--------------|--------------|--------------|
| | | | | Total | Total | In | Out | Total | In | Out |
| Multifamily Housing (Mid-Rise) | 221 | 1,750 | Dwelling Units | 8,301 | 758 | 174 | 584 | 683 | 417 | 266 |
| Shopping Plaza (40-150k) (w/o Supermarket) | 821 | 42.5 | 1000 Sq Ft GFA | 2,870 | 74 | 46 | 28 | 221 | 108 | 113 |
| Hotel | 310 | 270 | Rooms | 2,503 | 128 | 72 | 56 | 172 | 87 | 85 |
| Fine Dining Restaurant | 931 | 76.875 | 1000 SF GFA | 6,445 | 56 | 31 | 25 | 600 | 402 | 198 |
| High-Turnover (Sit-Down) Restaurant | 932 | 25.625 | 1000 SF GFA | 2,747 | 245 | 135 | 110 | 232 | 142 | 90 |
| General Office Building | 710 | 749.8 | 1000 SF GFA | 6,696 | 947 | 833 | 114 | 884 | 150 | 734 |
| Subtotal | | | | 29,562 | 2,208 | 1,291 | 917 | 2,792 | 1,306 | 1,486 |
| <i>Internal Capture</i> | | | | 6,219 | 399 | 185 | 214 | 714 | 357 | 357 |
| <i>Pass-By Trips</i> | | | | 1,514 | 0 | 0 | 0 | 280 | 196 | 84 |
| Total One Scottsdale PU II | | | | 21,829 | 1,809 | 1,106 | 703 | 1,798 | 753 | 1,045 |

PLANNING UNIT III

Planning Unit III of the proposed One Scottsdale development is anticipated to generate a total of 8,157 weekday trips, with 529 trips occurring during the AM peak hour and 868 trips occurring



during the PM peak hour. The trip generation for PU III of the proposed One Scottsdale development is shown in **Table 7**.

Table 7 – Trip Generation – Proposed One Scottsdale - PU III

| Land Use | ITE LUC | Qty | Unit | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|--|---------|-------|-------------------|--------------|--------------|------------|------------|--------------|------------|------------|
| | | | | Total | Total | In | Out | Total | In | Out |
| Strip Retail Plaza (<40k) | 822 | 16 | 1000 SF GLA | 871 | 38 | 23 | 15 | 105 | 53 | 52 |
| Convenience Store/Gas Station | 945 | 16 | Fueling Positions | 4,114 | 433 | 217 | 216 | 364 | 182 | 182 |
| Automobile Care Center | 942 | 17 | 1000 SF GFA | 403 | 38 | 25 | 13 | 53 | 25 | 28 |
| High-Turnover (Sit-Down) Restaurant | 932 | 9.8 | 1000 SF GFA | 1,045 | 93 | 51 | 42 | 88 | 54 | 34 |
| Fast-Food Restaurant with Drive-Through Window | 934 | 3.3 | 1000 SF GFA | 1,519 | 145 | 74 | 71 | 107 | 56 | 51 |
| Medical-Dental Office Building | 720 | 223.0 | 1000 SF GFA | 9,474 | 496 | 392 | 104 | 904 | 271 | 633 |
| Subtotal | | | | 17,426 | 1,243 | 782 | 461 | 1,621 | 641 | 980 |
| Internal Capture | | | | 5,858 | 420 | 210 | 210 | 516 | 258 | 258 |
| Pass-By Trips | | | | 3,411 | 294 | 145 | 149 | 237 | 133 | 104 |
| Total One Scottsdale PU III | | | | 8,157 | 529 | 427 | 102 | 868 | 250 | 618 |

Detailed trip generation calculations are provided in **Appendix F**.

TOTAL PROPOSED ONE SCOTTSDALE

The total trip generation for the proposed One Scottsdale development is shown in **Table 8**.

Table 8 – Trip Generation – Proposed One Scottsdale - Total

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|-------------------------|---------|--------------|-------|-----|--------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Proposed One Scottsdale | 29,986 | 2,338 | 1,533 | 805 | 2,666 | 1,003 | 1,663 |



6.1.2. PREVIOUSLY PROPOSED VS. PROPOSED DEVELOPMENT

A trip generation comparison between the previously proposed and proposed One Scottsdale development is shown in **Table 9**.

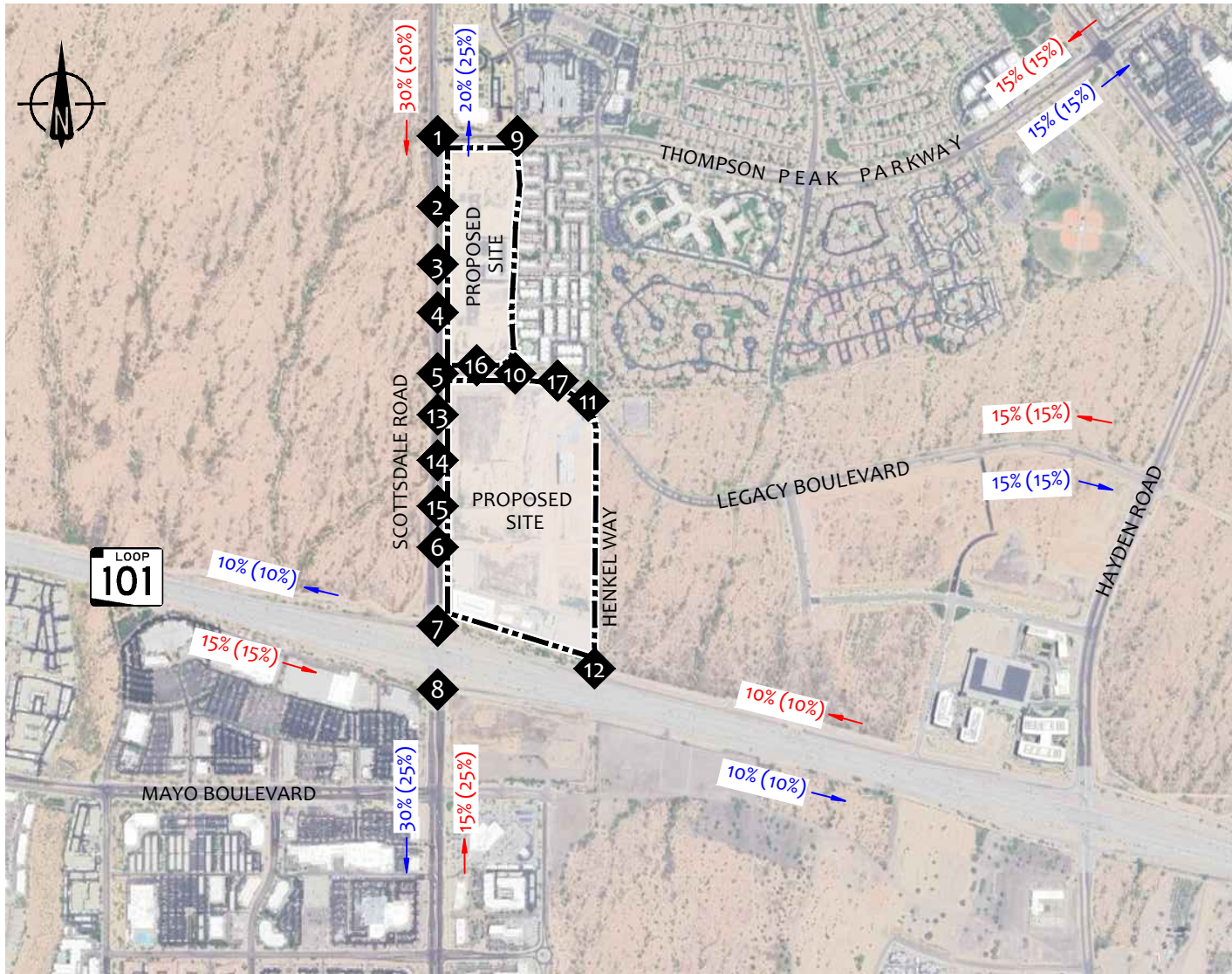
Table 9 – Trip Generation Comparison

| | Weekday | AM Peak Hour | | | PM Peak Hour | | |
|------------------------------------|-------------|---------------|--------|-------|---------------|-------|-------|
| | Total | Total | In | Out | Total | In | Out |
| Previously Proposed One Scottsdale | 30,547 | 3,911 | 2,754 | 1,157 | 3,909 | 1,288 | 2,621 |
| Proposed One Scottsdale | 29,986 | 2,338 | 1,533 | 805 | 2,666 | 1,003 | 1,663 |
| Difference | -561 | -1,573 | -1,221 | -352 | -1,243 | -285 | -958 |

6.2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution procedure determines the pattern of travel for vehicles entering and exiting the proposed development. The trip distribution for the proposed One Scottsdale is generally based on the distribution of existing traffic with adjustments to consider probable routes and the surrounding roadway network. The trip distribution is shown in **Figure 7**.

The trip assignment was based on proximity of the driveways, permitted turn movements, as well as ease and probability of use. The site generated traffic volumes including pass-by are shown in **Figure 8**.



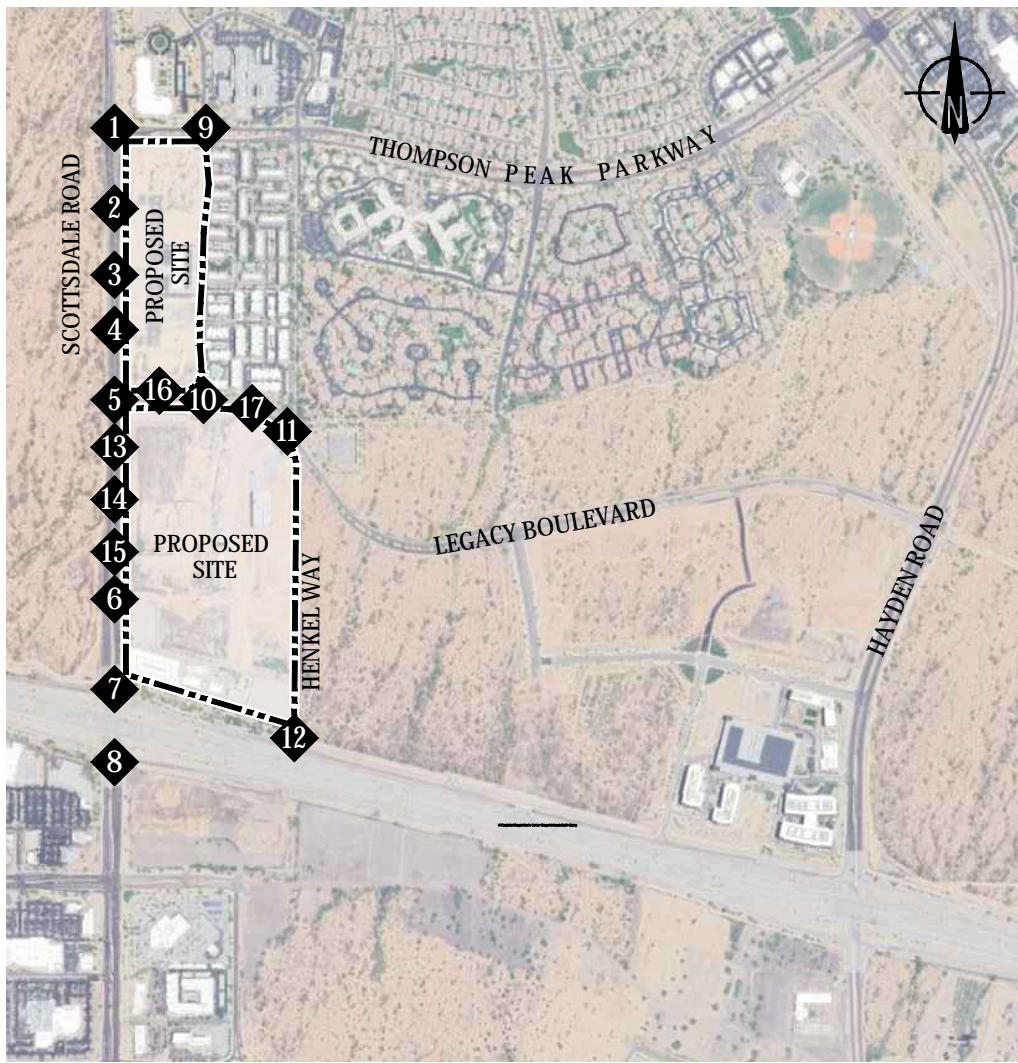
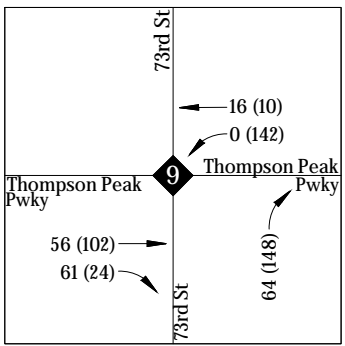
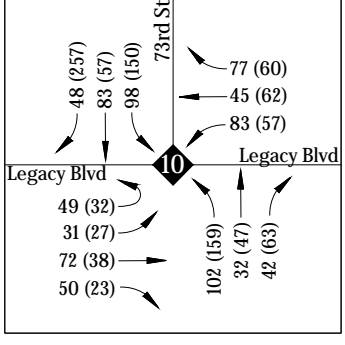
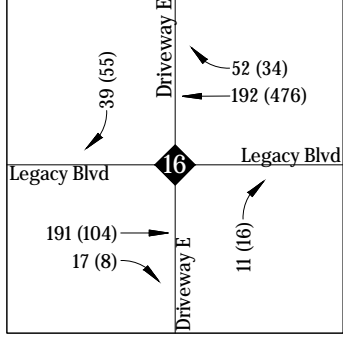
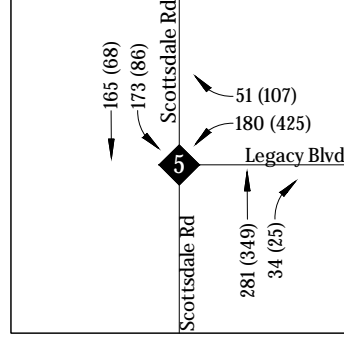
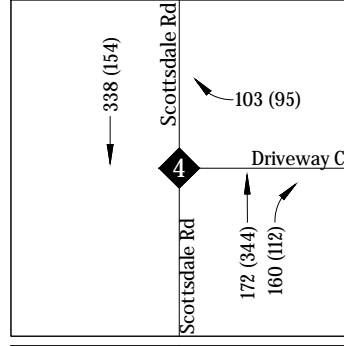
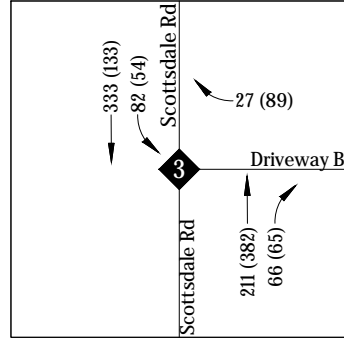
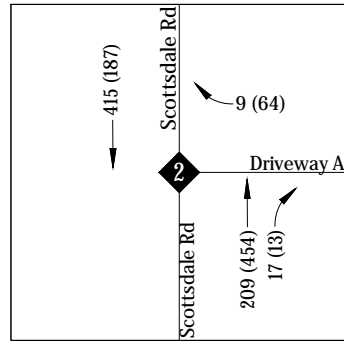
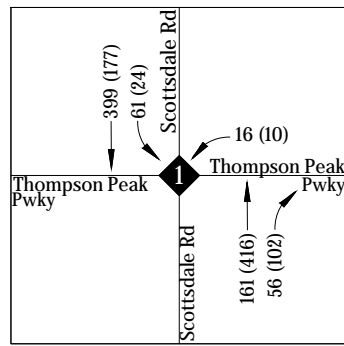
LEGEND

AM (PM) Inbound Trip Distribution Percentages

AM (PM) Outbound Trip Distribution Percentages

◆ Intersection

FIGURE 7 | TRIP DISTRIBUTION



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

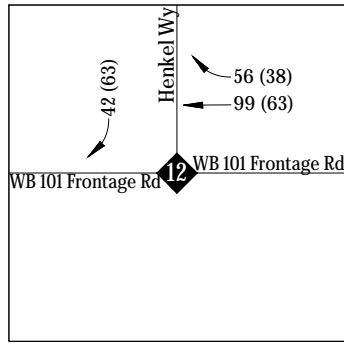
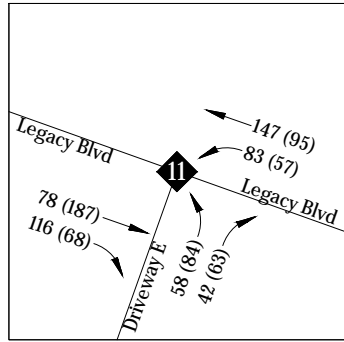
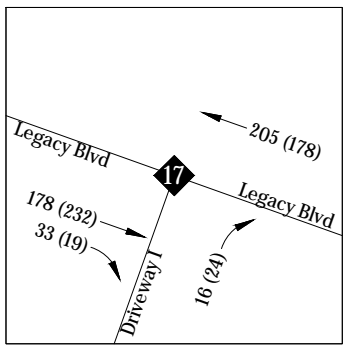
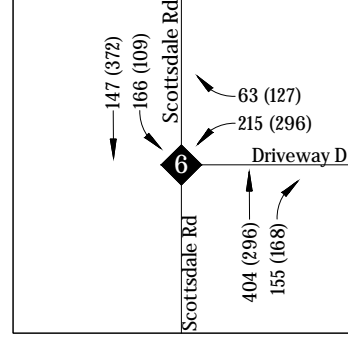
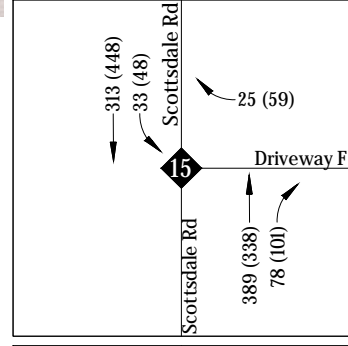
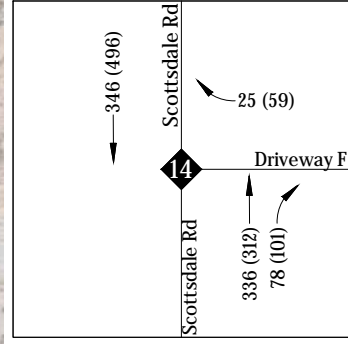
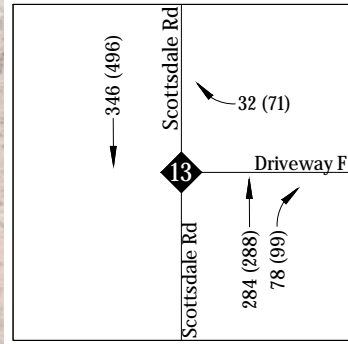
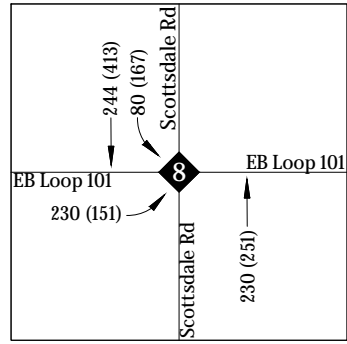
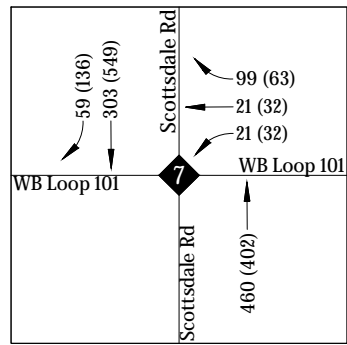


FIGURE 8 | NET NEW SITE TRAFFIC VOLUMES



7. FUTURE CONDITIONS (YEAR 2028 – BUILD-OUT YEAR)

The proposed One Scottsdale development is assumed to open in the year 2028. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year.

7.1. YEAR 2028 FUTURE ROADWAY NETWORK

The following roadway network improvements are assumed in year 2028 with the build-out of the proposed development:

Scottsdale Road

- Widen Scottsdale Road to 3 lanes in each direction of travel, between Henkel Way and Thompson Peak Parkway

Scottsdale Road and Henkel Way (6)

- Improve southbound signal head to include permitted – protected left turn phasing

Legacy Boulevard and Driveway E (16)

- Install westbound right turn lane

Legacy Boulevard and 73rd Street (10)

- Modify striping to include a through lane on the north and south approaches

7.2. YEAR 2028 BACKGROUND TRAFFIC VOLUMES

The 2023 Maricopa Associations of Governments (MAG) Socioeconomic Projections were utilized to determine the annual growth rate based on data for the City of Scottsdale within the study area - Regional Analysis Zone 230 (RAZ 230). It is estimated that in the year 2020 the population of the study area was approximately 32,628. MAG estimates that the 2030 population of the study area will be approximately 38,951. This results in an approximate annual growth rate of 1.79% between 2020 and 2030. A 1.79% annual growth rate was considered to project the year 2028 background traffic volumes. See **Appendix G** for the MAG 2023 socioeconomic projections. The year 2028 background traffic volumes are shown in **Figure 9**, which includes the 1.79% annual growth rate.

7.3. YEAR 2028 BUILD TRAFFIC VOLUMES

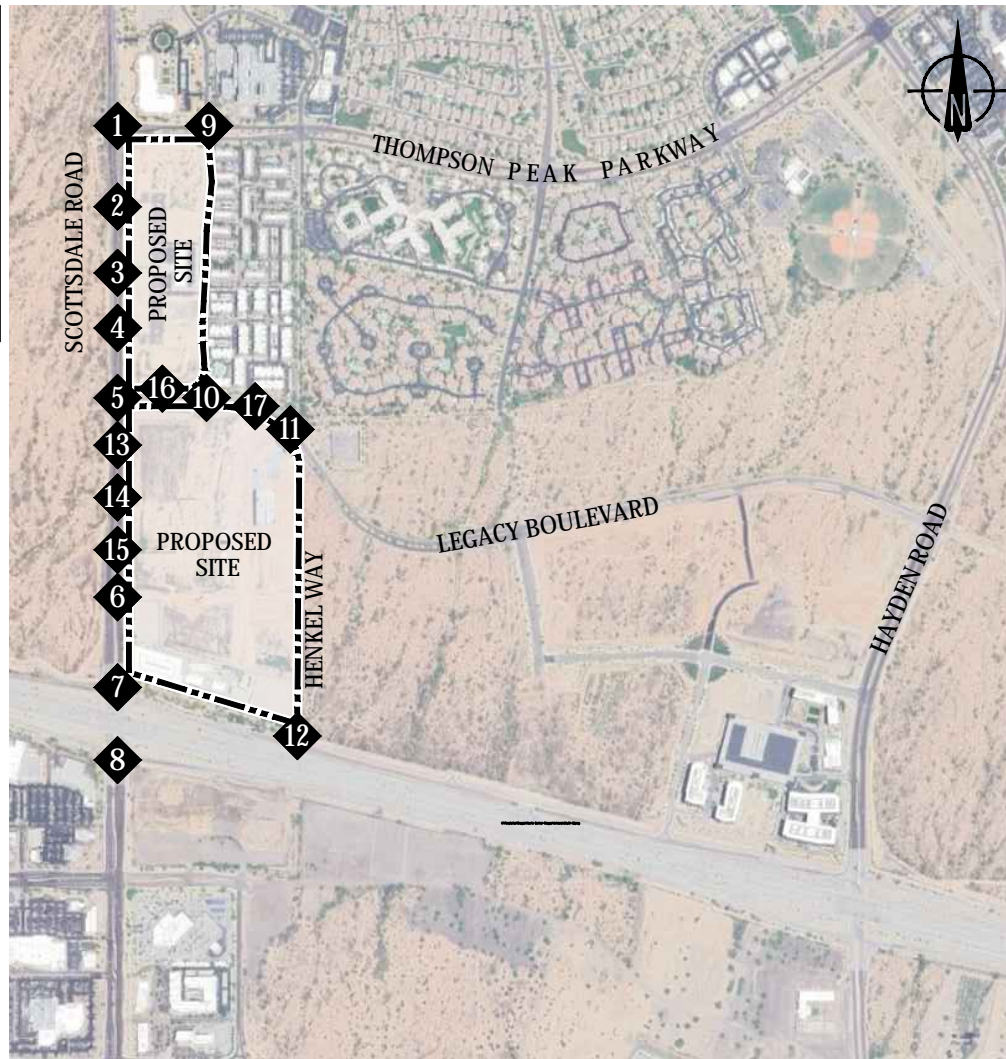
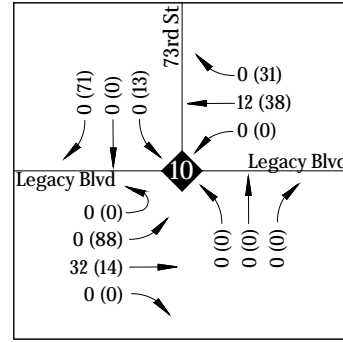
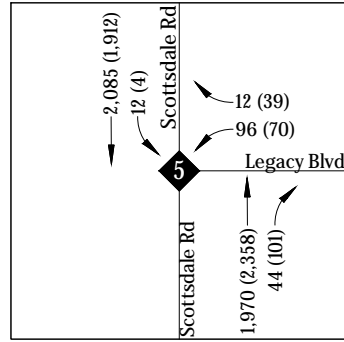
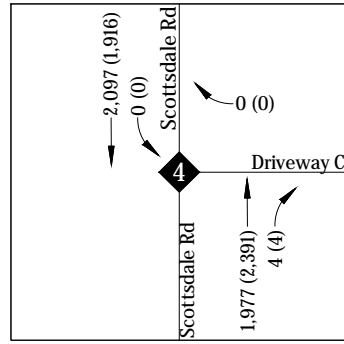
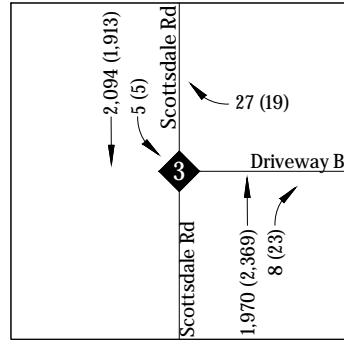
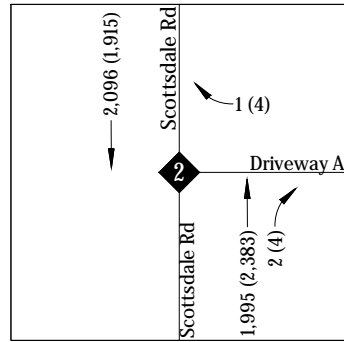
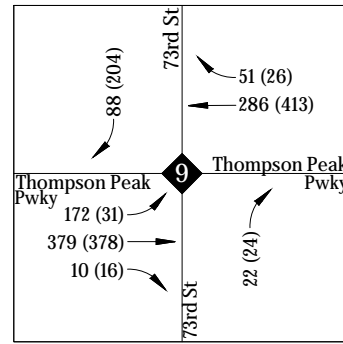
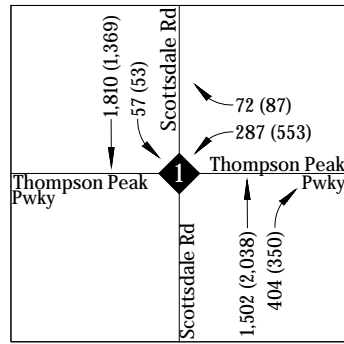
To determine the year 2028 build traffic volumes, the site traffic volumes (**Figure 8**) were added to the year 2028 background traffic volumes (**Figure 9**). This represents the year 2028 traffic volumes with the build-out of the proposed One Scottsdale development. The year 2028 build traffic volumes are shown in **Figure 10**.



7.4. YEAR 2028 BUILD CAPACITY ANALYSIS

The year 2028 build capacity analysis was completed for the study intersections during the AM and PM peak hour using the methodology described in **Section 4.3**. Signal timing splits were optimized for the future traffic volumes and a peak hour factor (PHF) of 0.92 was used for future conditions.

The proposed lane configurations, traffic control, and 2028 build LOS results are shown in **Figure 11**. The detailed build and no build capacity analysis sheets can be found in **Appendix H** and **Appendix I**.



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

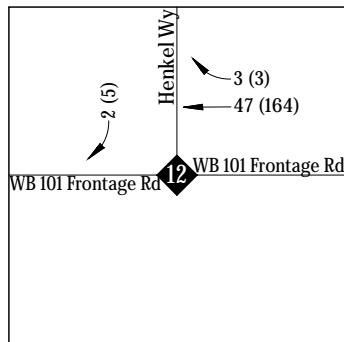
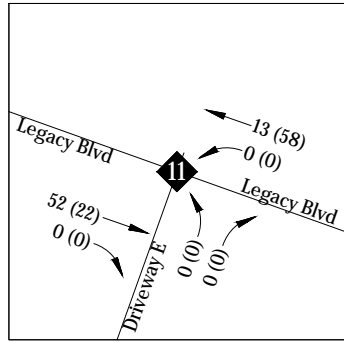
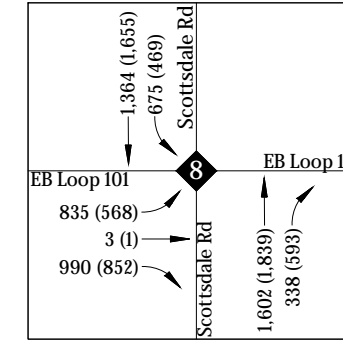
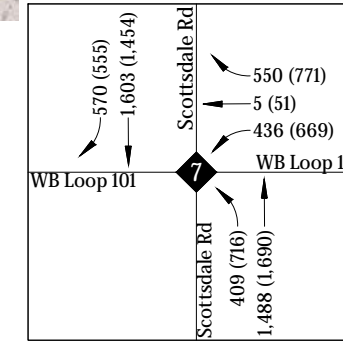
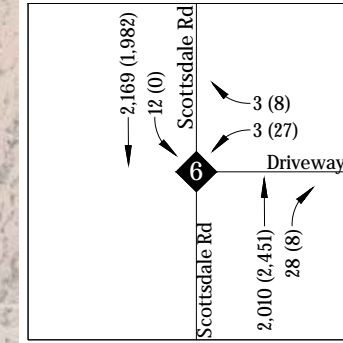
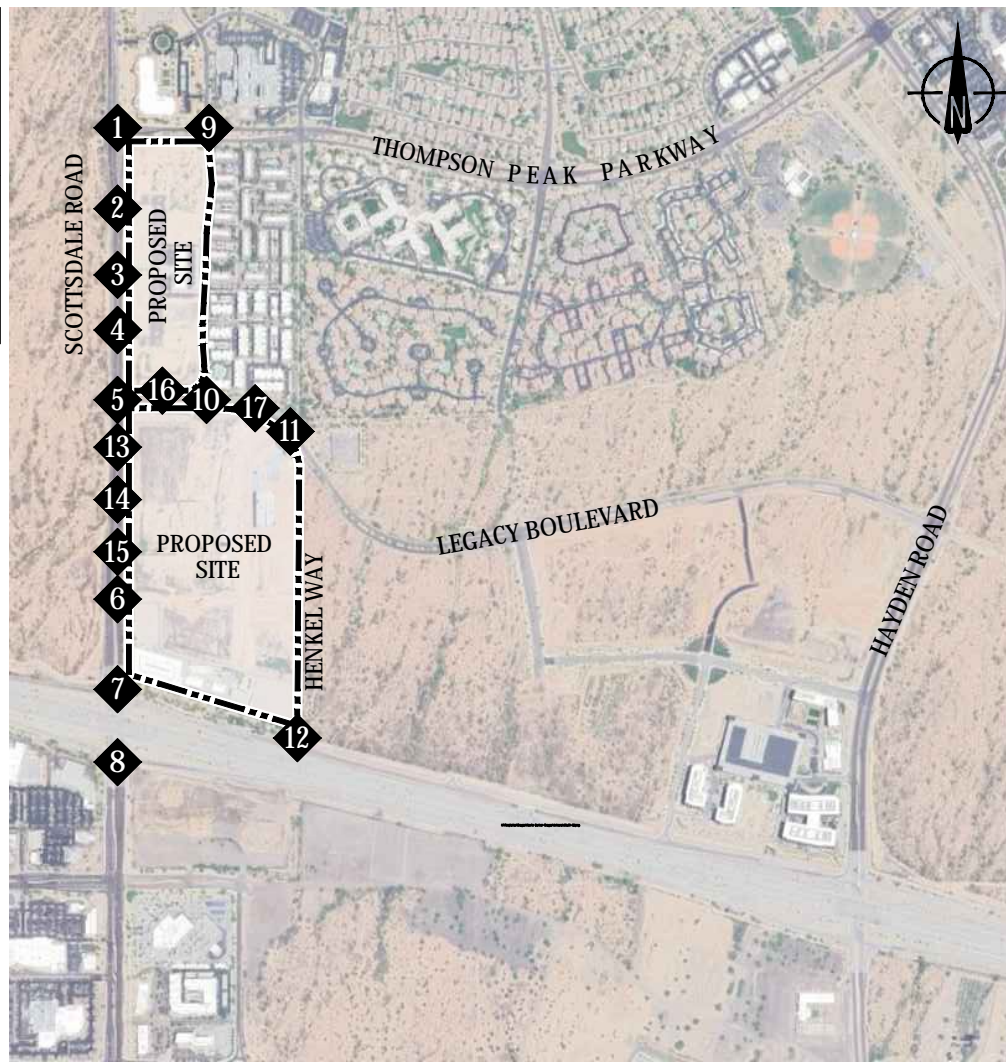
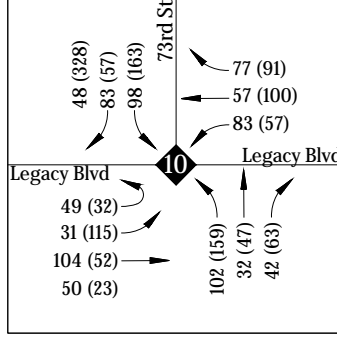
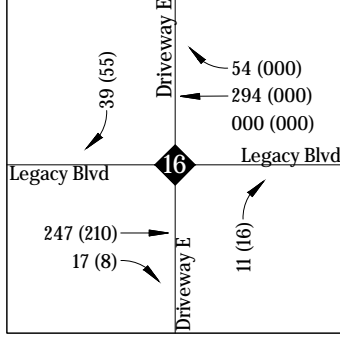
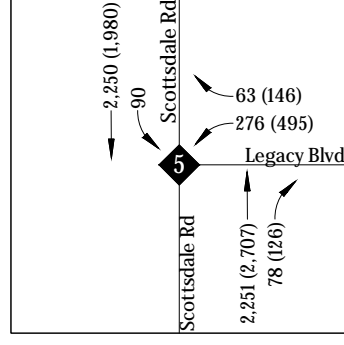
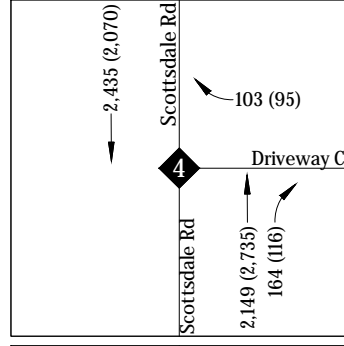
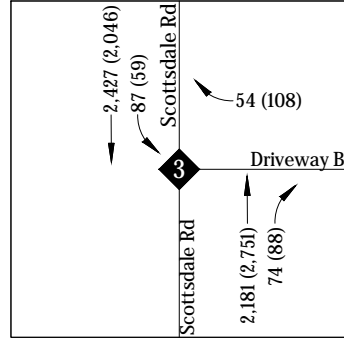
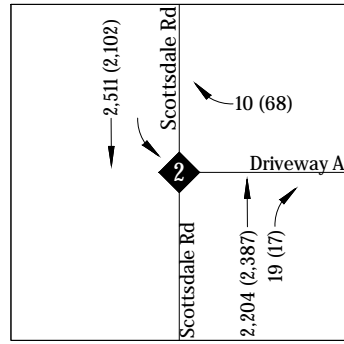
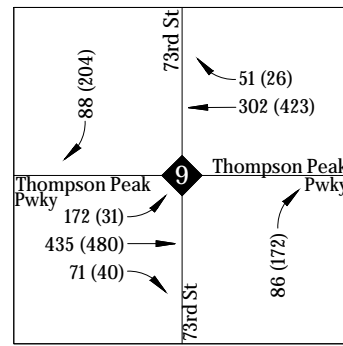
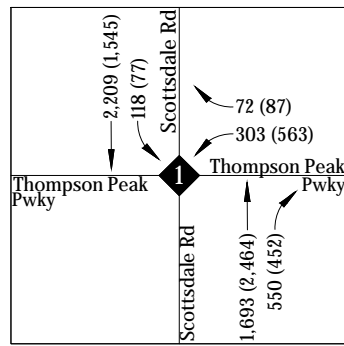


FIGURE 9 | YEAR 2028 BACKGROUND TRAFFIC VOLUMES



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

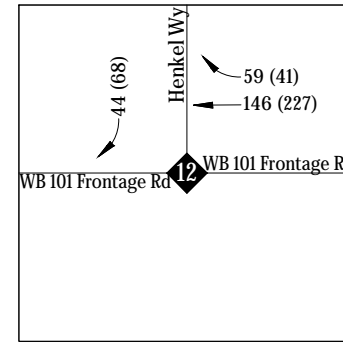
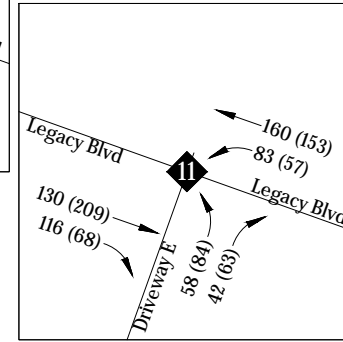
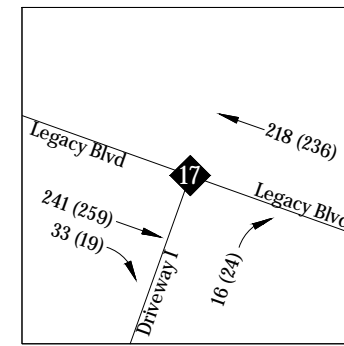
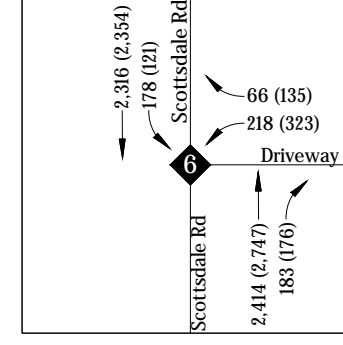
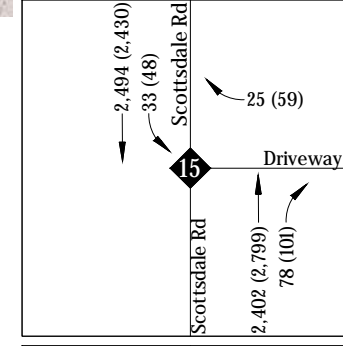
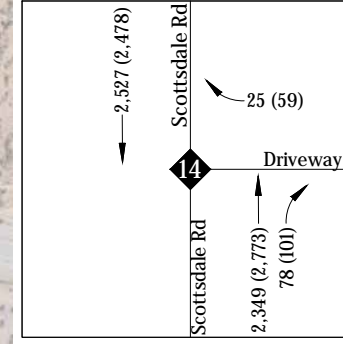
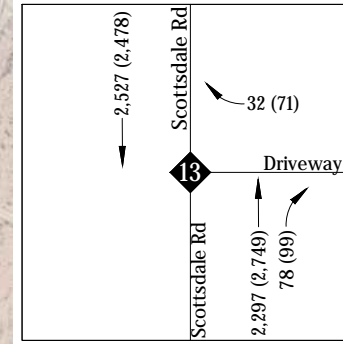
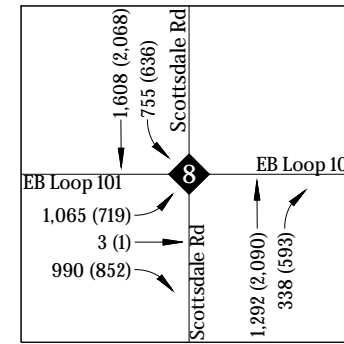
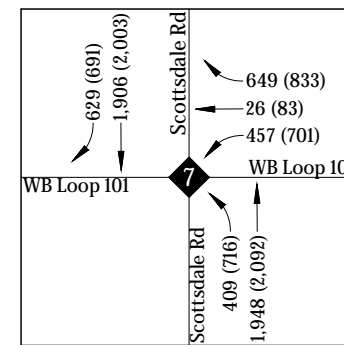
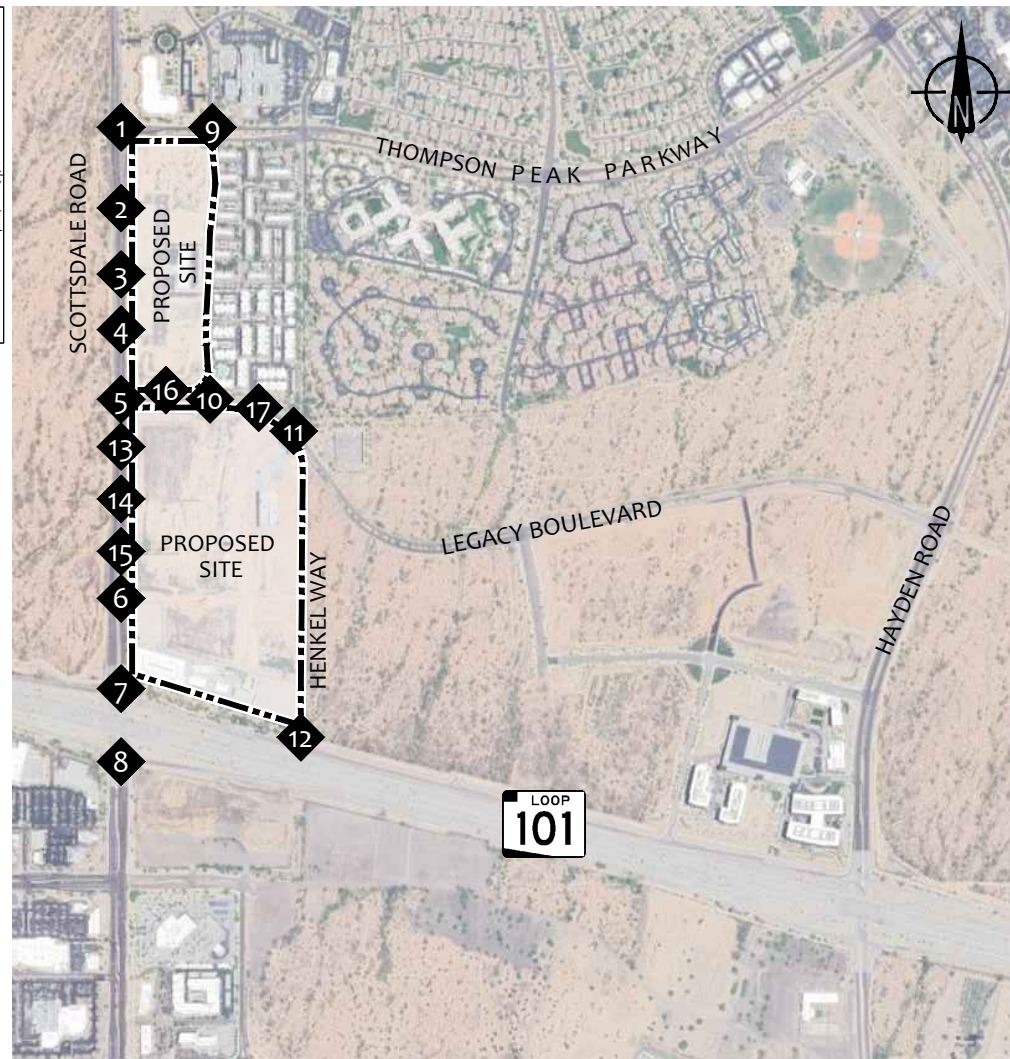
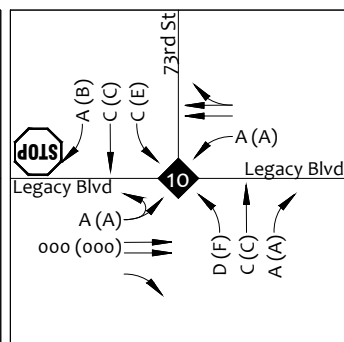
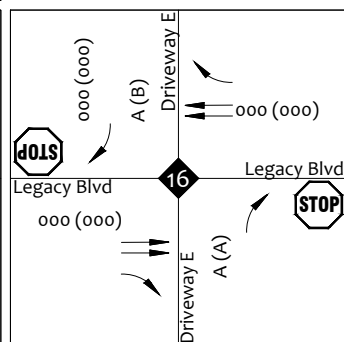
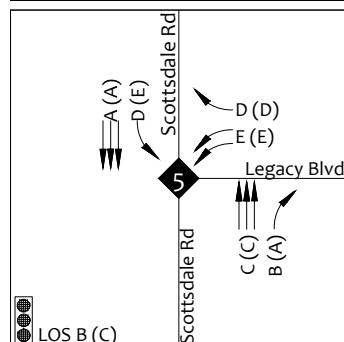
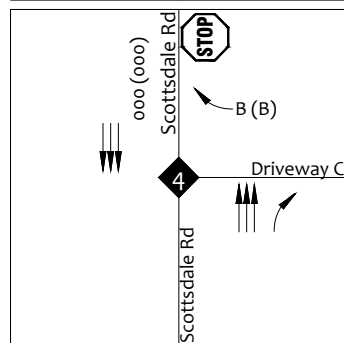
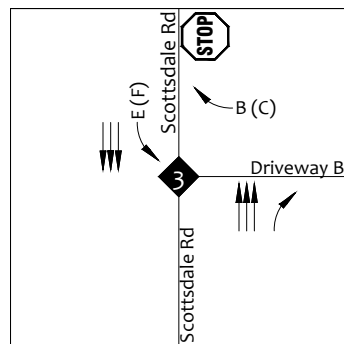
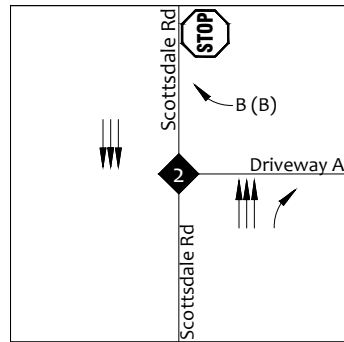
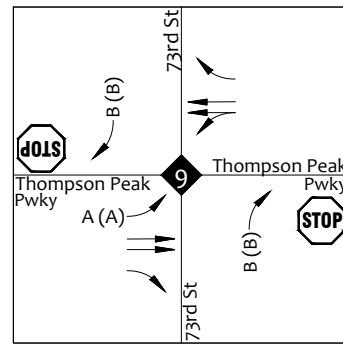
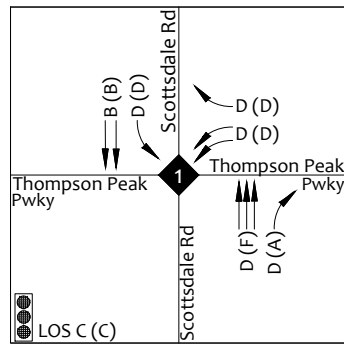


FIGURE 10 | YEAR 2028 BUILD TRAFFIC VOLUMES



LEGEND
 AM (PM) Peak Hour Traffic Volumes
 X Intersection

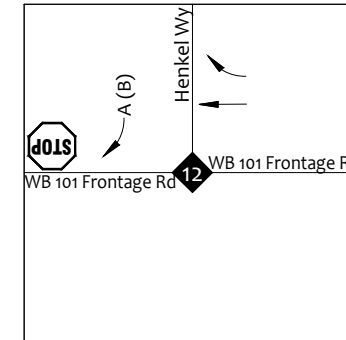
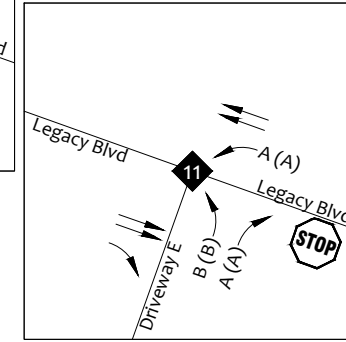
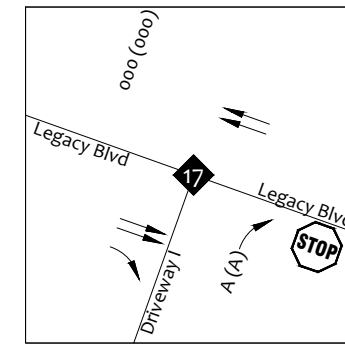
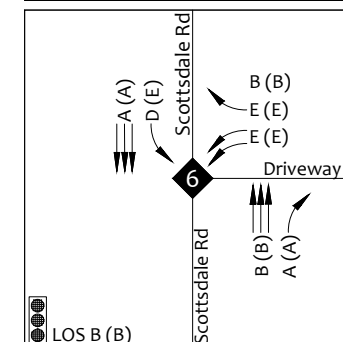
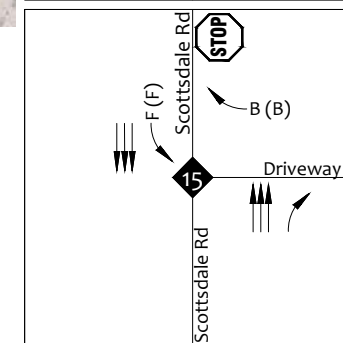
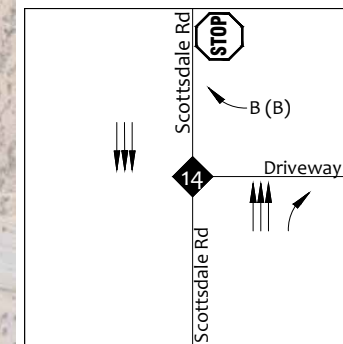
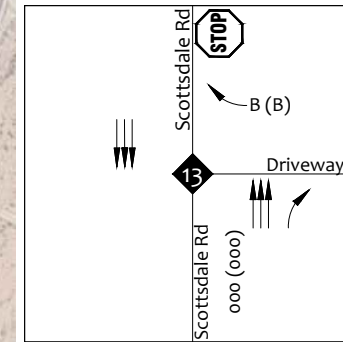
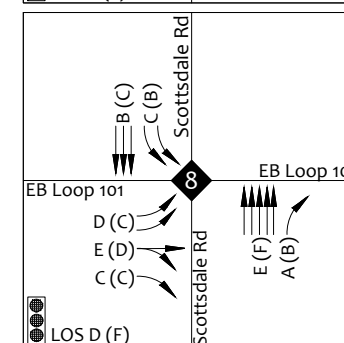
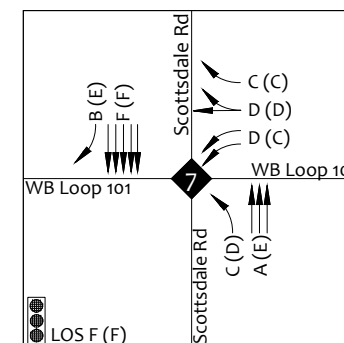


FIGURE 11 | YEAR 2028 BUILD CAPACITY ANALYSIS



8. TRAFFIC SIGNAL WARRANT ANALYSIS

Traffic signal warrant analyses were performed at the following intersections with the following assumed lane configurations:

- **Legacy Boulevard and 73rd Street (10)**
NB/SB – 1 lane approaches
EB/WB – 2 lane approaches

8.1. MUTCD SIGNAL WARRANTS

The signal warrant analysis is based on the signal warrants as defined in the 2009 *Manual on Uniform Traffic Control Devices (MUTCD)*.

Warrant 1, Eight Hour Volume is the predominant criteria used and is based on minimum traffic volumes that must be present on both the major and minor streets. There are two conditions established for the 8-hour signal warrant. Condition A requires large intersecting traffic volumes. Condition B requires large major street traffic volumes, which limits the ability of the side street to enter or cross the major street. To satisfy the 8-hour signal warrant, either Condition A, Condition B, or 80% of the volume requirements for BOTH Condition A and Condition B must be met for at least 8 hours of the day.

Warrant 2, Four-Hour Vehicular Volume is a 4-hour warrant requiring higher traffic volumes than the 8-hour warrant and is intended to be applied where the volume of intersection traffic is the principal reason for traffic signal installation.

Warrant 3, Peak Hour is a peak hour warrant and applies in unusual cases, such as an office complex, manufacturing plant, or industrial complex, or high-occupancy vehicle facility.

Warrant 4, Pedestrian Volume is intended for use in cases where the volume on a major street is so heavy, the pedestrians experience excessive delay in crossing the major street.

Warrant 5, School Crossing Warrant intended for use in cases where school children do not have adequate gaps to safely cross the major street. A minimum of 20 schoolchildren during the highest hour satisfies this warrant.

Warrant 6, Coordinated Signal System is associated with progressive movement to aid in platooning of vehicles.

Warrant 7, Crash Experience is a crash experience warrant and is for locations where the severity and frequency of crashes are the principal reasons to consider a traffic signal. This warrant requires five or more crashes in a 12-month period that can be corrected by a traffic signal.



Warrant 8, Roadway Network is justified to encourage concentration and organization of traffic flow in a roadway network.

Warrant 9, Intersection Near Grade Crossing is associated with intersections near a grade crossing.

8.2. LEGACY BOULEVARD AND 73RD STREET APPROACH VOLUMES

A signal warrant analysis was performed for the intersection of Legacy Boulevard and 73rd Street (10) using the year 2033 traffic volumes with the build-out of the proposed One Scottsdale. The 24-hour approach counts on Legacy Boulevard and 73rd Street were utilized to perform the signal warrant analysis and a 1.79% annual growth rate was applied through the year 2033.

The Institute of Transportation Engineers (ITE) time-of-day distribution spreadsheet which includes information on the hourly distribution of vehicle trips entering and exiting study sites by various land uses was utilized to determine the distribution for each proposed land use within the One Scottsdale development.

8.3. LEGACY BOULEVARD AND 73RD STREET SIGNAL WARRANT ANALYSIS

According to the MUTCD, if the posted speed limit on the major street exceeds 40 mph, the traffic volumes in the 70% columns may be used in place of the 100% columns. Legacy Boulevard has a posted speed limit of 30 mph; therefore 100% columns were used. For the purpose of this study, and based solely upon the traffic volumes, Warrants 1, 2, and 3 are considered applicable. The following is a summary of the signal warrant analysis.

8.3.1. YEAR 2033 - BUILD

- **Warrant 1 – 8-Hour Vehicular Volume – Satisfied**
Eleven (11) hours meet Warrant 1: Condition A or B
Eight (8) hours meet Warrant 1: Condition A and B
- **Warrant 2 – 4-Hour Vehicular Volume – Satisfied**
Twelve (12) hours meet Warrant 2
- **Warrant 3 – Peak Hour – Satisfied**
Zero (0) hours meet Warrant 3: Condition A
Twelve (12) hours meet Warrant 3: Condition B

Warrants 1, 2, and 3 are satisfied for the intersection of Legacy Boulevard and 73rd Street with the build-out of proposed One Scottsdale development in the year 2033.



Although a traffic signal is warranted, the signal control is not incorporated in the build capacity analysis as acceptable levels of service are achieved in the AM peak hour and adequate storage is provided for the queued vehicles in the PM peak hour. It is recommended that additional traffic signal warrant analyses be conducted in the future as surrounding development progresses and forecasted traffic volumes are realized to determine the appropriate timing for signal control.

The detailed signal warrant analysis can be found in **Appendix J**.



9. RECOMMENDATIONS AND CONCLUSIONS

A Traffic Impact and Mitigation Analysis (TI&MA), dated May 27, 2016, was completed for the One Scottsdale development (Case No. 20-ZN-2002#3) and was approved June 21, 2016. This report serves as an update to the previously approved TI&MA. Planning Unit (PU) II and III of the One Scottsdale development are evaluated in this report. PU II is located on the northeast corner of Loop 101 and Scottsdale Road and PU III on the northeast corner of Legacy Boulevard and Scottsdale Road in Scottsdale, Arizona. For the purpose of the TI&MA, the build-out year of One Scottsdale is assumed to occur in the year 2028 and to consist of the following land uses and units:

| PLANNING UNIT II | <u>PROPOSED</u> | <u>(EXISTING)</u> |
|---------------------------|----------------------|-----------------------|
| • Retail | 42,500 square feet | - |
| • Office | 749,844 square feet | (325,156 square feet) |
| • Restaurant | 102,500 square feet | - |
| • Hotel | 270 rooms | - |
| • Multifamily Residential | 1,750 dwelling units | - |
| | | |
| PLANNING UNIT III | <u>PROPOSED</u> | <u>(EXISTING)</u> |
| • Retail | 38,000 square feet | - |
| • Office | 223,000 square feet | - |
| • Restaurant | 13,000 square feet | - |
| • Hotel | - | (130 rooms) |
| • Multifamily Residential | - | (750 dwelling units) |

Recommendations

The following are the recommendations with the build-out of the proposed One Scottsdale:

Scottsdale Road and Henkel Way (6)

- Improve southbound signal head to include permitted – protected left turn phasing

Legacy Boulevard and 73rd Street (10)

- Modify striping to include a through lane on the north and south approaches
- Although a traffic signal is warranted, the signal control is not incorporated in the build capacity analysis as acceptable levels of service are achieved in the AM peak hour and adequate storage is provided for the queued vehicles in the PM peak hour. It is recommended that additional traffic signal warrant analyses be conducted in the future as surrounding development progresses and forecasted traffic volumes are realized to determine the appropriate timing for signal control.

Scottsdale Road and Driveway F (13)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements



- Install westbound right turn lane

Scottsdale Road and Driveway G (14)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane

Scottsdale Road and Driveway H (15)

- Construct a one-way stop-controlled driveway, which allows for right-in/right-out/left-in movements
- Install westbound right turn lane

Legacy Boulevard and Driveway E (16)

- Construct a two-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane

Legacy Boulevard and Driveway I (17)

- Construct a one-way stop-controlled driveway, which allows for RIRO movements
- Install westbound right turn lane



Appendix A – Proposed Site Plan

A





Pad A

Site Area: 1.51 acres net
Building Area: 9,000gsf
Parking Provided: 79 spaces

Shops A

Site Area: 2.01 acres net
Building Area: 9,600gsf
Parking Provided: 76 spaces

Shops B

Site Area: 1.96 acres net
Building Area: 10,700gsf
Parking Provided: 75 spaces

Pad B

Site Area: 1.45 acres net
Building Area: 17,000gsf
Parking Provided: 67 spaces

C-Store Pad

Site Area: 2.30 acres net
Building Area: 4,993gsf
Parking Provided: 43 spaces

Office Parcel A

Site Area: 6.52 acres net
Building Area: 102,442gsf (98,344rsf)
Parking Provided: 374 spaces (3.80 : 1000rsf)

Hotel Parcel

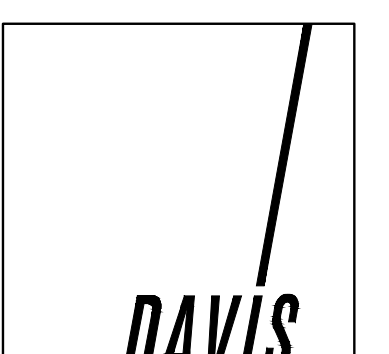
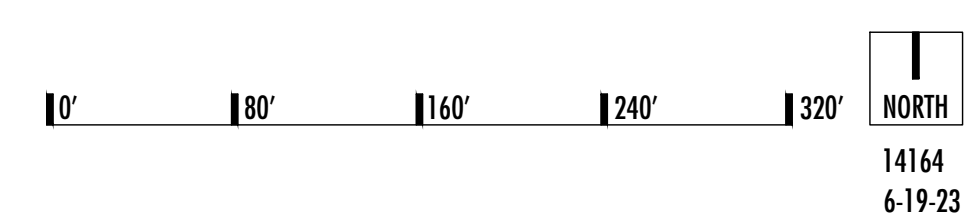
Site Area: 2.27 acres net
Building Area: 66,800gsf (130 rooms)
Parking Provided: 130 spaces

Office Parcel B

Site Area: 3.60 acres net
Building Area: 45,500gsf (43,500rsf)
Parking Provided: 218 spaces (5.01 : 1000rsf)

ONE SCOTTSDALE- Scottsdale, Arizona

Master Plan- A1



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Appendix B – May 27, 2016 One Scottsdale TI&MA

B

One Scottsdale Traffic Impact and Mitigation Analysis



EXPIRES 6-30-16

Prepared for:



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Prepared by:



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Phoenix, AZ 84040

Project Number: 150835
May 27, 2016

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1. Introduction and Summary

1.1. Purpose of Report and Study Objectives

J2 Engineering and Environmental Design was retained by DMB to perform a traffic impact study for the proposed One Scottsdale development located in Scottsdale, Arizona.

The development is located on the northeast corner of State Route 101 Loop (SR 101L) and Scottsdale Road. See **Figure 1**.

The objectives of this traffic impact study are to quantify the traffic impact of the development and to determine what improvements are necessary to ensure safe and efficient access to and from the site.

1.2. Executive Summary

On December 8, 2015, a Traffic Impact and Mitigation Analysis was submitted to the City of Scottsdale. This prior study calculated and compared the anticipated trips generated by the entire proposed One Scottsdale development with the 2006 Staked 40s proposed development. See **Appendix J** for the full study.

The proposed One Scottsdale development is located on the northeast corner of L101 and Scottsdale Road in the City of Scottsdale, Arizona. See **Figure 2**.

The proposed One Scottsdale development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

As reported in the prior study, the proposed One Scottsdale development is anticipated to generate the following trips:

One Scottsdale Trip Generation

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|----------------|--------------|-------|-------|--------------|------|------|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| One Scottsdale | 31184 | 15592 | 15592 | 3960 | 2781 | 1179 | 3961 | 1311 | 2650 |



In an effort to quantify the trip generation difference between the Stacked 40s and One Scottsdale developments, the original trip generation with the report had to be modified to take into consideration the changes in the proposed site. This includes the build out of the Henkel building, which did not exist in 2006. However, the Stacked 40s master plan and trip generation calculations included the parcel that the Henkel building currently sits on. Therefore, a total of 325,156 square feet of office space was removed from the Stacked 40s trip generation calculations. The former Stacked 40s development is anticipated to generate the following trips:

Stacked 40s Trip Generation – Modified

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|-------------|--------------|-------|-------|--------------|------|-----|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Stacked 40s | 34812 | 17406 | 17406 | 2050 | 1509 | 541 | 3439 | 1338 | 2101 |

The following table shows the trip generation comparison of the former Stacked 40s development with the One Scottsdale development.

Trip Generation Comparison

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|-------------------|--------------|--------------|--------------|--------------|------|------|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Stacked 40s | 34812 | 17406 | 17406 | 2050 | 1509 | 541 | 3439 | 1338 | 2101 |
| One Scottsdale | 31184 | 15592 | 15592 | 3960 | 2781 | 1179 | 3961 | 1311 | 2650 |
| Difference | -3628 | -1814 | -1814 | 1910 | 1272 | 638 | 522 | -27 | 549 |

Due to the reduction in retail uses and increase in residential and office land uses, the AM and PM peak hours are higher with the proposed One Scottsdale development. The AM peak hour is projected to generate a total of 3,960 trips with 2,781 inbound and 1,179 outbound, and the PM peak hour is projected to generate a total of 3,961 trips with 1,311 inbound and 2,650 outbound.

However, the overall weekday trips of the proposed One Scottsdale development are 10.4% less than the 2006 generally accepted Stacked 40s development.

Therefore, the proposed One Scottsdale development will have less impact to the adjacent roadway network during the average weekday than the formerly approved Stacked 40s development.



This report presents the analysis and results of the existing conditions, along with Year 2020 (5 year) and Year 2025 (10 year) analyses for twenty-two study intersections and driveways for the proposed One Scottsdale development.

The existing conditions, along with Year 2020 (5 year) and Year 2025 (10 year) analyses were completed for twenty-two (22) study intersections and site driveways. See **Figure 3**.

Intersections

- Scottsdale Road and Thompson Peak Parkway (1)
- 73rd Street and Thompson Peak Parkway (2)
- Scottsdale Healthcare Drive and Thompson Peak Parkway (3)
- Scottsdale Road and Legacy Boulevard (4)
- Scottsdale Road and Henkel Way (5)
- Scottsdale Road and SR101L WB Ramp (6)
- Scottsdale Road and SR 101L EB Ramp (7)
- Henkel Way and SR 101L Frontage Road (8)
- Hayden Road and Thompson Peak Parkway (9)
- Hayden Road and Legacy Boulevard (10)
- Hayden Road and SR101L WB Ramp (11)
- Hayden Road and SR101L EB Ramp (12)
- 73rd Street and Legacy Boulevard (19)

Driveways

- Scottsdale Road and Driveway A (13)
- Scottsdale Road and Driveway B (14)
- Scottsdale Road and Driveway C (15)
- Legacy Boulevard and Driveway F (18)
- Legacy Boulevard and Driveway G (20)
- Legacy Boulevard and Driveway I (22)
- Scottsdale Road and Driveway J (23)
- Scottsdale Road and Driveway K (24)
- Scottsdale Road and Driveway L (25)



Existing Conditions

The existing conditions AM and PM peak hour capacity analysis resulted in all study intersections operating at a LOS D or better with the exception of:

Scottsdale Road and Thompson Peak Parkway (1) – Signalized

- NB through PM peak hour operates at LOS F
- NB right PM peak hour operates at LOS E
- SB left AM peak hour operates at LOS E
- WB left AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS E and LOS F, respectively

Scottsdale Healthcare Drive and Thompson Peak Parkway (3) – Signalized

- NB left AM and PM peak hours operate at LOS E and LOS F, respectively
- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- EB left PM peak hour operates at LOS E
- WB left PM peak hour operates at LOS F
- Overall intersection PM peak hour operates at LOS F

Scottsdale Road and Legacy Boulevard (4) – Signalized

- WB left AM and PM peak hours operate at LOS E

Scottsdale Road and Henkel Way (5) – Signalized

- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- WB left PM peak hour operates at LOS F

Scottsdale Road and SR 101L- WB Ramp (6) – Signalized

- NB left AM and PM peak hours operate at LOS E and LOS F, respectively
- NB through PM peak hour operate at LOS F
- SB right AM peak hour operates at LOS E
- WB left AM and PM peak hours operate at LOS F
- WB through AM and PM peak hours operate at LOS F
- WB right AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS E and LOS F, respectively

Scottsdale Road and SR 101L- EB Ramp (7) – Signalized

- SB left AM peak hour operates at LOS F



Hayden Road and Thompson Peak Parkway (9) – Signalized

- NB left PM peak hour operates at LOS E
- SB left PM peak hour operates at LOS E
- EB left PM peak hour operates at LOS E
- EB right PM peak hour operate at LOS E
- WB through PM peak hour operates at LOS E
- WB right PM peak hour operate at LOS E

Hayden Road and SR 101L WB Ramp (11) – Signalized

- NB left AM and PM peak hours operate at LOS F
- WB right AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS F

Hayden Road and SR 101L EB Ramp (12) – Signalized

- SB left AM and PM peak hours operate at LOS F and LOS E, respectively
- EB left PM peak hour operates at LOS F
- EB right AM peak hour operates at LOS E
- Overall intersection AM and PM peak hours operate at LOS F

Year 2020 (5 Year)

The Year 2020 AM and PM peak hour analysis assumes no changes to the existing roadway network and the build out of the following land uses:

- 145,405 square feet of Retail
- 446,384 square feet of Office
- 48,500 square feet of Restaurant
- 400 room Hotel
- 678 dwelling units of Multi-Family Residential

In general, the signalized study intersections shows improved levels of services when compared to the existing conditions. The signal cycle lengths were held, while modifying the splits to accommodate the change in traffic patterns due to the proposed development.

Additionally, the study driveways operate at an acceptable level of service of LOS D or better, with the exception of Scottsdale Road and Driveway A, where the westbound right turn movement operates at a LOS E during the PM peak hour, and Scottsdale Road and Driveway L, where the southbound left turn movement operates at a LOS F during the PM peak hour.

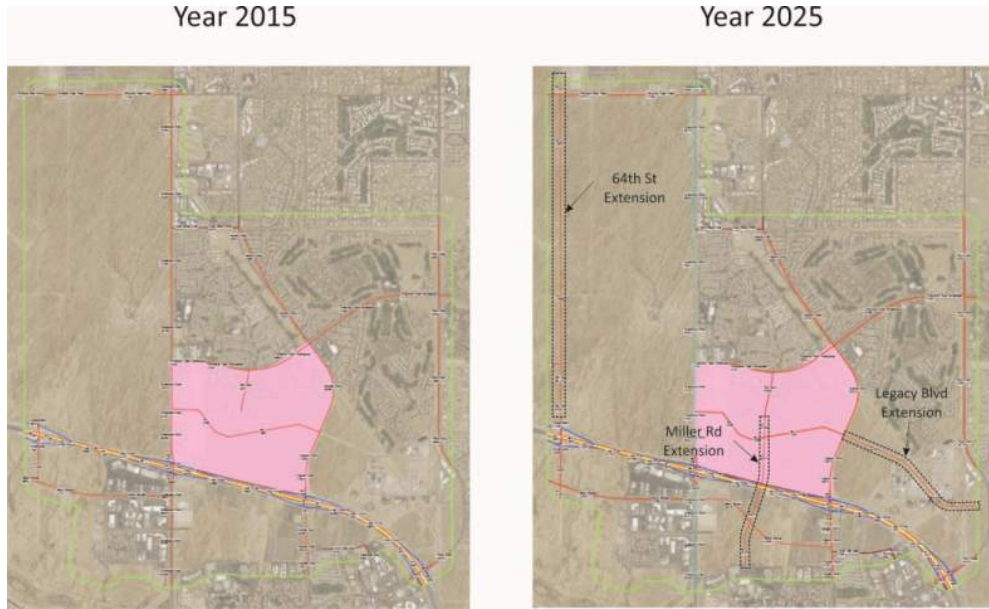
Evaluating the capacity analysis, with the exception an additional northbound thought lane on Scottsdale Road and the driveways for the proposed development, no additional improvements are necessary in Year 2020.



Year 2025 (10 Year)

The Year 2025 analysis assume the following changes to the roadway network based on the MAG 2025 model:

- Extension of 64th Street from SR 101L north to Pinnacle Peak Road.
- Extension of the Miller Road alignment Princess Boulevard to tie into the existing alignment just south of Thompson Peak Parkway
- Extension of Legacy Boulevard from Hayden Road to Pima Road.



These anticipated roadway network changes in Year 2025 provides additional circulation roadways for the area. Even with future developments in and around the surrounding area, these roadway connections help to relieve the Scottsdale Road congestion.

Currently the 64th Street terminates just north of the interchange with SR 101L freeway and is therefore underutilized. The nearest north-south roadway to the west is Tatum Boulevard, which is located approximately 3 miles to the west of Scottsdale Road. The extension of 64th Street to the north provides the area with an additional north-south roadway with direct access to SR 101L, located 1 mile west of Scottsdale Road and 2 miles east of Tatum Boulevard.

The Year 2025 AM and PM peak hour analysis assume the build out of the following land uses:

- 218,269 square feet of Retail
- 1,216,267 square feet of Office
- 92,000 square feet of Restaurant
- 400 room Hotel
- 1,078 dwelling units of Multi-Family Residential



In general, the signalized study intersections show improved or equivalent levels of service when compared to the existing conditions. The signal cycle lengths were held, while modifying the splits to accommodate the change in traffic patterns due to the proposed development.

Evaluating the 2025 AM and PM peak hour capacity analysis, additional northbound and southbound through lanes on Scottsdale Road between Henkel Way and Thompson Peak Parkway, providing three through lanes, are necessary. The majority of this improvement can be made with pavement marking and signing modifications.

An internal circulator will also be provided for the proposed One Scottsdale development which will further reduce the number of trips. No reductions were applied to accommodate the internal circulator. Therefore, the operation of the circulator will result in improved traffic operations beyond what is reported in this traffic study.



2. Proposed Development

The study area is located on the northeast corner of SR 101L and Scottsdale Road in Scottsdale, Arizona. See **Figure 1** for a vicinity map.

The proposed site is bound by Thompson Peak Parkway to the north, Scottsdale Road to the west, SR 101L to the south, and 73rd Street and the Scottsdale Healthcare Drive alignment to the east. Legacy Boulevard runs east-west through the site. See **Figure 2**. The existing site is undeveloped vacant land.

The proposed development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

See **Figure 2** for the proposed One Scottsdale site plan.

There are 11 proposed access points to the One Scottsdale development evaluated in this study, six along Scottsdale Road, two along 73rd Street, and three along Legacy Boulevard. See **Figure 3**.

Driveways along Scottsdale Road

Scottsdale Road and Driveway A (13) will allow for right in and right out of the site only.

Scottsdale Road and Driveway B (14) will allow for right and left turns into the site, but only allow right turns out of the site.

Scottsdale Road and Driveway C (15) will allow for right in and right out of the site only.

Scottsdale Road and Driveway J (23) will allow for right in and right out of the site only.

Scottsdale Road and Driveway K (24) will allow for right in and right out of the site only.

Scottsdale Road and Driveway L (25) will allow for right and left turns into the site, but only allow right turns out of the site.



Driveways along 73rd St

73rd Street and Driveway D (16) is a full access driveway allowing all movements into and out of the site.

73rd Street and Driveway E (17) is a full access driveway allowing all movements into and out of the site.

73rd Street is not a public roadway. Therefore, 73rd Street and Driveway D (16), and 73rd Street and Driveway E (17) were not analyzed in this report.

Driveways along Legacy Boulevard

Legacy Boulevard and Driveway F (18) will allow for right in and right out of the site only. This includes access to the proposed site north of Legacy Boulevard, as well as access to the proposed site south of Legacy Boulevard.

Legacy Boulevard and Driveway G (20) will allow for right in and right out of the site only. This includes access to the proposed site south of Legacy Boulevard.


Legacy Boulevard and Driveway H (21) is a driveway access to the existing residential development to the north of Legacy Boulevard. Since this is not an access to the proposed One Scottsdale development, it is not analyzed throughout this report.

Legacy Boulevard and Driveway I (22) is a full access driveway allowing all movements and access to the proposed site south of Legacy Boulevard.



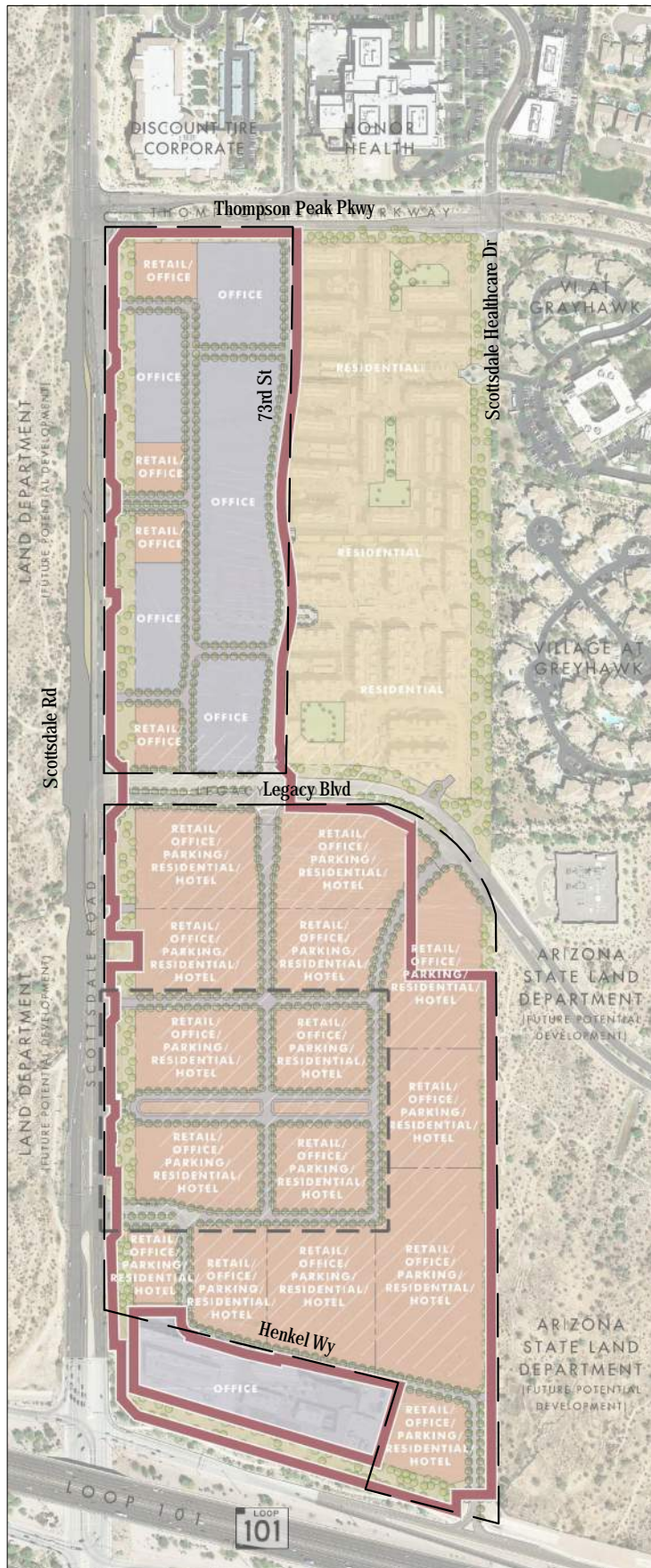


Proposed
One Scottsdale

| | | |
|---|--|------------------------------|
|  | J2 engineering and environmental design 4649 east cotton gin loop, suite B2 phoenix, arizona 85040 phone: 602.438.2221 www.j2design.us | |
| | PROJECT NO. 150835 DATE MAY 2016 | DRAWN BY SP CHECKED BY JB |

Vicinity Map

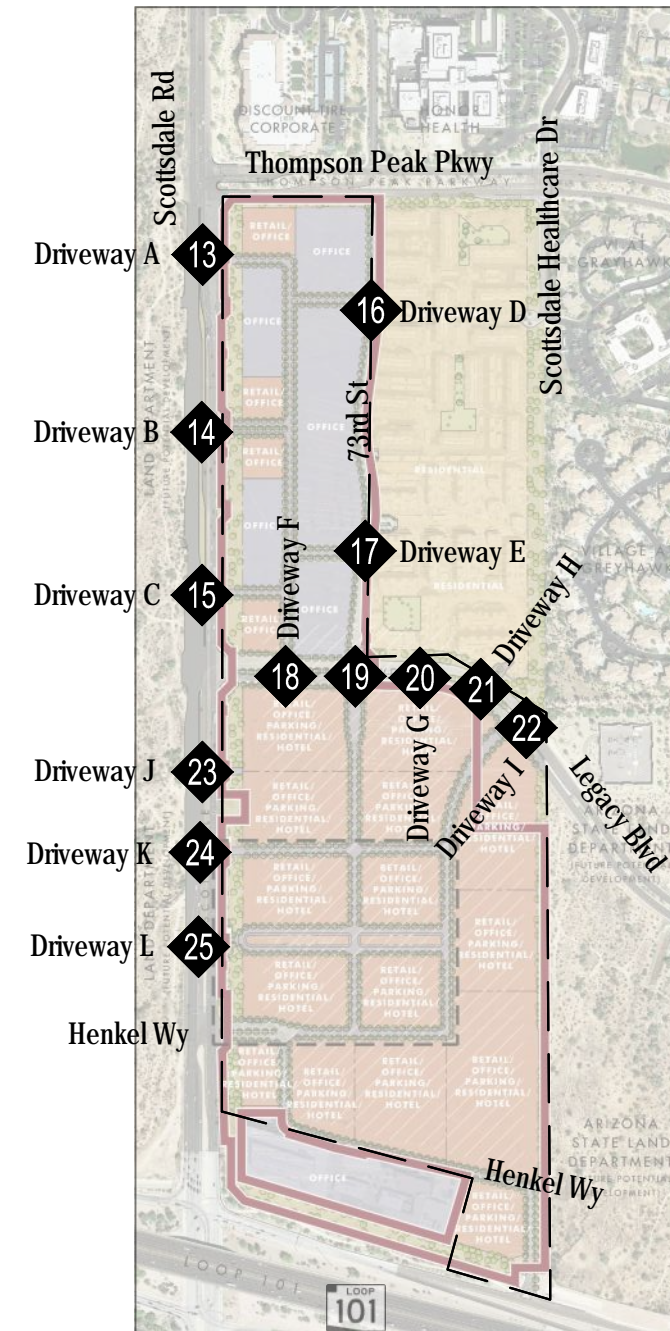
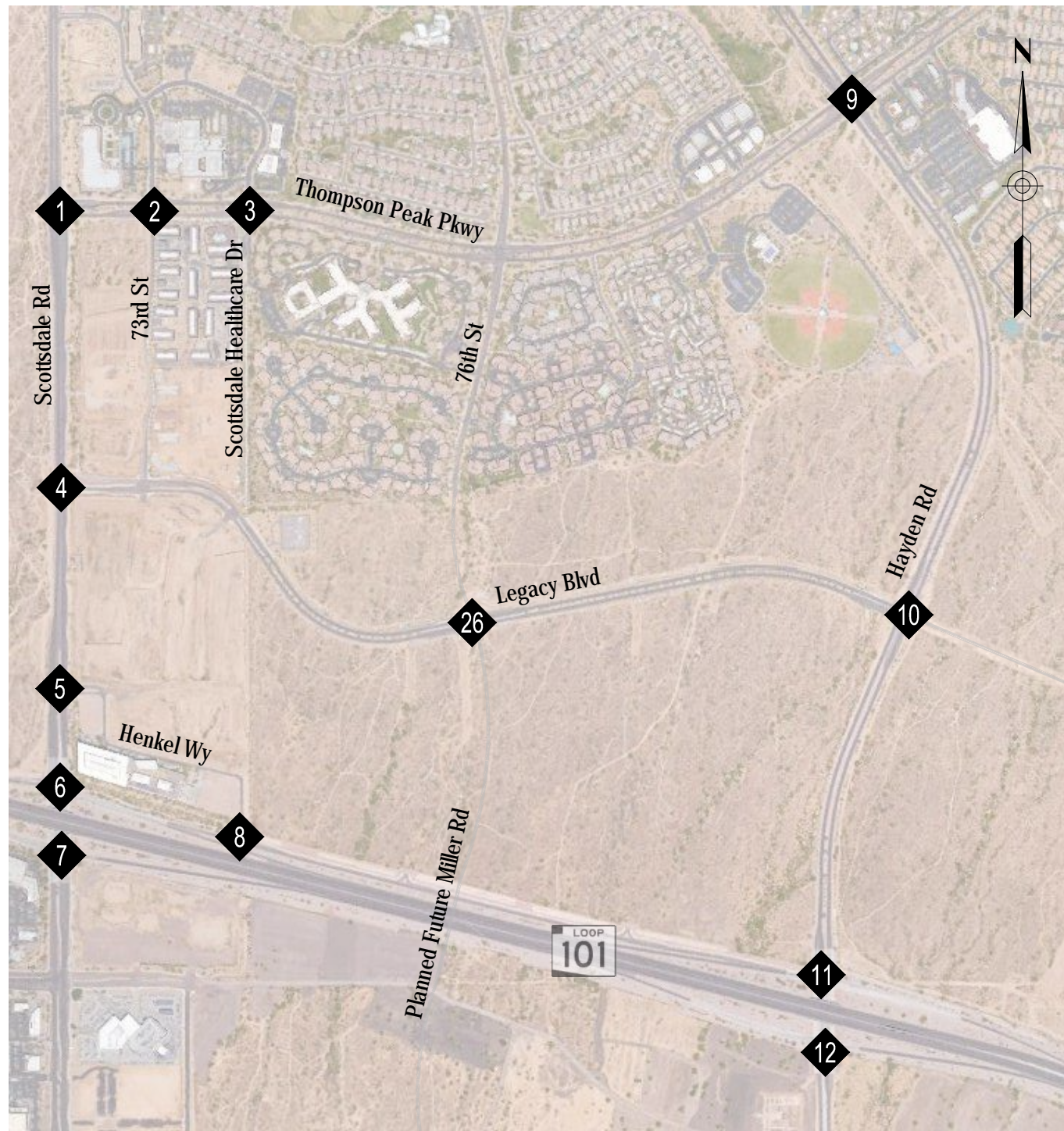
Figure 1




| | | |
|--|--|------------------------------|
| | J2 engineering and environmental design 4649 east cotton gin loop, suite 52 phoenix, arizona 85040 phone: 602.438.2221 www.j2design.us | |
| | PROJECT NO. 150835 DATE MAY 2016 | DRAWN BY SP CHECKED BY JB |

Site Map

Figure 2




 J2 engineering and environmental design
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 phoenix, arizona 85040
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Study Area

Figure 3

3. December 8, 2015 TI&MA

On December 8, 2015, a Traffic Impact and Mitigation Analysis was submitted to the City of Scottsdale. This prior study calculated and compared the anticipated trips generated by the entire proposed One Scottsdale development with the 2006 Staked 40s proposed development. See **Appendix J** for the full study.

The proposed One Scottsdale development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

As reported in the prior study, the proposed One Scottsdale development is anticipated to generate the following trips:

Table 1 - One Scottsdale Trip Generation

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|----------------|--------------|-------|-------|--------------|------|------|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| One Scottsdale | 31184 | 15592 | 15592 | 3960 | 2781 | 1179 | 3961 | 1311 | 2650 |

In an effort to quantify the trip generation difference between the Stacked 40s and One Scottsdale developments, the original trip generation with the report had to be modified to take into consideration the changes in the proposed site. This includes the build out of the Henkel building, which did not exist in 2006. However, the Stacked 40s master plan and trip generation calculations included the parcel that the Henkel building currently sits on. Therefore, a total of 325,156 square feet of office space was removed from the Stacked 40s trip generation calculations. The former Stacked 40s development is anticipated to generate the following trips:

Table 2 - Stacked 40s Trip Generation – Modified

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|-------------|--------------|-------|-------|--------------|------|-----|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Stacked 40s | 34812 | 17406 | 17406 | 2050 | 1509 | 541 | 3439 | 1338 | 2101 |

The following table shows the trip generation comparison of the former Stacked 40s development with the One Scottsdale development.



Table 3 - Trip Generation Comparison

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|-------------------|--------------|--------------|--------------|--------------|------|------|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Stacked 40s | 34812 | 17406 | 17406 | 2050 | 1509 | 541 | 3439 | 1338 | 2101 |
| One Scottsdale | 31184 | 15592 | 15592 | 3960 | 2781 | 1179 | 3961 | 1311 | 2650 |
| Difference | -3628 | -1814 | -1814 | 1910 | 1272 | 638 | 522 | -27 | 549 |

Due to the reduction in retail uses and increase in residential and office land uses, the AM and PM peak hours are higher with the proposed One Scottsdale development. The AM peak hour is projected to generate a total of 3,960 trips with 2,781 inbound and 1,179 outbound, and the PM peak hour is projected to generate a total of 3,961 trips with 1,311 inbound and 2,650 outbound.

However, the overall weekday trips of the proposed One Scottsdale development are 10.4% less than the 2006 generally accepted Stacked 40s development.

Therefore, the proposed One Scottsdale development will have less impact to the adjacent roadway network during the average weekday than the formerly approved Stacked 40s development.



4. Study Area

Sections 4.1 and 4.2 provide detailed descriptions of the roadway segments and intersections within the study area, see **Figure 3**.

4.1. Study Roadway Segments

The existing roadway segments within the study area include Scottsdale Road, 73rd Street, Scottsdale Healthcare Drive, Hayden Road, Thompson Peak Parkway, Legacy Boulevard, and SR 101L.

Scottsdale Road, within the vicinity of the study area, is a north-south roadway providing two through lanes for each direction of travel north of Henkel Way and three through lanes for each direction of travel south of Henkel Way. There is a raised median between SR 101L and just north of Henkel Way, and a two-way left turn lane north to Thompson Peak Parkway. Right and left turn lanes are provided at major intersections. The posted speed limit along this section of Scottsdale Road is 45 mph. Scottsdale Road is classified as a major arterial-urban roadway, per the City of Scottsdale Street Classification Map.

73rd Street, within the vicinity of the study area, is a north-south roadway, located approximately 600 feet east of Scottsdale Road. 73rd Street extends from Legacy Boulevard to Thompson Peak Parkway.

Scottsdale Healthcare Drive, within the vicinity of the study area, is a north-south roadway, located ¼ mile east of Scottsdale Road. It provides access to Scottsdale Healthcare medical facilities located on the north side of Thompson Peak Parkway. It extends just south of Thompson Peak Parkway, providing an access to a residential complex.

Hayden Road, within the vicinity of the study area, is a north-south roadway providing two through lanes for each direction of travel, separated by a raised median. Right and left turn lanes are provided at major intersections. The posted speed limit along this section of Hayden Road is 45 mph. Hayden Road is classified as a major arterial-urban roadway, per the City of Scottsdale Street Classification Map.

Thompson Peak Parkway, within the vicinity of the study area, is an east-west roadway, providing two through lanes for each direction of travel, separated by a raised median. Right and left turn lanes are provided at major intersections. Thompson Peak Parkway begins at Scottsdale Road and extends east of Hayden Road. The posted speed limit is 45 mph. Thompson Peak Parkway is classified as a minor arterial-suburban roadway, per the City of Scottsdale Street Classification Map.

Legacy Boulevard, within the vicinity of the study area, is an east-west roadway, located between Thompson Peak Parkway and SR 101L. Two lanes are provided for each direction of travel with a



raised median. Right and left turn lanes are provided at major intersections. Legacy Boulevard begins at Scottsdale Road and extends east to Hayden Road. There is a posted speed limit of 30 mph. Legacy Boulevard is classified as a minor arterial-urban roadway, per the City of Scottsdale Street Classification Map.

SR 101L (Pima Freeway), within the vicinity of the study area, an east-west freeway providing access to and from Scottsdale Road and Hayden Road with both eastbound and westbound on and off ramps. The SR 101L mainline provides three through lanes and a High Occupancy Vehicle (HOV) lane for each direction of travel. A westbound frontage road extends from the westbound on ramp at Hayden Road to the westbound off ramp at Scottsdale Road.

4.2. Study Intersections

Scottsdale Road and Thompson Peak Parkway (1) currently operates as a signalized t-intersection. The northbound approach has two through lanes and a dedicated right turn lane. The southbound approach has a dedicated left turn lane and two through lanes. The westbound approach has two dedicated left turn lanes and a dedicated right turn lane.

73rd Street and Thompson Peak Parkway (2) currently operates as a two way stop controlled intersection with the northbound and southbound approaches stop controlled. The northbound and southbound approaches are restricted to a single dedicated right turn lane. The eastbound approach has a dedicated left turn lane, two through lanes and a dedicated right turn lane. The westbound approach has two through lanes and a dedicated right turn lane.

Scottsdale Healthcare Drive and Thompson Peak Parkway (3) currently operates as a signalized intersection. The northbound and southbound approaches have a dedicated left turn lane and a shared through-right turn lane. The eastbound and westbound approaches have a dedicated left turn lane, two through lanes, and a dedicated right turn lane.

Scottsdale Road and Legacy Boulevard (4) currently operates as a signalized t-intersection. The northbound approach has two through lanes and a dedicated right turn lane. The southbound approach has a dedicated left turn lane and two through lanes. The westbound approach has two dedicated left turn lanes and a dedicated right turn lane.

Scottsdale Road and Henkel Way (5) currently operates as a signalized t-intersection. The northbound approach has three through lanes and a dedicated right turn lane. The southbound approach has a dedicated left turn lane and three through lanes. The westbound approach has two dedicated left turn lanes and a dedicated right turn lane.

Scottsdale Road and SR101L WB Ramp (6) currently operates as a signalized intersection. The northbound approach had two dedicated left turn lanes and three through lanes. The southbound approach has two extended left turn storage lanes, three through lanes and a dedicated right turn lane. The westbound approach has two dedicated left turn lanes, a shared through-right turn lane and a dedicated right turn lane.



Scottsdale Road and SR 101L EB Ramp (7) currently operates as a signalized intersection. The northbound approach has two extended left turn storage lanes, three through lanes and a dedicated right turn lane. The southbound approach has two dedicated left turn lanes and three through lanes. The eastbound approach has two dedicated left turn lanes, a shared through-right turn lane and a dedicated right turn lane.

Henkel Way and SR 101L Frontage Road (8) currently operates as a one-way yield controlled intersection, with the southbound approach yield controlled. The southbound approach provides a dedicated right turn lane. The westbound approach provides one through lane and a dedicated right turn lane.

Hayden Road and Thompson Peak Parkway (9) currently operates as a signalized intersection. All four approaches have a dedicated left turn lane, two through lanes and a dedicated right turn lane.

Hayden Road and Legacy Boulevard (10) currently operates as a signalized t-intersection. The northbound approach has a dedicated left turn lane and two through lanes. The southbound approach has two through lanes and a dedicated right turn lane. The eastbound approach has a dedicated left turn lane and a dedicated right turn lane.

Hayden Road and SR101L WB Ramp (11) currently operates as a signalized intersection. The northbound approach has a dedicated left turn lane and two through lanes. The southbound approach has two extended left turn storage lanes, two through lanes and a dedicated right turn lane. The westbound approach has a dedicated left turn lane, a shared left-through lane, a dedicated through lane and a dedicated right turn lane.

Hayden Road and SR101L EB Ramp (12) currently operates as a signalized intersection. The northbound approach has an extended left turn storage lane, two through lanes and a dedicated right turn lane. The southbound approach has two dedicated left turn lanes and two through lanes. The eastbound approach has a dedicated left turn lane, a shared left-right turn lane and a dedicated right turn lane.

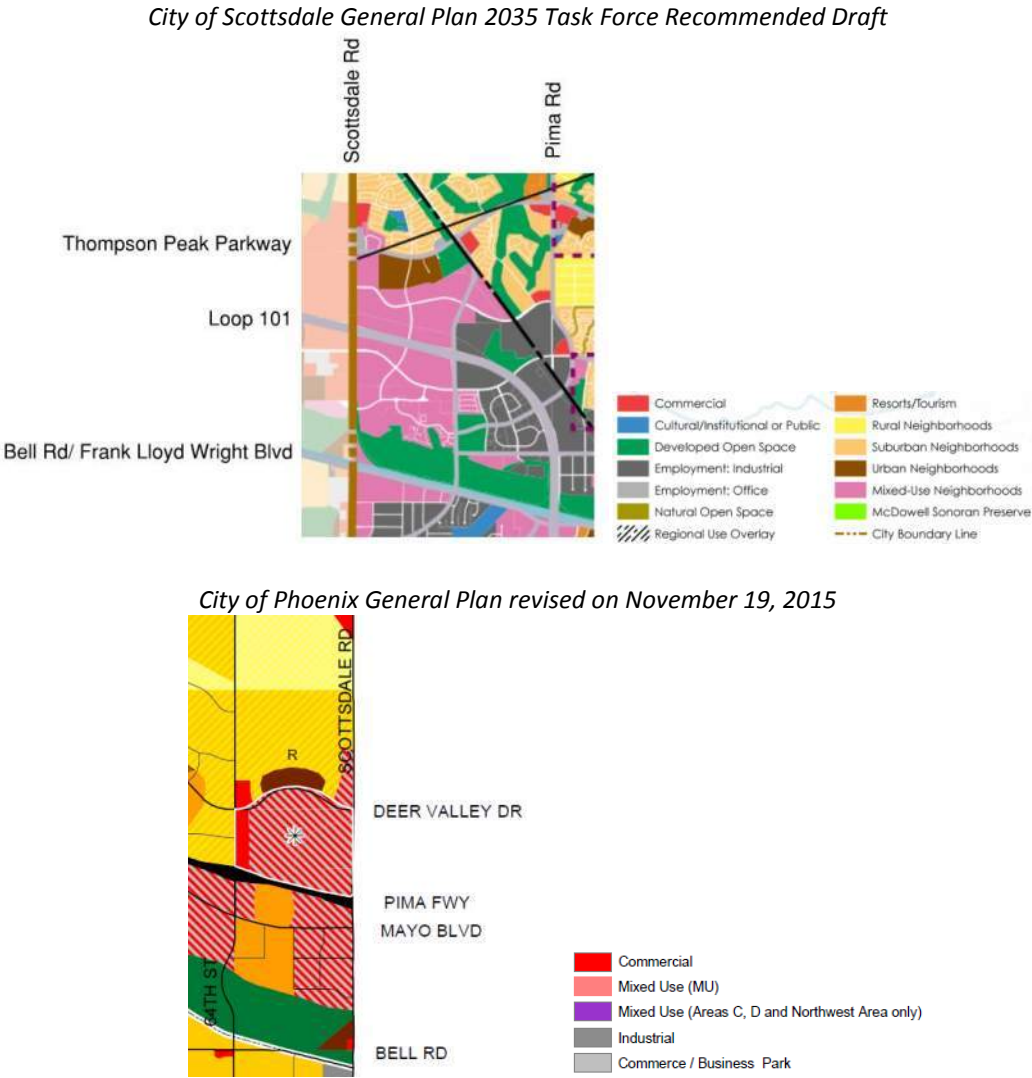
73rd Street and Legacy Boulevard (19) currently operates as a stop controlled t-intersection, with the southbound approach stop controlled. The southbound approach provides a dedicated left turn and a dedicated right turn lane. The eastbound approach provides a dedicated left turn lane, two through lanes and a dedicated right turn lane. The westbound approach provides a dedicated left turn lane, a through lane and a shared through-right turn lane.



4.3. Land Use

There is a mix of land uses surrounding the study area. The top image in **Figure 4** shows a clip of the Future Land Use map from the City of Scottsdale General Plan 2035 Task Force Recommended Draft for the land uses east of Scottsdale Road. The bottom image in **Figure 4** shows a clip of the Future Land Use map from the City of Phoenix General Plan revised on November 19, 2015 for land uses west of Scottsdale Road.

Figure 4 – Future Land Use



The land uses within and surrounding the study area includes:

- Mixed-Use Neighborhoods
- Urban Neighborhoods
- Commercial
- Commerce/Business Park



4.4. Site Accessibility

The surrounding transportation system includes the typical “grid” roadway network common to the Phoenix metropolitan area with arterial roadways running both north–south and east–west at one mile intervals.

SR 101L is an ADOT owned freeway that runs east–west on the southern boundary of the study area. The posted speed limit is 65 mph, with on– and off–ramps at arterial roadways including Hayden Road and Scottsdale Road. SR 101L continues west into the northern Phoenix metropolitan area where it intersects with State Route 51 and Interstate 17. SR 101L turns south near Hayden Road, eventually intersecting with State Route Loop 202 (SR 202L) and US Route 60.



5. Existing Conditions

5.1. Existing Traffic Counts

A local traffic data collection firm, Field Data Services of Arizona, Inc was utilized to collect traffic counts. See **Appendix A** for detailed count data. Turning movement counts were obtained at twelve (12) intersections.

On Wednesday, November 18, 2015 from 7:00 to 9:00 am and from 4:00 to 6:00 pm, traffic counts were obtained at the following intersections:

- Scottsdale Road and Thompson Peak Parkway (1)
- 73rd Street and Thompson Peak Parkway (2)
- Scottsdale Healthcare Drive and Thompson Peak Parkway (3)
- Scottsdale Road and Legacy Boulevard (4)
- Scottsdale Road and Henkel Way (5)
- Scottsdale Road and SR101L WB Ramp (6)
- Scottsdale Road and SR 101L EB Ramp (7)
- Henkel Way and SR 101L Frontage Road (8)
- 73rd Street and Legacy Boulevard (19)

On Wednesday, February 24, 2016 from 7:00 to 9:00 am and 4:00 to 6:00 pm, traffic counts were obtained at the following intersections:

- Hayden Road and Thompson Peak Parkway (9)
- Hayden Road and Legacy Boulevard (10)
- Hayden Road and SR 101L WB Ramp (11)
- Hayden Road and SR 101L EB Ramp (12)

The highest one hour turning movement count within each time period were adjusted using the City of Scottsdale's monthly adjustment factors provided on the 2014 average daily traffic volumes figure. See **Appendix B**. See **Figure 5** for the AM and PM peak hour existing traffic volumes.

5.2. Existing Capacity Analysis

The capacity and level of service for the study area intersections were evaluated using the methodology presented in the *2010 Highway Capacity Manual*. Traffic analysis software, Vistro Version 3, was used to perform the analyses using the existing signal timing provided by the City of Scottsdale. See **Appendix C** for the existing signal timing.



The results of the capacity analyses reveal the following locations operate at an existing level of service (LOS) E or F:

Scottsdale Road and Thompson Peak Parkway (1) – Signalized

- NB through PM peak hour operates at LOS F
- NB right PM peak hour operates at LOS E
- SB left AM peak hour operates at LOS E
- WB left AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS E and LOS F, respectively

Scottsdale Healthcare Drive and Thompson Peak Parkway (3) – Signalized

- NB left AM and PM peak hours operate at LOS E and LOS F, respectively
- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- EB left PM peak hour operates at LOS E
- WB left PM peak hour operates at LOS F
- Overall intersection PM peak hour operates at LOS F

Scottsdale Road and Legacy Boulevard (4) – Signalized

- WB left AM and PM peak hours operate at LOS E

Scottsdale Road and Henkel Way (5) – Signalized

- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- WB left PM peak hour operates at LOS F

Scottsdale Road and SR 101L WB Ramp (6) – Signalized

- NB left AM and PM peak hours operate at LOS E and LOS F, respectively
- NB through PM peak hour operate at LOS F
- SB right AM peak hour operates at LOS F
- WB left AM and PM peak hours operate at LOS F
- WB through AM and PM peak hours operate at LOS F
- WB right AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS E and LOS F, respectively

Scottsdale Road and SR 101L EB Ramp (7) – Signalized

- SB left AM peak hour operates at LOS F



Hayden Road and Thompson Peak Parkway (9) – Signalized

- NB left PM peak hour operates at LOS E
- SB left PM peak hour operates at LOS E
- EB left PM peak hour operates at LOS E
- EB right PM peak hour operate at LOS E
- WB through PM peak hour operates at LOS E
- WB right PM peak hour operate at LOS E

Hayden Road and SR 101L WB Ramp (11) – Signalized

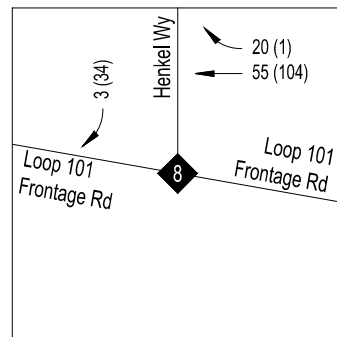
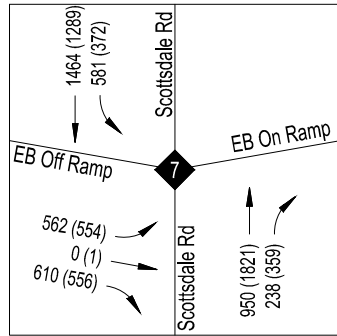
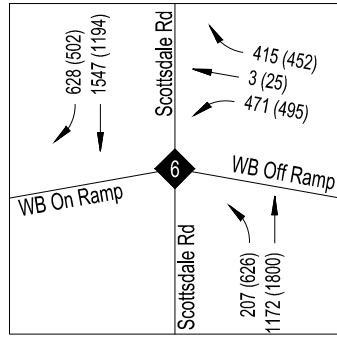
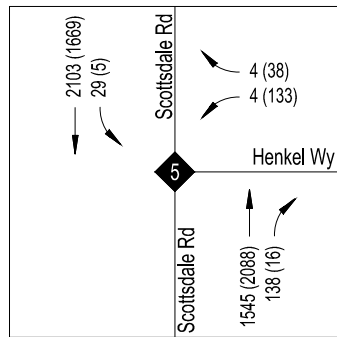
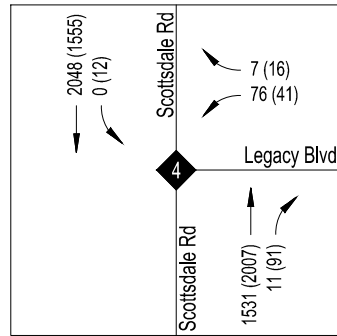
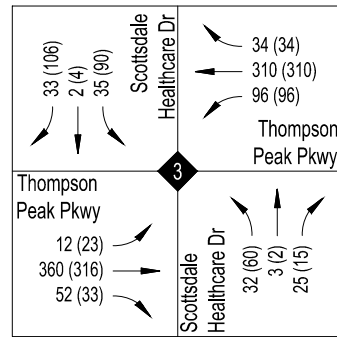
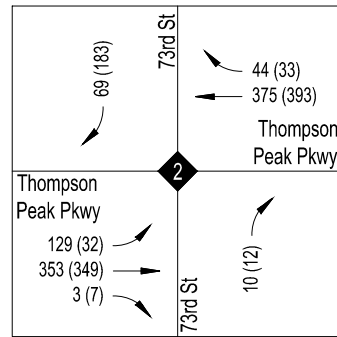
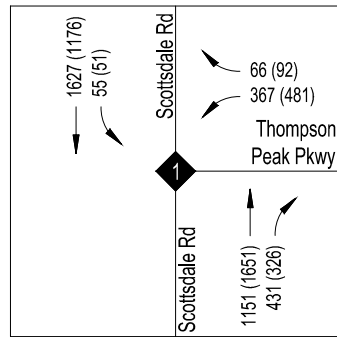
- NB left AM and PM peak hours operate at LOS F
- WB right AM and PM peak hours operate at LOS F
- Overall intersection AM and PM peak hours operate at LOS F

Hayden Road and SR 101L EB Ramp (12) – Signalized

- SB left AM and PM peak hours operate at LOS F and LOS E, respectively
- EB left PM peak hour operates at LOS F
- EB right AM peak hour operates at LOS E
- Overall intersection AM and PM peak hours operate at LOS F

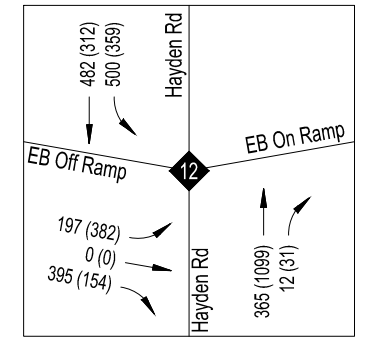
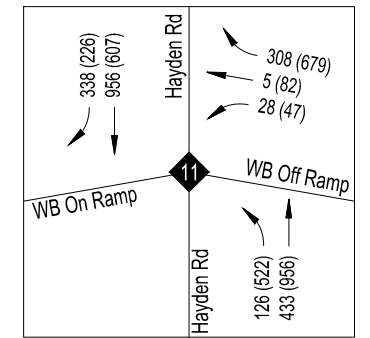
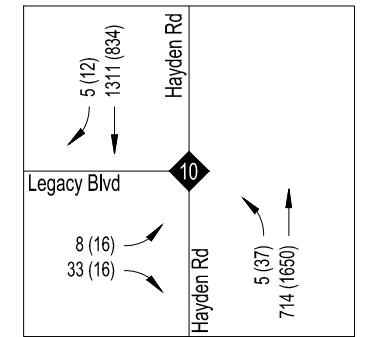
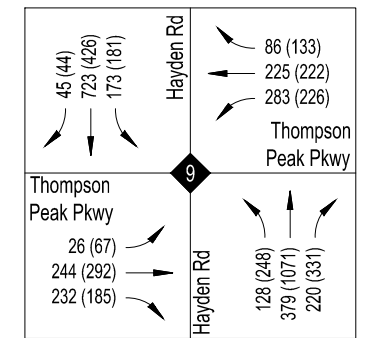
See **Figure 6** for the AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix D** and **Appendix E**.





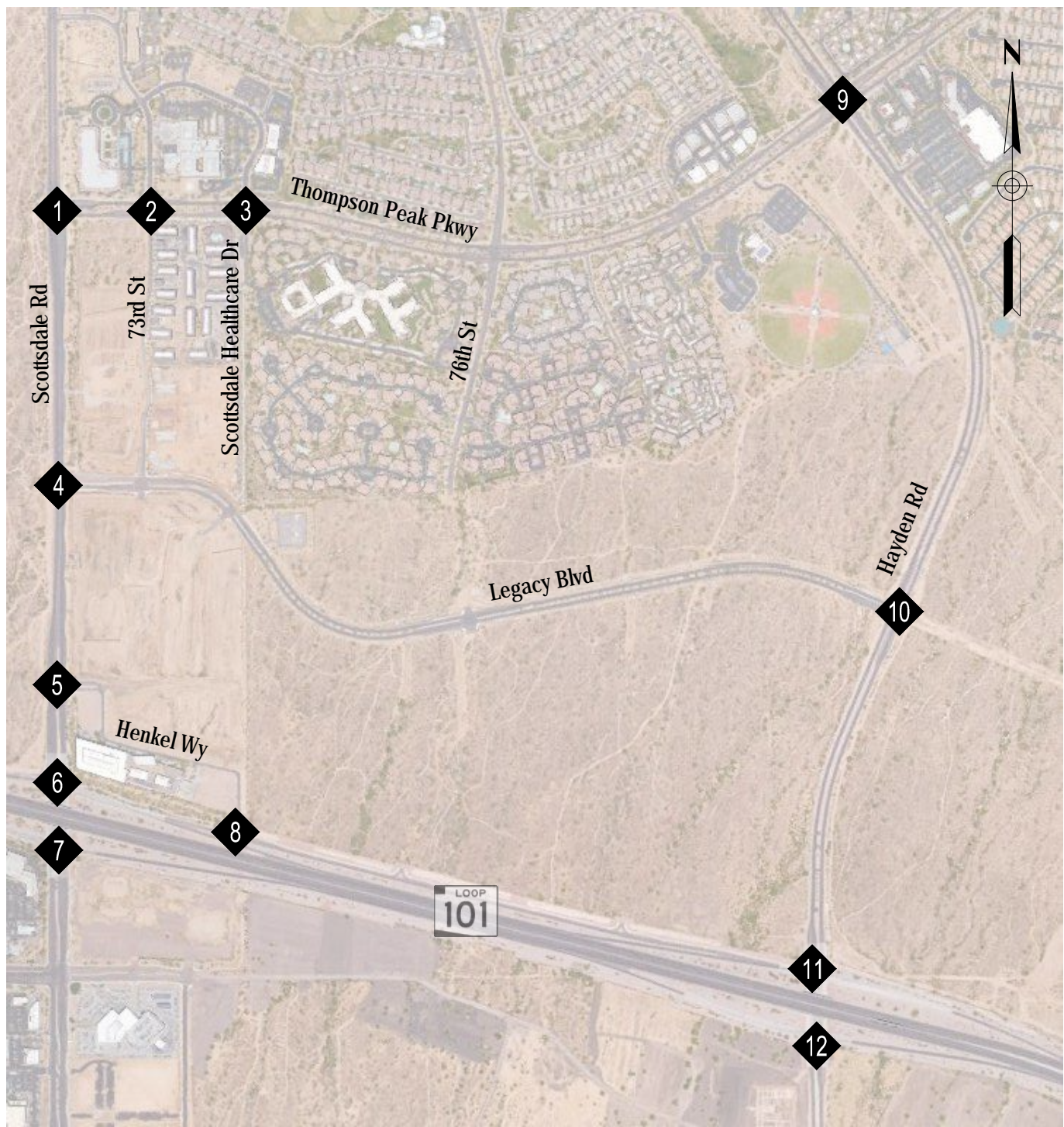
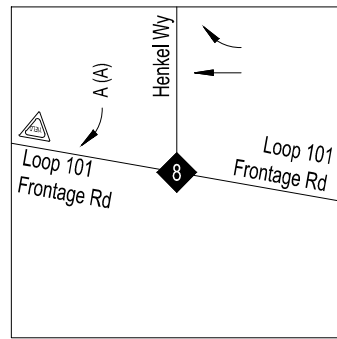
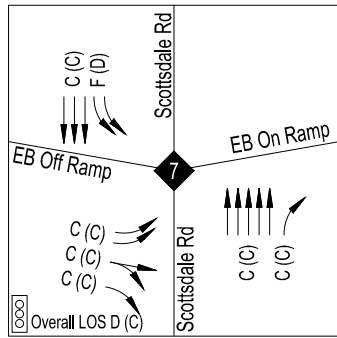
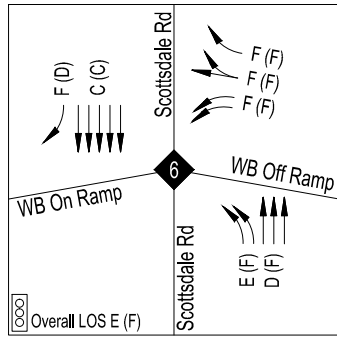
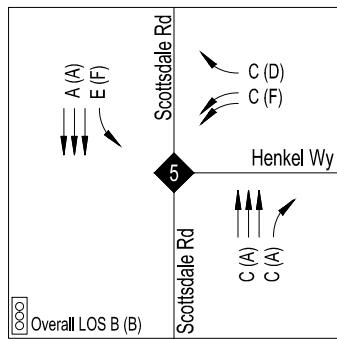
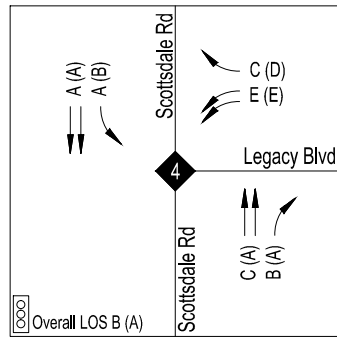
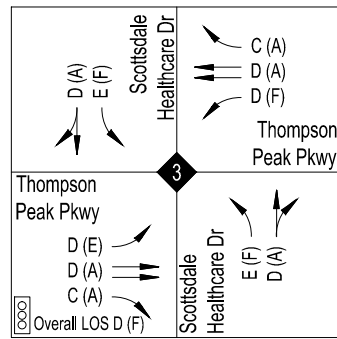
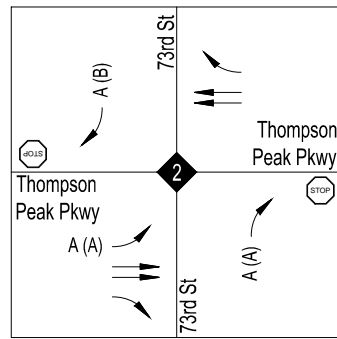
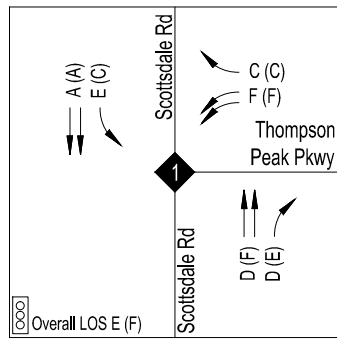
Legend

- Intersection
- AM (PM) Existing Peak Hour Traffic Volumes
- XXXXX Average Daily Traffic Volumes



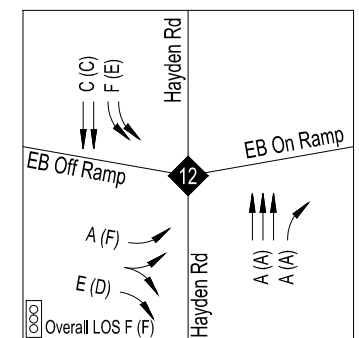
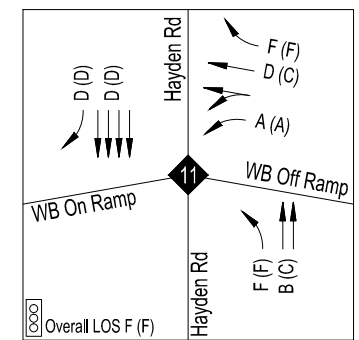
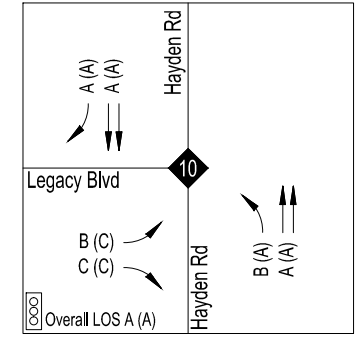
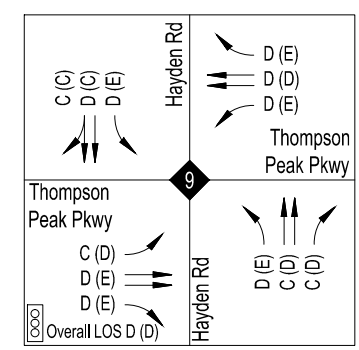
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Existing Traffic Volumes Figure 5



Legend

- Intersection
- AM (PM) Existing Peak Hour Capacity Analysis



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Existing Capacity Analysis Figure 6

6. Projected Traffic

6.1. Trip Generation

The traffic volumes generated by the proposed One Scottsdale development are determined from the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 9th Edition*. The ITE rates are based on studies that measured the trip generation characteristics for various types of land uses. The rates are expressed in terms of trips per unit of land use type. This publication is considered to be the standard for the transportation engineering profession.

The proposed development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

Internal Capture

Given the mix-use nature of the proposed development which includes retail, office, restaurant, hotel and residential components, it is expected that several of the estimated trips will be internal to the development. Based on the NCHRP Report 684- Enhancing Internal Trip Estimation of Mixed-Use Developments, the internal capture rates for trip origins and trip destinations within a multi-use development were applied for AM and PM hours. Additionally, daily internal capture rates for trip origins within a multi-use development were obtained from the *Trip Generation Handbook, 2nd Edition* and were applied to the daily traffic volumes.

Pass-by Trips

Pass-by trips are intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These trips are not considered new trips generated by the proposed development. Pass-by rates were applied to the AM and PM peak hour land uses where available. These rates are based on data provided in the *Trip Generation Handbook, 2nd Edition*.



6.1.1. Year 2020 Trip Generation

The 5 Year (Year 2020) trip generation includes the build out of the following land uses:

- 145,405 square feet of Retail
- 446,384 square feet of Office
- 48,500 square feet of Restaurant
- 400 room Hotel
- 678 dwelling units of Multi-Family Residential

Table 4 below shows the Year 2020 trip generation calculation, which incorporates both internal capture and pass-by trips. Detailed trip generation calculations can be found in **Appendix F**.

Table 4 – Year 2020 Trip Generation

| Land Use | AM Peak Hour | | | PM Peak Hour | | | Weekday | | |
|-------------------------------|--------------|------------|------------|--------------|------------|------------|--------------|-------------|-------------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Retail | 169 | 105 | 64 | 510 | 245 | 265 | 5112 | 2526 | 2586 |
| Office | 700 | 616 | 84 | 634 | 108 | 526 | 3532 | 1869 | 1663 |
| Quality Restaurant | 23 | 19 | 4 | 120 | 80 | 40 | 1091 | 589 | 502 |
| Hospitality - All Suite Hotel | 152 | 83 | 69 | 98 | 44 | 54 | 1727 | 829 | 898 |
| Residential | 314 | 59 | 254 | 204 | 134 | 70 | 2928 | 1406 | 1522 |
| TOTAL | 1358 | 882 | 476 | 1566 | 611 | 955 | 14389 | 7219 | 7170 |



6.1.2. Year 2025 Trip Generation

The 10 Year (Year 2025) trip generation includes the build out of the following land uses:

- 218,269 square feet of Retail
- 1,216,267 square feet of Office
- 92,000 square feet of Restaurant
- 400 room Hotel
- 1,078 dwelling units of Multi-Family Residential

Table 5 below shows the Year 2025 trip generation calculation, which incorporates both internal capture and pass-by trips. Detailed trip generation calculations can be found in **Appendix F**.

Table 5 – Year 2025 Trip Generation

| Land Use | AM Peak Hour | | | PM Peak Hour | | | Weekday | | |
|-------------------------------|--------------|-------------|------------|--------------|------------|-------------|--------------|--------------|--------------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| Retail | 201 | 125 | 76 | 590 | 283 | 307 | 6377 | 3174 | 3203 |
| Office | 1577 | 1388 | 189 | 1452 | 247 | 1205 | 8530 | 4425 | 4105 |
| Quality Restaurant | 47 | 38 | 9 | 226 | 151 | 75 | 3070 | 1576 | 1494 |
| Hospitality - All Suite Hotel | 151 | 83 | 69 | 98 | 44 | 54 | 1701 | 810 | 891 |
| Residential | 468 | 88 | 380 | 316 | 208 | 108 | 4585 | 2183 | 2402 |
| TOTAL | 2444 | 1721 | 723 | 2682 | 934 | 1749 | 24264 | 12168 | 12096 |



6.1.3. Build Out Trip Generation

The trip generation for the build out of the proposed One Scottsdale development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

Table 6 below shows trip generation calculation for the build out of the proposed One Scottsdale development, which incorporates both internal capture and pass-by trips. Detailed trip generation calculations can be found in **Appendix F**.

As with any long range forecasting, there is a level of uncertainty predicting and estimating future traffic volumes, surrounding future developments, and potential roadway network improvements. All of which affect future traffic volumes and traffic pattern shifts. Therefore, a detail capacity analysis has been performed for Year 2020 (5 year) and Year 2025 (10 year). However, a detailed traffic analysis has not been completed for the full build out. It is recommended that when the Year 2020 and Year 2025 development is built out, or when the additional build out development is under consideration, or when it is deemed appropriate, a full build traffic analysis be completed.

Table 6 – Build Out Trip Generation

| | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
|----------------|--------------|-------|-------|--------------|------|------|--------------|------|------|
| | Total | In | Out | Total | In | Out | Total | In | Out |
| One Scottsdale | 31184 | 15592 | 15592 | 3960 | 2781 | 1179 | 3961 | 1311 | 2650 |



6.2. Trip Distribution

The trip distribution procedure determines the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution for the proposed One Scottsdale is based on the distribution of the existing traffic. The trip assignment to the site driveways was generally based on proximity of the specific land use, origin and destination, and ease and probability of use.

6.2.1. Year 2020 Trip Distribution

The roadway network for the Year 2020 trip distribution is assumed to be identical to the existing roadway network.

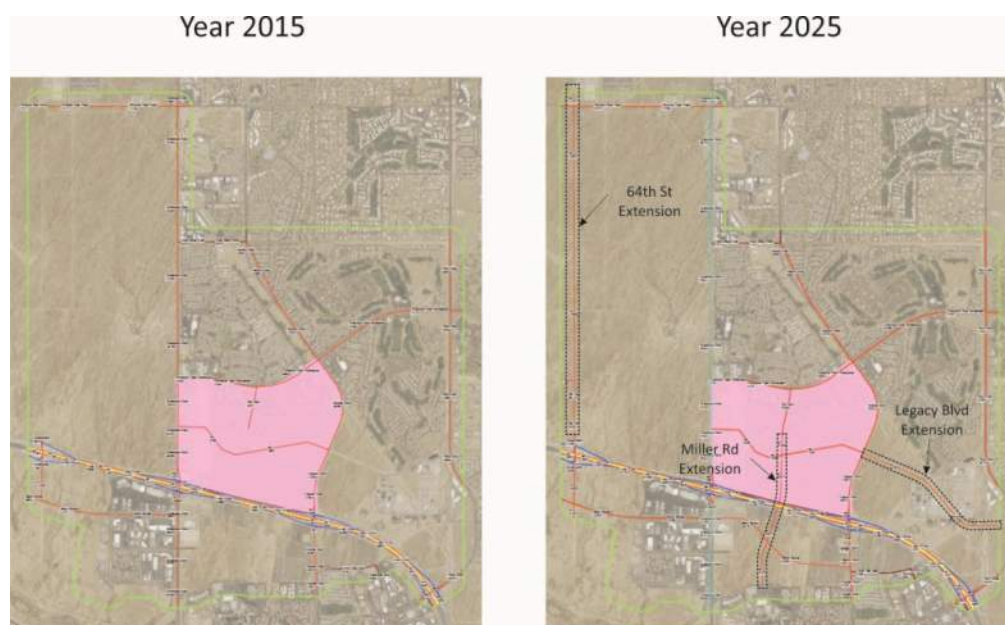
The Year 2020 trip distribution is shown in **Figure 7**.

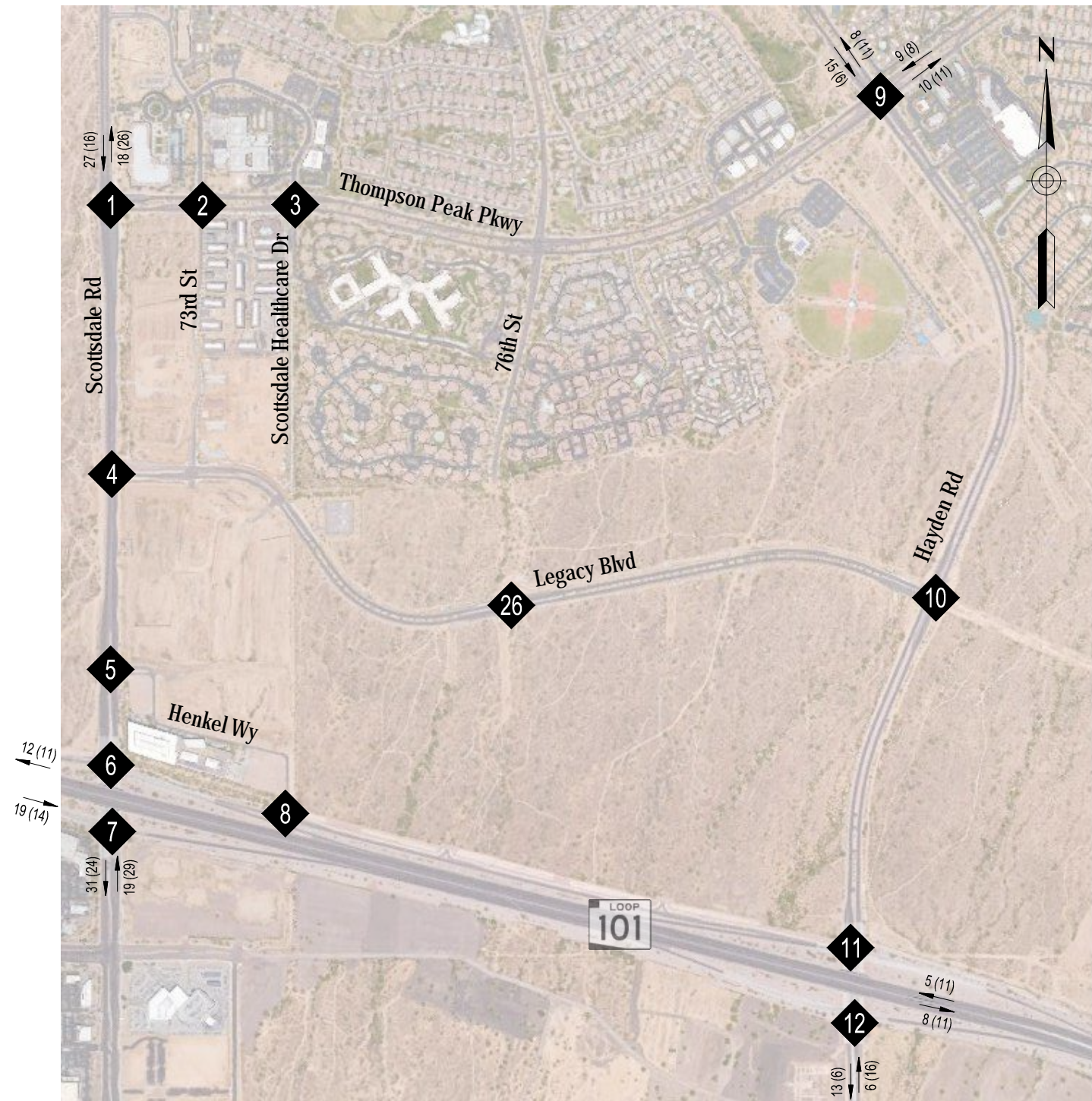
6.2.2. Year 2025 Trip Distribution

Based on the model from the Maricopa Association of Governments, the Year 2025 roadway network includes:

- Extension of 64th Street from SR 101L north to Pinnacle Peak Road.
- Extension of the Miller Road alignment Princess Boulevard to tie into the existing alignment just south of Thompson Peak Parkway
- Extension of Legacy Boulevard from Hayden Road to Pima Road.

See **Appendix G** for a closer look at the figures below. The Year 2025 trip distribution is shown in **Figure 8**.





Legend

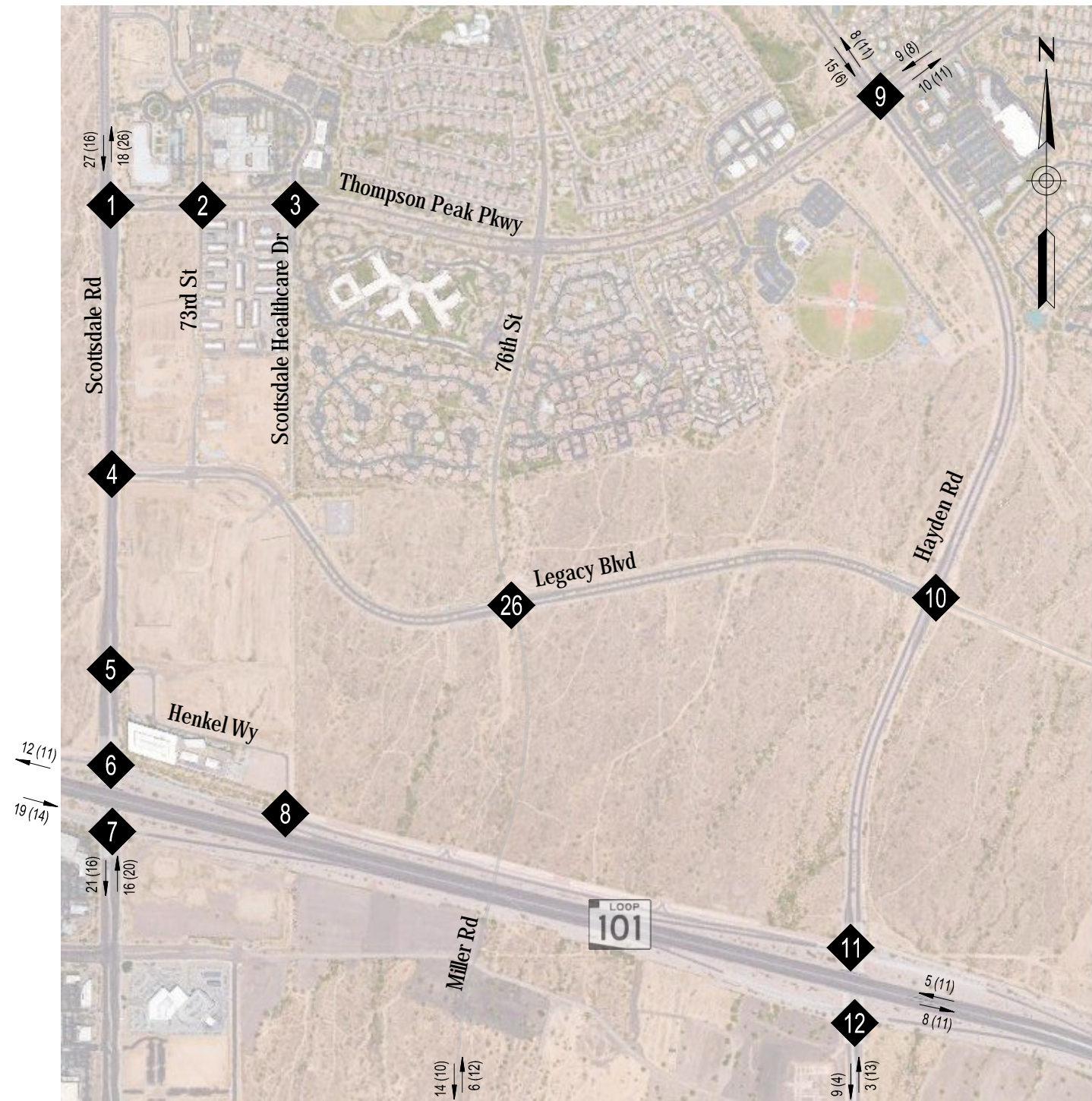
AM (PM) 2020 Trip Distribution Percentage

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2020 Trip Distribution

Figure 7



Legend

AM (PM) 2025 Trip Distribution Percentage

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2025 Trip Distribution

Figure 8

7. Year 2020 – 5 Year

7.1. Year 2020 Site Traffic

Using the trip distribution as shown in **Figure 7**, the Year 2020 site generated trips (**Table 4**) were assigned to the study intersections and driveways. The Year 2020 Site Traffic Volumes are shown in **Figure 9** and **Figure 10**.

7.2. Year 2020 Background Traffic

The existing and Year 2025 models were obtained from the Maricopa Association of Governments. The surrounding roadway network showed less than a 1% growth rate over the 10 year period. As a conservative estimate, a 0.1% annual growth rate was applied to the existing traffic volumes and was used as the 2020 background traffic volumes. The Year 2020 Background Traffic Volumes are shown in **Figure 11** and **Figure 12**.

7.3. Year 2020 Total Traffic Volumes

When the site traffic and are added to the 2020 background traffic volumes, the result is the 2020 total traffic volumes. The Year 2020 Total Traffic Volumes are shown in **Figure 13** and **Figure 14**.

7.4. Year 2020 Capacity Analysis

The capacity and level of service for the signalized study area intersections were evaluated using the methodology presented in the 2010 Highway Capacity Manual, and the stop controlled driveways were evaluated using the methodology presented in the 2000 Highway Capacity Manual. Traffic analysis software, Synchro Version 9, was used to perform the analyses using the 2020 traffic volumes, and optimizing the signal timing. With the exception of the driveways for the proposed development, the lane geometry remained the same as the existing lane geometry. The results of the capacity analyses reveal the following locations with an existing level of service (LOS) E or F:

Scottsdale Road and Thompson Peak Parkway (1) – Signalized

- SB left PM peak hour operates at LOS E
- WB left PM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E

Scottsdale Road and Legacy Boulevard (4) – Signalized

- WB left AM and PM peak hours operate at LOS E

Scottsdale Road and Henkel Way (5) – Signalized

- SB left PM peak hour operates at LOS E
- WB left AM and PM peak hours operate at LOS E
- WB right AM and PM peak hours operate at LOS E



Scottsdale Road and SR 101L WB Ramp (6) – Signalized

- WB left PM peak hour operates at LOS F
- WB through PM peak hour operates at LOS F
- WB right PM peak hour operates at LOS E

Scottsdale Road and SR 101L EB Ramp (7) – Signalized

- NB through AM and PM peak hours operate at LOS E and LOS F, respectively
- EB left PM peak hour operates at LOS F

Hayden Road and Thompson Peak Parkway (9) – Signalized

- EB left PM peak hour operates at LOS E
- EB right AM peak hour operates at LOS E
- WB left AM and PM peak hours operate at LOS F and LOS E, respectively
- WB right PM peak hour operates at LOS E
- Overall intersection AM peak hour operates at LOS E

Hayden Road and SR 101L WB Ramp (11) – Signalized

- NB left AM and PM peak hours operate at LOS F
- Overall intersection PM peak hour operates at LOS F

Hayden Road and SR 101L EB Ramp (12) – Signalized

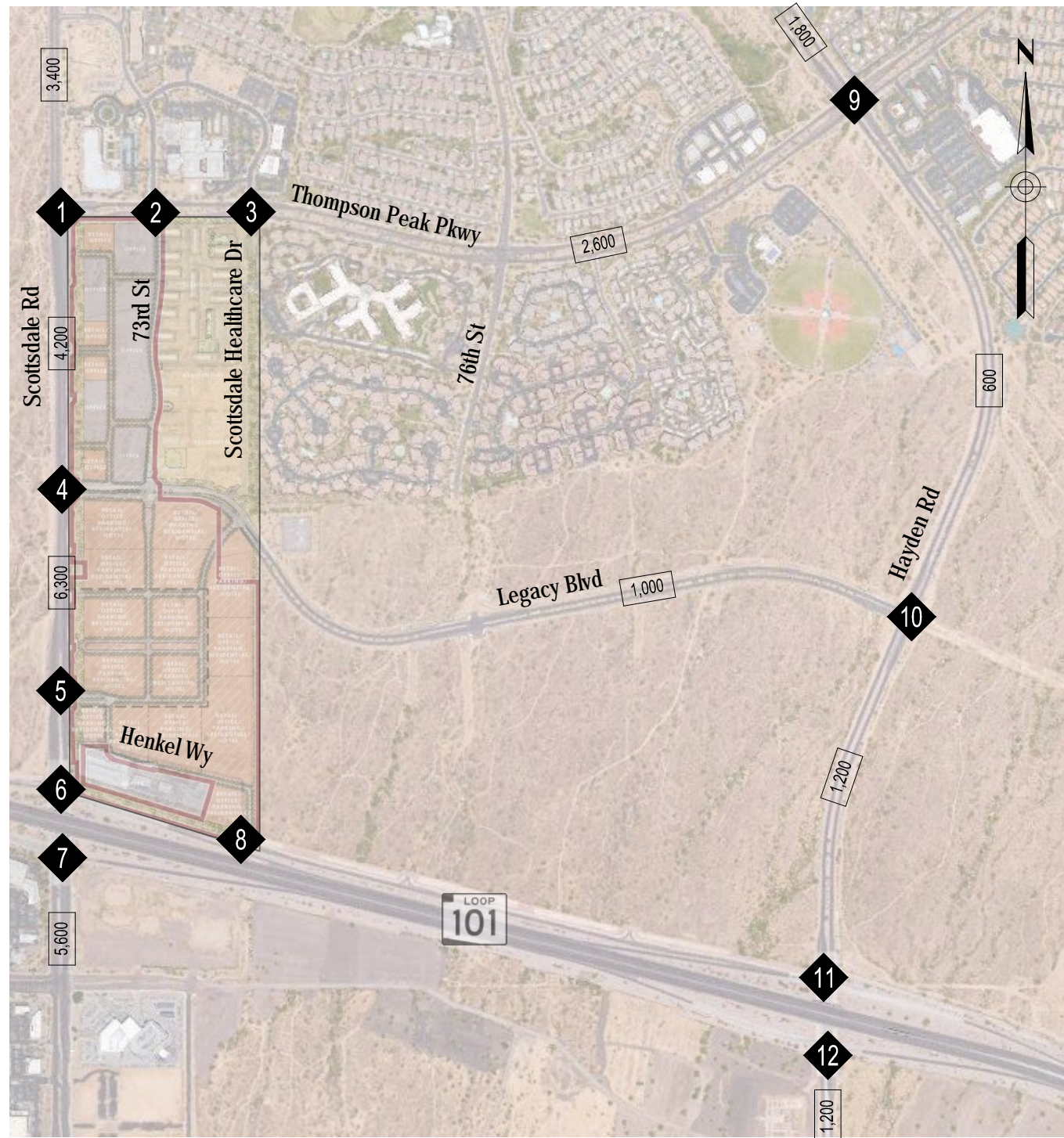
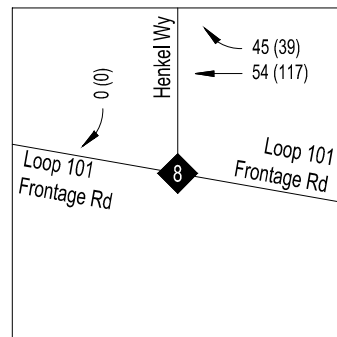
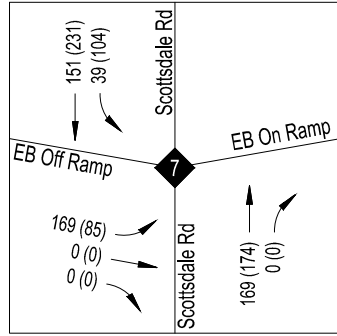
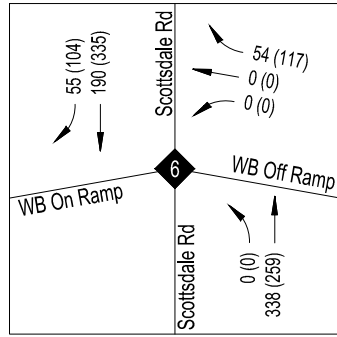
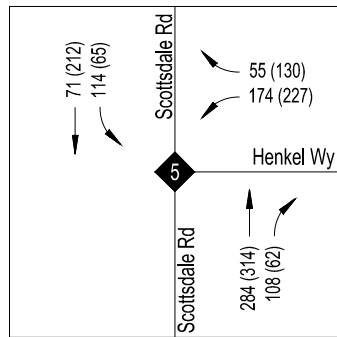
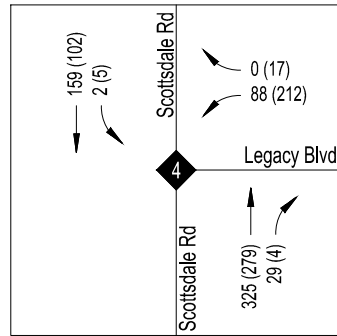
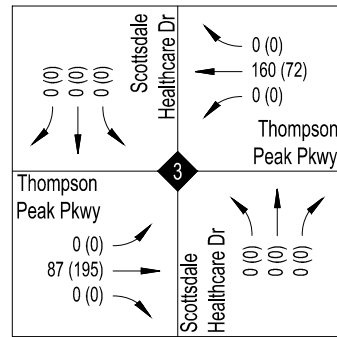
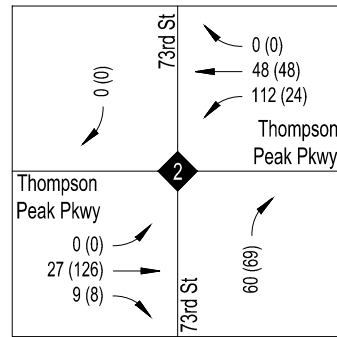
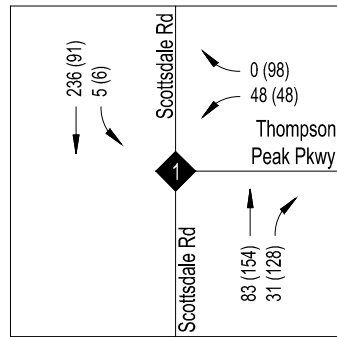
- NB through PM peak hour operates at LOS F
- EB left AM and PM peak hours operate at LOS E
- Overall intersection PM peak hour operates at LOS F

See **Figure 15** and **Figure 16** for the AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix H**. In general, the signalized study intersections shows improved levels of services when compared to the existing conditions. The signal cycle lengths were held, while modifying the splits to accommodate the change in traffic patterns due to the proposed development. The study driveways operate at an acceptable level of service of LOS D or better, with the exception of Scottsdale Road and Driveway A, where the westbound right turn movement operates at a LOS E during the PM peak hour, and Scottsdale Road and Driveway L, where the southbound left turn movement operates at a LOS F during the PM peak hour.

7.5. Year 2020 Improvements and Considerations

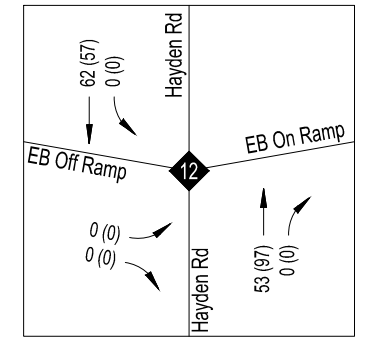
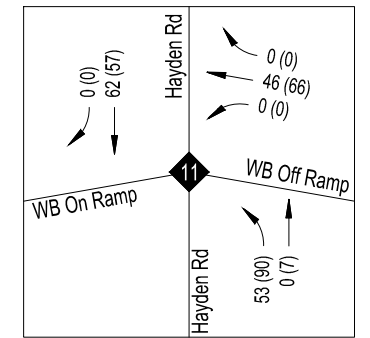
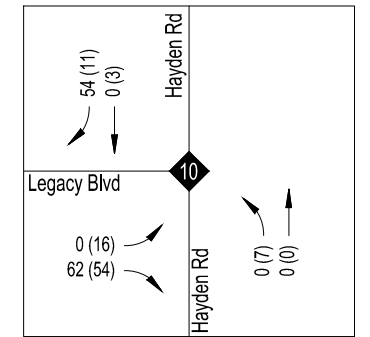
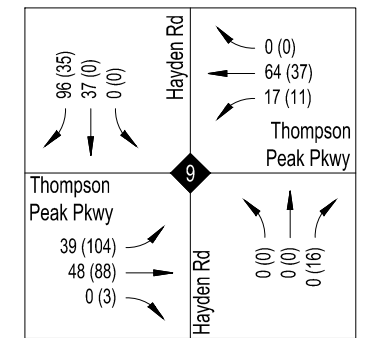
Evaluating the 2020 ADTs on Scottsdale Road, an additional northbound through lane between Henkel Way and Thompson Peak Parkway, providing three through lanes, is recommended for Year 2020, refer to **Section 8.5**. The majority of these improvements can be made with pavement marking and signing modifications.





Legend

- Intersection
- AM (PM) 2020 Site Traffic Volumes
- XXXXX Average Daily Traffic Volumes

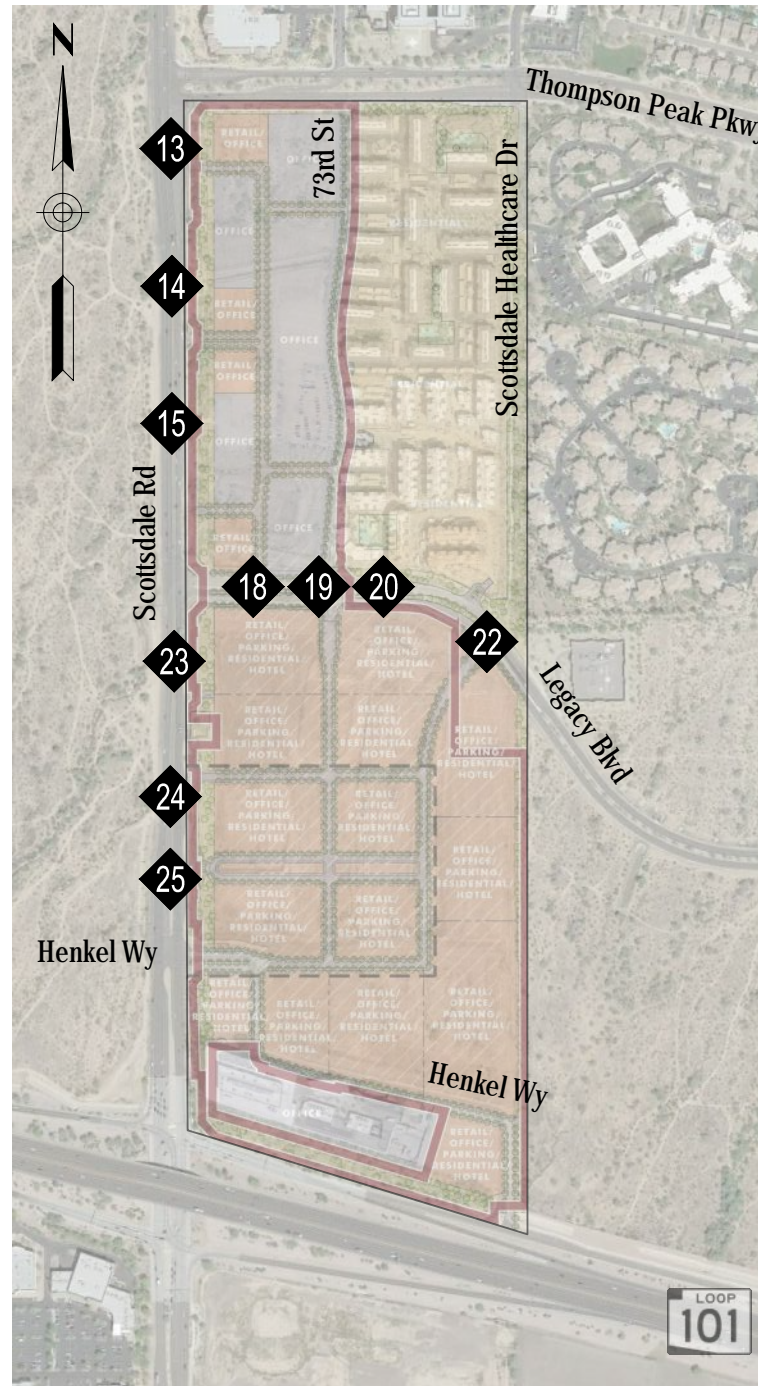
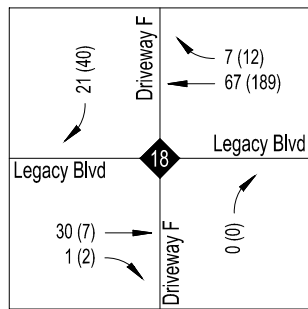
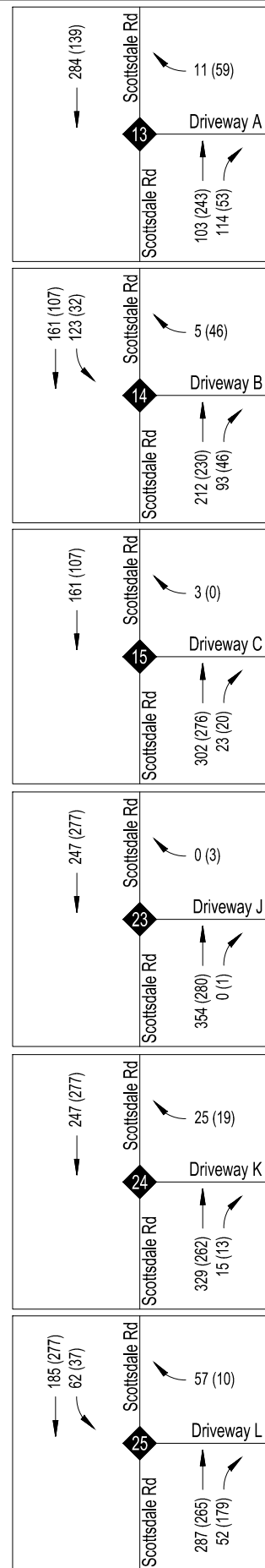


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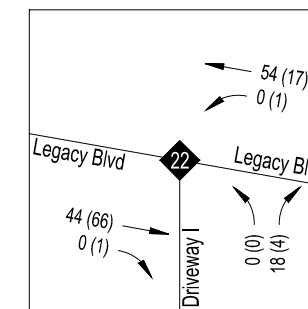
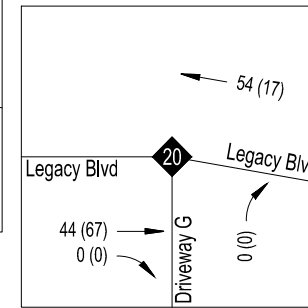
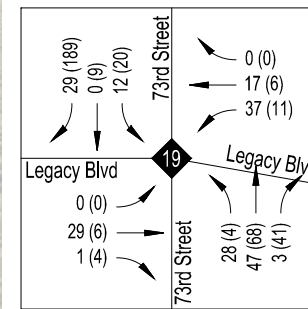
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2020 Site
 Traffic Volumes
 (Intersections)

Figure 9



Legend
 ◆ Driveway
 AM (PM) 2020 Site Traffic Volumes

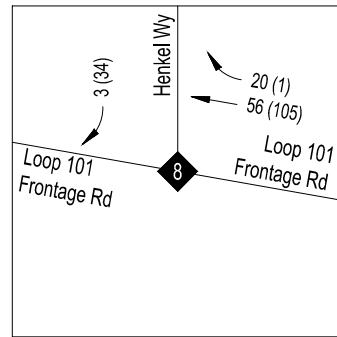
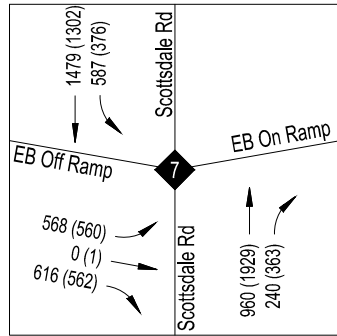
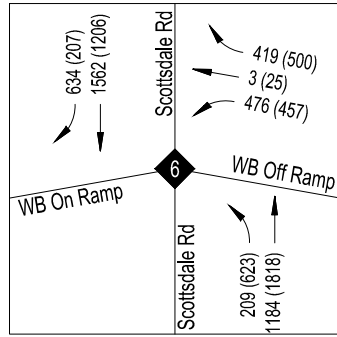
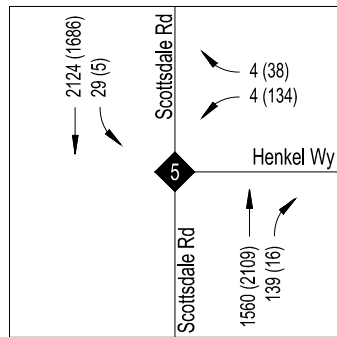
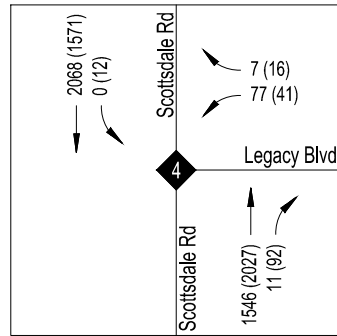
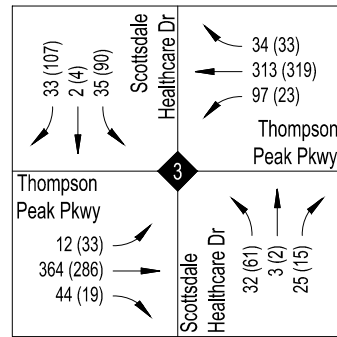
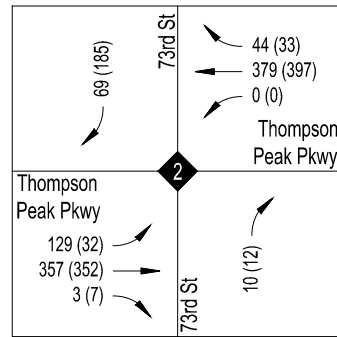
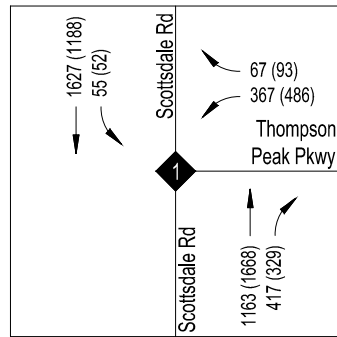


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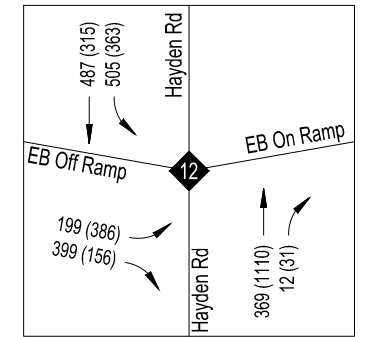
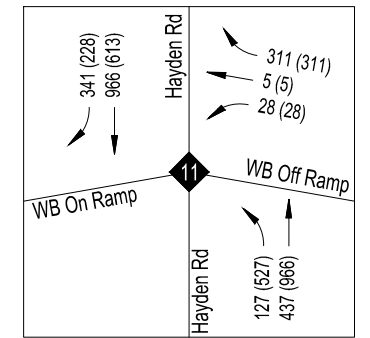
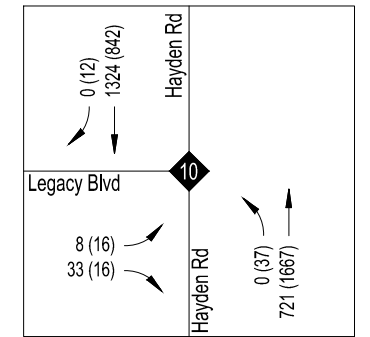
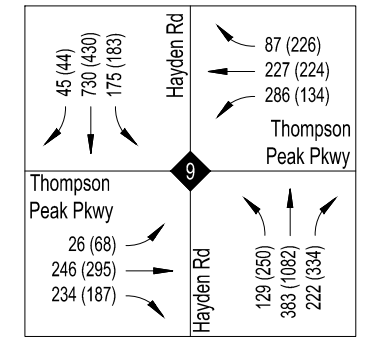
2020 Site
 Traffic Volumes
 (Driveways)

Figure 10



Legend

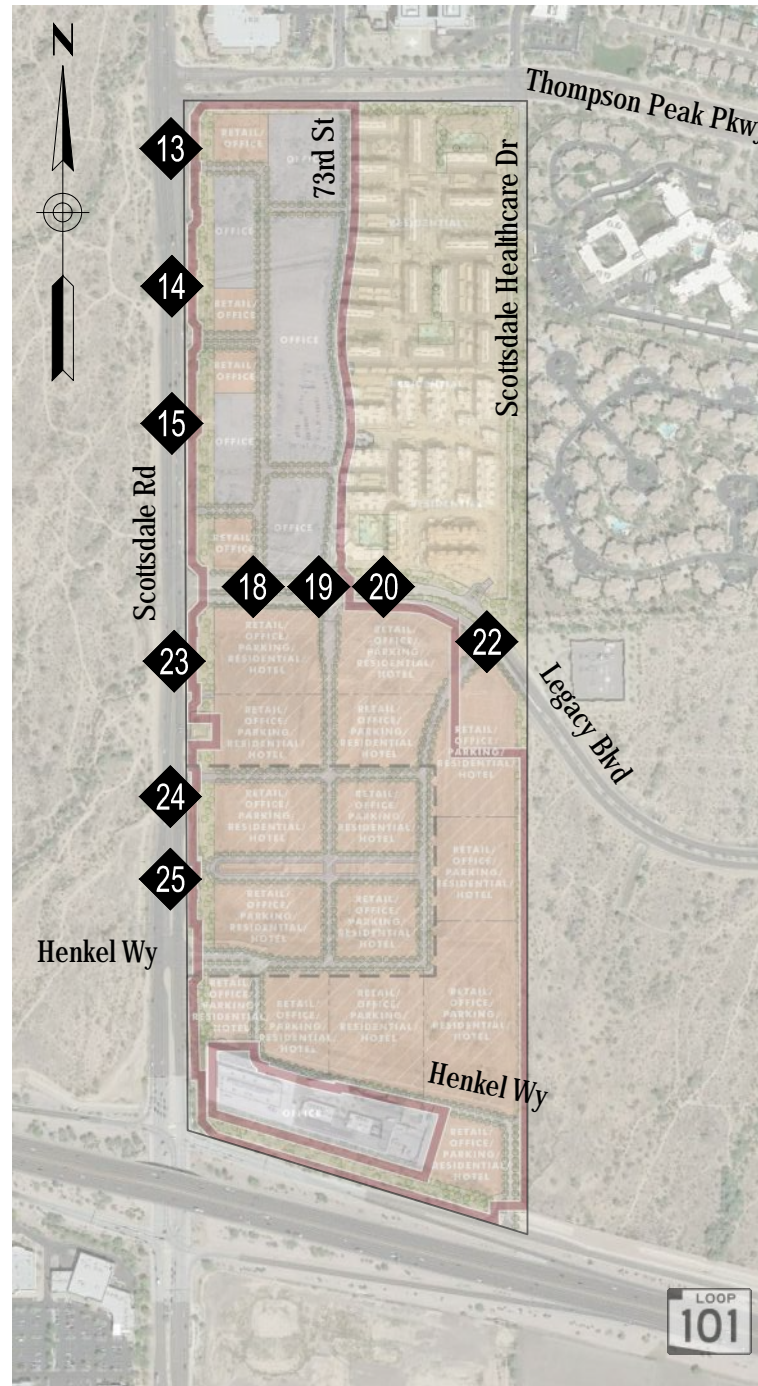
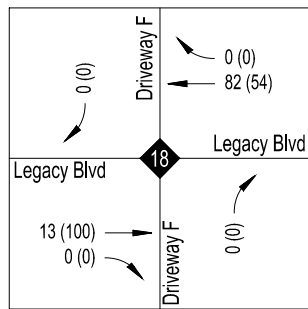
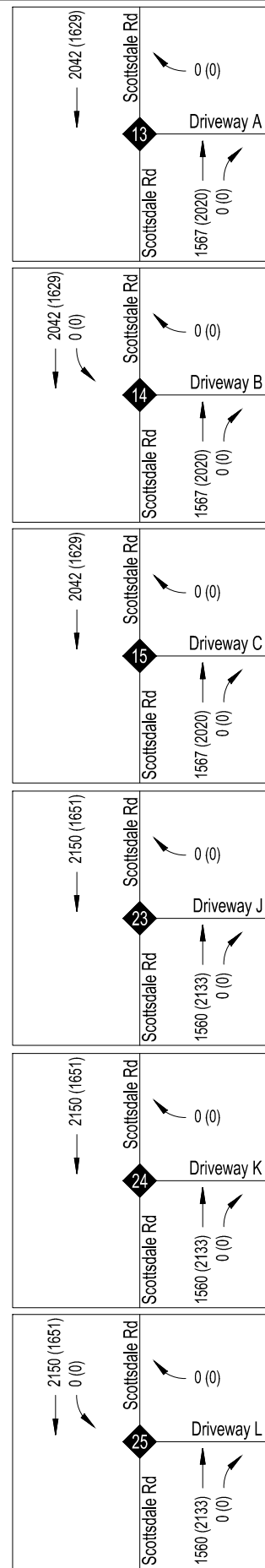
- Intersection
- AM (PM) 2020 Background Traffic Volumes
- XXXXX Average Daily Traffic Volumes



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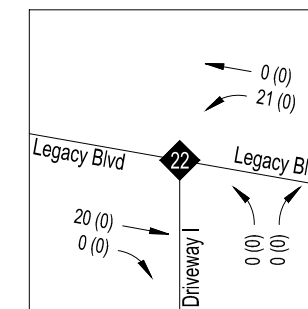
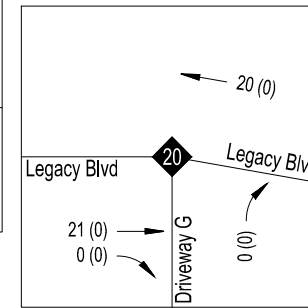
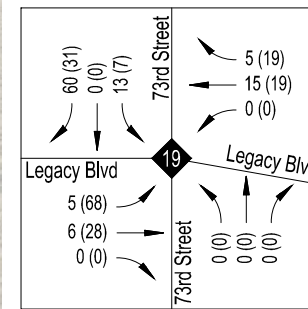
2020 Background Traffic Volumes (Intersections) Figure 11



Legend

◆ Driveway

AM (PM) 2020 Background Traffic Volumes

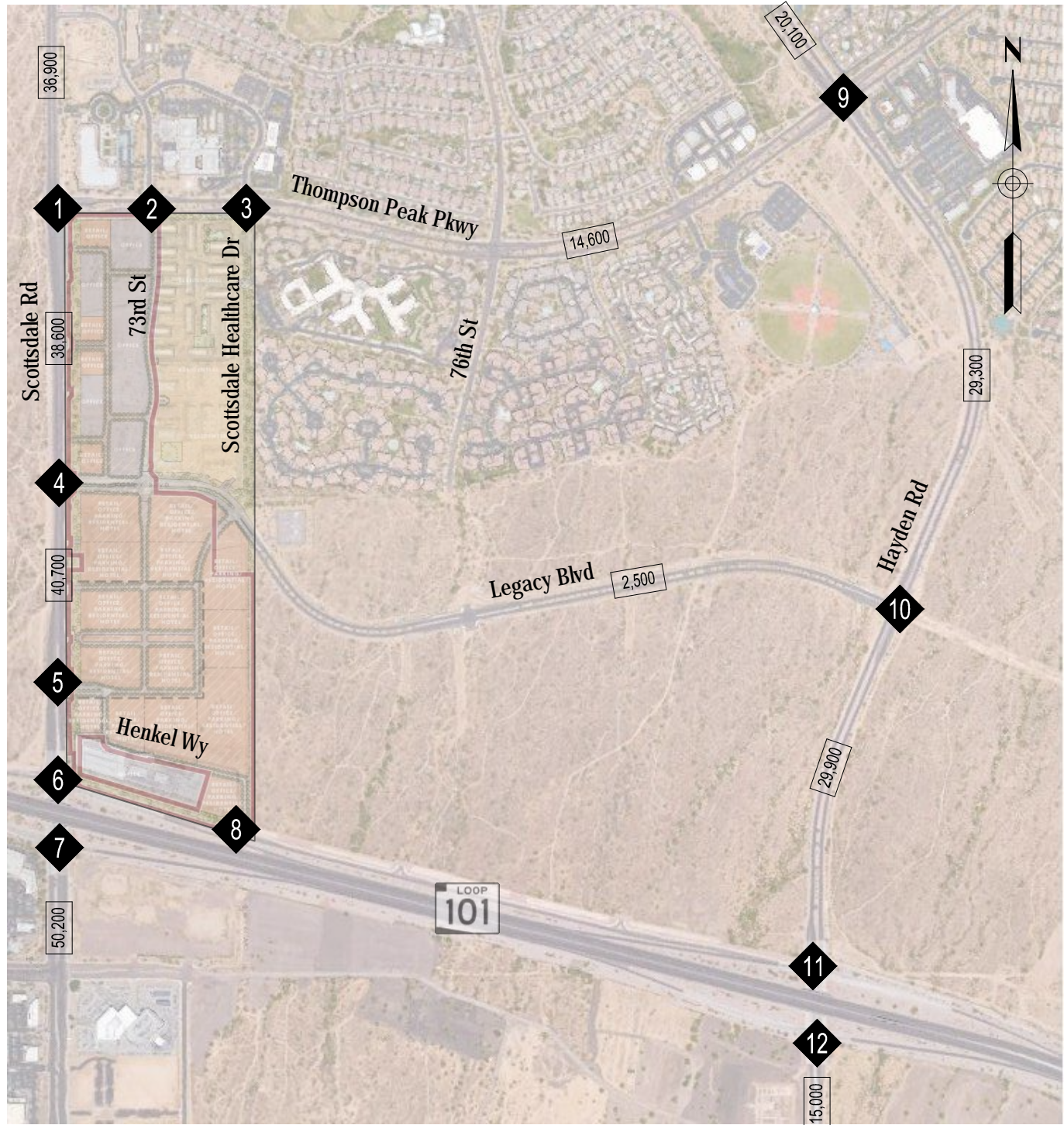
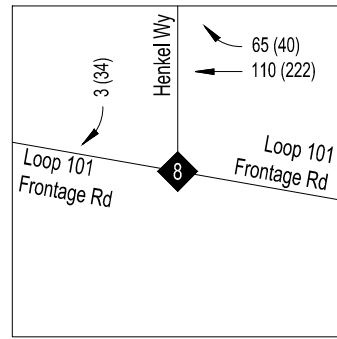
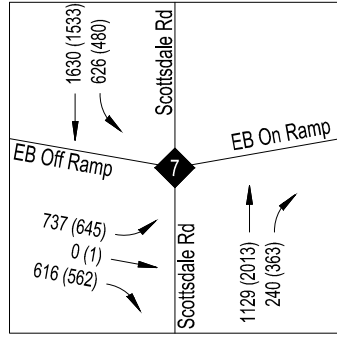
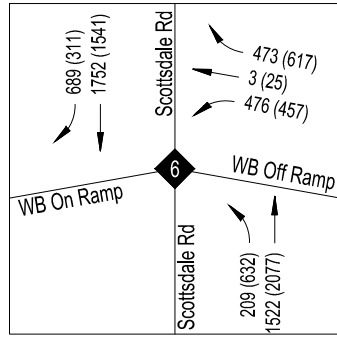
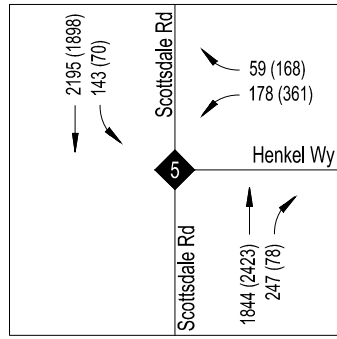
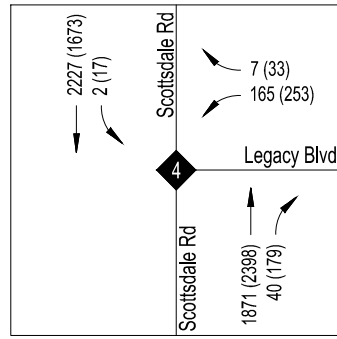
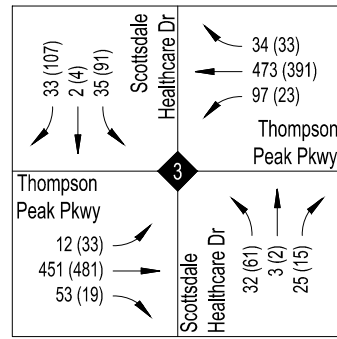
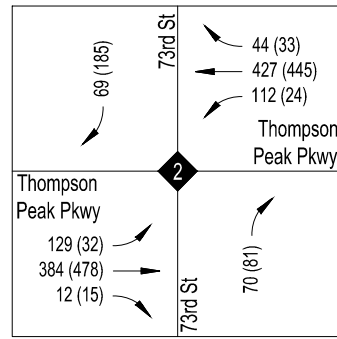
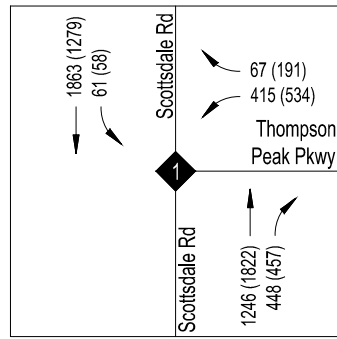


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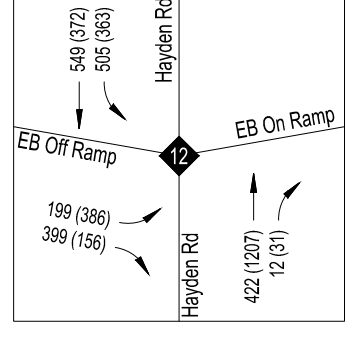
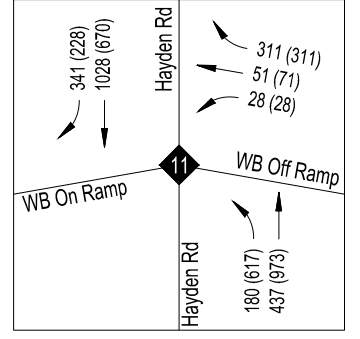
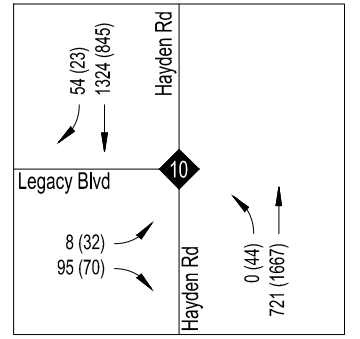
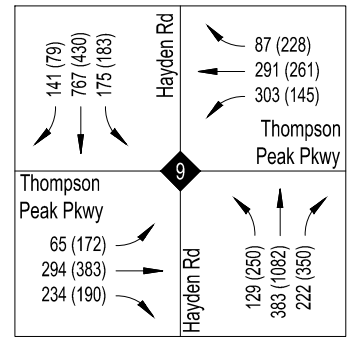
2020 Background
 Traffic Volumes
 (Driveways)

Figure 12



Legend

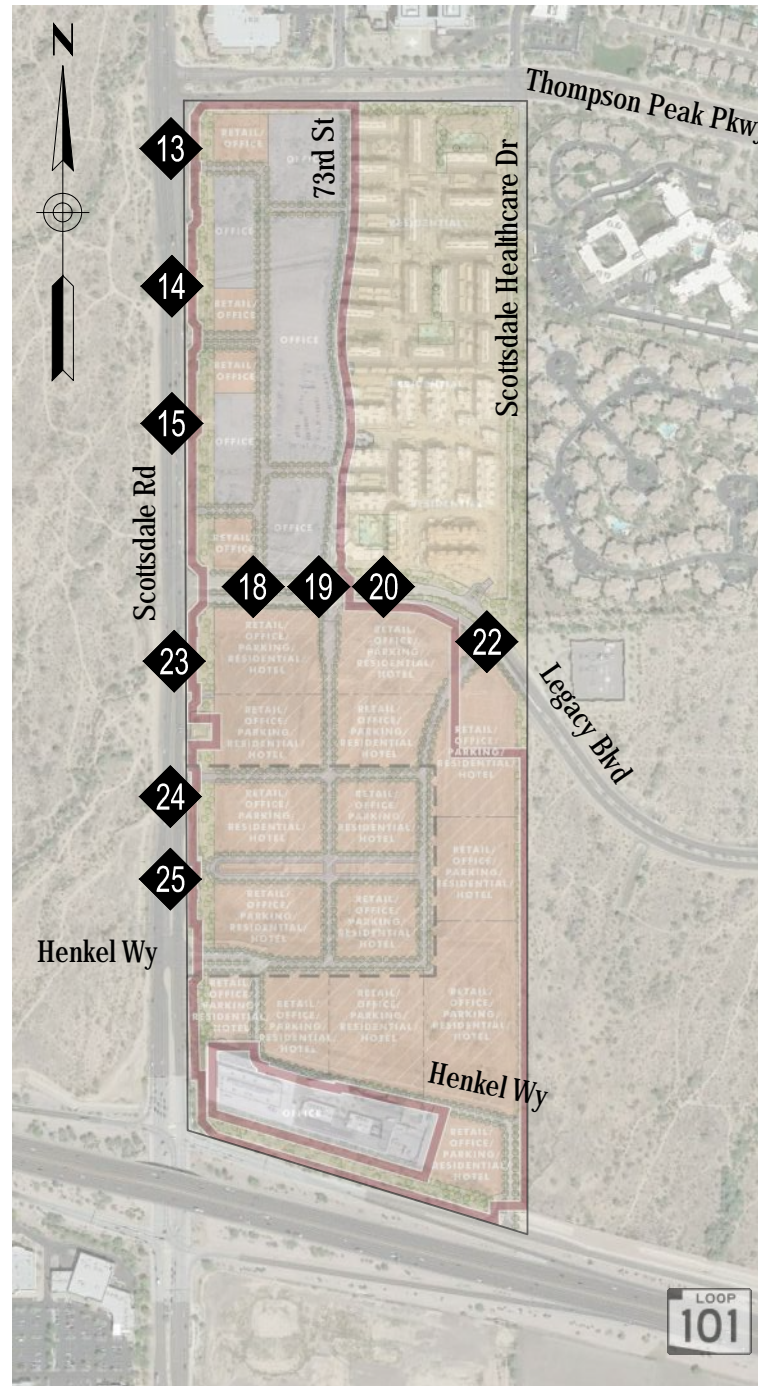
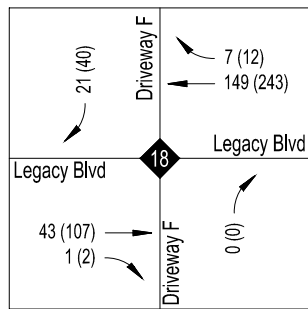
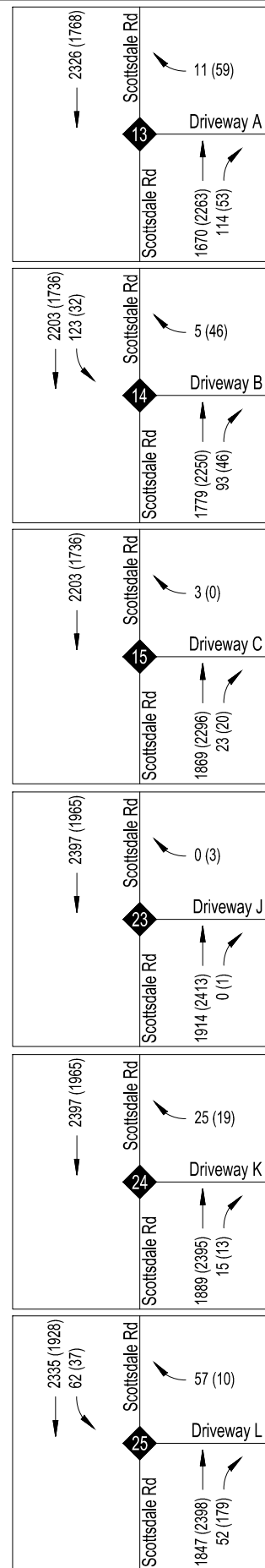
- ◆ Intersection
- AM (PM) 2020 Total Traffic Volumes
- XXXXX Average Daily Traffic Volumes



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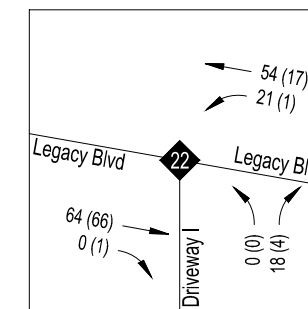
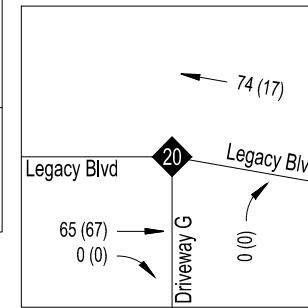
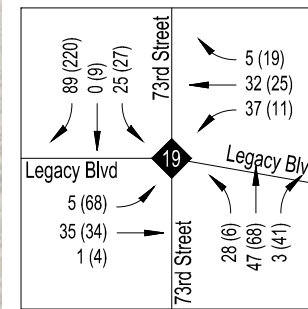
2020 Total Traffic Volumes (Intersections)
 Figure 13



Legend

◆ Driveway

AM (PM) 2020 Total Traffic Volumes

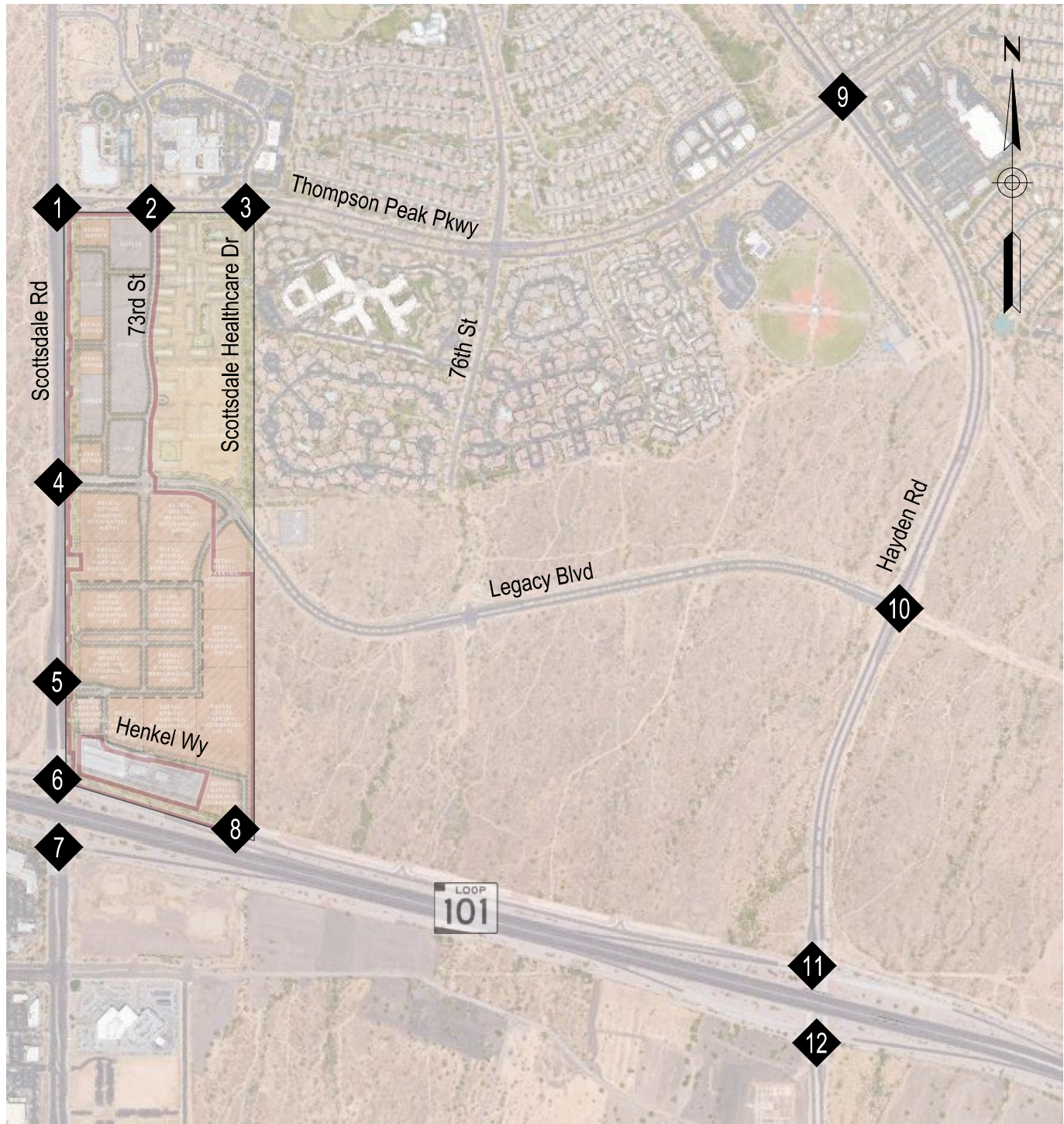
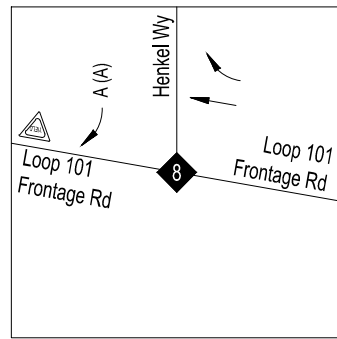
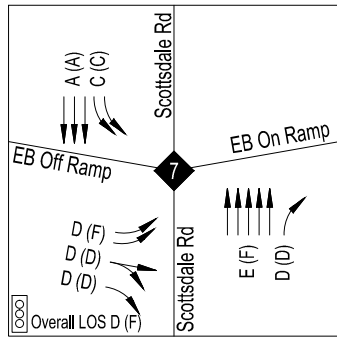
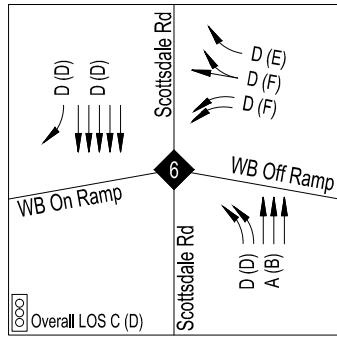
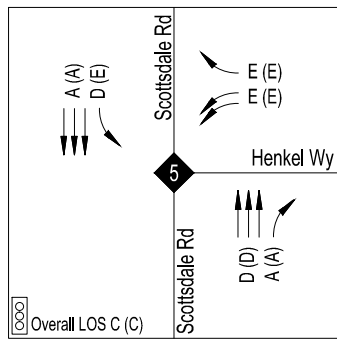
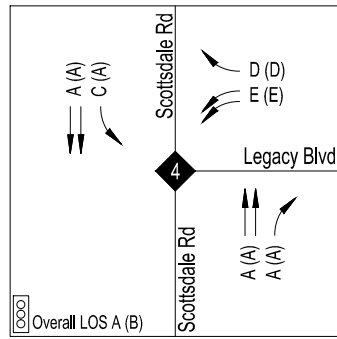
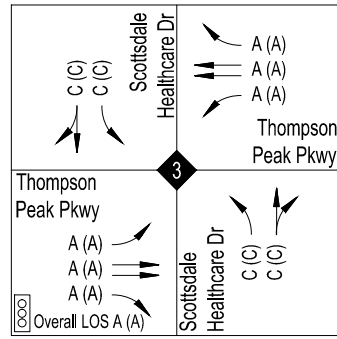
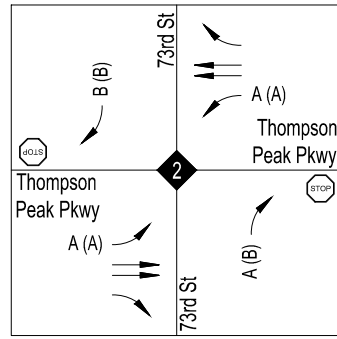
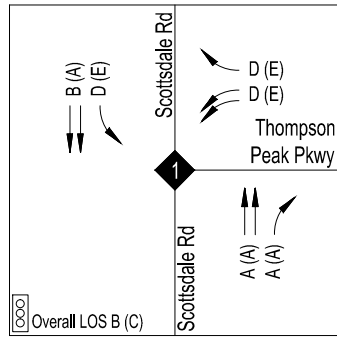


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2020 Total
 Traffic Volumes
 (Driveways)

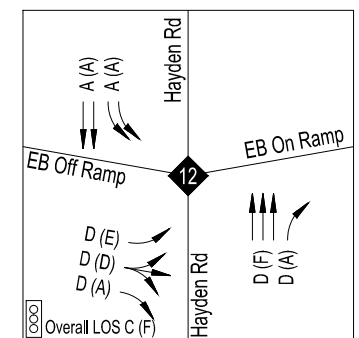
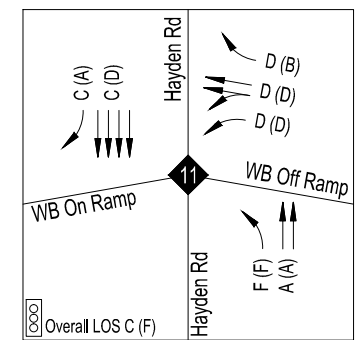
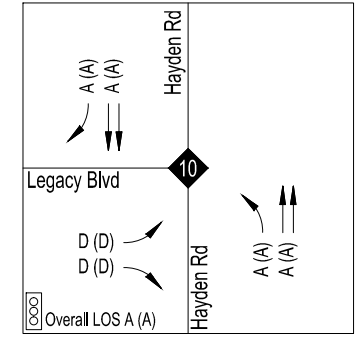
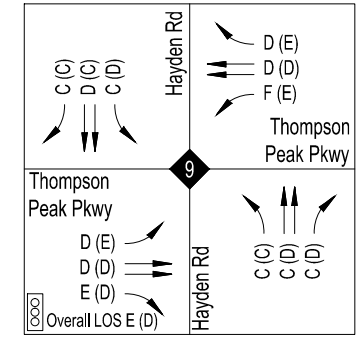
Figure 14



Legend

◆ Intersection

AM (PM) 2020 Capacity Analysis

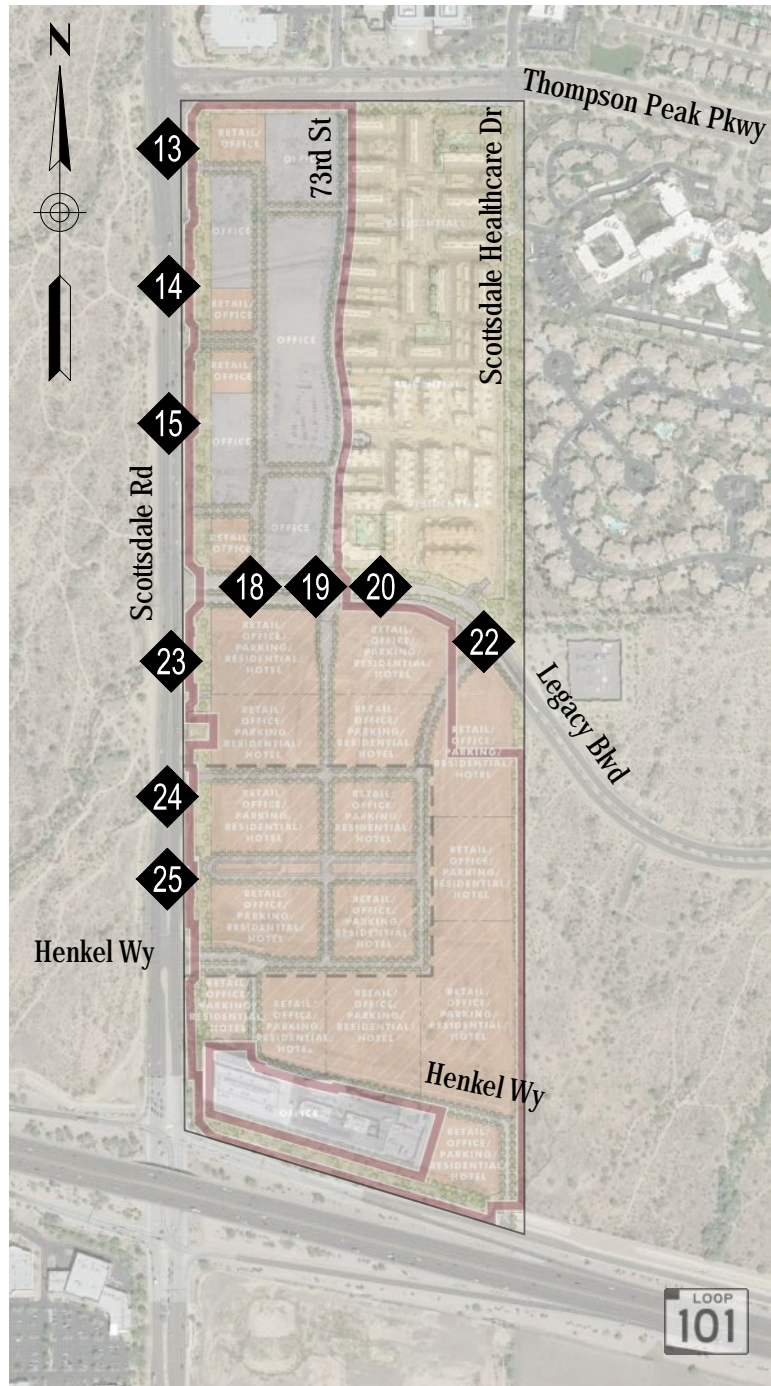
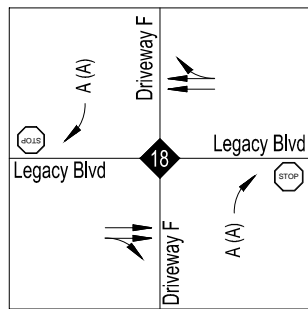
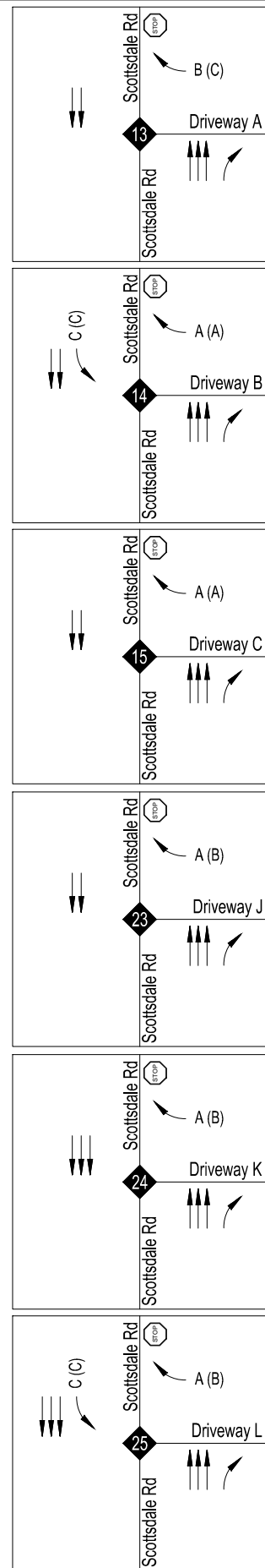


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2020
Capacity Analysis
(Intersections)

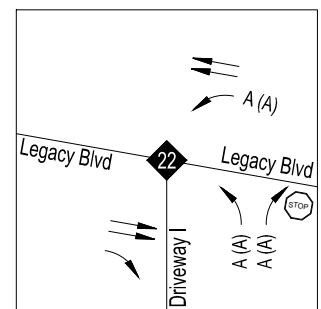
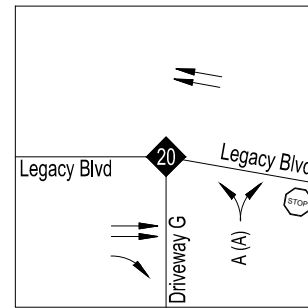
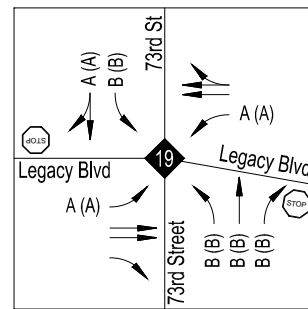
Figure 15



Legend

◆ Driveway

AM (PM) 2020 Capacity Analysis



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2020
 Capacity Analysis
 (Driveways)

Figure 16

8. Year 2025 – 10 Year

8.1. Year 2025 Site Traffic

Using the trip distribution as shown in **Figure 8**, the Year 2025 site generated trips (**Table 5**) were assigned to the study intersections and driveways. The Year 2025 Site Traffic Volumes are shown in **Figure 17** and **Figure 18**.

8.2. Year 2025 Background Traffic

The existing and Year 2025 models were obtained from the Maricopa Association of Governments. See **Appendix G**. The surrounding roadway network showed less than a 1% growth rate over the 10 year period. As a conservative estimate, a 0.1% annual growth rate was applied to the existing traffic volumes and was used as the 2025 background traffic volumes. The Year 2025 Background Traffic Volumes are shown in **Figure 19** and **Figure 20**.

The minimal growth is likely due to the extension of 64th Street, Miller Road and Legacy Boulevard as described in detail in **Section 6.2.2**.

The anticipated roadway network changes in Year 2025 provide additional circulation roadways for the area. Even with future developments in and around the surrounding area, these roadway connections help to relieve Scottsdale Road.

Currently the 64th Street traffic interchange at SR 101L ends just north of the freeway and is therefore underutilized. The nearest north-south roadway to the west is Tatum Boulevard, which is located approximately 3 miles to the west of Scottsdale Road. The extension of 64th Street provides the area with an additional north-south roadway with direct access to SR 101L and located 1 mile west of Scottsdale Road and 2 miles east of Tatum Boulevard.

8.3. Year 2025 Total Traffic Volumes

When the site traffic and are added to the 2025 background traffic volumes, the result is the 2025 total traffic volumes. The Year 2025 Total Traffic Volumes are shown in **Figure 21** and **Figure 22**.

8.4. Year 2025 Capacity Analysis

The capacity and level of service for the signalized study area intersections were evaluated using the methodology presented in the 2010 Highway Capacity Manual, and the stop controlled driveways were evaluated using the methodology presented in the 2000 Highway Capacity Manual. Traffic analysis software, Synchro Version 9, was used to perform the analyses using the 2020 traffic volumes, and optimizing the signal timing. With the exception of the driveways for the proposed development, the lane geometry remained the same as the existing lane geometry. The results of the capacity analyses reveal the following locations with an existing level of service (LOS) E or F:



Scottsdale Road and Legacy Boulevard (4) – Signalized

- WB left AM peak hour operates at LOS E
- WB right AM and PM peak hours operate at LOS E

Scottsdale Road and Henkel Way (5) – Signalized

- WB left AM and PM peak hours operate at LOS E
- WB right AM peak hours operate at LOS E

Scottsdale Road and SR 101L WB Ramp (6) – Signalized

- WB left PM peak hour operate at LOS F
- WB through AM and PM peak hours operate at LOS E and LOS F, respectively
- WB right PM peak hour operates at LOS E
- Overall intersection PM peak hour operates at LOS E

Scottsdale Road and SR 101L EB Ramp (7) – Signalized

- NB through AM and PM peak hours operate at LOS F
- EB left AM and PM peak hour operates at LOS F
- EB through PM peak hour operates at LOS E
- Overall intersection PM peak hour operates at LOS F

Hayden Road and Thompson Peak Parkway (9) – Signalized

- WB left AM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E
- EB left PM peak hour operates at LOS E

Hayden Road and SR 101L WB Ramp (11) – Signalized

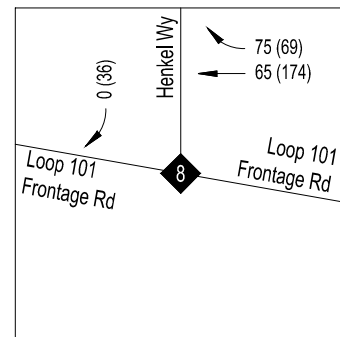
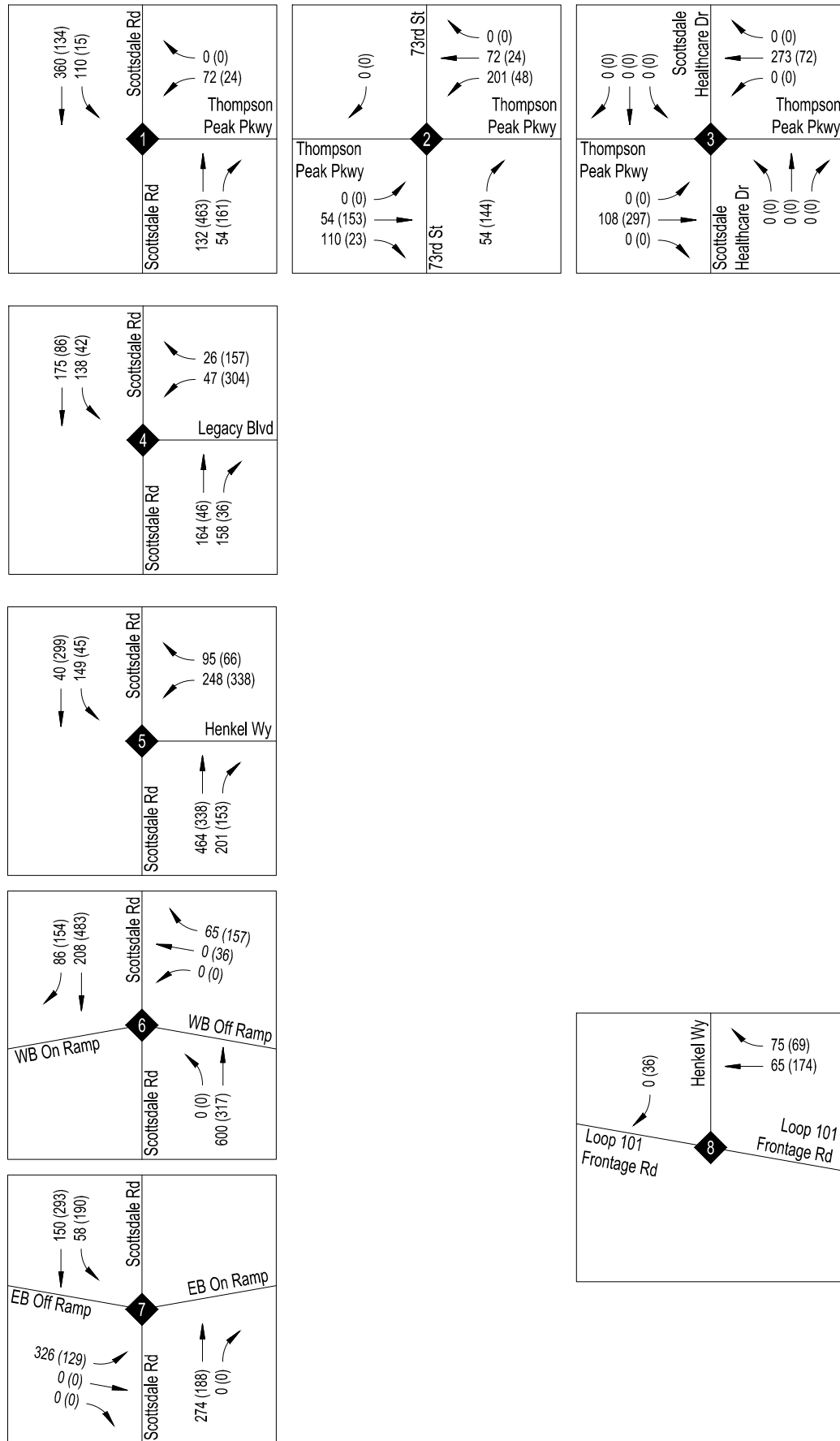
- NB left AM and PM peak hours operate at LOS F
- Overall intersection PM peak hour operates at LOS F

Hayden Road and SR 101L EB Ramp (12) – Signalized

- NB through PM peak hour operates at LOS F
- Overall intersection PM peak hour operates at LOS F

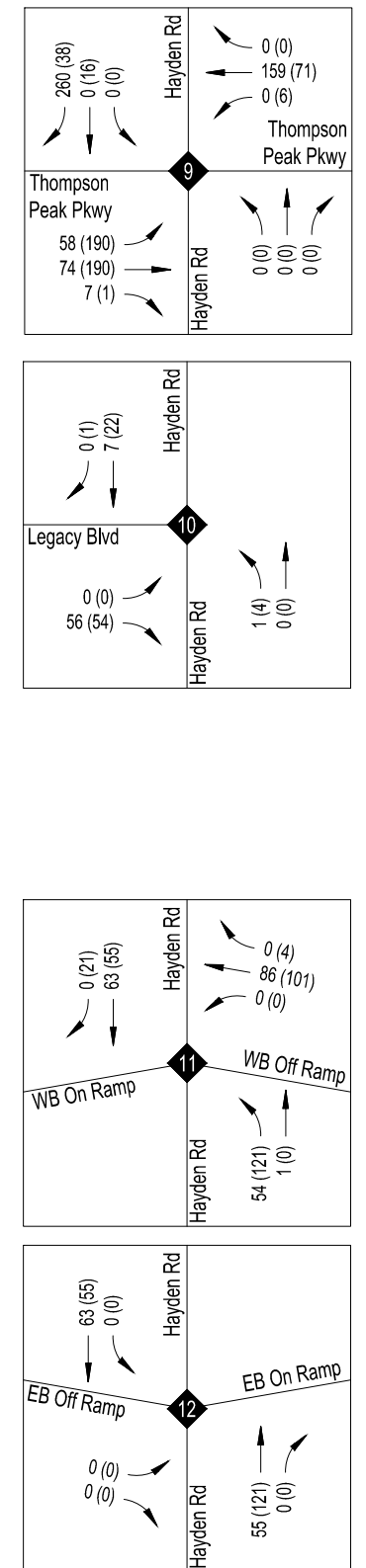
See **Figure 23** and **Figure 24** for the AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix I**.





Legend

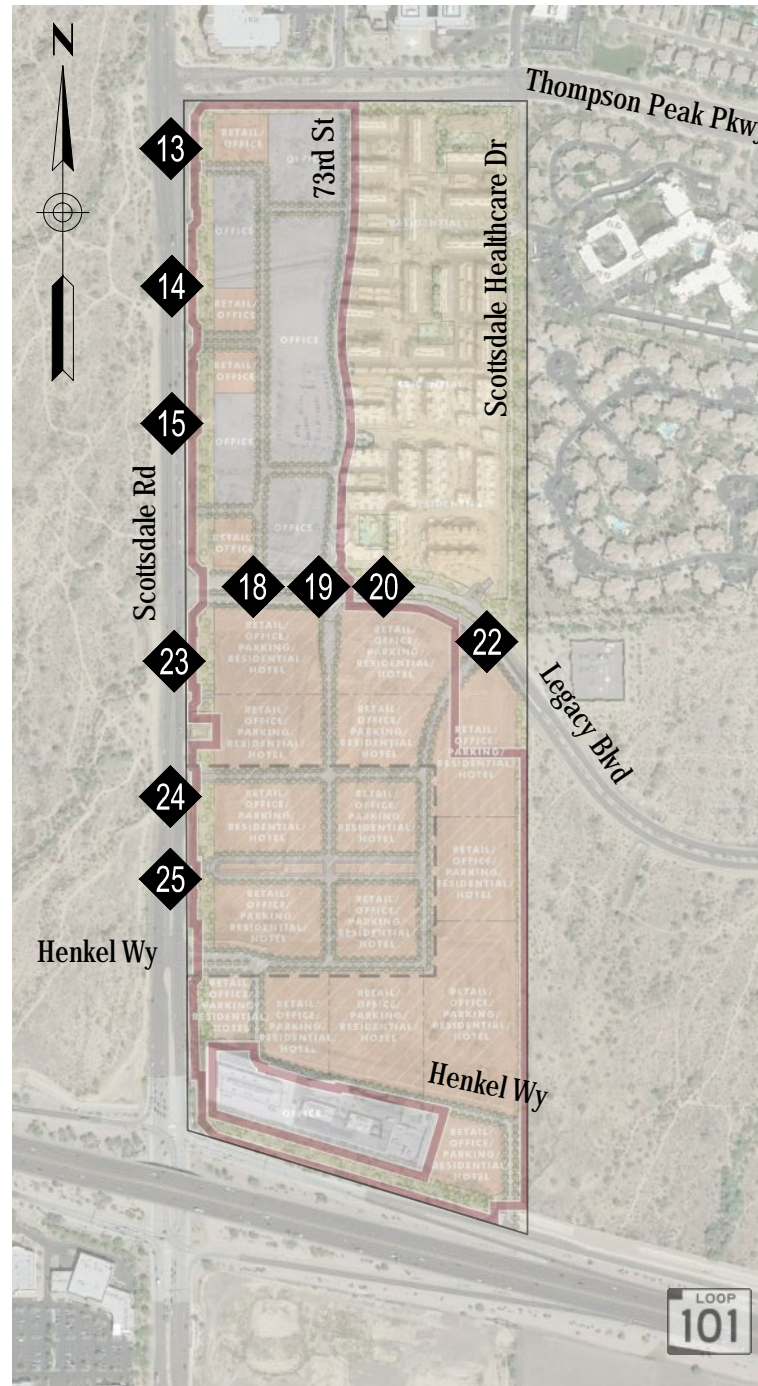
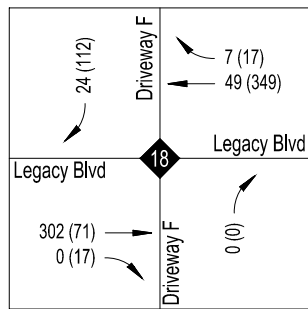
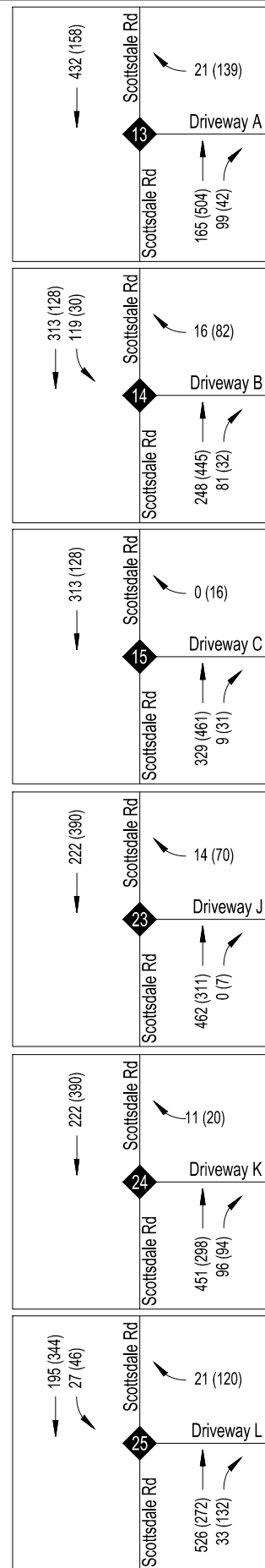
- ◆ Intersection
- AM (PM) 2025 Site Traffic Volumes
- XXXXX Average Daily Traffic Volumes



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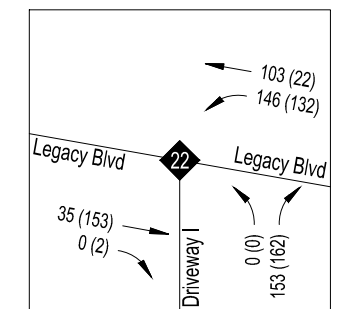
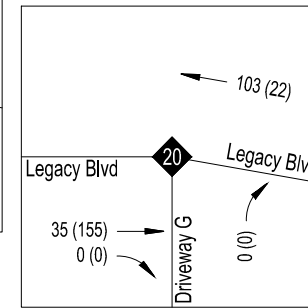
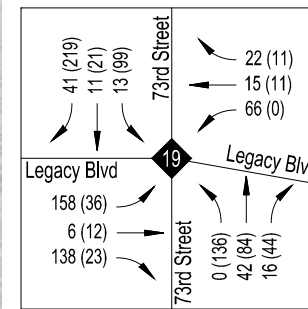
2025 Site Traffic Volumes (Intersections) Figure 17



Legend

◆ Driveway

AM (PM) 2025 Site Traffic Volumes

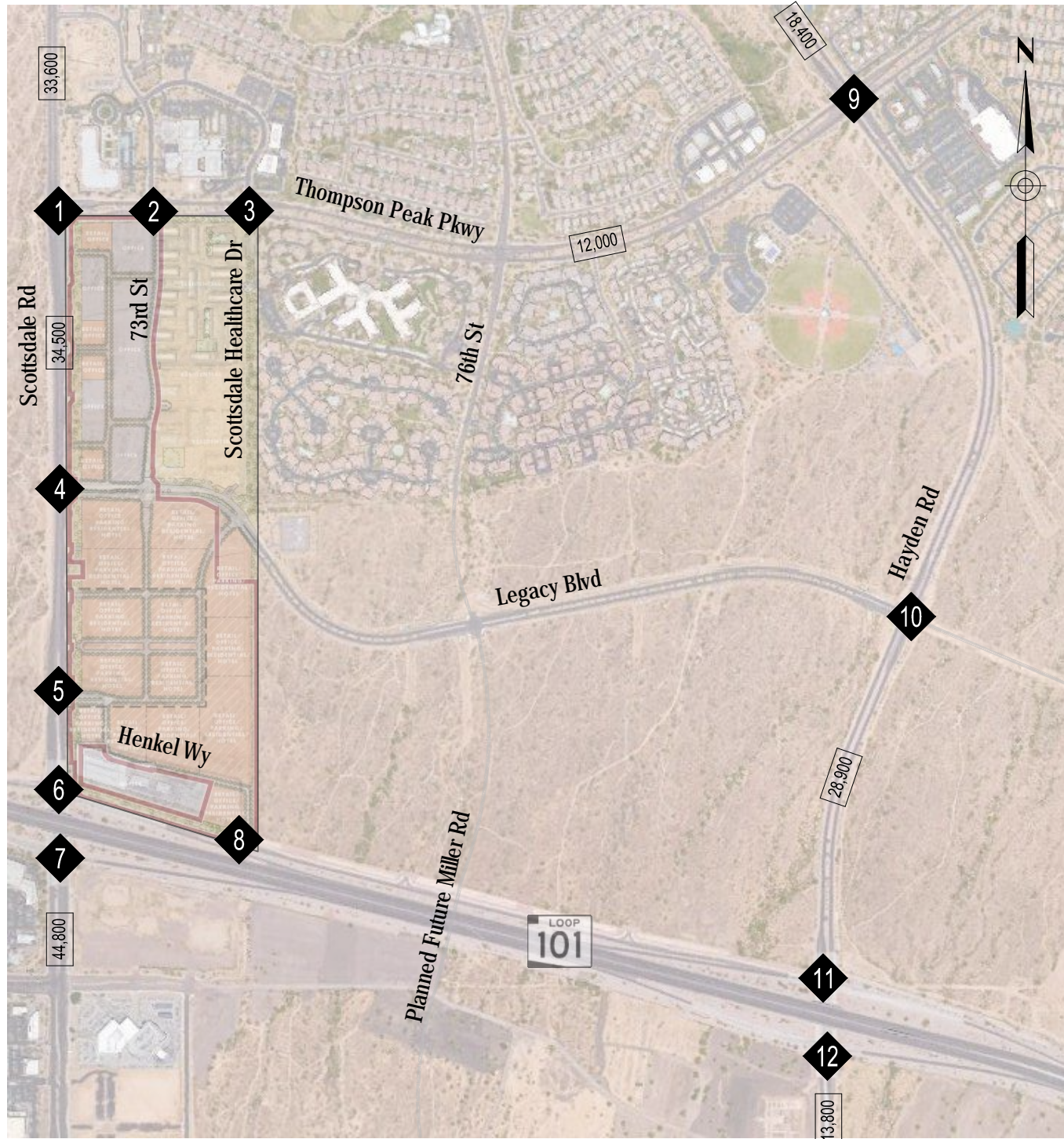
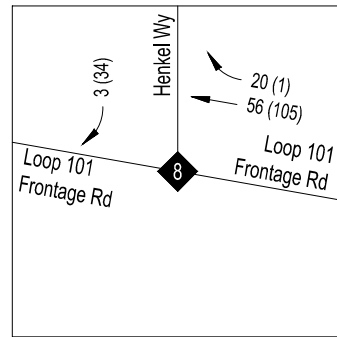
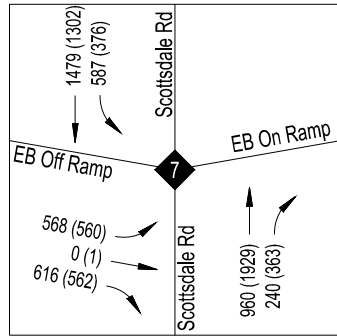
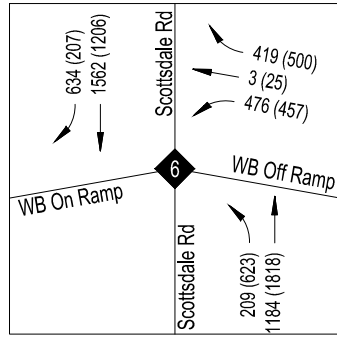
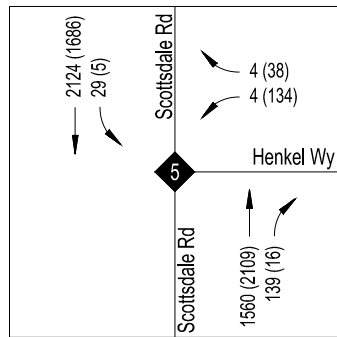
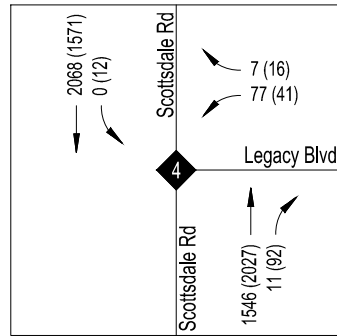
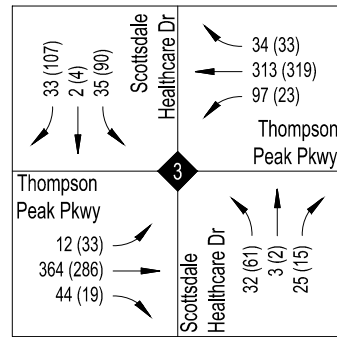
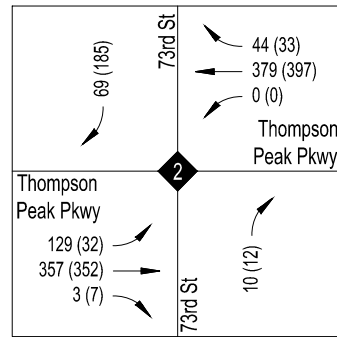
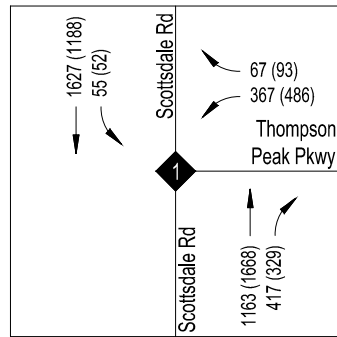


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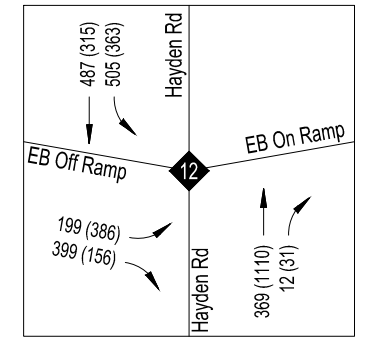
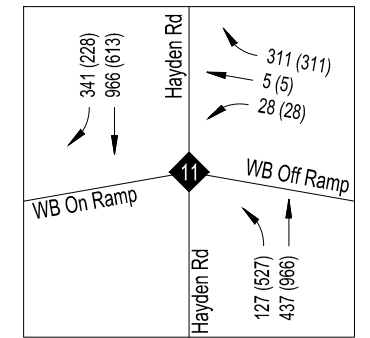
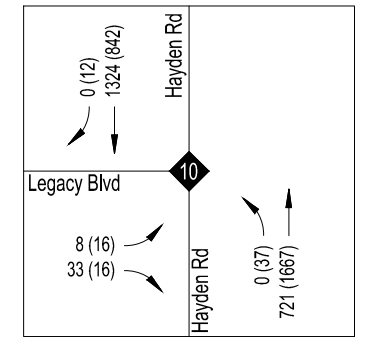
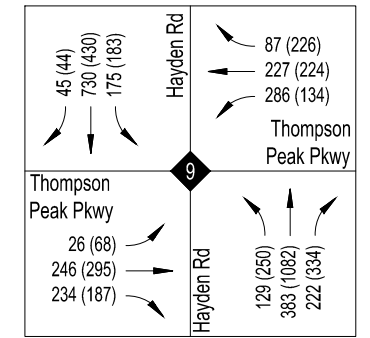
2025 Site
 Traffic Volumes
 (Driveways)

Figure 18



Legend

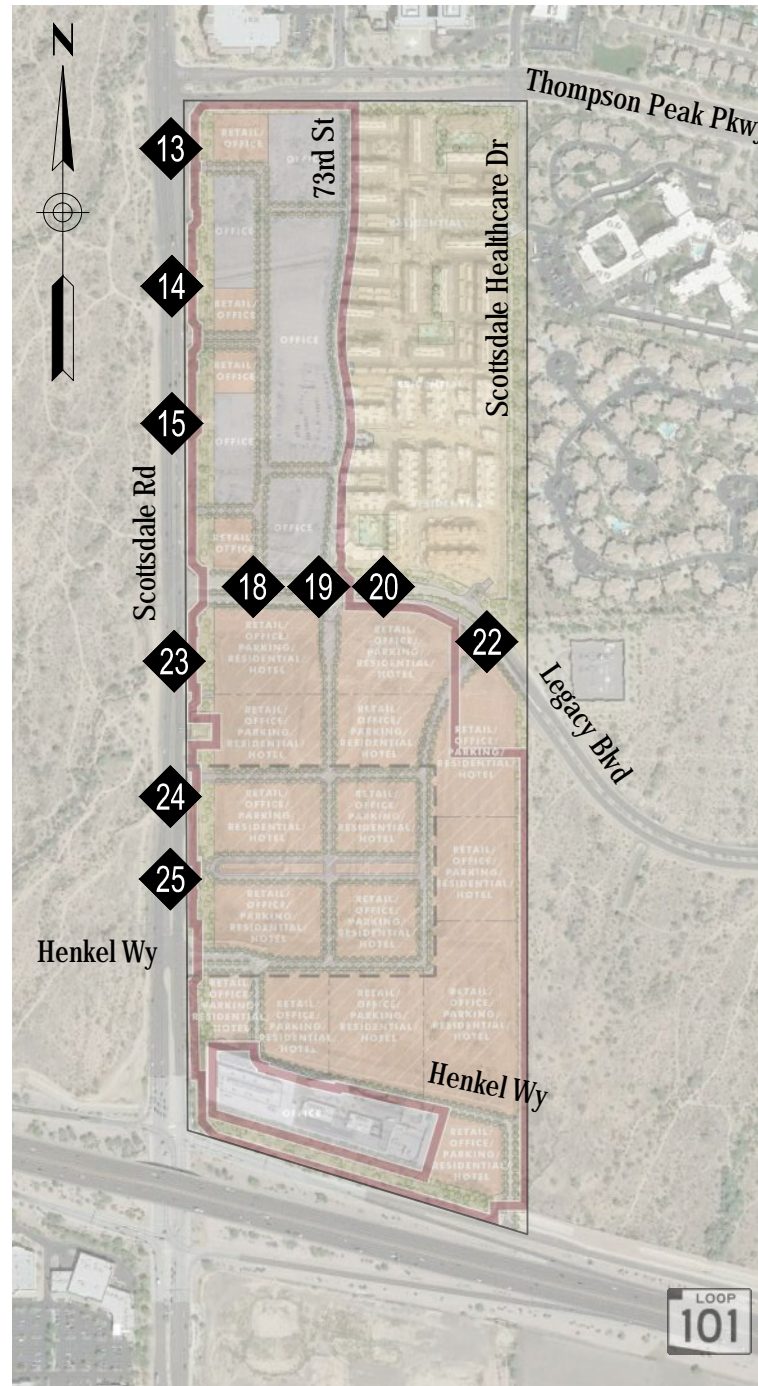
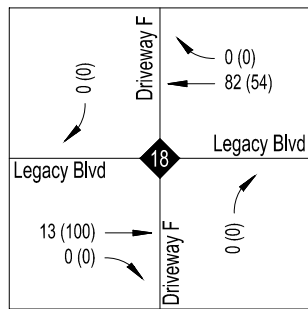
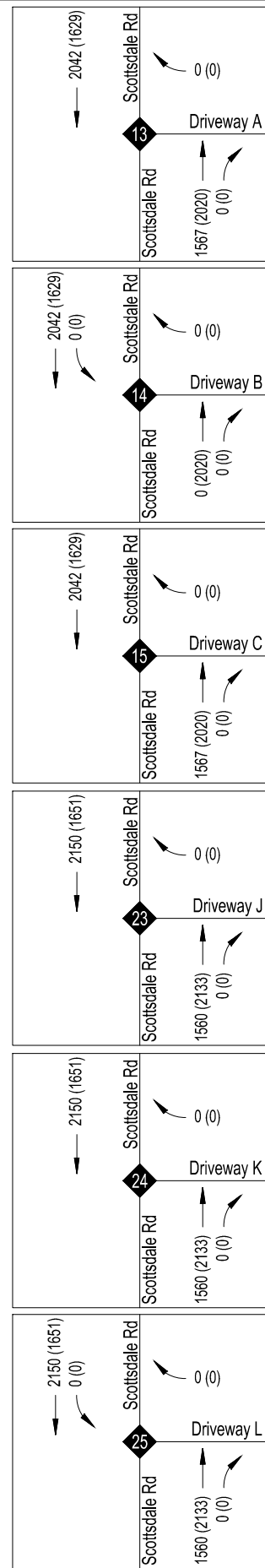
- Intersection
- AM (PM) 2025 Background Traffic Volumes
- XXXXX Average Daily Traffic Volumes



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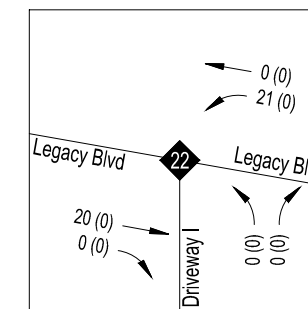
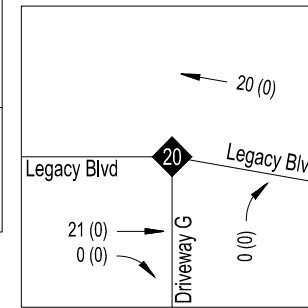
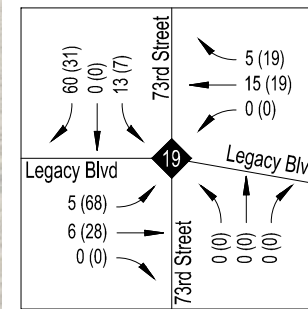
2025 Background Traffic Volumes (Intersections) Figure 19



Legend

◆ Driveway

AM (PM) 2025 Background Traffic Volumes

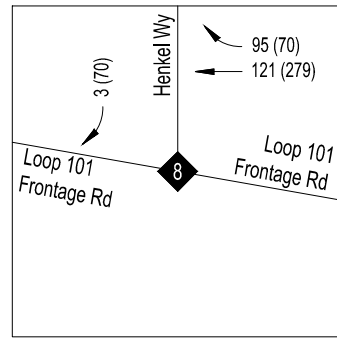
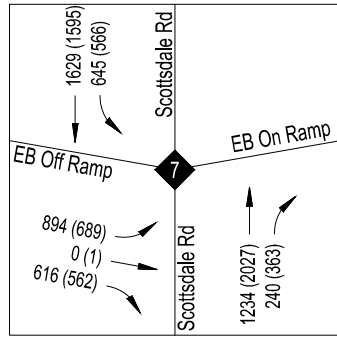
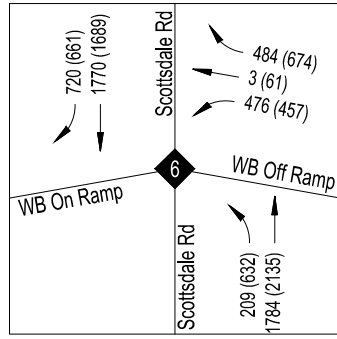
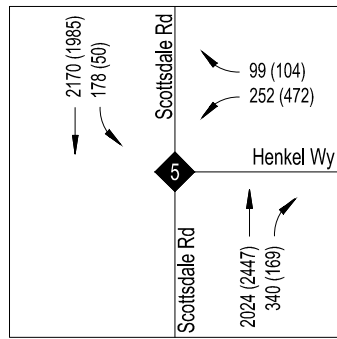
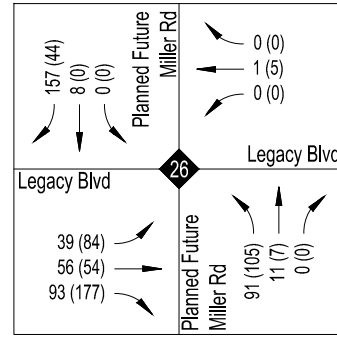
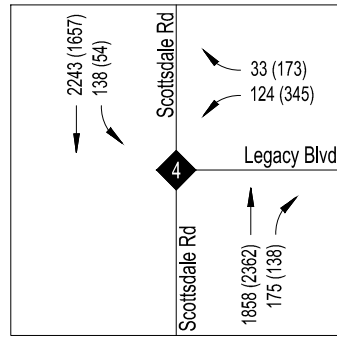
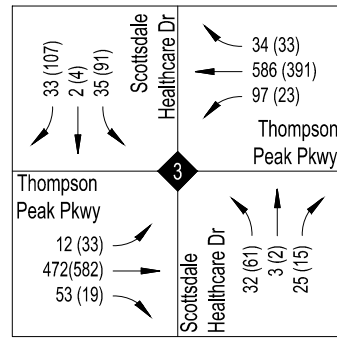
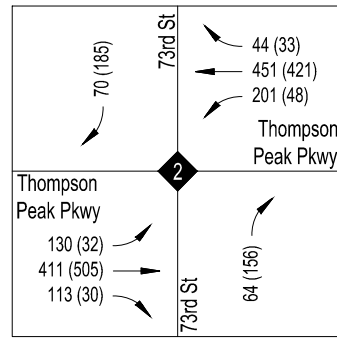
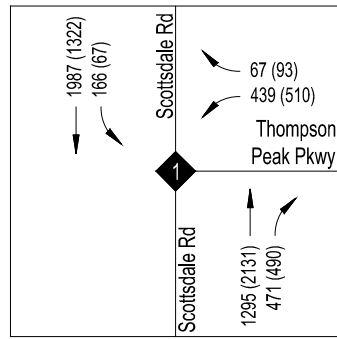


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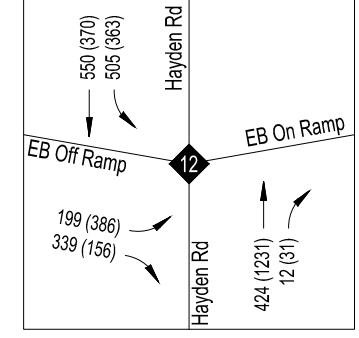
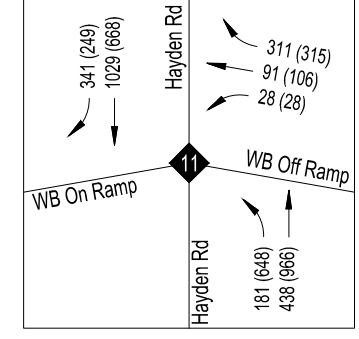
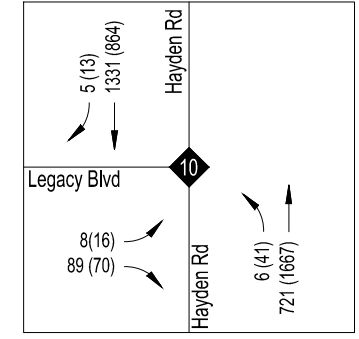
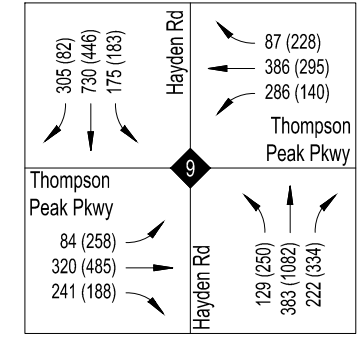
2025 Background
 Traffic Volumes
 (Driveways)

Figure 20



Legend

- ◆ Intersection
- AM (PM) 2025 Total Traffic Volumes
- XXXXX Average Daily Traffic Volumes

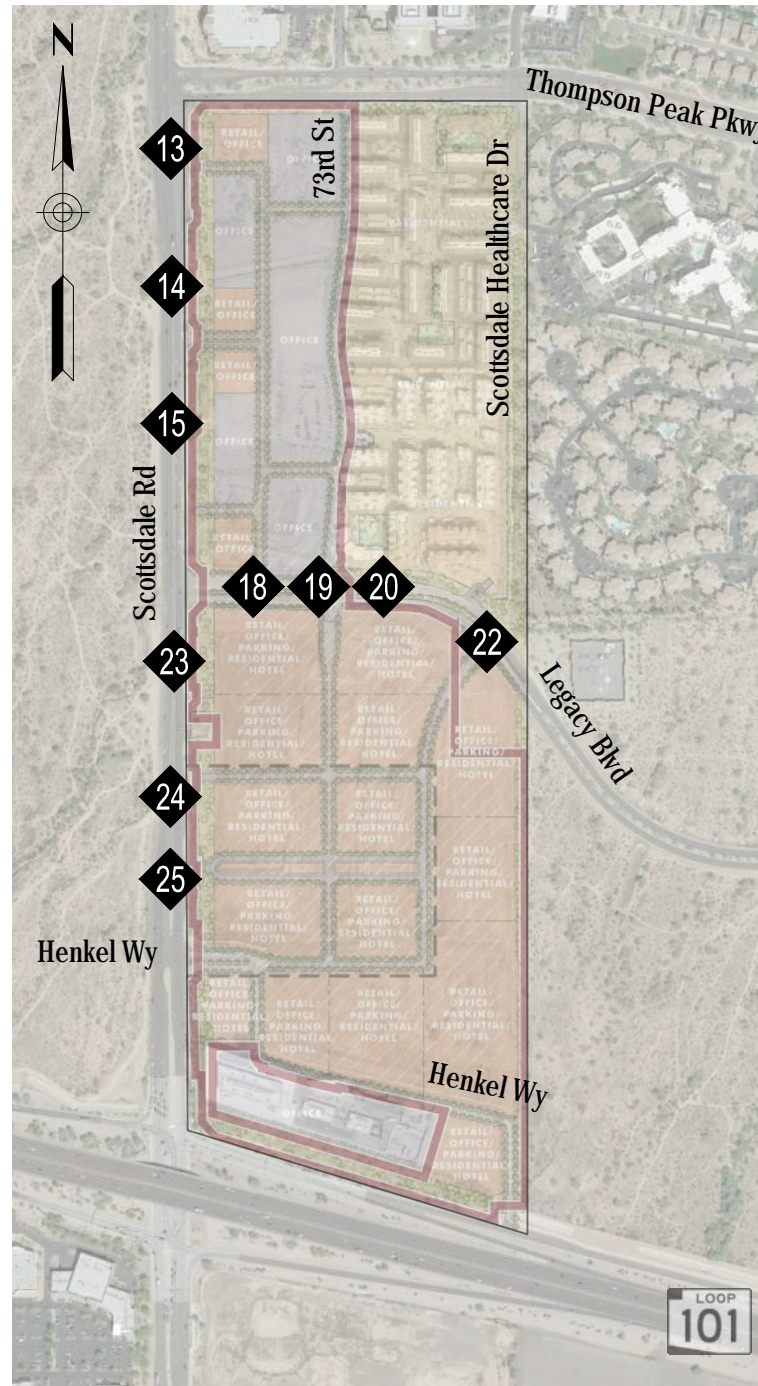
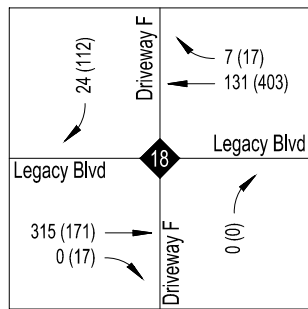
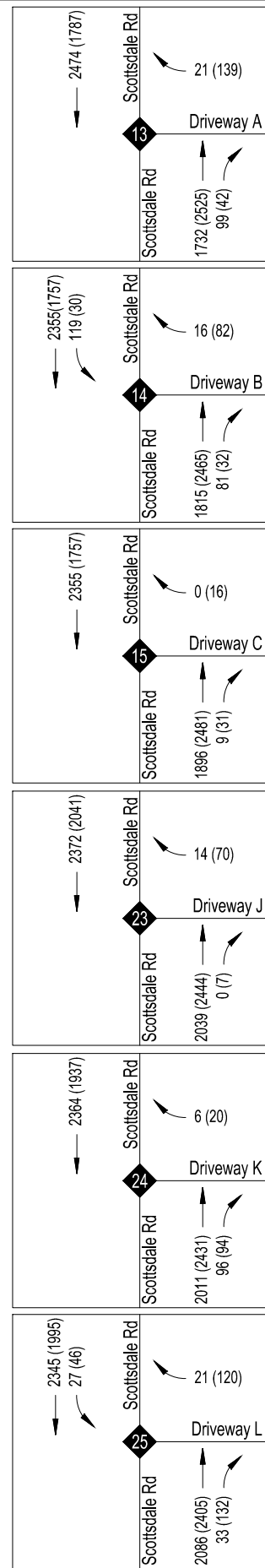


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2025 Total Traffic Volumes (Intersections)

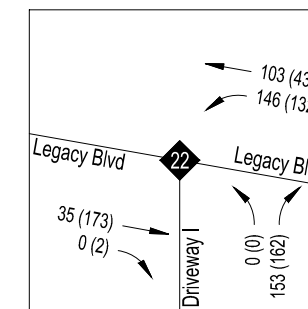
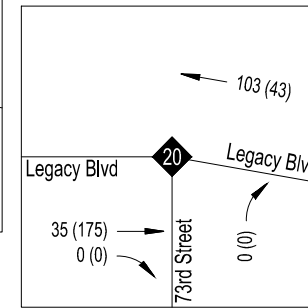
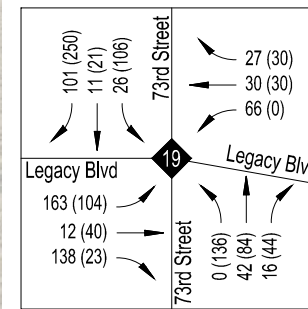
Figure 21



Legend

◆ Driveway

AM (PM) 2025 Total Traffic Volumes

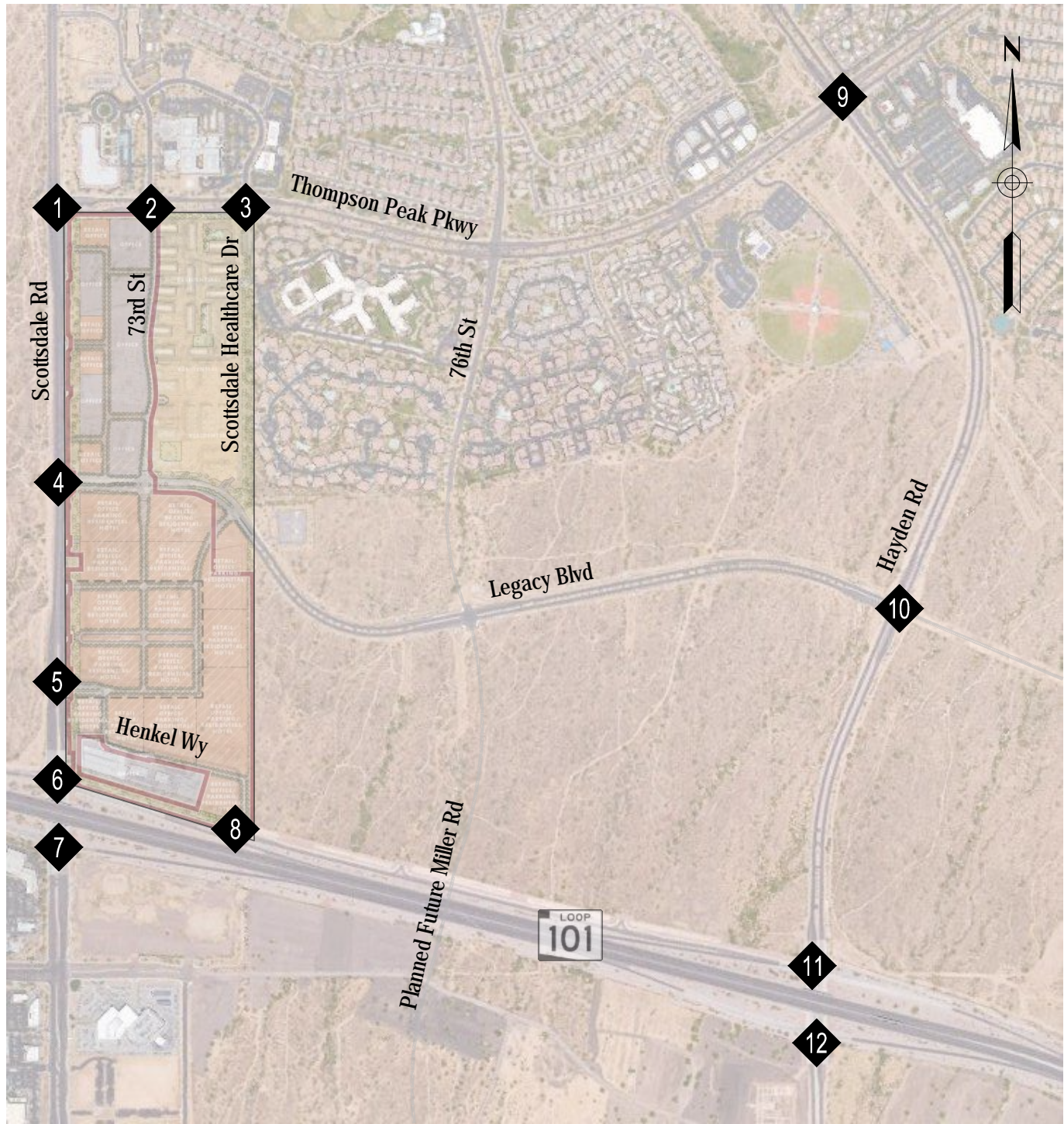
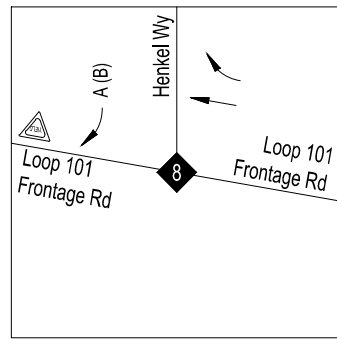
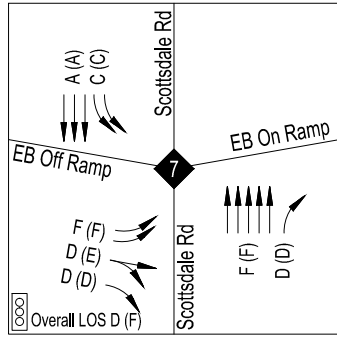
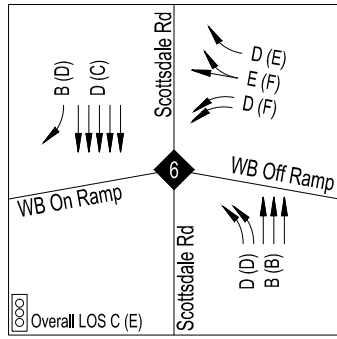
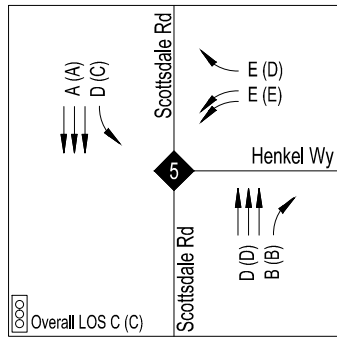
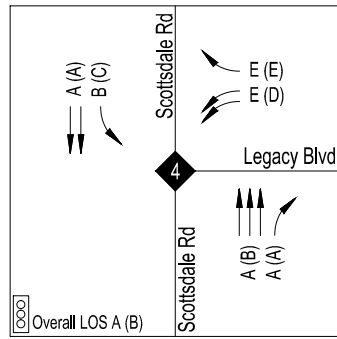
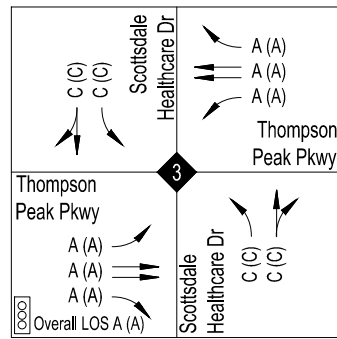
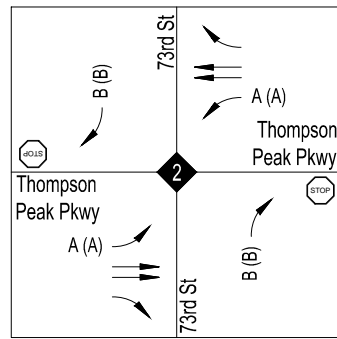
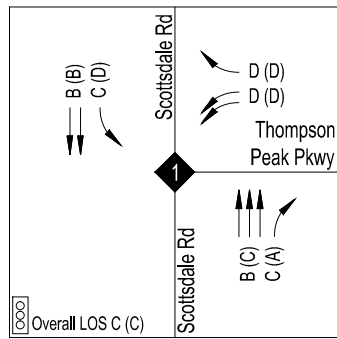


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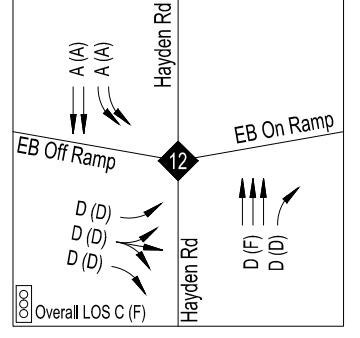
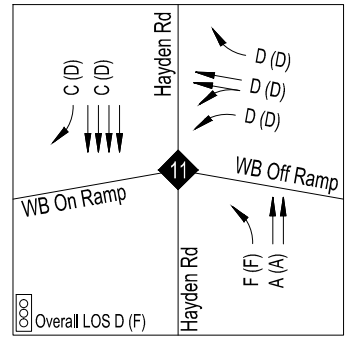
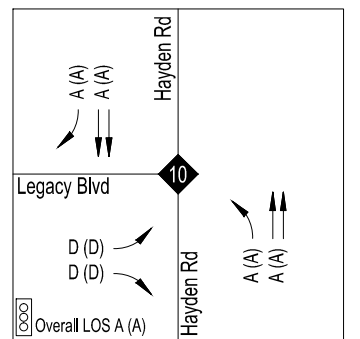
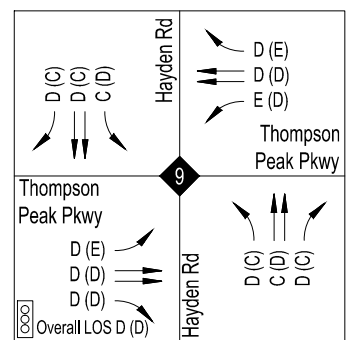
PROJECT NO. 150835 DRAWN BY SP
 DATE MAY 2016 CHECKED BY JB

2025 Total
 Traffic Volumes
 (Driveways)

Figure 22



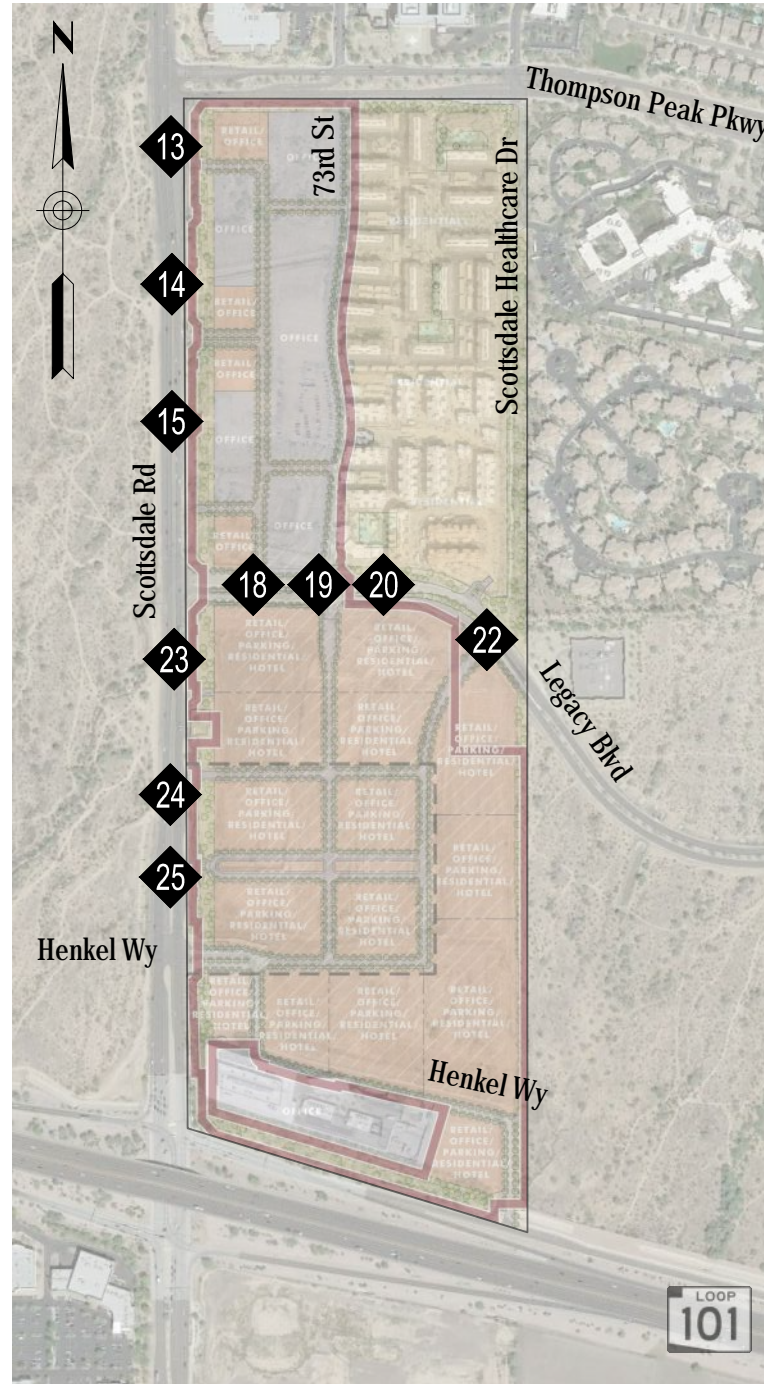
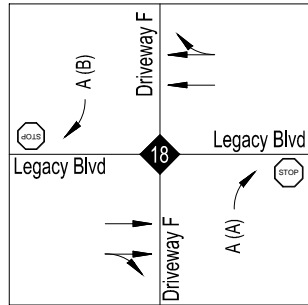
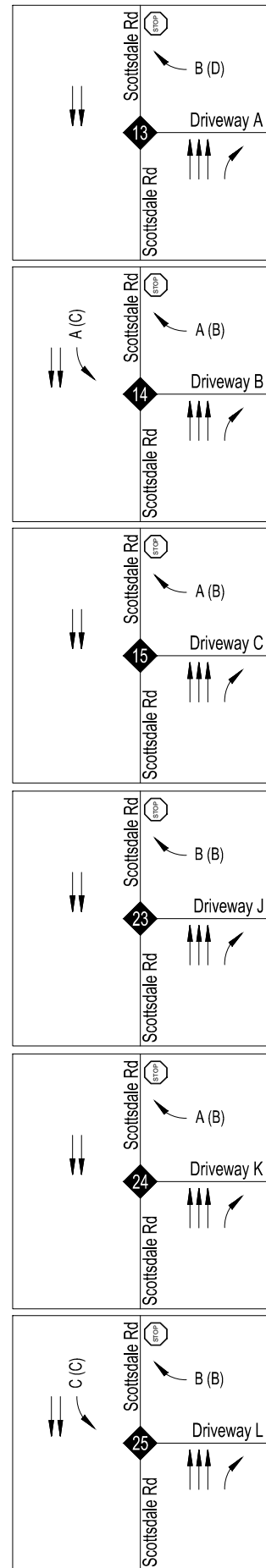
Legend
 X Intersection
 AM (PM) 2025 Capacity Analysis



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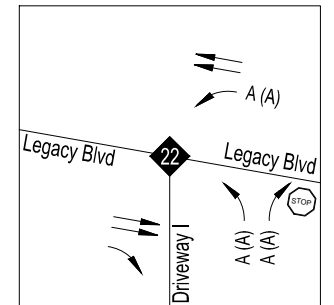
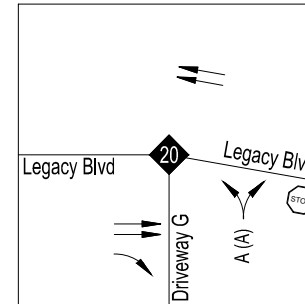
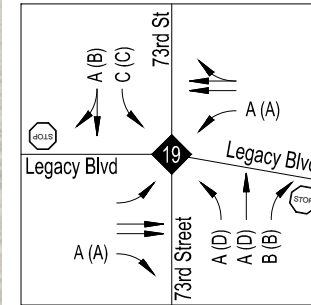
2025
 Capacity Analysis
 (Intersections)

Figure 23



Legend

◆ Driveway
 AM (PM) 2025 Capacity Analysis



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2025
 Capacity Analysis
 (Driveways)

Figure 24

In general, the signalized study intersections shows improved or equivalent levels of services when compared to the existing conditions. The signal cycle lengths were held, while modifying the splits to accommodate the change in traffic patterns due to the proposed development.

The vehicles turning into and out of the stop controlled driveways along Scottsdale Road experience delays during the AM and PM peak hours. This is not uncommon in urban areas; additionally drivers can opt of making these turn movements at the signalized intersections.

8.5. Scottsdale Road Cross Section

The State of Florida Department of Transportation publication entitled 2013 Quality/Level of Service Handbook (Q/LOS Handbook) offers two planning level methodologies, generalized planning and conceptual planning. The Q/LOS Handbook is intended to be used by engineers, planners, and decision-makers in the development and review of roadway users’ quality/level of service and capacity at generalized and conceptual planning levels. Generalized planning is most appropriate when a quick review of capacity or LOS is needed for future long-range estimates.

The generalized planning analysis, which is a broad type of planning application, was utilized to analyze the roadway segments along Scottsdale Road adjacent to One Scottsdale. The Q/LOS Handbook provides tables, which are the primary tools for conducting generalized planning analysis and are based on the most extensive research in the nation. Table 1 from the Q/LOS Handbook is developed specifically for annual average daily volumes for urbanized areas. The values for Class I (40 mph or higher) interrupted flow facilities with non-state signalized roadway adjustments (-10%), and median and turn lane adjustments applied are shown in **Table 7**.

Table 7 - Annual ADT for Urbanized Areas (40 mph or higher)

| Lanes | LOS C | LOS D |
|-------|--------|--------|
| 4 | 34,110 | 35,820 |
| 6 | 52,560 | 53,910 |

Scottsdale Road, adjacent to the property, provides two through lanes for each direction of travel north of Henkel Way and three through lanes for each direction of travel south of Henkel Way. Raised medians (between SR 101L and Henkel Way), a two-way left turn lane (north of Thompson Peak Parkway), and dedicated left and right turn lanes are provided at major intersections. There is a posted speed limit of 45 mph.

The City of Scottsdale classifies Scottsdale Road as a major arterial – urban, which has a design ADT of 35,000 – 55,000 vehicles per day, per the Scottsdale 2009 Design Standards and Policies Manual. According to the 2014 City of Scottsdale ADT Volume Segment Map, the average daily traffic (ADT) volumes on Scottsdale Road vary between 33,000 vehicles per day (vpd), north of Thompson Peak Parkway, to 44,400 vpd, south of SR 101L.



Table 8 summarizes indicates the existing (2016) as well as the calculated projected 2020 and 2025 ADTs on Scottsdale Road within the study area.

Table 8 – Scottsdale Road ADTs

| Scottsdale Road | 2014 ADT | 2020 ADT | 2025 ADT |
|--|---------------|---------------|---------------|
| North of Thompson Peak Pkwy | 33,300 | 36,900 | 39,600 |
| Thompson Peak Pkwy to Legacy Blvd | 34,200 | 38,600 | 40,600 |
| Legacy Blvd to SR 101L | 34,200 | 40,700 | 42,100 |
| South of SR 101L | 44,400 | 50,200 | 52,800 |

The existing average daily traffic (ADT) along Scottsdale road adjacent to the proposed One Scottsdale development currently has an ADT of 34,200 vehicles per day, which is just under the 35,820 vehicles per day to operate at a LOS D with 4 lanes. With background growth and the projected Year 2020 site build out of the proposed One Scottsdale development, the ADT along Scottsdale Road adjacent to the site reaches 40,700 vehicles per day, which is approximately 30% above the criteria to operate at a LOS D for a 4 lane facility, yet 70% below the criteria to operate at a LOS C for a 6 lane facility.

Similarly, in Year 2025, with the ADT along Scottsdale Road adjacent to the site reaching 42,100 vehicles per day, it is approximately 40% above the criteria to operate at a LOS D for a 4 lane facility, yet 60% below the criteria to operate at a LOS C for a 6 lane facility.

Therefore, the projected ADTs along Scottsdale Road adjacent to the proposed One Scottsdale development in Year 2020 and Year 2025 exceed the 4 lane facility LOS D, yet falls significantly below the 6 lane facility LOS C. This is based on this generalized planning analysis. Ultimately, this supports and aligns with the more detailed analysis and recommendations as described in **Section 7** for year 2020, which is to includes an additional northbound through lane between Henkel Way and Thompson Peak Parkway.

8.6. Year 2025 Improvements and Considerations

As described previously the Year 2025 analysis assume the following changes to the roadway network based on the MAG 2025 model:

- Extension of 64th Street from SR 101L north to Pinnacle Peak Road.
- Extension of the Miller Road alignment Princess Boulevard to tie into the existing alignment just south of Thompson Peak Parkway
- Extension of Legacy Boulevard from Hayden Road to Pima Road.



9. Recommendations and Conclusions

The proposed development is located on the northeast corner of State Route 101 Loop (SR 101L) and Scottsdale Road. The proposed site is bound by Thompson Peak Parkway to the north, Scottsdale Road to the west, SR 101L to the south, and 73rd Street and the Scottsdale Healthcare Drive alignment to the east. Legacy Boulevard runs east-west through the site. The existing site is undeveloped vacant land.

The proposed development includes the following land uses:

- 269,900 square feet of Retail
- 2,171,089 square feet of Office
- 100,000 square feet of Restaurant
- 400 room Hotel
- 1,716 dwelling units of Multi-Family Residential

The existing conditions, along with Year 2020 (5 year) and Year 2025 (10 year) analyses were completed for twenty-two (22) study intersections and site driveways. Evaluating the capacity analysis, the following are the recommended improvements:

Year 2020

With the exception of an additional northbound through lane on Scottsdale Road between Henkel Way and Thompson Peak Parkway and the driveways for the proposed development, no additional improvements are necessary in Year 2020.

Scottsdale Road and Driveway A (13) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only.

Scottsdale Road and Driveway B (14) improvement to include a stop controlled driveway opening allowing for right and left turns into the site, but only allowing right turns out of the site.

Scottsdale Road and Driveway C (15) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only.

73rd Street and Driveway D (16) improvement to include a stop controlled driveway opening allowing all movements into and out of the site.

73rd Street and Driveway E (17) improvement to include a stop controlled driveway opening allowing all movements into and out of the site.



Legacy Boulevard and Driveway F (18) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only. This includes access to the proposed site north of Legacy Boulevard, as well as access to the proposed site south of Legacy Boulevard.

73rd Street and Legacy Boulevard (19) improvement to include the build out of the south leg. The south leg will be stop controlled with an exclusive left turn lane, one through lane, and an exclusive right turn lane. The north leg improvement to include restriping to accommodate a southbound through lane.

Legacy Boulevard and Driveway G (20) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only. This includes access to the proposed site south of Legacy Boulevard.

Legacy Boulevard and Driveway I (22) improvement to include a stop controlled driveway opening allowing all movements and access to the proposed site south of Legacy Boulevard.

Scottsdale Road and Driveway J (23) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only.

Scottsdale Road and Driveway K (24) improvement to include a stop controlled driveway opening allowing for right in and right out of the site only.

Scottsdale Road and Driveway L (25) improvement to include a stop controlled driveway opening allowing for right and left turns into the site, but only allow right turns out of the site.



Year 2025

As described in **Section 6.2.1**, the Year 2025 analysis assumes the following changes to the roadway network based on the MAG 2025 model:

- Extension of 64th Street from SR 101L north to Pinnacle Peak Road.
- Extension of the Miller Road alignment Princess Boulevard to tie into the existing alignment just south of Thompson Peak Parkway
- Extension of Legacy Boulevard from Hayden Road to Pima Road.

An internal circulator will also be provided for the proposed One Scottsdale development which will further reduce the number of trips. No reductions were applied to accommodate the internal circulator. Therefore, the operation of the circulator will result in improved traffic operations beyond what is reported in this traffic study.





Appendix C – Traffic Count Data

C

| Start Time | 18-Oct-23 Wed | NB | SB | | | | | | | Total |
|-------------|------------------|-------------|-------------|---|---|---|---|---|---|-------------|
| 12:00 AM | | 73 | 82 | | | | | | | 155 |
| 01:00 | | 40 | 40 | | | | | | | 80 |
| 02:00 | | 57 | 49 | | | | | | | 106 |
| 03:00 | | 65 | 74 | | | | | | | 139 |
| 04:00 | | 149 | 130 | | | | | | | 279 |
| 05:00 | | 594 | 365 | | | | | | | 959 |
| 06:00 | | 1025 | 824 | | | | | | | 1849 |
| 07:00 | | 1381 | 1517 | | | | | | | 2898 |
| 08:00 | | 1441 | 1502 | | | | | | | 2943 |
| 09:00 | | 1433 | 1458 | | | | | | | 2891 |
| 10:00 | | 1445 | 1482 | | | | | | | 2927 |
| 11:00 | | 1535 | 1574 | | | | | | | 3109 |
| 12:00 PM | | 1525 | 1557 | | | | | | | 3082 |
| 01:00 | | 1607 | 1551 | | | | | | | 3158 |
| 02:00 | | 1514 | 1651 | | | | | | | 3165 |
| 03:00 | | 1729 | 1512 | | | | | | | 3241 |
| 04:00 | | 1720 | 1376 | | | | | | | 3096 |
| 05:00 | | 1685 | 1369 | | | | | | | 3054 |
| 06:00 | | 1377 | 1050 | | | | | | | 2427 |
| 07:00 | | 926 | 676 | | | | | | | 1602 |
| 08:00 | | 734 | 568 | | | | | | | 1302 |
| 09:00 | | 484 | 501 | | | | | | | 985 |
| 10:00 | | 266 | 289 | | | | | | | 555 |
| 11:00 | | 133 | 145 | | | | | | | 278 |
| Total | | 22938 | 21342 | | | | | | | 44280 |
| Percent | | 51.8% | 48.2% | | | | | | | |
| AM Peak | - | 11:00 | 11:00 | - | - | - | - | - | - | 11:00 |
| Vol. | - | 1535 | 1574 | - | - | - | - | - | - | 3109 |
| PM Peak | - | 15:00 | 14:00 | - | - | - | - | - | - | 15:00 |
| Vol. | - | 1729 | 1651 | - | - | - | - | - | - | 3241 |
| Grand Total | | 22938 | 21342 | | | | | | | 44280 |
| Percent | | 51.8% | 48.2% | | | | | | | |
| ADT | | ADT 44,280 | AADT 44,280 | | | | | | | |

Site Code: 14
14. SCOTTSDALE RD N.O LOOP 101 WB RAMPS

| Start Time | 18-Oct-23 Wed | NB | SB | | | | | | | Total |
|-------------|------------------|------------|-------------|---|---|---|---|---|---|-------|
| 12:00 AM | | 72 | 87 | | | | | | | 159 |
| 01:00 | | 40 | 43 | | | | | | | 83 |
| 02:00 | | 58 | 52 | | | | | | | 110 |
| 03:00 | | 72 | 80 | | | | | | | 152 |
| 04:00 | | 178 | 146 | | | | | | | 324 |
| 05:00 | | 633 | 380 | | | | | | | 1013 |
| 06:00 | | 1030 | 842 | | | | | | | 1872 |
| 07:00 | | 1315 | 1546 | | | | | | | 2861 |
| 08:00 | | 1388 | 1505 | | | | | | | 2893 |
| 09:00 | | 1381 | 1456 | | | | | | | 2837 |
| 10:00 | | 1314 | 1453 | | | | | | | 2767 |
| 11:00 | | 1424 | 1532 | | | | | | | 2956 |
| 12:00 PM | | 1545 | 1505 | | | | | | | 3050 |
| 01:00 | | 1486 | 1469 | | | | | | | 2955 |
| 02:00 | | 1470 | 1529 | | | | | | | 2999 |
| 03:00 | | 1667 | 1315 | | | | | | | 2982 |
| 04:00 | | 1715 | 1396 | | | | | | | 3111 |
| 05:00 | | 1621 | 1273 | | | | | | | 2894 |
| 06:00 | | 1341 | 1111 | | | | | | | 2452 |
| 07:00 | | 920 | 722 | | | | | | | 1642 |
| 08:00 | | 754 | 593 | | | | | | | 1347 |
| 09:00 | | 492 | 520 | | | | | | | 1012 |
| 10:00 | | 290 | 297 | | | | | | | 587 |
| 11:00 | | 151 | 154 | | | | | | | 305 |
| Total | | 22357 | 21006 | | | | | | | 43363 |
| Percent | | 51.6% | 48.4% | | | | | | | |
| AM Peak | - | 11:00 | 07:00 | - | - | - | - | - | - | 11:00 |
| Vol. | - | 1424 | 1546 | - | - | - | - | - | - | 2956 |
| PM Peak | - | 16:00 | 14:00 | - | - | - | - | - | - | 16:00 |
| Vol. | - | 1715 | 1529 | - | - | - | - | - | - | 3111 |
| Grand Total | | 22357 | 21006 | | | | | | | 43363 |
| Percent | | 51.6% | 48.4% | | | | | | | |
| ADT | | ADT 43,363 | AADT 43,363 | | | | | | | |

Site Code: 15
15. THOMPSON PEAK PKWY E.O SCOTTSDALE RD

| Start Time | 19-Oct-23 Thu | EB | WB | Total | | | | | | |
|-------------|------------------|------------|-------------|-------------|---|---|---|---|---|-------|
| 12:00 AM | | 44 | 40 | 84 | | | | | | |
| 01:00 | | 28 | 21 | 49 | | | | | | |
| 02:00 | | 28 | 21 | 49 | | | | | | |
| 03:00 | | 25 | 23 | 48 | | | | | | |
| 04:00 | | 47 | 14 | 61 | | | | | | |
| 05:00 | | 106 | 71 | 177 | | | | | | |
| 06:00 | | 262 | 214 | 476 | | | | | | |
| 07:00 | | 423 | 382 | 805 | | | | | | |
| 08:00 | | 455 | 445 | 900 | | | | | | |
| 09:00 | | 339 | 477 | 816 | | | | | | |
| 10:00 | | 342 | 486 | 828 | | | | | | |
| 11:00 | | 303 | 599 | 902 | | | | | | |
| 12:00 PM | | 378 | 588 | 966 | | | | | | |
| 01:00 | | 351 | 532 | 883 | | | | | | |
| 02:00 | | 367 | 577 | 944 | | | | | | |
| 03:00 | | 365 | 627 | 992 | | | | | | |
| 04:00 | | 361 | 763 | 1124 | | | | | | |
| 05:00 | | 386 | 714 | 1100 | | | | | | |
| 06:00 | | 353 | 447 | 800 | | | | | | |
| 07:00 | | 256 | 329 | 585 | | | | | | |
| 08:00 | | 170 | 229 | 399 | | | | | | |
| 09:00 | | 104 | 139 | 243 | | | | | | |
| 10:00 | | 72 | 94 | 166 | | | | | | |
| 11:00 | | 44 | 56 | 100 | | | | | | |
| Total | | 5609 | 7888 | 13497 | | | | | | |
| Percent | | 41.6% | 58.4% | | | | | | | |
| AM Peak | - | 08:00 | 11:00 | - | - | - | - | - | - | 11:00 |
| Vol. | - | 455 | 599 | - | - | - | - | - | - | 902 |
| PM Peak | - | 17:00 | 16:00 | - | - | - | - | - | - | 16:00 |
| Vol. | - | 386 | 763 | - | - | - | - | - | - | 1124 |
| Grand Total | | 5609 | 7888 | | | | | | | 13497 |
| Percent | | 41.6% | 58.4% | | | | | | | |
| ADT | | ADT 13,497 | AADT 13,497 | | | | | | | |

| Start Time | 18-Oct-23 Wed | EB | WB | | | | | | | Total |
|-------------|------------------|-----------|------------|---|---|---|---|---|---|-------|
| 12:00 AM | | 3 | 2 | | | | | | | 5 |
| 01:00 | | 2 | 3 | | | | | | | 5 |
| 02:00 | | 5 | 4 | | | | | | | 9 |
| 03:00 | | 1 | 4 | | | | | | | 5 |
| 04:00 | | 11 | 20 | | | | | | | 31 |
| 05:00 | | 69 | 21 | | | | | | | 90 |
| 06:00 | | 75 | 59 | | | | | | | 134 |
| 07:00 | | 55 | 90 | | | | | | | 145 |
| 08:00 | | 42 | 74 | | | | | | | 116 |
| 09:00 | | 53 | 63 | | | | | | | 116 |
| 10:00 | | 50 | 66 | | | | | | | 116 |
| 11:00 | | 66 | 54 | | | | | | | 120 |
| 12:00 PM | | 81 | 47 | | | | | | | 128 |
| 01:00 | | 53 | 64 | | | | | | | 117 |
| 02:00 | | 79 | 118 | | | | | | | 197 |
| 03:00 | | 63 | 91 | | | | | | | 154 |
| 04:00 | | 81 | 62 | | | | | | | 143 |
| 05:00 | | 117 | 62 | | | | | | | 179 |
| 06:00 | | 70 | 59 | | | | | | | 129 |
| 07:00 | | 53 | 27 | | | | | | | 80 |
| 08:00 | | 52 | 15 | | | | | | | 67 |
| 09:00 | | 40 | 15 | | | | | | | 55 |
| 10:00 | | 34 | 7 | | | | | | | 41 |
| 11:00 | | 16 | 8 | | | | | | | 24 |
| Total | | 1171 | 1035 | | | | | | | 2206 |
| Percent | | 53.1% | 46.9% | | | | | | | |
| AM Peak | - | 06:00 | 07:00 | - | - | - | - | - | - | 07:00 |
| Vol. | - | 75 | 90 | - | - | - | - | - | - | 145 |
| PM Peak | - | 17:00 | 14:00 | - | - | - | - | - | - | 14:00 |
| Vol. | - | 117 | 118 | - | - | - | - | - | - | 197 |
| Grand Total | | 1171 | 1035 | | | | | | | 2206 |
| Percent | | 53.1% | 46.9% | | | | | | | |
| ADT | | ADT 2,206 | AADT 2,206 | | | | | | | |

| Start Time | 18-Oct-23 Wed | NB | SB | | | | | | | Total |
|-------------|------------------|-----------|------------|---|---|---|---|---|---|-------|
| 12:00 AM | | 5 | 1 | | | | | | | 6 |
| 01:00 | | 2 | 3 | | | | | | | 5 |
| 02:00 | | 6 | 3 | | | | | | | 9 |
| 03:00 | | 1 | 5 | | | | | | | 6 |
| 04:00 | | 1 | 21 | | | | | | | 22 |
| 05:00 | | 10 | 26 | | | | | | | 36 |
| 06:00 | | 15 | 66 | | | | | | | 81 |
| 07:00 | | 27 | 116 | | | | | | | 143 |
| 08:00 | | 32 | 79 | | | | | | | 111 |
| 09:00 | | 44 | 75 | | | | | | | 119 |
| 10:00 | | 36 | 75 | | | | | | | 111 |
| 11:00 | | 43 | 62 | | | | | | | 105 |
| 12:00 PM | | 58 | 45 | | | | | | | 103 |
| 01:00 | | 44 | 51 | | | | | | | 95 |
| 02:00 | | 78 | 79 | | | | | | | 157 |
| 03:00 | | 68 | 68 | | | | | | | 136 |
| 04:00 | | 91 | 65 | | | | | | | 156 |
| 05:00 | | 117 | 73 | | | | | | | 190 |
| 06:00 | | 95 | 71 | | | | | | | 166 |
| 07:00 | | 60 | 33 | | | | | | | 93 |
| 08:00 | | 64 | 22 | | | | | | | 86 |
| 09:00 | | 42 | 18 | | | | | | | 60 |
| 10:00 | | 32 | 10 | | | | | | | 42 |
| 11:00 | | 19 | 5 | | | | | | | 24 |
| Total | | 990 | 1072 | | | | | | | 2062 |
| Percent | | 48.0% | 52.0% | | | | | | | |
| AM Peak | - | 09:00 | 07:00 | - | - | - | - | - | - | 07:00 |
| Vol. | - | 44 | 116 | - | - | - | - | - | - | 143 |
| PM Peak | - | 17:00 | 14:00 | - | - | - | - | - | - | 17:00 |
| Vol. | - | 117 | 79 | - | - | - | - | - | - | 190 |
| Grand Total | | 990 | 1072 | | | | | | | 2062 |
| Percent | | 48.0% | 52.0% | | | | | | | |
| ADT | | ADT 2,062 | AADT 2,062 | | | | | | | |

| Start Time | 18-Oct-23 Wed | NB | SB | | | | | | | Total |
|-------------|------------------|--------|-------|---------|---|---|---|---|---|-------|
| 12:00 AM | | 0 | 0 | | | | | | | 0 |
| 01:00 | | 0 | 0 | | | | | | | 0 |
| 02:00 | | 0 | 0 | | | | | | | 0 |
| 03:00 | | 0 | 0 | | | | | | | 0 |
| 04:00 | | 2 | 0 | | | | | | | 2 |
| 05:00 | | 1 | 0 | | | | | | | 1 |
| 06:00 | | 1 | 0 | | | | | | | 1 |
| 07:00 | | 5 | 3 | | | | | | | 8 |
| 08:00 | | 2 | 1 | | | | | | | 3 |
| 09:00 | | 2 | 2 | | | | | | | 4 |
| 10:00 | | 2 | 3 | | | | | | | 5 |
| 11:00 | | 3 | 1 | | | | | | | 4 |
| 12:00 PM | | 0 | 3 | | | | | | | 3 |
| 01:00 | | 2 | 2 | | | | | | | 4 |
| 02:00 | | 0 | 5 | | | | | | | 5 |
| 03:00 | | 7 | 12 | | | | | | | 19 |
| 04:00 | | 0 | 11 | | | | | | | 11 |
| 05:00 | | 1 | 5 | | | | | | | 6 |
| 06:00 | | 1 | 4 | | | | | | | 5 |
| 07:00 | | 0 | 1 | | | | | | | 1 |
| 08:00 | | 0 | 0 | | | | | | | 0 |
| 09:00 | | 0 | 1 | | | | | | | 1 |
| 10:00 | | 0 | 1 | | | | | | | 1 |
| 11:00 | | 0 | 0 | | | | | | | 0 |
| Total | | 29 | 55 | | | | | | | 84 |
| Percent | | 34.5% | 65.5% | | | | | | | |
| AM Peak | - | 07:00 | 07:00 | - | - | - | - | - | - | 07:00 |
| Vol. | - | 5 | 3 | - | - | - | - | - | - | 8 |
| PM Peak | - | 15:00 | 15:00 | - | - | - | - | - | - | 15:00 |
| Vol. | - | 7 | 12 | - | - | - | - | - | - | 19 |
| Grand Total | | 29 | 55 | | | | | | | 84 |
| Percent | | 34.5% | 65.5% | | | | | | | |
| ADT | | ADT 84 | | AADT 84 | | | | | | |



ALL TRAFFIC DATA SERVICES

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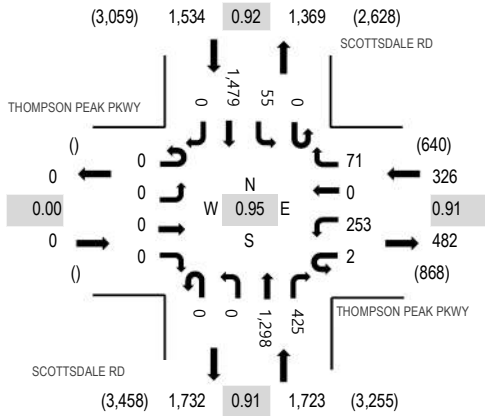
Location: 1 SCOTTSDALE RD & THOMPSON PEAK PKWY AM

Date: Thursday, October 19, 2023

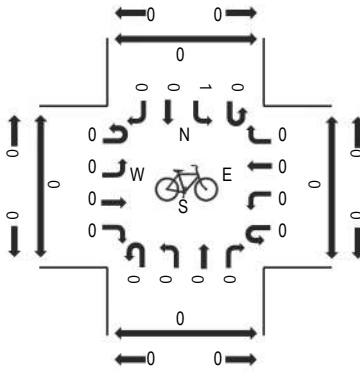
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

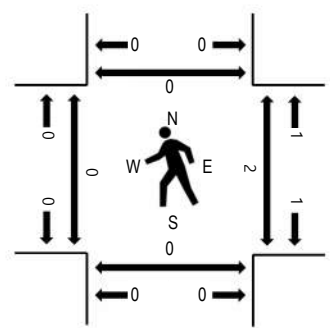
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | THOMPSON PEAK PKWY Eastbound | | | | THOMPSON PEAK PKWY Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|---------------------------------|------|------|-------|---------------------------------|------|------|-------|-----------------------------|------|-------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| | 7:00 AM | 0 | 0 | 0 | 0 | 2 | 55 | 0 | 12 | 0 | 0 | 271 | 63 | 0 | 8 | 354 | | | 0 | 765 | 3,498 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 10 | 0 | 0 | 279 | 99 | 0 | 9 | 424 | 0 | 872 | 3,575 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 12 | 0 | 0 | 349 | 92 | 0 | 4 | 398 | 0 | 918 | 3,583 | 0 | 2 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 21 | 0 | 0 | 357 | 114 | 0 | 18 | 373 | 0 | 943 | 3,576 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 1 | 68 | 0 | 18 | 0 | 0 | 287 | 113 | 0 | 17 | 338 | 0 | 842 | 3,456 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 62 | 0 | 20 | 0 | 0 | 305 | 106 | 0 | 16 | 370 | 0 | 880 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 2 | 69 | 0 | 16 | 0 | 0 | 343 | 79 | 0 | 13 | 389 | 0 | 911 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 2 | 74 | 0 | 21 | 0 | 0 | 307 | 91 | 0 | 18 | 310 | 0 | 823 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 8 | 502 | 0 | 130 | 0 | 0 | 2,498 | 757 | 0 | 103 | 2,956 | 0 | 6,954 | | 0 | 2 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 2 | 253 | 0 | 71 | 0 | 0 | 1,298 | 425 | 0 | 55 | 1,479 | 0 | 3,583 | | 0 | 2 | 0 | 0 |



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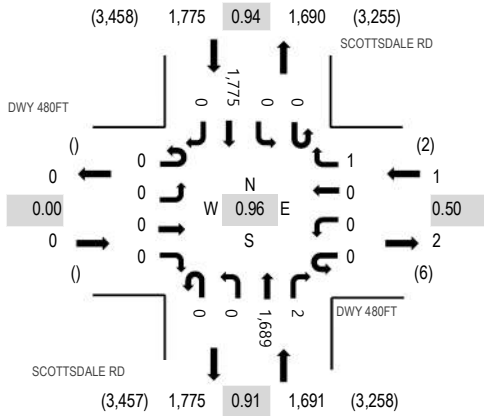
Location: 2 SCOTTSDALE RD & DWY 480FT AM

Date: Thursday, October 19, 2023

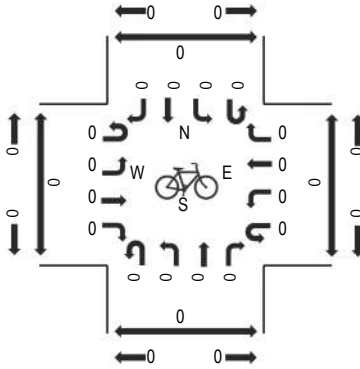
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

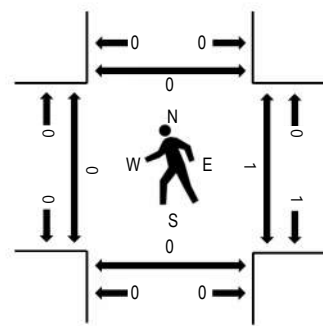
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 480FT Eastbound | | | | DWY 480FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 333 | 1 | 0 | 0 | 409 | 0 | 744 | 3,404 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 377 | 0 | 0 | 0 | 475 | 0 | 853 | 3,467 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 441 | 0 | 0 | 0 | 461 | 0 | 902 | 3,457 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 471 | 1 | 0 | 0 | 433 | 0 | 905 | 3,435 | 0 | 1 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 | 1 | 0 | 0 | 406 | 0 | 807 | 3,314 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 411 | 0 | 0 | 1 | 431 | 0 | 843 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 422 | 0 | 0 | 0 | 458 | 0 | 880 | | 0 | 1 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 398 | 2 | 0 | 0 | 384 | 0 | 784 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3,253 | 5 | 0 | 1 | 3,457 | 0 | 6,718 | | 0 | 2 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1,689 | 2 | 0 | 0 | 1,775 | 0 | 3,467 | | 0 | 1 | 0 | 0 |



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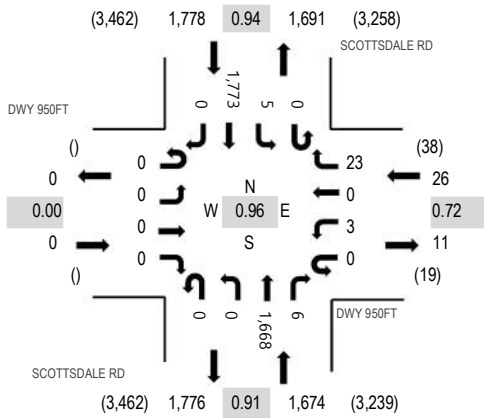
Location: 3 SCOTTSDALE RD & DWY 950FT AM

Date: Thursday, October 19, 2023

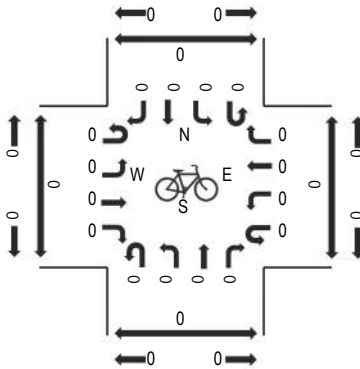
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

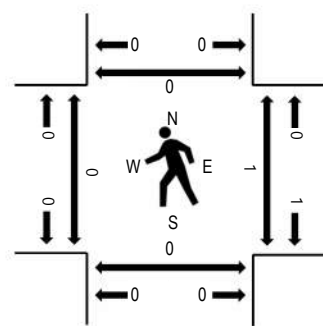
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 950FT Eastbound | | | | DWY 950FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|------------------------|------|------|-------|------------------------|------|------|-------|-----------------------------|------|-------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 330 | 0 | 0 | 0 | 409 | 0 | 743 | 3,412 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 368 | 0 | 0 | 0 | 475 | 0 | 852 | 3,478 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 437 | 3 | 0 | 2 | 461 | 0 | 909 | 3,471 | 0 | 1 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 467 | 3 | 0 | 2 | 431 | 0 | 908 | 3,444 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 396 | 0 | 0 | 1 | 406 | 0 | 809 | 3,327 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 409 | 3 | 0 | 0 | 431 | 0 | 845 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 422 | 0 | 0 | 0 | 459 | 0 | 882 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 396 | 5 | 0 | 0 | 385 | 0 | 791 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 33 | 0 | 0 | 3,225 | 14 | 0 | 5 | 3,457 | 0 | 6,739 | | 0 | 2 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 23 | 0 | 0 | 1,668 | 6 | 0 | 5 | 1,773 | 0 | 3,478 | | 0 | 1 | 0 | 0 |



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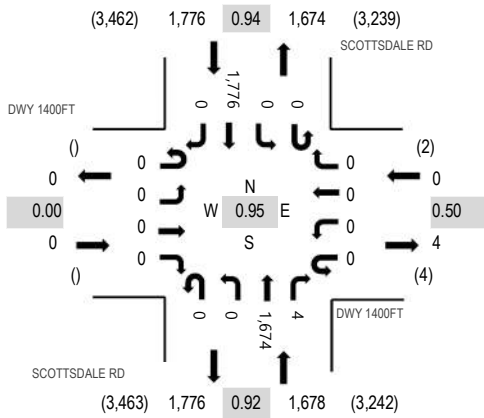
Location: 4 SCOTTSDALE RD & DWY 1400FT AM

Date: Thursday, October 19, 2023

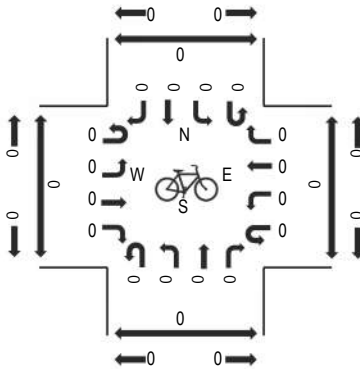
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

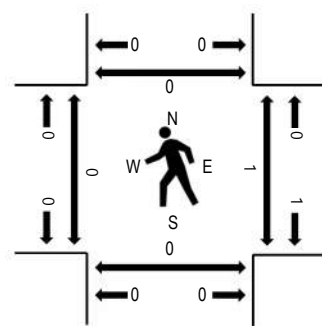
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 1400FT Eastbound | | | | DWY 1400FT Westbound | | | | SCOTTSDALE RD Northbound | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | | | |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|--------------------------|------|-------|--------------------------|--------|------|------|-------|--------------|----------------------|-------|------|-------|-------|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | | | Right | West | East | South | North | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 330 | 0 | 0 | 0 | 0 | 409 | 0 | 739 | 3,388 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 368 | 0 | 0 | 0 | 0 | 475 | 0 | 843 | 3,454 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 440 | 2 | 0 | 0 | 0 | 463 | 0 | 905 | 3,454 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 470 | 0 | 0 | 0 | 0 | 431 | 0 | 901 | 3,432 | 0 | 1 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 396 | 2 | 0 | 0 | 0 | 407 | 0 | 805 | 3,318 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 411 | 0 | 0 | 0 | 0 | 431 | 0 | 843 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 422 | 0 | 0 | 0 | 0 | 460 | 0 | 883 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 401 | 0 | 0 | 0 | 0 | 386 | 0 | 787 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 3,238 | 4 | 0 | 0 | 0 | 3,462 | 0 | 6,706 | | 0 | 2 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,674 | 4 | 0 | 0 | 0 | 1,776 | 0 | 3,454 | | 0 | 1 | 0 | 0 |



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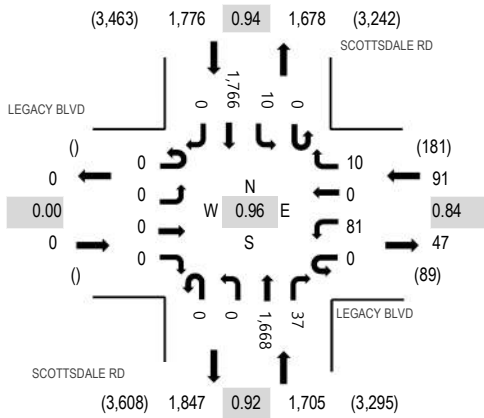
Location: 5 SCOTTSDALE RD & LEGACY BLVD AM

Date: Thursday, October 19, 2023

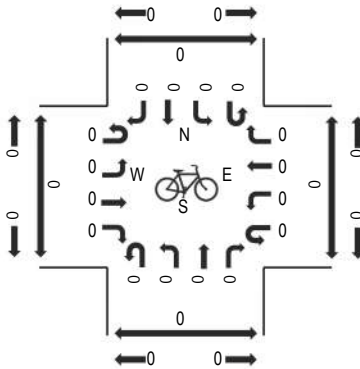
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

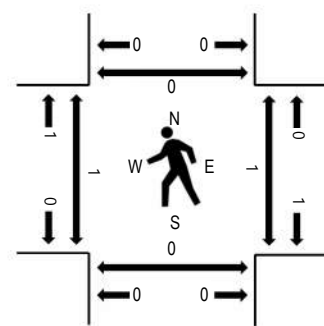
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 3 | 0 | 0 | 327 | 14 | 0 | 1 | 408 | 0 | 780 | 3,517 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 2 | 0 | 0 | 366 | 7 | 0 | 1 | 474 | 0 | 874 | 3,572 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 5 | 0 | 0 | 437 | 10 | 0 | 3 | 460 | 0 | 932 | 3,561 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 2 | 0 | 0 | 468 | 9 | 0 | 5 | 426 | 0 | 931 | 3,540 | 1 | 1 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 1 | 0 | 0 | 397 | 11 | 0 | 1 | 406 | 0 | 835 | 3,422 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 1 | 0 | 0 | 410 | 8 | 0 | 1 | 430 | 0 | 863 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 4 | 0 | 0 | 418 | 7 | 0 | 2 | 459 | 0 | 911 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 3 | 0 | 0 | 398 | 8 | 0 | 1 | 385 | 0 | 813 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 21 | 0 | 0 | 3,221 | 74 | 0 | 15 | 3,448 | 0 | 6,939 | | 1 | 1 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 10 | 0 | 0 | 1,668 | 37 | 0 | 10 | 1,766 | 0 | 3,572 | | 1 | 1 | 0 | 0 |



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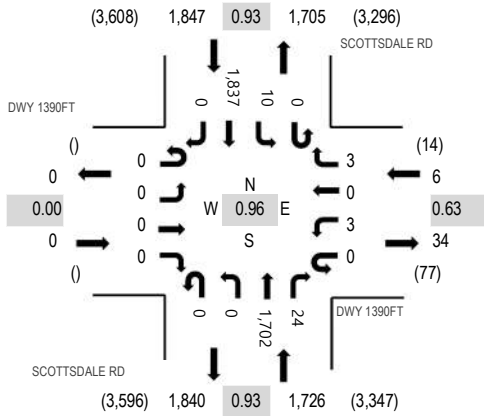
Location: 6 SCOTTSDALE RD & DWY 1390FT AM

Date: Thursday, October 19, 2023

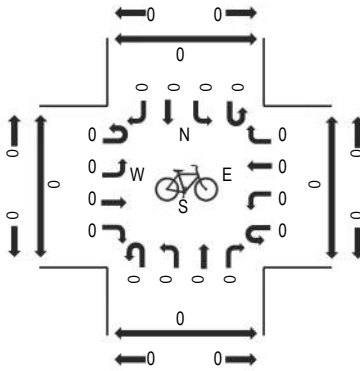
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

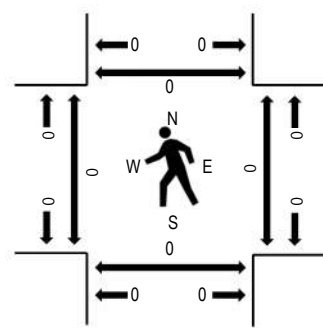
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 1390FT Eastbound | | | | DWY 1390FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|----------------------|------|------|-------|----------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 341 | 8 | 0 | 1 | 434 | 0 | 786 | 3,520 | 0 | 1 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 373 | 7 | 0 | 3 | 495 | 0 | 878 | 3,579 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 446 | 5 | 0 | 1 | 476 | 0 | 929 | 3,573 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 475 | 3 | 0 | 3 | 444 | 0 | 927 | 3,554 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 408 | 9 | 0 | 3 | 422 | 0 | 845 | 3,449 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 418 | 10 | 1 | 2 | 440 | 0 | 872 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 422 | 4 | 0 | 4 | 476 | 0 | 910 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 405 | 13 | 0 | 1 | 402 | 0 | 822 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 3,288 | 59 | 1 | 18 | 3,589 | 0 | 6,969 | | 0 | 2 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 1,702 | 24 | 0 | 10 | 1,837 | 0 | 3,579 | | 0 | 0 | 0 | 0 |

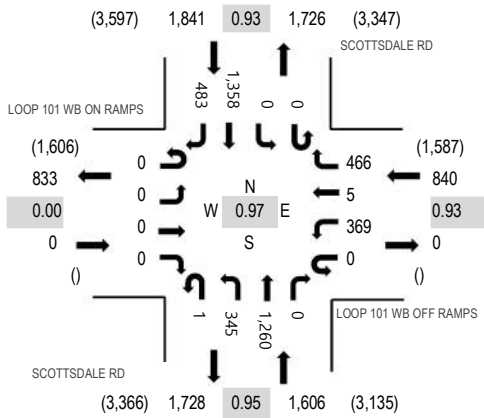
Location: 7 SCOTTSDALE RD & LOOP 101 WB OFF RAMPS AM

Date: Thursday, October 19, 2023

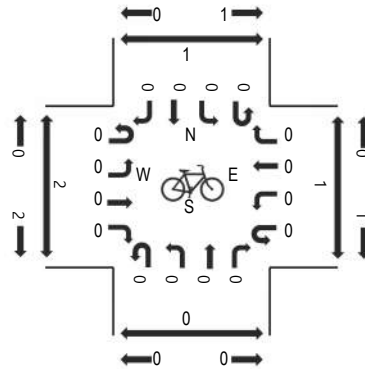
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

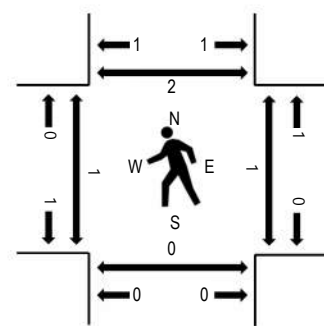
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 WB ON RAMPS | | | LOOP 101 WB OFF RAMPS | | | SCOTTSDALE RD | | | SCOTTSDALE RD | | | | Total | Rolling Hour | Pedestrian Crossings | | | | | | |
|------------------------|----------------------|------|------|-----------------------|--------|------|---------------|-------|--------|---------------|-------|-------|--------|-------|-----------------|----------------------|-------|-------|-------|------|------|-------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | | | West | East | South | North | | | |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | | | | | | | Left | Thru | Right |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 60 | 2 | 79 | 0 | 62 | 270 | 0 | 0 | 0 | 326 | 110 | 909 | 4,172 | 1 | 1 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 78 | 2 | 107 | 0 | 99 | 273 | 0 | 0 | 0 | 364 | 132 | 1,055 | 4,287 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 92 | 0 | 121 | 1 | 82 | 330 | 0 | 0 | 0 | 369 | 107 | 1,102 | 4,276 | 0 | 1 | 0 | 2 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 98 | 1 | 130 | 0 | 85 | 348 | 0 | 0 | 0 | 319 | 125 | 1,106 | 4,255 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 101 | 2 | 108 | 0 | 79 | 309 | 0 | 0 | 0 | 306 | 119 | 1,024 | 4,147 | 1 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 89 | 0 | 105 | 0 | 86 | 323 | 0 | 0 | 0 | 319 | 122 | 1,044 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 110 | 2 | 102 | 0 | 66 | 324 | 0 | 0 | 0 | 352 | 125 | 1,081 | | 2 | 1 | 0 | 2 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 92 | 2 | 104 | 1 | 83 | 314 | 0 | 0 | 0 | 289 | 113 | 998 | | 0 | 1 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 720 | 11 | 856 | 2 | 642 | 2,491 | 0 | 0 | 0 | 2,644 | 953 | 8,319 | | 4 | 4 | 0 | 5 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 369 | 5 | 466 | 1 | 345 | 1,260 | 0 | 0 | 0 | 1,358 | 483 | 4,287 | | 1 | 1 | 0 | 2 |



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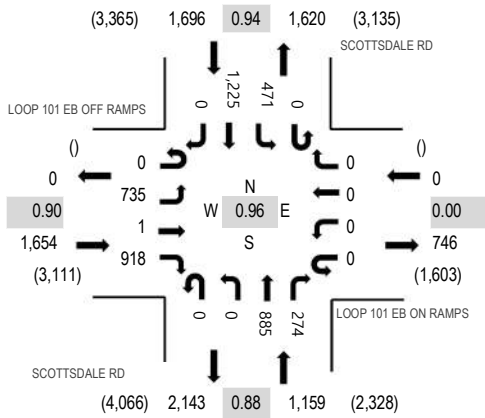
Location: 8 SCOTTSDALE RD & LOOP 101 EB ON RAMP AM

Date: Thursday, October 19, 2023

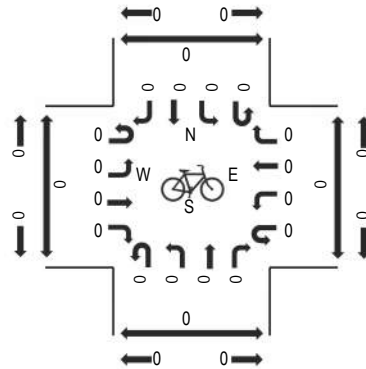
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

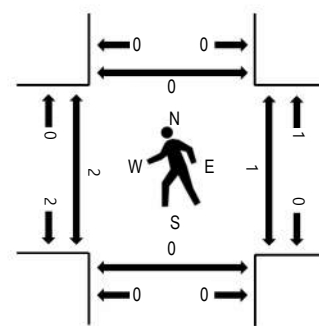
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 EB OFF RAMP S | | | | LOOP 101 EB ON RAMP S | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|------------------------|-------|------|-------|-----------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|-------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | Eastbound | | | | Westbound | | | | | | | | | | | | | | West | East | South | North |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | | | | |
| 7:00 AM | 0 | 155 | 2 | 190 | 0 | 0 | 0 | 0 | 0 | 0 | 177 | 59 | 0 | 121 | 265 | 0 | 969 | 4,305 | 1 | 2 | 0 | 0 |
| 7:15 AM | 0 | 154 | 2 | 199 | 0 | 0 | 0 | 0 | 0 | 0 | 218 | 74 | 0 | 160 | 281 | 0 | 1,088 | 4,459 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 183 | 1 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 230 | 73 | 0 | 179 | 282 | 0 | 1,134 | 4,472 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 163 | 0 | 192 | 0 | 0 | 0 | 0 | 0 | 0 | 270 | 72 | 0 | 143 | 274 | 0 | 1,114 | 4,509 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 207 | 0 | 261 | 0 | 0 | 0 | 0 | 0 | 0 | 181 | 67 | 0 | 89 | 318 | 0 | 1,123 | 4,499 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 157 | 0 | 220 | 0 | 0 | 0 | 0 | 0 | 0 | 252 | 64 | 0 | 112 | 296 | 0 | 1,101 | | 2 | 1 | 0 | 0 |
| 8:30 AM | 0 | 208 | 1 | 245 | 0 | 0 | 0 | 0 | 0 | 0 | 182 | 71 | 0 | 127 | 337 | 0 | 1,171 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 133 | 1 | 251 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 73 | 0 | 112 | 269 | 0 | 1,104 | | 0 | 2 | 0 | 0 |
| Count Total | 0 | 1,360 | 7 | 1,744 | 0 | 0 | 0 | 0 | 0 | 0 | 1,775 | 553 | 0 | 1,043 | 2,322 | 0 | 8,804 | | 3 | 5 | 0 | 0 |
| Peak Hour | 0 | 735 | 1 | 918 | 0 | 0 | 0 | 0 | 0 | 0 | 885 | 274 | 0 | 471 | 1,225 | 0 | 4,509 | | 2 | 1 | 0 | 0 |



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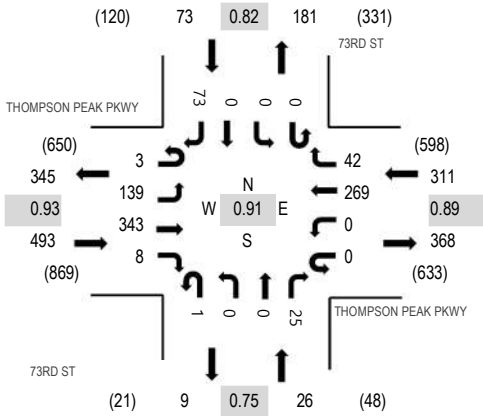
Location: 9 73RD ST & THOMPSON PEAK PKWY AM

Date: Thursday, October 19, 2023

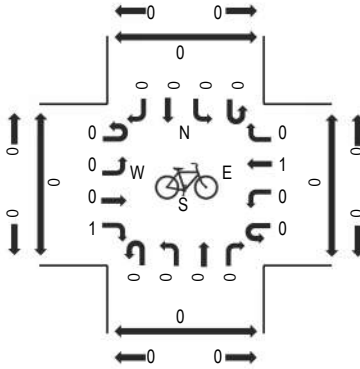
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

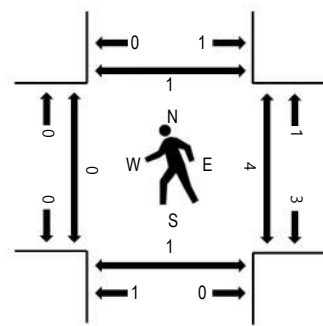
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | THOMPSON PEAK PKWY Eastbound | | | | THOMPSON PEAK PKWY Westbound | | | | 73RD ST Northbound | | | 73RD ST Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | | |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|--------------------|------|------|--------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | | | Right | West | East | South | North |
| | 7:00 AM | 0 | 29 | 44 | 3 | 0 | 0 | 51 | 6 | 1 | 0 | 0 | 5 | 0 | 0 | | | 0 | 8 | 147 | 771 | 0 |
| 7:15 AM | 2 | 31 | 65 | 2 | 0 | 0 | 51 | 10 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 14 | 178 | 854 | 0 | 0 | 0 | 2 |
| 7:30 AM | 0 | 33 | 80 | 0 | 0 | 0 | 53 | 10 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 17 | 199 | 903 | 0 | 0 | 1 | 1 |
| 7:45 AM | 1 | 35 | 92 | 2 | 0 | 0 | 77 | 16 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 21 | 247 | 894 | 0 | 1 | 0 | 0 |
| 8:00 AM | 2 | 42 | 84 | 4 | 0 | 0 | 61 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 23 | 230 | 864 | 0 | 2 | 0 | 0 |
| 8:15 AM | 0 | 29 | 87 | 2 | 0 | 0 | 78 | 9 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 12 | 227 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 34 | 57 | 3 | 0 | 0 | 73 | 9 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 8 | 190 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 25 | 78 | 3 | 0 | 0 | 81 | 6 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 17 | 217 | | 0 | 0 | 0 | 0 |
| Count Total | 5 | 258 | 587 | 19 | 0 | 0 | 525 | 73 | 2 | 0 | 0 | 46 | 0 | 0 | 0 | 120 | 1,635 | | 0 | 4 | 1 | 3 |
| Peak Hour | 3 | 139 | 343 | 8 | 0 | 0 | 269 | 42 | 1 | 0 | 0 | 25 | 0 | 0 | 0 | 73 | 903 | | 0 | 4 | 1 | 1 |



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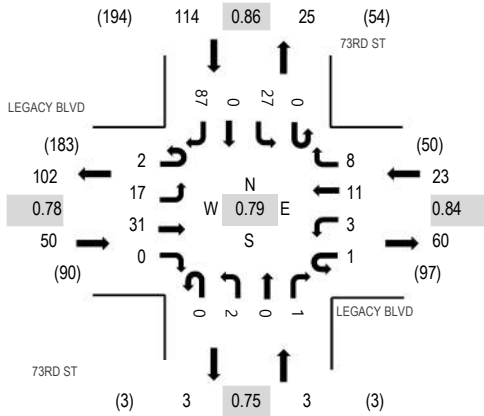
Location: 10 73RD ST & LEGACY BLVD AM

Date: Thursday, October 19, 2023

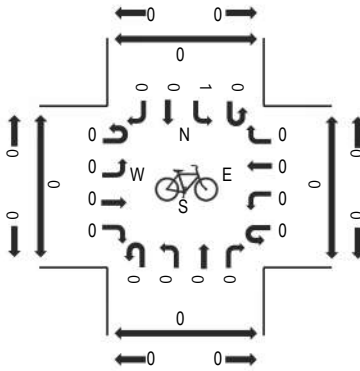
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

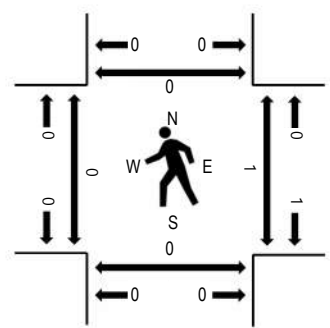
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | 73RD ST Northbound | | | | 73RD ST Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|--------------------------|------|------|-------|--------------------------|------|------|-------|-----------------------|------|------|-------|-----------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 6 | 10 | 0 | 1 | 3 | 5 | 3 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 27 | 60 | 190 | 0 | 0 | 0 | 0 |
| 7:15 AM | 2 | 4 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 9 | 0 | 21 | 41 | 172 | 0 | 1 | 0 | 0 |
| 7:30 AM | 0 | 4 | 9 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 23 | 52 | 157 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 3 | 9 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 16 | 37 | 151 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 7 | 6 | 0 | 1 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 17 | 42 | 147 | 0 | 0 | 0 | 0 |
| 8:15 AM | 1 | 3 | 5 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 26 | | 0 | 0 | 1 | 0 |
| 8:30 AM | 0 | 7 | 3 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 26 | 46 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 3 | 5 | 0 | 1 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 13 | 33 | | 0 | 0 | 0 | 0 |
| Count Total | 3 | 37 | 50 | 0 | 4 | 3 | 26 | 17 | 0 | 2 | 0 | 1 | 0 | 42 | 0 | 152 | 337 | | 0 | 1 | 1 | 0 |
| Peak Hour | 2 | 17 | 31 | 0 | 1 | 3 | 11 | 8 | 0 | 2 | 0 | 1 | 0 | 27 | 0 | 87 | 190 | | 0 | 1 | 0 | 0 |



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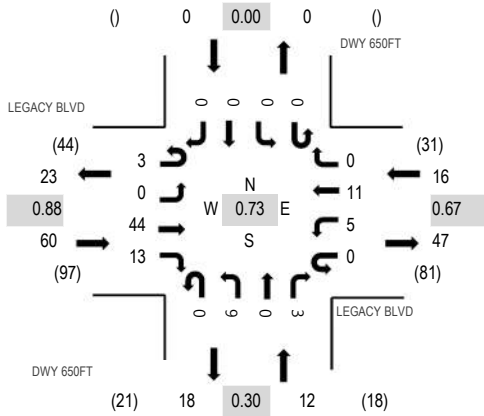
Location: 11 DWY 650FT & LEGACY BLVD AM

Date: Thursday, October 19, 2023

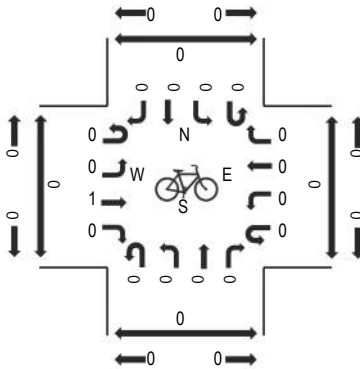
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

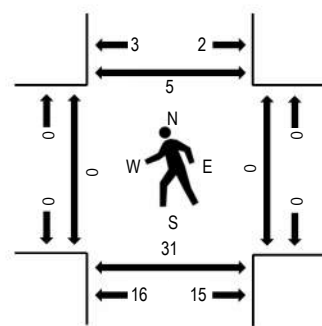
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians

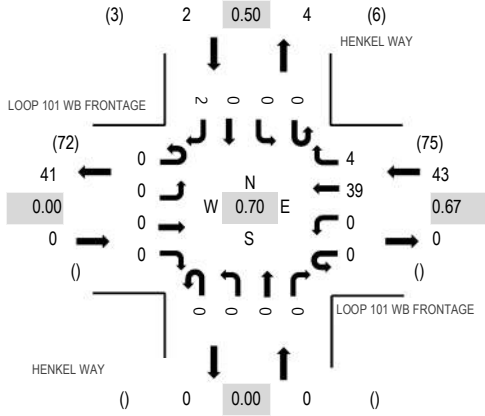


Note: Total study counts contained in parentheses.

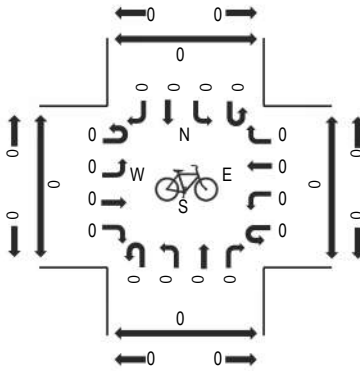
Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | DWY 650FT Northbound | | | | DWY 650FT Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------------------------|------|------|-------|-------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 2 | 0 | 9 | 3 | 0 | 3 | 3 | 0 | 0 | 7 | 0 | 3 | 0 | 0 | 0 | 0 | 30 | 88 | 0 | 0 | 17 | 2 |
| 7:15 AM | 0 | 0 | 8 | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 75 | 0 | 0 | 11 | 3 |
| 7:30 AM | 0 | 0 | 15 | 2 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 72 | 0 | 0 | 1 | 0 |
| 7:45 AM | 1 | 0 | 12 | 3 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 61 | 0 | 0 | 2 | 0 |
| 8:00 AM | 2 | 0 | 9 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 17 | 58 | 0 | 0 | 4 | 3 |
| 8:15 AM | 0 | 0 | 7 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | | 0 | 0 | 3 | 2 |
| 8:30 AM | 0 | 0 | 8 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | | 0 | 0 | 4 | 1 |
| 8:45 AM | 0 | 0 | 9 | 2 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | | 0 | 0 | 0 | 0 |
| Count Total | 5 | 0 | 77 | 15 | 0 | 6 | 25 | 0 | 0 | 14 | 0 | 4 | 0 | 0 | 0 | 0 | 146 | | 0 | 0 | 42 | 11 |
| Peak Hour | 3 | 0 | 44 | 13 | 0 | 5 | 11 | 0 | 0 | 9 | 0 | 3 | 0 | 0 | 0 | 0 | 88 | | 0 | 0 | 31 | 5 |

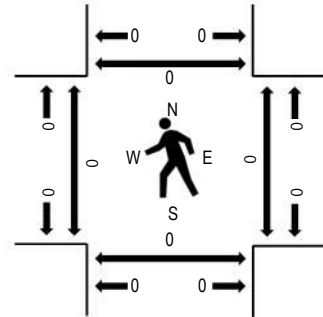
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 WB FRONTAGE Eastbound | | | | LOOP 101 WB FRONTAGE Westbound | | | | HENKEL WAY Northbound | | | | HENKEL WAY Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|--------------------------------|------|------|-------|--------------------------------|------|------|-------|-----------------------|------|------|-------|-----------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 45 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 45 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 37 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 34 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 33 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 78 | | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 45 | | 0 | 0 | 0 | 0 |



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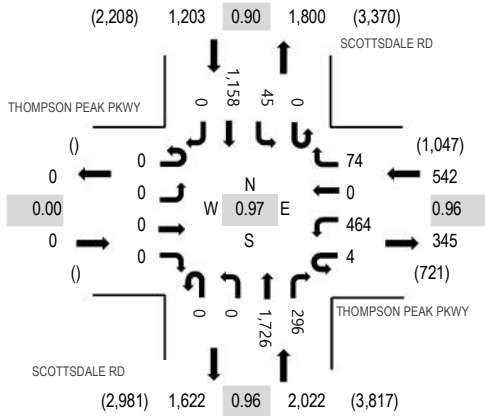
Location: 1 SCOTTSDALE RD & THOMPSON PEAK PKWY PM

Date: Thursday, October 19, 2023

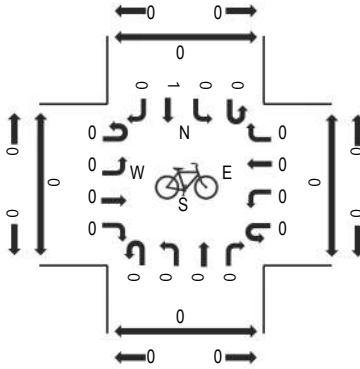
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

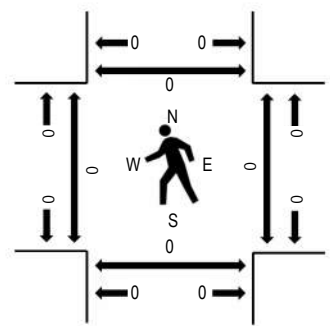
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | THOMPSON PEAK PKWY Eastbound | | | | THOMPSON PEAK PKWY Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| | 4:00 PM | 0 | 0 | 0 | 0 | 2 | 112 | 0 | 32 | 0 | 0 | 367 | 73 | 0 | 12 | 245 | | | 0 | 843 | 3,629 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 4 | 118 | 0 | 13 | 0 | 0 | 417 | 73 | 0 | 16 | 251 | 0 | 892 | 3,755 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 1 | 108 | 0 | 24 | 0 | 0 | 435 | 67 | 0 | 7 | 278 | 0 | 920 | 3,767 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 1 | 125 | 0 | 19 | 0 | 0 | 447 | 77 | 0 | 13 | 292 | 0 | 974 | 3,670 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 121 | 0 | 12 | 0 | 0 | 434 | 65 | 0 | 11 | 325 | 0 | 969 | 3,443 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 1 | 110 | 0 | 19 | 0 | 0 | 410 | 87 | 0 | 14 | 263 | 0 | 904 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 16 | 0 | 0 | 374 | 76 | 0 | 14 | 243 | 0 | 823 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 83 | 0 | 25 | 0 | 0 | 326 | 89 | 0 | 17 | 207 | 0 | 747 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 10 | 877 | 0 | 160 | 0 | 0 | 3,210 | 607 | 0 | 104 | 2,104 | 0 | 7,072 | | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 4 | 464 | 0 | 74 | 0 | 0 | 1,726 | 296 | 0 | 45 | 1,158 | 0 | 3,767 | | 0 | 0 | 0 | 0 |



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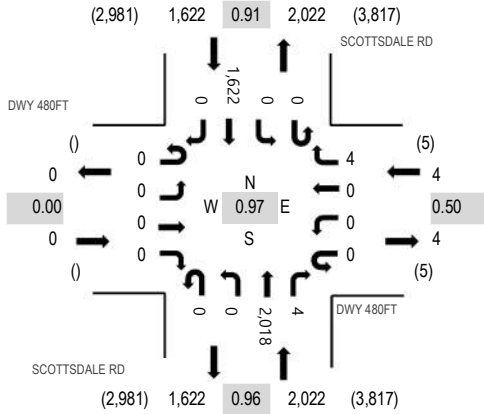
Location: 2 SCOTTSDALE RD & DWY 480FT PM

Date: Thursday, October 19, 2023

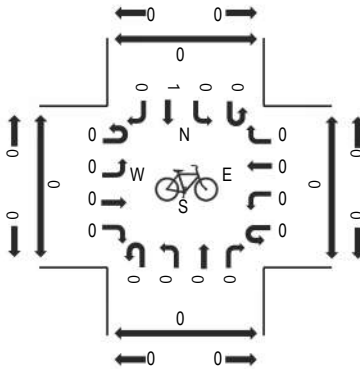
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

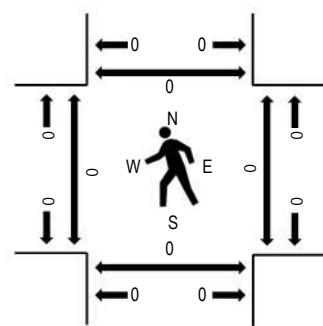
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 480FT Eastbound | | | | DWY 480FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | | |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 440 | 0 | 0 | 0 | 0 | 357 | 0 | 797 | 3,488 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 490 | 0 | 0 | 0 | 0 | 369 | 0 | 859 | 3,636 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 500 | 2 | 0 | 0 | 0 | 386 | 0 | 890 | 3,648 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 523 | 1 | 0 | 0 | 0 | 417 | 0 | 942 | 3,551 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 499 | 0 | 0 | 0 | 0 | 446 | 0 | 945 | 3,315 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 496 | 1 | 0 | 0 | 0 | 373 | 0 | 871 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 450 | 0 | 0 | 0 | 0 | 343 | 0 | 793 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 414 | 1 | 0 | 0 | 0 | 290 | 0 | 706 | | 0 | 1 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 3,812 | 5 | 0 | 0 | 0 | 2,981 | 0 | 6,803 | | 0 | 1 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2,018 | 4 | 0 | 0 | 0 | 1,622 | 0 | 3,648 | | 0 | 0 | 0 | 0 |

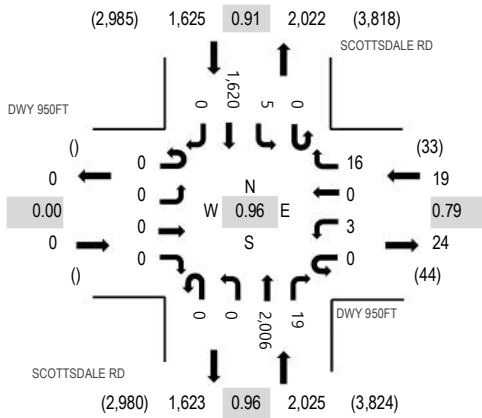
Location: 3 SCOTTSDALE RD & DWY 950FT PM

Date: Thursday, October 19, 2023

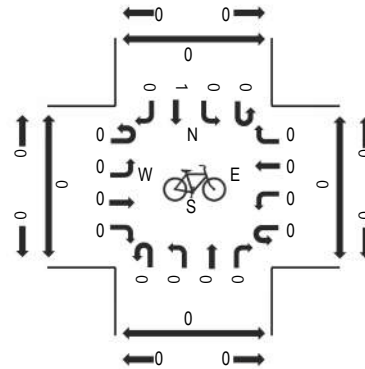
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

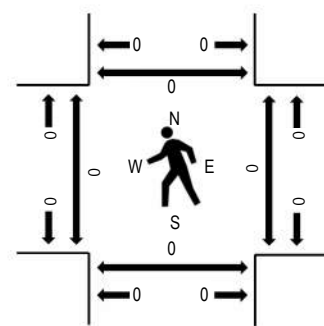
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 950FT Eastbound | | | | DWY 950FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|---------------------|------|------|-------|---------------------|------|------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 436 | 4 | 0 | 1 | 357 | 0 | 803 | 3,512 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 488 | 8 | 0 | 0 | 369 | 0 | 867 | 3,663 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 500 | 2 | 0 | 0 | 388 | 0 | 894 | 3,669 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 519 | 7 | 0 | 1 | 416 | 0 | 948 | 3,568 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 496 | 7 | 0 | 1 | 446 | 0 | 954 | 3,330 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 491 | 3 | 0 | 3 | 370 | 0 | 873 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 447 | 0 | 1 | 1 | 341 | 0 | 793 | | 0 | 1 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 411 | 5 | 0 | 1 | 289 | 0 | 710 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 29 | 0 | 0 | 3,788 | 36 | 1 | 8 | 2,976 | 0 | 6,842 | | 0 | 1 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 16 | 0 | 0 | 2,006 | 19 | 0 | 5 | 1,620 | 0 | 3,669 | | 0 | 0 | 0 | 0 |



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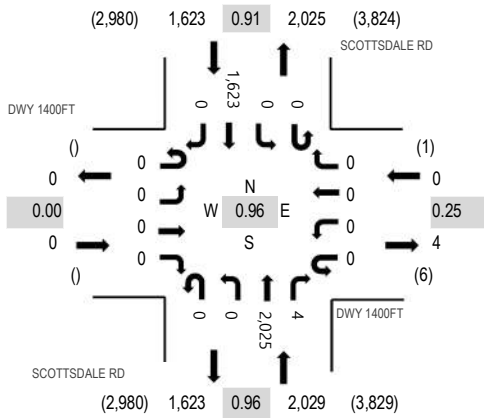
Location: 4 SCOTTSDALE RD & DWY 1400FT PM

Date: Thursday, October 19, 2023

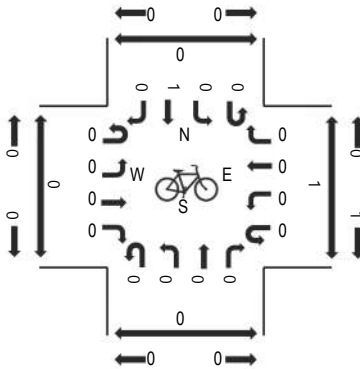
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

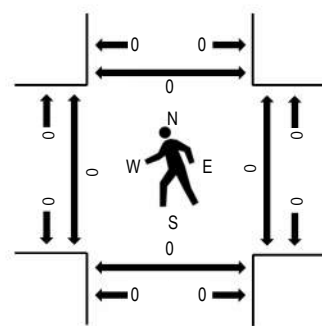
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 1400FT Eastbound | | | | DWY 1400FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|-------------------------|------|------|-------|-------------------------|------|------|-------|-----------------------------|------|-------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 440 | 1 | 0 | 0 | 358 | 0 | 799 | 3,500 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 495 | 0 | 0 | 0 | 369 | 0 | 865 | 3,651 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 502 | 0 | 0 | 0 | 390 | 0 | 892 | 3,652 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 526 | 2 | 0 | 0 | 416 | 0 | 944 | 3,548 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 503 | 0 | 0 | 0 | 447 | 0 | 950 | 3,310 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 494 | 2 | 0 | 0 | 370 | 0 | 866 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 447 | 0 | 0 | 0 | 341 | 0 | 788 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 416 | 1 | 0 | 0 | 289 | 0 | 706 | | 0 | 1 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3,823 | 6 | 0 | 0 | 2,980 | 0 | 6,810 | | 0 | 1 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,025 | 4 | 0 | 0 | 1,623 | 0 | 3,652 | | 0 | 0 | 0 | 0 |



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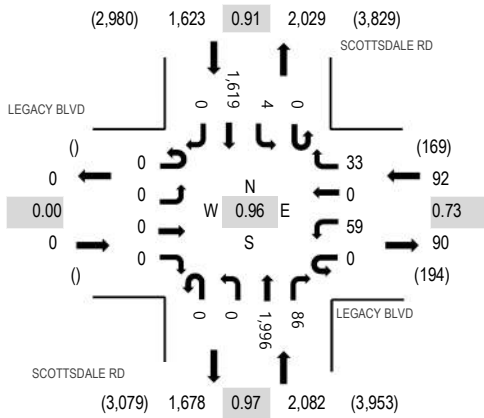
Location: 5 SCOTTSDALE RD & LEGACY BLVD PM

Date: Thursday, October 19, 2023

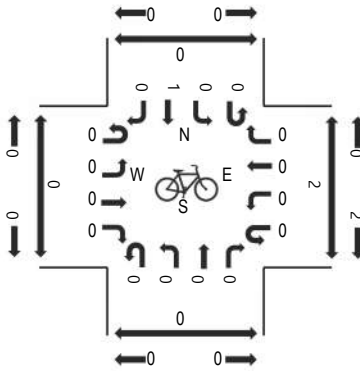
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

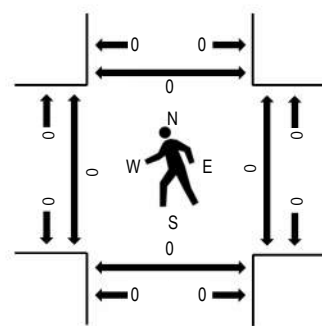
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|--------------------------|------|------|-------|--------------------------|------|------|-------|-----------------------------|------|-------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 4 | 0 | 0 | 437 | 17 | 0 | 3 | 355 | 0 | 829 | 3,623 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 4 | 0 | 0 | 491 | 22 | 0 | 3 | 366 | 0 | 899 | 3,785 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 6 | 0 | 0 | 496 | 18 | 0 | 1 | 389 | 0 | 931 | 3,797 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 521 | 13 | 0 | 0 | 416 | 0 | 964 | 3,693 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 15 | 0 | 0 | 488 | 24 | 0 | 2 | 445 | 0 | 991 | 3,479 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 5 | 0 | 0 | 491 | 31 | 0 | 1 | 369 | 0 | 911 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 6 | 0 | 0 | 441 | 25 | 0 | 3 | 338 | 0 | 827 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 8 | 0 | 0 | 409 | 29 | 0 | 2 | 287 | 0 | 750 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 114 | 0 | 55 | 0 | 0 | 3,774 | 179 | 0 | 15 | 2,965 | 0 | 7,102 | | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 33 | 0 | 0 | 1,996 | 86 | 0 | 4 | 1,619 | 0 | 3,797 | | 0 | 0 | 0 | 0 |



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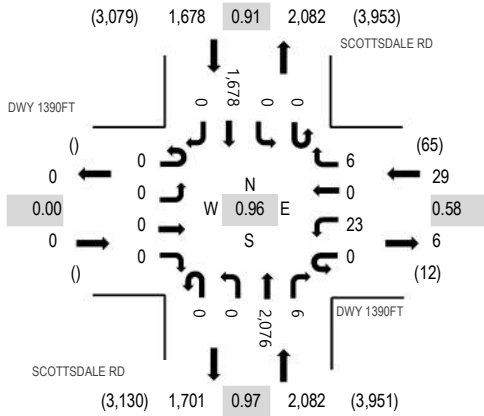
Location: 6 SCOTTSDALE RD & DWY 1390FT PM

Date: Thursday, October 19, 2023

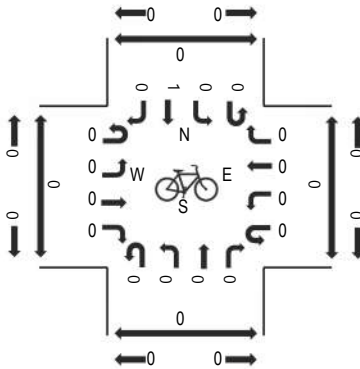
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

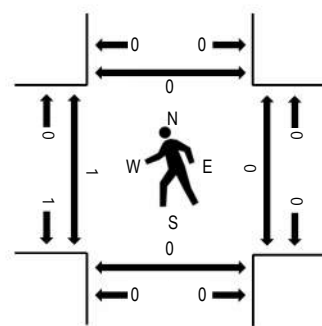
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | DWY 1390FT Eastbound | | | | DWY 1390FT Westbound | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|-------------------------|------|------|-------|-------------------------|------|------|-------|-----------------------------|------|-------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 5 | 0 | 0 | 449 | 2 | 0 | 0 | 368 | 0 | 834 | 3,626 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 2 | 0 | 0 | 511 | 1 | 0 | 0 | 379 | 0 | 901 | 3,778 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 512 | 0 | 0 | 0 | 410 | 0 | 926 | 3,789 | 1 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 534 | 2 | 0 | 0 | 423 | 0 | 965 | 3,691 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 2 | 0 | 0 | 510 | 2 | 0 | 0 | 462 | 0 | 986 | 3,469 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 0 | 520 | 2 | 0 | 0 | 383 | 0 | 912 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 465 | 1 | 0 | 0 | 352 | 0 | 828 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 438 | 2 | 0 | 0 | 302 | 0 | 743 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 14 | 0 | 0 | 3,939 | 12 | 0 | 0 | 3,079 | 0 | 7,095 | | 1 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 6 | 0 | 0 | 2,076 | 6 | 0 | 0 | 1,678 | 0 | 3,789 | | 1 | 0 | 0 | 0 |

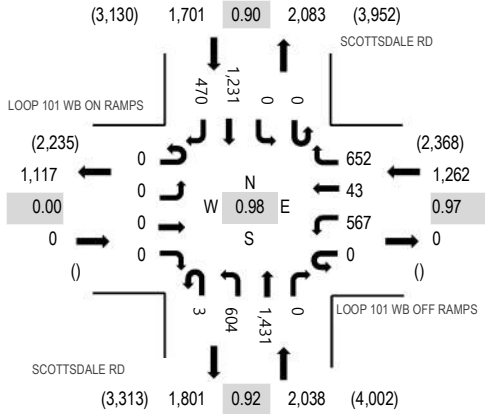
Location: 7 SCOTTSDALE RD & LOOP 101 WB OFF RAMPS PM

Date: Thursday, October 19, 2023

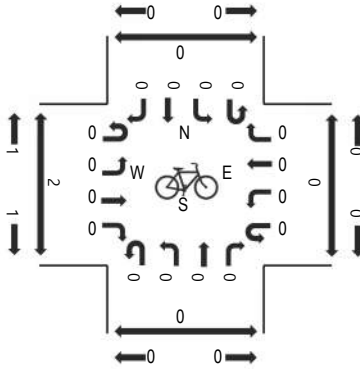
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

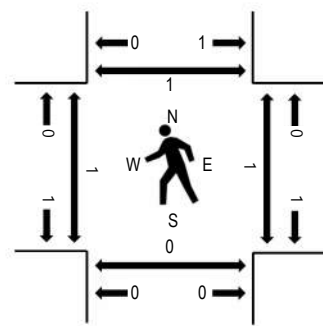
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 WB ON RAMPS | | | LOOP 101 WB OFF RAMPS | | | SCOTTSDALE RD | | | SCOTTSDALE RD | | | Total | Rolling Hour | Pedestrian Crossings | | | | | | | |
|------------------------|----------------------|------|------------|-----------------------|------|------------|---------------|-------|------------|---------------|-------|------------|-------|-----------------|----------------------|------|-------|-------|---|---|---|---|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | | West | East | South | North | | | | |
| | U-Turn | Left | Thru Right | U-Turn | Left | Thru Right | U-Turn | Left | Thru Right | U-Turn | Left | Thru Right | | | | | | | | | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 125 | 15 | 134 | 0 | 179 | 317 | 0 | 0 | 0 | 237 | 141 | 1,148 | 4,809 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 128 | 11 | 145 | 0 | 157 | 367 | 0 | 0 | 0 | 273 | 114 | 1,195 | 4,936 | 0 | 1 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 141 | 12 | 166 | 0 | 151 | 347 | 0 | 0 | 0 | 294 | 118 | 1,229 | 5,001 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 130 | 11 | 162 | 1 | 130 | 374 | 0 | 0 | 0 | 307 | 122 | 1,237 | 4,893 | 1 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 134 | 16 | 174 | 0 | 141 | 338 | 0 | 0 | 0 | 333 | 139 | 1,275 | 4,691 | 0 | 1 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 162 | 4 | 150 | 2 | 182 | 372 | 0 | 0 | 0 | 297 | 91 | 1,260 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 150 | 4 | 138 | 0 | 140 | 328 | 0 | 0 | 0 | 250 | 111 | 1,121 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 148 | 2 | 106 | 1 | 141 | 334 | 0 | 0 | 0 | 200 | 103 | 1,035 | | 1 | 1 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1,118 | 75 | 1,175 | 4 | 1,221 | 2,777 | 0 | 0 | 0 | 2,191 | 939 | 9,500 | | 2 | 3 | 0 | 1 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 567 | 43 | 652 | 3 | 604 | 1,431 | 0 | 0 | 0 | 1,231 | 470 | 5,001 | | 1 | 1 | 0 | 1 |

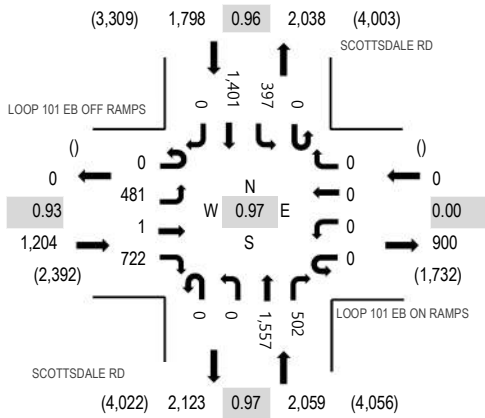
Location: 8 SCOTTSDALE RD & LOOP 101 EB ON RAMPs PM

Date: Thursday, October 19, 2023

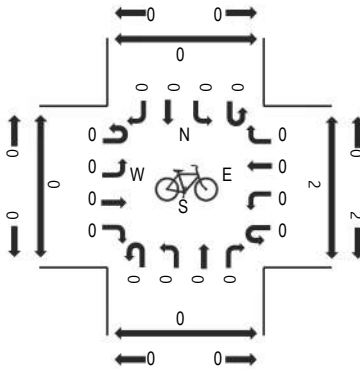
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

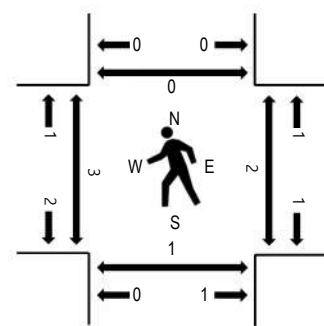
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 EB OFF RAMPs | | | | LOOP 101 EB ON RAMPs | | | | SCOTTSDALE RD Northbound | | | | SCOTTSDALE RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|-----------------------|------|-----------|-------|----------------------|------|-------|-------|--------------------------|------|-------|-------|--------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | Eastbound | | Westbound | | Left | | Right | | Left | | Right | | Left | | Right | | | | West | East | South | North |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | | | | |
| 4:00 PM | 0 | 98 | 0 | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 398 | 135 | 0 | 96 | 266 | 0 | 1,170 | 4,930 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 129 | 1 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 395 | 122 | 0 | 79 | 322 | 0 | 1,239 | 5,000 | 1 | 1 | 0 | 0 |
| 4:30 PM | 0 | 112 | 0 | 193 | 0 | 0 | 0 | 0 | 0 | 0 | 386 | 126 | 0 | 92 | 343 | 0 | 1,252 | 5,061 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 129 | 0 | 203 | 0 | 0 | 0 | 0 | 0 | 0 | 376 | 124 | 0 | 93 | 344 | 0 | 1,269 | 4,996 | 2 | 0 | 0 | 0 |
| 5:00 PM | 0 | 103 | 1 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 376 | 134 | 0 | 104 | 363 | 0 | 1,240 | 4,827 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 137 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 419 | 118 | 0 | 108 | 351 | 0 | 1,300 | | 1 | 2 | 1 | 0 |
| 5:30 PM | 0 | 105 | 1 | 193 | 0 | 0 | 0 | 0 | 0 | 0 | 363 | 125 | 0 | 90 | 310 | 0 | 1,187 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 124 | 1 | 168 | 0 | 0 | 0 | 0 | 0 | 0 | 352 | 107 | 1 | 75 | 272 | 0 | 1,100 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 937 | 4 | 1,451 | 0 | 0 | 0 | 0 | 0 | 0 | 3,065 | 991 | 1 | 737 | 2,571 | 0 | 9,757 | | 4 | 3 | 1 | 0 |
| Peak Hour | 0 | 481 | 1 | 722 | 0 | 0 | 0 | 0 | 0 | 0 | 1,557 | 502 | 0 | 397 | 1,401 | 0 | 5,061 | | 3 | 2 | 1 | 0 |



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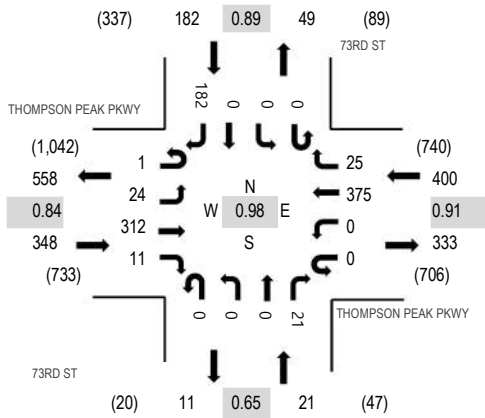
Location: 9 73RD ST & THOMPSON PEAK PKWY PM

Date: Thursday, October 19, 2023

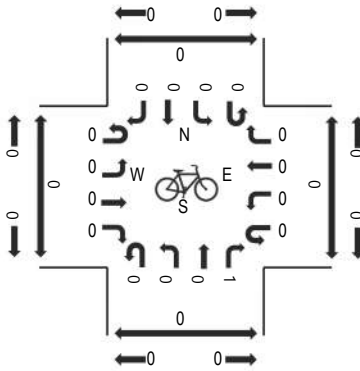
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | THOMPSON PEAK PKWY Eastbound | | | | THOMPSON PEAK PKWY Westbound | | | | 73RD ST Northbound | | | 73RD ST Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | | |
|------------------------|------------------------------|------|------|-------|------------------------------|------|------|-------|--------------------|------|------|--------------------|--------|------|------|-------|-----------------|----------------------|------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | | | Right | West | East | South | North |
| | 4:00 PM | 0 | 3 | 73 | 1 | 0 | 0 | 106 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | | | 0 | 51 | 243 | 951 | 0 |
| 4:15 PM | 0 | 7 | 91 | 3 | 0 | 0 | 81 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 41 | 233 | 926 | 0 | 0 | 0 | 0 |
| 4:30 PM | 1 | 6 | 65 | 4 | 0 | 0 | 99 | 7 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 49 | 237 | 925 | 0 | 1 | 0 | 0 |
| 4:45 PM | 0 | 8 | 83 | 3 | 0 | 0 | 89 | 9 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 41 | 238 | 914 | 0 | 0 | 0 | 0 |
| 5:00 PM | 2 | 3 | 66 | 5 | 0 | 0 | 87 | 5 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 42 | 218 | 906 | 0 | 1 | 0 | 0 |
| 5:15 PM | 1 | 5 | 106 | 2 | 0 | 0 | 75 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 41 | 232 | | 1 | 1 | 0 | 1 |
| 5:30 PM | 0 | 6 | 74 | 1 | 0 | 0 | 86 | 4 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 45 | 226 | | 0 | 0 | 0 | 1 |
| 5:45 PM | 0 | 12 | 101 | 1 | 0 | 0 | 78 | 4 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 27 | 230 | | 0 | 2 | 1 | 2 |
| Count Total | 4 | 50 | 659 | 20 | 0 | 0 | 701 | 39 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 337 | 1,857 | | 1 | 6 | 1 | 4 |
| Peak Hour | 1 | 24 | 312 | 11 | 0 | 0 | 375 | 25 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 182 | 951 | | 0 | 2 | 0 | 0 |



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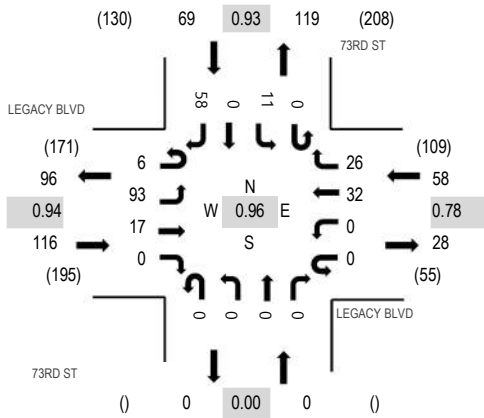
Location: 10 73RD ST & LEGACY BLVD PM

Date: Thursday, October 19, 2023

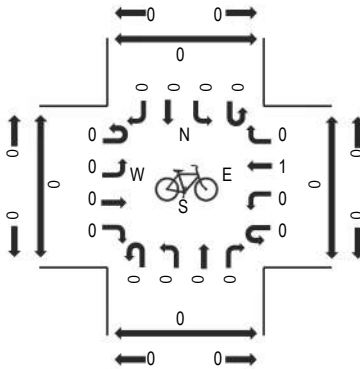
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

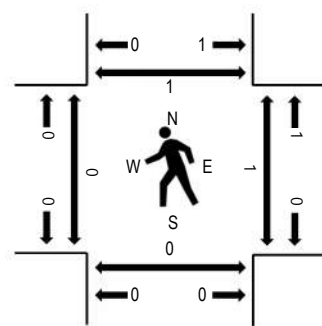
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | 73RD ST Northbound | | | | 73RD ST Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|-----------------------|------|------|-------|-----------------------|------|------|-------|--------------------|------|------|-------|--------------------|------|------|-------|-------|--------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 1 | 16 | 5 | 0 | 0 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 9 | 48 | 191 | 0 | 0 | 0 | 0 |
| 4:15 PM | 1 | 20 | 5 | 0 | 0 | 0 | 7 | 8 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 10 | 53 | 206 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 16 | 3 | 0 | 0 | 0 | 10 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 18 | 54 | 216 | 0 | 1 | 0 | 0 |
| 4:45 PM | 0 | 12 | 0 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 10 | 36 | 219 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 21 | 3 | 0 | 0 | 0 | 10 | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 18 | 63 | 243 | 0 | 0 | 0 | 0 |
| 5:15 PM | 2 | 23 | 6 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 14 | 63 | | 0 | 1 | 0 | 0 |
| 5:30 PM | 1 | 24 | 4 | 0 | 0 | 0 | 7 | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 12 | 57 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 2 | 25 | 4 | 0 | 0 | 0 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 14 | 60 | | 0 | 0 | 0 | 1 |
| Count Total | 8 | 157 | 30 | 0 | 0 | 0 | 58 | 51 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 105 | 434 | | 0 | 2 | 0 | 1 |
| Peak Hour | 6 | 93 | 17 | 0 | 0 | 0 | 32 | 26 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 58 | 243 | | 0 | 1 | 0 | 1 |



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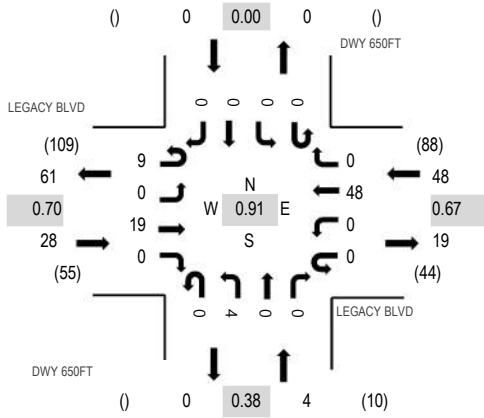
Location: 11 DWY 650FT & LEGACY BLVD PM

Date: Thursday, October 19, 2023

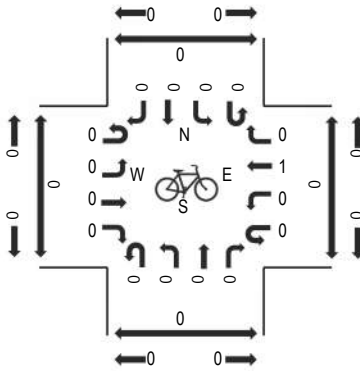
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

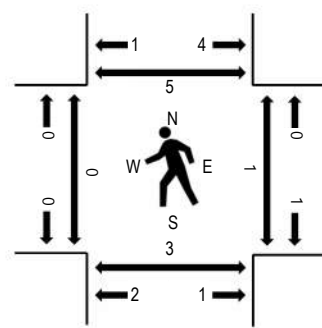
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LEGACY BLVD Eastbound | | | | LEGACY BLVD Westbound | | | | DWY 650FT Northbound | | | | DWY 650FT Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|---------------------|-----------------------|----------|----------|----------|-----------------------|----------|-----------|----------|----------------------|----------|----------|----------|----------------------|----------|----------|----------|-----------|--------------|----------------------|----------|----------|----------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 2 | 0 | 10 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 73 | 0 | 0 | 0 | 1 |
| 4:15 PM | 1 | 0 | 5 | 0 | 0 | 0 | 12 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 22 | 75 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 3 | 0 | 0 | 0 | 13 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 75 | 0 | 0 | 0 | 1 |
| 4:45 PM | 1 | 0 | 5 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 74 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 0 | 2 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 80 | 0 | 0 | 0 | 1 |
| 5:15 PM | 2 | 0 | 8 | 0 | 0 | 0 | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | | 0 | 0 | 1 | 0 |
| 5:30 PM | 2 | 0 | 5 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 4 | 0 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | | 0 | 1 | 2 | 4 |
| Count Total | 13 | 0 | 42 | 0 | 0 | 0 | 88 | 0 | 0 | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 153 | | 0 | 1 | 3 | 7 |
| Peak Hour | 9 | 0 | 19 | 0 | 0 | 0 | 48 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | | 0 | 1 | 3 | 5 |



(303) 216-2439
www.alltrafficdata.net

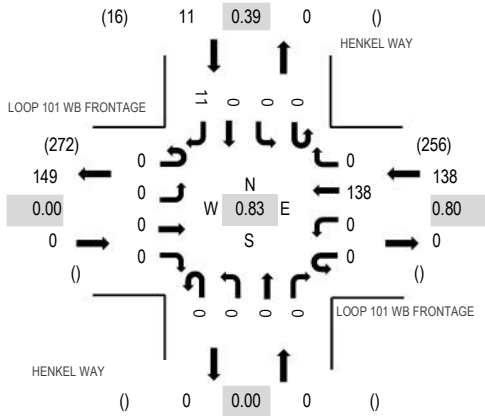
Location: 12 HENKEL WAY & LOOP 101 WB FRONTAGE PM

Date: Thursday, October 19, 2023

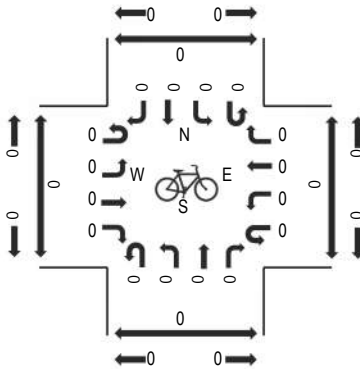
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

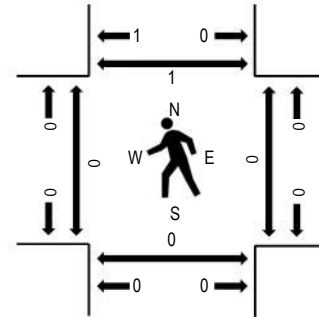
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | LOOP 101 WB FRONTAGE Eastbound | | | | LOOP 101 WB FRONTAGE Westbound | | | | HENKEL WAY Northbound | | | | HENKEL WAY Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|-----------------------------------|------|------|-------|-----------------------------------|------|------|-------|--------------------------|------|------|-------|--------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 2 | 42 | 146 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 38 | 149 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 143 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 31 | 131 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 45 | 126 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 32 | | 1 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 23 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 272 | | 1 | 0 | 0 | 1 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 149 | | 0 | 0 | 0 | 1 |



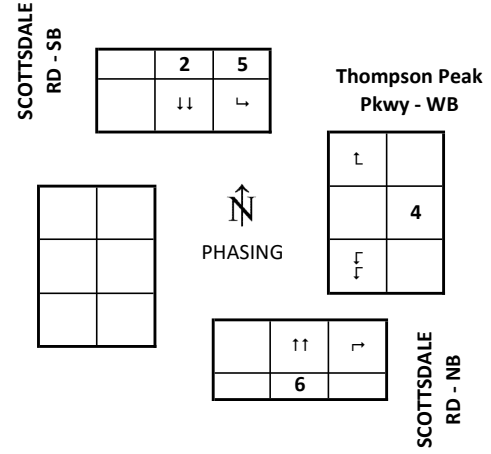
Appendix D – Existing Signal Timing

D

| | | | |
|---|-----------|-------------------------|---------------------|
| SCOTTSDALE RD & Thompson Peak Pkwy | | | System # 216 |
| BASIC TIMING PLAN | Section # | I.P. Address MM1-5-1 | Date Designed |
| | | | 6/18/2020 |

| | | | | | | | | | |
|----------------------|-------------|-----|-------|-----|-----|------|-------|--|--|
| TIMING PLAN - MM-2-1 | Phase | | 2 | | 4 | 5 | 6 | | |
| | Movement | | SBT | | WBT | SBL | NBT | | |
| | NOTES | | COORD | | | PROT | COORD | | |
| | MIN GRN | | 10 | | 15 | 5 | 10 | | |
| | BK MGRN | | | | | | | | |
| | CS MGRN | | | | | | | | |
| | DLY GRN | | | | | | | | |
| | WALK | | 0 | | 8 | | 4 | | |
| | WALK2 | | | | | | | | |
| | WLK MAX | | | | | | | | |
| | PED CLR/FDW | | - | | 24 | | 37 | | |
| | PD CLR2 | | | | | | | | |
| | PC MAX | | | | | | | | |
| | PED CO | | | | | | | | |
| | VEH EXT | | | | 2 | 2 | 1 | | |
| | VH EXT2 | | | | | | | | |
| | MAX 1 | | 70 | | 40 | 25 | 70 | | |
| | MAX 2 | | 90 | | 60 | 40 | 90 | | |
| | MAX 3 | | | | | | | | |
| | DYM MAX | | | | | | | | |
| DYM STP | | | | | | | | | |
| YELLOW | | 5.1 | | 4.7 | 4.4 | 5.1 | | | |
| RED CLR | | 2.2 | | 2.0 | 2 | 2.2 | | | |
| RED MAX | | | | | | | | | |
| RED RVT | | 2 | | 2 | 2 | 2 | | | |
| ACT B4 | | | | | | | | | |
| SEC/ACT | | | | | | | | | |
| MAX INT | | | | | | | | | |
| TIME B4 | | | | | | | | | |
| CARS WT | | | | | | | | | |
| STPTDUC | | | | | | | | | |
| TTREDUC | | | | | | | | | |
| MIN GAP | | | | | | | | | |
| RECALLS - MM-2-8 | LOCK DET | | | | | | | | |
| | VEH RECALL | | X | | | | X | | |
| | PED RECALL | | | | | | | | |
| | MAX RECALL | | | | | | | | |
| | SOFT RECALL | | | | | | | | |
| | NO REST | | | | | | | | |
| ADD INIT CAL | | | | | | | | | |

| |
|-------|
| NOTES |
| |



| PHASING SEQUENCES | | | | | | | | | |
|--------------------------|--|---|--|---|--|---|---|--|--|
| TOD: MORNING | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: B B | | | | | | | | | |
| TOD: MIDDAY | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: B B | | | | | | | | | |
| TOD: EVENING | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: B B | | | | | | | | | |
| TOD: NIGHT | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
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| | | | | | | | | | |
| Use Timing plan: B B | | | | | | | | | |
| FREE | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
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| | | | | | | | | | |
| Use Timing plan: 254 B B | | | | | | | | | |

| |
|----------------|
| Approved By |
| |
| Effective Date |
| |

| | | |
|---|-----------------|------------|
| SCOTTSDALE RD & Thompson Peak Pkwy | System # | 216 |
|---|-----------------|------------|

| | | |
|--------------------|-----------|--------------|
| COORDINATOR | Section # | Date Updated |
| | 0 | 6/18/2020 |

| | | | | | | | | | | |
|--|---------|---|-----|---|-----|-----|-----|---|---|--|
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| | FDW | | - | | 24 | | 37 | | | |
| | YELLOW | | 5.1 | | 4.7 | 4.4 | 5.1 | | | |
| | ALL RED | | 2.2 | | 2 | 2 | 2.2 | | | |
| | WALK | | - | | 24 | | 37 | | | |

| | | | | | | | | | | | |
|---|---------|--------|------|---|------|--------|------|--|--|------------------|---------------------|
| PLAN 1 AM PLAN OPERATIVE TIMES 6:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 44 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | Target Cycle Length |
| | SPLIT | | 85 | | 35 | 16 | 69 | | | | |
| | COORD | | X | | | | X | | | | 120 |
| | RECALLS | | V | | | | V | | | | Actual Cycle Length |
| | GREEN | | 77.7 | | 28.3 | 9.6 | 61.7 | | | | 120 |

| | | | | | | | | | | | |
|---|---------|--------|------|---|------|--------|------|--|--|------------------|---------------------|
| PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 83 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | Target Cycle Length |
| | SPLIT | | 79 | | 29 | 14 | 65 | | | | |
| | COORD | | X | | | | X | | | | 108 |
| | RECALLS | | V | | | | V | | | | Actual Cycle Length |
| | GREEN | | 71.7 | | 22.3 | 7.6 | 57.7 | | | | 108 |

| | | | | | | | | | | | |
|--|---------|--------|------|---|------|--------|------|--|--|------------------|---------------------|
| PLAN 3 PM PLAN OPERATIVE TIMES 15:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 88 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | Target Cycle Length |
| | SPLIT | | 90 | | 30 | 20 | 70 | | | | |
| | COORD | | X | | | | X | | | | 120 |
| | RECALLS | | V | | | | V | | | | Actual Cycle Length |
| | GREEN | | 82.7 | | 23.3 | ### | 62.7 | | | | 120 |

| | | | | | | | | | | | |
|---|---------|--------|------|---|------|--------|------|--|--|------------------|---------------------|
| PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES 22:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 64 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | Target Cycle Length |
| | SPLIT | | 63 | | 27 | 14 | 49 | | | | |
| | COORD | | X | | | | X | | | | 90 |
| | RECALLS | | V | | | | V | | | | Actual Cycle Length |
| | GREEN | | 55.7 | | 20.3 | 7.6 | 41.7 | | | | 90 |

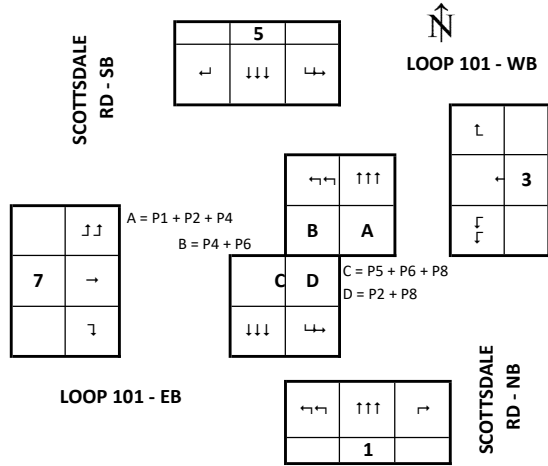
| | | | |
|-------------------------------------|-----------|--------------------------------|---------------------|
| SCOTTSDALE RD & LOOP 101 | | | System # 254 |
| BASIC TIMING PLAN | Section # | I.P. Address MM1-5-1 | Date Designed |
| | | | 8/11/2022 |

| Phase | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Movement | NBT | | WBT | | SBT | | EBT | |
| NOTES | | | | | | | | |
| MIN GRN | 10 | 5 | 7 | 2 | 10 | 5 | 7 | 2 |
| BK MGRN | | | | | | | | |
| CS MGRN | | | | | | | | |
| DLY GRN | | | | | | | | |
| WALK | 4 | | 4 | | 4 | | 4 | |
| WALK2 | | | | | | | | |
| WLK MAX | | | | | | | | |
| PED CLR/FDW | 18 | | 46 | | 20 | | 44 | |
| PD CLR2 | | | | | | | | |
| PC MAX | | | | | | | | |
| PED CO | | | | | | | | |
| VEH EXT | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| VH EXT2 | | | | | | | | |
| MAX 1 | 50 | 30 | 40 | 15 | 50 | 30 | 40 | 4 |
| MAX 2 | 70 | 50 | 60 | 35 | 70 | 50 | 60 | 4 |
| MAX 3 | | | | | | | | |
| DYM MAX | 70 | 50 | 60 | 35 | 70 | 50 | 60 | 4 |
| DYM STP | | | | | | | | |
| YELLOW | 4.7 | 4.0 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 |
| RED CLR | 1 | 2.0 | 2 | 2.0 | 1 | 2.0 | 2 | 2.0 |
| RED MAX | | | | | | | | |
| RED RVT | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| ACT B4 | | | | | | | | |
| SEC/ACT | | | | | | | | |
| MAX INT | | | | | | | | |
| TIME B4 | | | | | | | | |
| CARS WT | | | | | | | | |
| STPTDUC | | | | | | | | |
| TTREDUC | | | | | | | | |
| MIN GAP | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| LOCK DET | | | | | | | | |
| VEH RECALL | X | | | | X | | | |
| PED RECALL | | | | | | | | |
| MAX RECALL | | | | | | | | |
| SOFT RECALL | | | | | | | | |
| NO REST | | | | | | | | |
| ADD INIT CAL | | | | | | | | |

TIMING PLAN - MM-2-1

RECALLS - MM-2-8

| NOTES | |
|--|--|
| OVLP A = Ph1 + Ph2 + Ph4; OVLP B = Ph4 + Ph6; OVLP C = Ph5 + Ph6 + Ph8; OVLP D = Ph2 + Ph8; | |



| PHASING SEQUENCES | |
|----------------------|---------|
| TOD: MORNING | |
| R1 | 1 2 3 4 |
| R2 | 6 5 8 7 |
| Use Timing plan: | |
| TOD: MIDDAY | |
| R1 | 1 2 3 4 |
| R2 | 6 5 8 7 |
| Use Timing plan: | |
| TOD: EVENING | |
| R1 | 1 2 3 4 |
| R2 | 6 5 8 7 |
| Use Timing plan: | |
| TOD: NIGHT | |
| R1 | 1 2 3 4 |
| R2 | 6 5 8 7 |
| Use Timing plan: | |
| FREE | |
| R1 | 1 2 3 4 |
| R2 | 6 5 8 7 |
| Use Timing plan: 254 | |

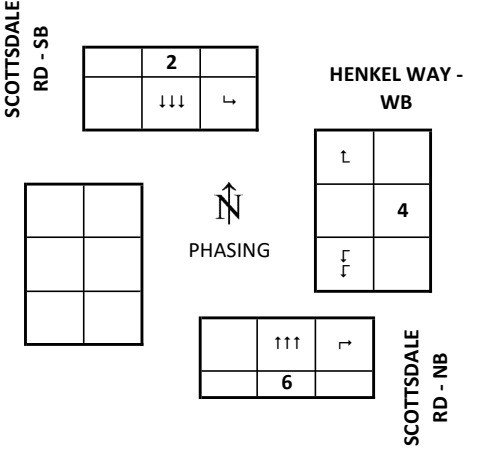
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|----------------|
| Approved By |
| |
| Effective Date |
| |

| SCOTTSDALE RD & LOOP 101 | | | | | | | | | | System # | 254 |
|--|---------|--------|------|------|-----|-----------|------|------|------|---------------------|--------|
| COORDINATOR | | | | | | Section # | | | | Date Updated | |
| | | | | | | 0 | | | | 8/11/2022 | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | FDW | 18 | | 46 | 0 | 20 | | 44 | | | |
| | YELLOW | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | | |
| | ALL RED | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | | |
| | WALK | | | | 0 | | | | | | |
| PLAN 1 AM PLAN OPERATIVE TIMES 6:00 | R1 | 1 | ↶ | 2 | → | 3 | ↶ | 4 | ↓ | COORD PATTERN | OFFSET |
| | R2 | 6 | ← | 5 | ↷ | 8 | ↑ | 7 | ↷ | Balanced | 85 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | SPLIT | 38 | 42 | 30 | 10 | 48 | 32 | 36 | 4 | Target Cycle Length | |
| | COORD | X | | | | X | | | | 120 | |
| | RECALLS | V | | | | V | | | | Actual Cycle Length | |
| | GREEN | 32.3 | 36.0 | 23.3 | 4.0 | ### | 26.0 | 29.3 | -2.0 | 120 | |
| PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00 | R1 | 1 | ↶ | 2 | → | 3 | ↶ | 4 | ↓ | COORD PATTERN | OFFSET |
| | R2 | 6 | ← | 5 | ↷ | 8 | ↑ | 7 | ↷ | Balanced | 14 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | SPLIT | 40 | 29 | 29 | 10 | 32 | 37 | 35 | 4 | Target Cycle Length | |
| | COORD | X | | | | X | | | | 108 | |
| | RECALLS | V | | | | V | | | | Actual Cycle Length | |
| | GREEN | 34.3 | 23.0 | 22.3 | 4.0 | ### | 31.0 | 28.3 | -2.0 | 108 | |
| PLAN 3 PM PLAN OPERATIVE TIMES 15:00 | R1 | 1 | ↶ | 2 | → | 3 | ↶ | 4 | ↓ | COORD PATTERN | OFFSET |
| | R2 | 6 | ← | 5 | ↷ | 8 | ↑ | 7 | ↷ | Balanced | 9 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | SPLIT | 48 | 30 | 32 | 10 | 35 | 43 | 38 | 4 | Target Cycle Length | |
| | COORD | X | | | | X | | | | 120 | |
| | RECALLS | V | | | | V | | | | Actual Cycle Length | |
| | GREEN | 42.3 | 24.0 | 25.3 | 4.0 | ### | 37.0 | 31.3 | -2.0 | 120 | |
| PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES 22:00 | R1 | 1 | ↶ | 2 | → | 3 | ↶ | 4 | ↓ | COORD PATTERN | OFFSET |
| | R2 | 6 | ← | 5 | ↷ | 8 | ↑ | 7 | ↷ | Balanced | 83 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | SPLIT | 33 | 25 | 22 | 10 | 33 | 25 | 30 | 2 | Target Cycle Length | |
| | COORD | X | | | | X | | | | 90 | |
| | RECALLS | V | | | | V | | | | Actual Cycle Length | |
| | GREEN | 27.3 | 19.0 | 15.3 | 4.0 | ### | 19.0 | 23.3 | -4.0 | 90 | |

| | | | |
|---------------------------------------|-----------|--------------------------------|----------------------------|
| SCOTTSDALE RD & HENKEL WAY | | | System # 290 |
| BASIC TIMING PLAN | Section # | I.P. Address MM1-5-1 | Date Designed 2/10/2022 |
| | | | |

| | | | | | |
|-----------------------------|-------------|-------|-----|-------|--|
| TIMING PLAN - MM-2-1 | Phase | 2 | 4 | 6 | |
| | Movement | SBT | WBT | NBT | |
| | NOTES | COORD | | COORD | |
| | MIN GRN | 10 | 7 | 10 | |
| | BK MGRN | | | | |
| | CS MGRN | | | | |
| | DLY GRN | | | | |
| | WALK | 0 | 0 | 4 | |
| | WALK2 | | | | |
| | WLK MAX | | | | |
| | PED CLR/FDW | - | - | 22 | |
| | PD CLR2 | | | | |
| | PC MAX | | | | |
| | PED CO | | | | |
| | VEH EXT | 2 | 2 | 2 | |
| | VH EXT2 | | | | |
| | MAX 1 | 70 | 30 | 70 | |
| | MAX 2 | 90 | 50 | 90 | |
| | MAX 3 | | | | |
| | DYM MAX | | | | |
| DYM STP | | | | | |
| YELLOW | 4.7 | 3 | 4.7 | | |
| RED CLR | 1.0 | 2.0 | 1.0 | | |
| RED MAX | | | | | |
| RED RVT | 2 | 2 | 2 | | |
| ACT B4 | | | | | |
| SEC/ACT | | | | | |
| MAX INT | | | | | |
| TIME B4 | | | | | |
| CARS WT | | | | | |
| STPTDUC | | | | | |
| TTREDUC | | | | | |
| MIN GAP | | | | | |
| RECALLS - MM-2-8 | LOCK DET | | | | |
| | VEH RECALL | | | | |
| | PED RECALL | X | | X | |
| | MAX RECALL | X | | X | |
| | SOFT RECALL | | | | |
| NO REST | | | | | |
| ADD INIT CAL | | | | | |

| |
|-------|
| NOTES |
| |



| PHASING SEQUENCES | |
|----------------------|-----|
| TOD: MORNING | |
| R1 | 2 4 |
| R2 | 6 |
| Use Timing plan: | |
| TOD: MIDDAY | |
| R1 | 2 4 |
| R2 | 6 |
| Use Timing plan: | |
| TOD: EVENING | |
| R1 | 2 4 |
| R2 | 6 |
| Use Timing plan: | |
| TOD: NIGHT | |
| R1 | 2 4 |
| R2 | 6 |
| Use Timing plan: | |
| FREE | |
| R1 | 2 4 |
| R2 | 6 |
| Use Timing plan: 254 | |

| |
|----------------|
| Approved By |
| |
| Effective Date |
| |

SCOTTSDALE RD & HENKEL WAY

System #

290

COORDINATOR

Section #

0

Date Updated

2/10/2022

| PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---------|---|-----|---|---|---|-----|---|---|
| FDW | | - | | - | | 22 | | |
| YELLOW | | 4.7 | | 3 | | 4.7 | | |
| ALL RED | | 1 | | 2 | | 1 | | |
| WALK | | - | | - | | 22 | | |

| | | | | | | | | | | | |
|---|---------|--------|------|--|------|--------|------|--|--|------------------|---------------------|
| PLAN 1 AM PLAN OPERATIVE TIMES 6:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | | | | | | | Balanced | 11 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | | 6 | | | | Target Cycle Length |
| | SPLIT | | 100 | | 20 | | 100 | | | | |
| | COORD | | X | | | | X | | | | 120 |
| | RECALLS | | M&P | | | | M&P | | | | Actual Cycle Length |
| | GREEN | | 94.3 | | 15.0 | | 94.3 | | | | 120 |

| | | | | | | | | | | | |
|---|---------|--------|----|--|------|--------|------|--|--|------------------|---------------------|
| PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | | | | | | | Balanced | 21 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | | 6 | | | | Target Cycle Length |
| | SPLIT | | 90 | | 30 | | 90 | | | | |
| | COORD | | X | | | | X | | | | 108 |
| | RECALLS | | P | | | | P | | | | Actual Cycle Length |
| | GREEN | | | | 25.0 | | 84.4 | | | | 120 |

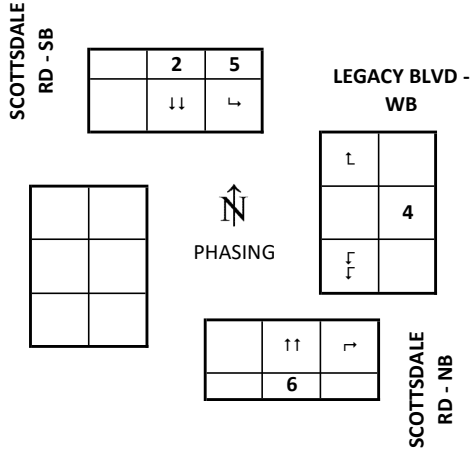
| | | | | | | | | | | | |
|--|---------|--------|------|--|------|--------|------|--|--|------------------|---------------------|
| PLAN 3 PM PLAN OPERATIVE TIMES 15:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | | | | | | | Balanced | 28 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | | 6 | | | | Target Cycle Length |
| | SPLIT | | 98 | | 22 | | 98 | | | | |
| | COORD | | X | | | | X | | | | 120 |
| | RECALLS | | M&P | | | | M&P | | | | Actual Cycle Length |
| | GREEN | | 92.3 | | 17.0 | | 92.3 | | | | 120 |

| | | | | | | | | | | | |
|---|---------|--------|----|--|------|--------|------|--|--|------------------|---------------------|
| PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES 22:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET |
| | R2 | 6 | ↑ | | | | | | | Balanced | 14 |
| | | RING 1 | | | | RING 2 | | | | | |
| | PHASE | | 2 | | 4 | | 6 | | | | Target Cycle Length |
| | SPLIT | | 70 | | 20 | | 70 | | | | |
| | COORD | | X | | | | X | | | | 90 |
| | RECALLS | | P | | | | P | | | | Actual Cycle Length |
| | GREEN | | | | 15.0 | | 64.4 | | | | 90 |

| | | | |
|--|-----------|--------------------------------|-----------------------------------|
| SCOTTSDALE RD & LEGACY BLVD | | | System # 291 |
| BASIC TIMING PLAN | Section # | I.P. Address MM1-5-1 | Date Designed 2/10/2022 |
| | | | |

| | | | | | | | | | |
|-----------------------------|-------------|-----|-------|-----|-----|-----|-------|--|--|
| TIMING PLAN - MM-2-1 | Phase | | 2 | | 4 | 5 | 6 | | |
| | Movement | | SBT | | WBT | SBL | NBT | | |
| | NOTES | | COORD | | | p&P | COORD | | |
| | MIN GRN | | 10 | | 7 | 5 | 10 | | |
| | BK MGRN | | | | | | | | |
| | CS MGRN | | | | | | | | |
| | DLY GRN | | | | | | | | |
| | WALK | | 0 | | 0 | | 7 | | |
| | WALK2 | | | | | | | | |
| | WLK MAX | | | | | | | | |
| | PED CLR/FDW | | - | | - | | 26 | | |
| | PD CLR2 | | | | | | | | |
| | PC MAX | | | | | | | | |
| | PED CO | | | | | | | | |
| | VEH EXT | | 1 | | 2 | 2 | 1 | | |
| | VH EXT2 | | | | | | | | |
| | MAX 1 | | 70 | | 25 | 20 | 70 | | |
| | MAX 2 | | 90 | | 40 | 30 | 90 | | |
| | MAX 3 | | | | | | | | |
| | DYM MAX | | | | | | | | |
| DYM STP | | | | | | | | | |
| YELLOW | | 4.7 | | 3.6 | 4 | 4.7 | | | |
| RED CLR | | 1.6 | | 3.0 | 2 | 1.6 | | | |
| RED MAX | | | | | | | | | |
| RED RVT | | 2 | | 2 | 2 | 2 | | | |
| ACT B4 | | | | | | | | | |
| SEC/ACT | | | | | | | | | |
| MAX INT | | | | | | | | | |
| TIME B4 | | | | | | | | | |
| CARS WT | | | | | | | | | |
| STPTDUC | | | | | | | | | |
| TTREDUC | | | | | | | | | |
| MIN GAP | | | | | | | | | |
| RECALLS - MM-2-8 | LOCK DET | | | | | | | | |
| | VEH RECALL | | | | | | | | |
| | PED RECALL | | X | | | | X | | |
| | MAX RECALL | | X | | | | X | | |
| | SOFT RECALL | | | | | | | | |
| | NO REST | | | | | | | | |
| ADD INIT CAL | | | | | | | | | |

| |
|-------|
| NOTES |
| |



| PHASING SEQUENCES | | | | | | | | | |
|----------------------|--|---|--|---|--|---|---|--|--|
| TOD: MORNING | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: | | | | | | | | | |
| TOD: MIDDAY | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: | | | | | | | | | |
| TOD: EVENING | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: | | | | | | | | | |
| TOD: NIGHT | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: | | | | | | | | | |
| FREE | | | | | | | | | |
| R1 | <table border="1"><tr><td>2</td><td></td><td>4</td><td></td></tr><tr><td>6</td><td>5</td><td></td><td></td></tr></table> | 2 | | 4 | | 6 | 5 | | |
| 2 | | 4 | | | | | | | |
| 6 | 5 | | | | | | | | |
| R2 | <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Use Timing plan: 254 | | | | | | | | | |

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|----------------|
| Approved By |
| |
| Effective Date |
| |

| SCOTTSDALE RD & LEGACY BLVD | | | | | | | | | | System # | | 291 | |
|---|---------|--------|------|---|------|-----------|------|---|---|---------------------|--------|-----|--|
| COORDINATOR | | | | | | Section # | | | | Date Updated | | | |
| | | | | | | 0 | | | | 2/10/2022 | | | |
| | PHASE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| | FDW | | - | | - | | 26 | | | | | | |
| | YELLOW | | 4.7 | | 3.6 | 4 | 4.7 | | | | | | |
| | ALL RED | | 1.6 | | 3 | 2 | 1.6 | | | | | | |
| | WALK | | - | | - | | 26 | | | | | | |
| PLAN 1 AM PLAN OPERATIVE TIMES 6:30 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET | | |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 115 | | |
| | | RING 1 | | | | RING 2 | | | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | | | |
| | SPLIT | | 100 | | 20 | 14 | 86 | | | Target Cycle Length | | | |
| | COORD | | X | | | | X | | | 120 | | | |
| | RECALLS | | V | | | | V | | | Actual Cycle Length | | | |
| | GREEN | | 93.7 | | 13.4 | 8.0 | 79.7 | | | 120 | | | |
| PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET | | |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 86 | | |
| | | RING 1 | | | | RING 2 | | | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | | | |
| | SPLIT | | 88 | | 20 | 12 | 76 | | | Target Cycle Length | | | |
| | COORD | | X | | | | X | | | 108 | | | |
| | RECALLS | | V | | | | V | | | Actual Cycle Length | | | |
| | GREEN | | 81.7 | | 13.4 | 6.0 | 69.7 | | | 108 | | | |
| PLAN 3 PM PLAN OPERATIVE TIMES 15:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET | | |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 75 | | |
| | | RING 1 | | | | RING 2 | | | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | | | |
| | SPLIT | | 106 | | 14 | 11 | 95 | | | Target Cycle Length | | | |
| | COORD | | X | | | | X | | | 120 | | | |
| | RECALLS | | V | | | | V | | | Actual Cycle Length | | | |
| | GREEN | | 99.7 | | 7.4 | 5.0 | 88.7 | | | 120 | | | |
| PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES 20:00 | R1 | 2 | ↓ | | | 4 | ← | | | COORD PATTERN | OFFSET | | |
| | R2 | 6 | ↑ | 5 | ↳ | | | | | Balanced | 10 | | |
| | | RING 1 | | | | RING 2 | | | | | | | |
| | PHASE | | 2 | | 4 | 5 | 6 | | | | | | |
| | SPLIT | | 71 | | 19 | 12 | 59 | | | Target Cycle Length | | | |
| | COORD | | X | | | | X | | | 90 | | | |
| | RECALLS | | V | | | | V | | | Actual Cycle Length | | | |
| | GREEN | | 64.7 | | 12.4 | 6.0 | 52.7 | | | 90 | | | |



Appendix E – Existing Capacity Analysis

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑ | ↔ | ↔ | ↑↑ |
| Traffic Volume (veh/h) | 263 | 66 | 1378 | 453 | 52 | 1661 |
| Future Volume (veh/h) | 263 | 66 | 1378 | 453 | 52 | 1661 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 302 | 76 | 1531 | 503 | 57 | 1825 |
| Peak Hour Factor | 0.87 | 0.87 | 0.90 | 0.90 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 432 | 198 | 1827 | 815 | 327 | 2695 |
| Arrive On Green | 0.12 | 0.12 | 0.34 | 0.34 | 0.18 | 0.76 |
| Sat Flow, veh/h | 3456 | 1585 | 3647 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 302 | 76 | 1531 | 503 | 57 | 1825 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 10.1 | 5.3 | 47.6 | 31.7 | 3.2 | 30.6 |
| Cycle Q Clear(g_c), s | 10.1 | 5.3 | 47.6 | 31.7 | 3.2 | 30.6 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 432 | 198 | 1827 | 815 | 327 | 2695 |
| V/C Ratio(X) | 0.70 | 0.38 | 0.84 | 0.62 | 0.17 | 0.68 |
| Avail Cap(c_a), veh/h | 815 | 374 | 1827 | 815 | 327 | 2695 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.3 | 48.3 | 34.7 | 29.5 | 41.3 | 7.2 |
| Incr Delay (d2), s/veh | 0.8 | 0.5 | 4.8 | 3.5 | 0.1 | 1.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.3 | 4.8 | 22.1 | 13.2 | 1.4 | 8.9 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 51.1 | 48.7 | 39.5 | 33.0 | 41.4 | 8.6 |
| LnGrp LOS | D | D | D | C | D | A |
| Approach Vol, veh/h | 378 | | 2034 | | | 1882 |
| Approach Delay, s/veh | 50.6 | | 37.9 | | | 9.6 |
| Approach LOS | D | | D | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 98.3 | | 21.7 | 29.3 | 69.0 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 77.7 | | 28.3 | 9.6 | * 62 |
| Max Q Clear Time (g_c+I1), s | | 32.6 | | 12.1 | 5.2 | 49.6 |
| Green Ext Time (p_c), s | | 2.6 | | 0.6 | 0.0 | 3.8 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 26.6 | | | |
| HCM 7th LOS | | | C | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBT | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 85 | 35 | 16 | 69 |
| Maximum Split (%) | 70.8% | 29.2% | 13.3% | 57.5% |
| Minimum Split (s) | 22.5 | 38.7 | 11.4 | 48.3 |
| Yellow Time (s) | 5.1 | 4.7 | 4.4 | 5.1 |
| All-Red Time (s) | 2.2 | 2 | 2 | 2.2 |
| Minimum Initial (s) | 10 | 15 | 5 | 10 |
| Vehicle Extension (s) | 0.2 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | 8 | | 4 |
| Flash Dont Walk (s) | | 24 | | 37 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 44 | 9 | 113 | 44 |
| End Time (s) | 9 | 44 | 9 | 113 |
| Yield/Force Off (s) | 1.7 | 37.3 | 2.6 | 105.7 |
| Yield/Force Off 170(s) | 1.7 | 13.3 | 2.6 | 68.7 |
| Local Start Time (s) | 0 | 85 | 69 | 0 |
| Local Yield (s) | 77.7 | 113.3 | 78.6 | 61.7 |
| Local Yield 170(s) | 77.7 | 89.3 | 78.6 | 24.7 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 100 |
| Offset: 44 (37%), Referenced to phase 2:SBT and 6:NBT, Start of Green | |

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | | ↗↗ |
| Traffic Vol, veh/h | 0 | 1 | 1830 | 2 | 0 | 1923 |
| Future Vol, veh/h | 0 | 1 | 1830 | 2 | 0 | 1923 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 91 | 91 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 1 | 2011 | 2 | 0 | 2046 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 1005 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *558 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 0 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *558 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|----|
| HCM Control Delay, s/v | 11.46 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 558 |
| HCM Lane V/C Ratio | - | - | 0.002 |
| HCM Control Delay (s/veh) | - | - | 11.5 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | ↘ | ↗↗ |
| Traffic Vol, veh/h | 3 | 25 | 1807 | 7 | 5 | 1921 |
| Future Vol, veh/h | 3 | 25 | 1807 | 7 | 5 | 1921 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 72 | 72 | 91 | 91 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 35 | 1986 | 8 | 5 | 2044 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 3018 | 993 | 0 | 0 | 1993 |
| Stage 1 | 1986 | - | - | - | - |
| Stage 2 | 1032 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | *~ 0 | *575 | - | - | 334 |
| Stage 1 | *151 | - | - | - | - |
| Stage 2 | *510 | - | - | - | - |
| Platoon blocked, % | 1 | 0 | - | - | 0 |
| Mov Cap-1 Maneuver | *~ 0 | *575 | - | - | 334 |
| Mov Cap-2 Maneuver | *~ 0 | - | - | - | - |
| Stage 1 | *151 | - | - | - | - |
| Stage 2 | *502 | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 11.66 | 0 | 0.04 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|------|-------|
| Capacity (veh/h) | - | - | 575 | 334 |
| HCM Lane V/C Ratio | - | - | 0.06 | 0.016 |
| HCM Control Delay (s/veh) | - | - | 11.7 | 16 |
| HCM Lane LOS | - | - | B | C |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | | ↗↗ |
| Traffic Vol, veh/h | 0 | 0 | 1814 | 4 | 0 | 1924 |
| Future Vol, veh/h | 0 | 0 | 1814 | 4 | 0 | 1924 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 1972 | 4 | 0 | 2047 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 986 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *675 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 0 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *675 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-----|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|-------|------|------|-------|-------|
| Lane Configurations | ↔↔ | ↔ | ↕↕ | ↔ | ↔ | ↕↕ |
| Traffic Volume (veh/h) | 88 | 11 | 1807 | 40 | 11 | 1913 |
| Future Volume (veh/h) | 88 | 11 | 1807 | 40 | 11 | 1913 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 105 | 13 | 1964 | 43 | 12 | 2035 |
| Peak Hour Factor | 0.84 | 0.84 | 0.92 | 0.92 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 198 | 91 | 2360 | 1053 | 321 | 2968 |
| Arrive On Green | 0.06 | 0.06 | 0.66 | 0.66 | 0.16 | 1.00 |
| Sat Flow, veh/h | 3456 | 1585 | 3647 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 105 | 13 | 1964 | 43 | 12 | 2035 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 3.5 | 0.9 | 49.8 | 1.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.5 | 0.9 | 49.8 | 1.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 198 | 91 | 2360 | 1053 | 321 | 2968 |
| V/C Ratio(X) | 0.53 | 0.14 | 0.83 | 0.04 | 0.04 | 0.69 |
| Avail Cap(c_a), veh/h | 386 | 177 | 2360 | 1053 | 321 | 2968 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.0 | 53.8 | 15.1 | 7.0 | 25.5 | 0.0 |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 3.6 | 0.1 | 0.0 | 1.3 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.8 | 18.0 | 0.4 | 0.2 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.8 | 54.0 | 18.7 | 7.0 | 25.5 | 1.3 |
| LnGrp LOS | E | D | B | A | C | A |
| Approach Vol, veh/h | 118 | | 2007 | | | 2047 |
| Approach Delay, s/veh | 55.6 | | 18.5 | | | 1.5 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 106.5 | | 13.5 | 20.5 | 86.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 94 | | 13.4 | * 8 | * 80 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 5.5 | 2.0 | 51.8 |
| Green Ext Time (p_c), s | | 7.3 | | 0.1 | 0.0 | 6.5 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 11.2 | | | |
| HCM 7th LOS | | | B | | | |
| Notes | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 100 | 20 | 14 | 86 |
| Maximum Split (%) | 83.3% | 16.7% | 11.7% | 71.7% |
| Minimum Split (s) | 22.5 | 22.5 | 11 | 39.3 |
| Yellow Time (s) | 4.7 | 3.6 | 4 | 4.7 |
| All-Red Time (s) | 1.6 | 3 | 2 | 1.6 |
| Minimum Initial (s) | 10 | 7 | 5 | 5 |
| Vehicle Extension (s) | 1 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 7 |
| Flash Dont Walk (s) | | | | 26 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 115 | 95 | 81 | 115 |
| End Time (s) | 95 | 115 | 95 | 81 |
| Yield/Force Off (s) | 88.7 | 108.4 | 89 | 74.7 |
| Yield/Force Off 170(s) | 88.7 | 108.4 | 89 | 48.7 |
| Local Start Time (s) | 0 | 100 | 86 | 0 |
| Local Yield (s) | 93.7 | 113.4 | 94 | 79.7 |
| Local Yield 170(s) | 93.7 | 113.4 | 94 | 53.7 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 90 |
| Offset: 115 (96%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



6: Scottsdale Road & Henkel Way

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑↑ | ↔ | ↔ | ↑↑↑ |
| Traffic Volume (veh/h) | 3 | 3 | 1844 | 26 | 11 | 1990 |
| Future Volume (veh/h) | 3 | 3 | 1844 | 26 | 11 | 1990 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 5 | 1983 | 28 | 12 | 2140 |
| Peak Hour Factor | 0.63 | 0.63 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 57 | 26 | 4566 | 1418 | 236 | 4566 |
| Arrive On Green | 0.02 | 0.02 | 0.89 | 0.89 | 0.89 | 0.89 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 213 | 5274 |
| Grp Volume(v), veh/h | 5 | 5 | 1983 | 28 | 12 | 2140 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 213 | 1702 |
| Q Serve(g_s), s | 0.2 | 0.4 | 8.1 | 0.2 | 1.2 | 9.2 |
| Cycle Q Clear(g_c), s | 0.2 | 0.4 | 8.1 | 0.2 | 9.3 | 9.2 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 57 | 26 | 4566 | 1418 | 236 | 4566 |
| V/C Ratio(X) | 0.09 | 0.19 | 0.43 | 0.02 | 0.05 | 0.47 |
| Avail Cap(c_a), veh/h | 432 | 198 | 4566 | 1418 | 236 | 4566 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.85 | 0.85 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 58.1 | 58.2 | 1.1 | 0.7 | 1.9 | 1.2 |
| Incr Delay (d2), s/veh | 0.2 | 1.3 | 0.3 | 0.0 | 0.4 | 0.3 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 58.4 | 59.5 | 1.4 | 0.7 | 2.3 | 1.5 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 10 | | 2011 | | | 2152 |
| Approach Delay, s/veh | 58.9 | | 1.3 | | | 1.5 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+Rc), s | | 113.0 | | 7.0 | | 113.0 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | | 5.7 |
| Max Green Setting (Gmax), s | | 94.3 | | 15.0 | | 94.3 |
| Max Q Clear Time (g_c+I1), s | | 11.3 | | 2.4 | | 10.1 |
| Green Ext Time (p_c), s | | 18.1 | | 0.0 | | 14.6 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 1.6 | | | |
| HCM 7th LOS | | | A | | | |

6: Scottsdale Road & Henkel Way

12/08/2023

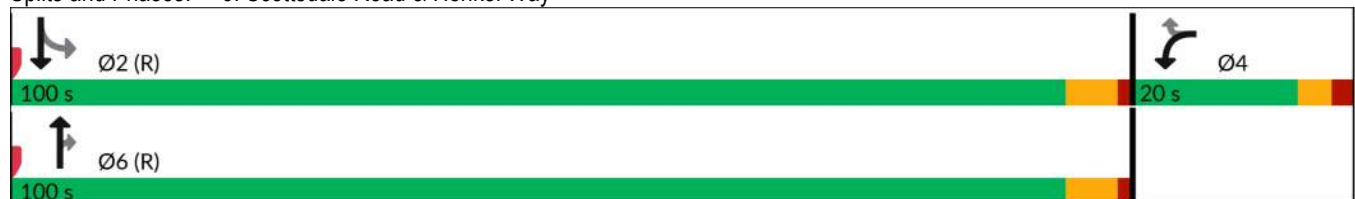


| Phase Number | 2 | 4 | 6 |
|------------------------|-------|-------|-------|
| Movement | SBTL | WBL | NBT |
| Lead/Lag | | | |
| Lead-Lag Optimize | | | |
| Recall Mode | C-Max | None | C-Max |
| Maximum Split (s) | 100 | 20 | 100 |
| Maximum Split (%) | 83.3% | 16.7% | 83.3% |
| Minimum Split (s) | 22.5 | 22.5 | 31.7 |
| Yellow Time (s) | 4.7 | 3 | 4.7 |
| All-Red Time (s) | 1 | 2 | 1 |
| Minimum Initial (s) | 10 | 7 | 10 |
| Vehicle Extension (s) | 2 | 2 | 2 |
| Minimum Gap (s) | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 |
| Walk Time (s) | | | 4 |
| Flash Dont Walk (s) | | | 22 |
| Dual Entry | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes |
| Start Time (s) | 11 | 111 | 11 |
| End Time (s) | 111 | 11 | 111 |
| Yield/Force Off (s) | 105.3 | 6 | 105.3 |
| Yield/Force Off 170(s) | 105.3 | 6 | 83.3 |
| Local Start Time (s) | 0 | 100 | 0 |
| Local Yield (s) | 94.3 | 115 | 94.3 |
| Local Yield 170(s) | 94.3 | 115 | 72.3 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 60 |
| Offset: 11 (9%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 6: Scottsdale Road & Henkel Way



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

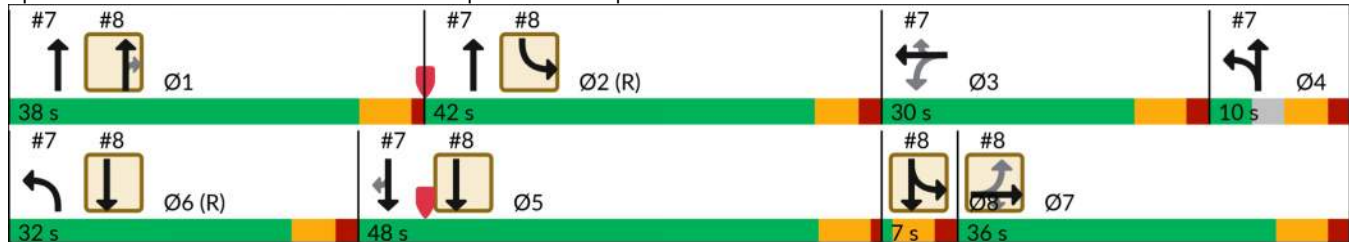


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-----|-----|-----|-------|-------|------|-------|-------|-----|-----|------|------|
| Lane Configurations | | | | ↔↔ | ↔ | ↔ | ↔↔ | ↑↑↑ | | | ↑↑↑↑ | ↔ |
| Traffic Volume (vph) | 0 | 0 | 0 | 400 | 5 | 505 | 375 | 1365 | 0 | 0 | 1471 | 523 |
| Future Volume (vph) | 0 | 0 | 0 | 400 | 5 | 505 | 375 | 1365 | 0 | 0 | 1471 | 523 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1509 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1509 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 69 | 190 | | | | | | 495 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 635 | 409 | 401 | 403 | 1468 | 0 | 0 | 1582 | 562 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3! | | 4 6! | 1 2 4 | | | 5! | |
| Permitted Phases | | | | 3! | | 3 | | | | | | 5 |
| Total Split (s) | | | | 30.0 | 30.0 | 30.0 | | | | | 48.0 | 48.0 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effect Green (s) | | | | 27.0 | 27.0 | 27.0 | 36.7 | 83.6 | | | 44.6 | 44.6 |
| Actuated g/C Ratio | | | | 0.22 | 0.22 | 0.22 | 0.30 | 0.68 | | | 0.36 | 0.36 |
| v/c Ratio | | | | 0.84 | 1.06 | 0.84 | 0.39 | 0.43 | | | 0.58 | 0.63 |
| Control Delay (s/veh) | | | | 58.0 | 102.1 | 41.2 | 9.0 | 5.2 | | | 33.0 | 8.3 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | | | 0.0 | 0.0 |
| Total Delay (s/veh) | | | | 58.0 | 102.1 | 41.2 | 9.0 | 5.6 | | | 33.0 | 8.3 |
| LOS | | | | E | F | D | A | A | | | C | A |
| Approach Delay (s/veh) | | | | | 65.8 | | | 6.3 | | | 26.5 | |
| Approach LOS | | | | | E | | | A | | | C | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.33
 Intersection Signal Delay (s/veh): 30.0 Intersection LOS: C
 Intersection Capacity Utilization 74.0% ICU Level of Service D
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

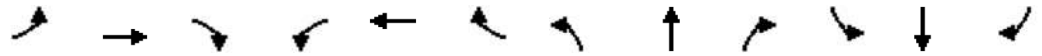
Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|------------------------|------|------|------|------|------|-----|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 38.0 | 42.0 | 10.0 | 32.0 | 36.0 | 7.0 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |

8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

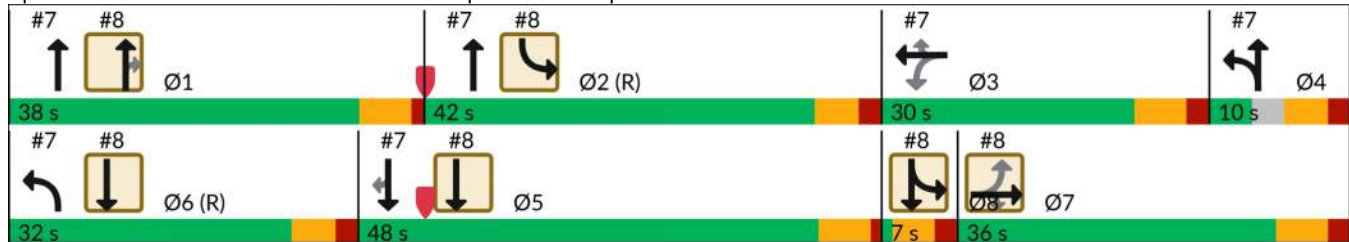


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|------|-----|-----|-----|-----|------|------|-------|-------|-----|
| Lane Configurations | ↖↗ | ↖ | ↗ | | | | | ↑↑↑↑ | ↖ | ↖↗ | ↑↑↑↑ | |
| Traffic Volume (vph) | 766 | 3 | 908 | 0 | 0 | 0 | 0 | 974 | 310 | 619 | 1251 | 0 |
| Future Volume (vph) | 766 | 3 | 908 | 0 | 0 | 0 | 0 | 974 | 310 | 619 | 1251 | 0 |
| Satd. Flow (prot) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Satd. Flow (RTOR) | | 75 | 184 | | | | | | 356 | | | |
| Lane Group Flow (vph) | 923 | 551 | 547 | 0 | 0 | 0 | 0 | 1120 | 356 | 659 | 1331 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | | 7! | | | | | | 1! | | 2 8! | 5 6 8 | |
| Permitted Phases | 7! | | 7 | | | | | | 1 | | | |
| Total Split (s) | 36.0 | 36.0 | 36.0 | | | | | 38.0 | 38.0 | | | |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 | | | |
| Act Effct Green (s) | 29.3 | 29.3 | 29.3 | | | | | 32.3 | 32.3 | 35.7 | 81.3 | |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.24 | | | | | 0.26 | 0.26 | 0.29 | 0.66 | |
| v/c Ratio | 1.13 | 1.33 | 1.10 | | | | | 0.57 | 0.53 | 0.66 | 0.40 | |
| Control Delay (s/veh) | 116.4 | 196.2 | 99.4 | | | | | 40.6 | 6.7 | 26.9 | 8.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.2 | 0.1 | |
| Total Delay (s/veh) | 116.4 | 196.2 | 99.4 | | | | | 40.6 | 6.7 | 27.1 | 9.0 | |
| LOS | F | F | F | | | | | D | A | C | A | |
| Approach Delay (s/veh) | | 133.6 | | | | | | 32.4 | | | 15.0 | |
| Approach LOS | | F | | | | | | C | | | B | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.33
 Intersection Signal Delay (s/veh): 63.4 Intersection LOS: E
 Intersection Capacity Utilization 74.0% ICU Level of Service D
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 8: Scottsdale Road & Loop 101 EB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|------------------------|------|------|------|------|------|-----|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 42.0 | 30.0 | 10.0 | 48.0 | 32.0 | 7.0 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↙ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 158 | 348 | 9 | 0 | 262 | 47 | 1 | 0 | 20 | 0 | 0 | 81 |
| Future Vol, veh/h | 158 | 348 | 9 | 0 | 262 | 47 | 1 | 0 | 20 | 0 | 0 | 81 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 77 | 77 | 77 | 68 | 68 | 68 | 82 | 82 | 82 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 387 | 10 | 0 | 340 | 61 | 1 | 0 | 29 | 0 | 0 | 99 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 401 | 0 | 0 | - | - | 0 | 908 | - | 193 | - | - | 170 |
| Stage 1 | - | - | - | - | - | - | 738 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 170 | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | 7.54 | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | 3.52 | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1154 | - | - | 0 | - | - | 230 | 0 | 816 | 0 | 0 | 844 |
| Stage 1 | - | - | - | 0 | - | - | 376 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | 0 | - | - | 815 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1154 | - | - | - | - | - | 172 | - | 816 | - | - | 844 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 172 | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | 319 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | 720 | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|------------------------|------|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s/v | 2.66 | | | 0 | | | 9.58 | | | 9.83 | | |
| HCM LOS | | | | | | | A | | | A | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 816 | 1154 | - | - | - | - | 844 |
| HCM Lane V/C Ratio | 0.036 | 0.152 | - | - | - | - | 0.117 |
| HCM Control Delay (s/veh) | 9.6 | 8.7 | - | - | - | - | 9.8 |
| HCM Lane LOS | A | A | - | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0.5 | - | - | - | - | 0.4 |

10: Legacy Boulevard & 73rd Street

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.2 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↘ | ↑↑ | ↑↑ | | ↘ | ↗ |
| Traffic Vol, veh/h | 22 | 29 | 11 | 9 | 29 | 83 |
| Future Vol, veh/h | 22 | 29 | 11 | 9 | 29 | 83 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 110 | - | - | - | 150 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 90 | 90 | 60 | 60 | 79 | 79 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 32 | 18 | 15 | 37 | 105 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 33 | 0 | - | 0 | 91 |
| Stage 1 | - | - | - | - | 26 |
| Stage 2 | - | - | - | - | 65 |
| Critical Hdwy | 4.14 | - | - | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 |
| Pot Cap-1 Maneuver | 1577 | - | - | - | 899 |
| Stage 1 | - | - | - | - | 993 |
| Stage 2 | - | - | - | - | 950 |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1577 | - | - | - | 885 |
| Mov Cap-2 Maneuver | - | - | - | - | 885 |
| Stage 1 | - | - | - | - | 978 |
| Stage 2 | - | - | - | - | 950 |

| Approach | EB | WB | SB |
|------------------------|------|----|-----|
| HCM Control Delay, s/v | 3.16 | 0 | 8.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1577 | - | - | - | 885 | 1058 |
| HCM Lane V/C Ratio | 0.016 | - | - | - | 0.041 | 0.099 |
| HCM Control Delay (s/veh) | 7.3 | - | - | - | 9.2 | 8.8 |
| HCM Lane LOS | A | - | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | ↓ | ↑↑ | ↓ | ↑ |
| Traffic Vol, veh/h | 48 | 0 | 0 | 12 | 0 | 0 |
| Future Vol, veh/h | 48 | 0 | 0 | 12 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 84 | 84 | 70 | 70 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 0 | 0 | 17 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 0 | 0 | 57 | 0 | 66 29 |
| Stage 1 | - | - | - | - | 57 - |
| Stage 2 | - | - | - | - | 9 - |
| Critical Hdwy | - | - | 4.14 | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | - | - | 1545 | - | 932 1040 |
| Stage 1 | - | - | - | - | 958 - |
| Stage 2 | - | - | - | - | 1013 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1545 | - | 932 1040 |
| Mov Cap-2 Maneuver | - | - | - | - | 932 - |
| Stage 1 | - | - | - | - | 958 - |
| Stage 2 | - | - | - | - | 1013 - |

| Approach | EB | WB | NB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | - | - | - | - | 1545 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | - | - | 0 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 43 | 3 | 0 | 2 |
| Future Vol, veh/h | 0 | 0 | 43 | 3 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 67 | 67 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 64 | 4 | 0 | 4 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 8.61 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 1000 |
| HCM Lane V/C Ratio | - | - | 0.004 |
| HCM Control Delay (s/veh) | - | - | 8.6 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0 |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑ | ↔ | ↔ | ↑↑ |
| Traffic Volume (veh/h) | 507 | 80 | 1870 | 321 | 49 | 1255 |
| Future Volume (veh/h) | 507 | 80 | 1870 | 321 | 49 | 1255 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 528 | 83 | 1948 | 334 | 54 | 1394 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 589 | 270 | 1857 | 828 | 231 | 2534 |
| Arrive On Green | 0.17 | 0.17 | 1.00 | 1.00 | 0.13 | 0.71 |
| Sat Flow, veh/h | 3456 | 1585 | 3647 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 528 | 83 | 1948 | 334 | 54 | 1394 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 18.0 | 5.5 | 62.7 | 0.0 | 3.3 | 22.2 |
| Cycle Q Clear(g_c), s | 18.0 | 5.5 | 62.7 | 0.0 | 3.3 | 22.2 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 589 | 270 | 1857 | 828 | 231 | 2534 |
| V/C Ratio(X) | 0.90 | 0.31 | 1.05 | 0.40 | 0.23 | 0.55 |
| Avail Cap(c_a), veh/h | 671 | 308 | 1857 | 828 | 231 | 2534 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.7 | 43.6 | 0.0 | 0.0 | 46.9 | 8.1 |
| Incr Delay (d2), s/veh | 12.7 | 0.2 | 35.1 | 1.5 | 0.2 | 0.9 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.5 | 5.1 | 9.1 | 0.3 | 1.4 | 7.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 61.4 | 43.8 | 35.1 | 1.5 | 47.1 | 9.0 |
| LnGrp LOS | E | D | F | A | D | A |
| Approach Vol, veh/h | 611 | | 2282 | | | 1448 |
| Approach Delay, s/veh | 59.0 | | 30.2 | | | 10.4 |
| Approach LOS | E | | C | | | B |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 92.9 | | 27.1 | 22.9 | 70.0 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 82.7 | | 23.3 | 13.6 | * 63 |
| Max Q Clear Time (g_c+I1), s | | 24.2 | | 20.0 | 5.3 | 64.7 |
| Green Ext Time (p_c), s | | 1.7 | | 0.5 | 0.0 | 0.0 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 27.7 | | | |
| HCM 7th LOS | | | C | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

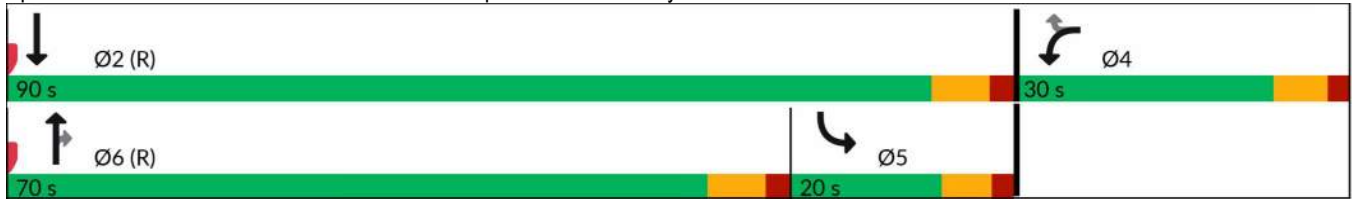


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBT | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 90 | 30 | 20 | 70 |
| Maximum Split (%) | 75.0% | 25.0% | 16.7% | 58.3% |
| Minimum Split (s) | 22.5 | 38.7 | 11.4 | 48.3 |
| Yellow Time (s) | 5.1 | 4.7 | 4.4 | 5.1 |
| All-Red Time (s) | 2.2 | 2 | 2 | 2.2 |
| Minimum Initial (s) | 10 | 15 | 5 | 10 |
| Vehicle Extension (s) | 0.2 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | 8 | | 4 |
| Flash Dont Walk (s) | | 24 | | 37 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 88 | 58 | 38 | 88 |
| End Time (s) | 58 | 88 | 58 | 38 |
| Yield/Force Off (s) | 50.7 | 81.3 | 51.6 | 30.7 |
| Yield/Force Off 170(s) | 50.7 | 57.3 | 51.6 | 113.7 |
| Local Start Time (s) | 0 | 90 | 70 | 0 |
| Local Yield (s) | 82.7 | 113.3 | 83.6 | 62.7 |
| Local Yield 170(s) | 82.7 | 89.3 | 83.6 | 25.7 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 120 |
| Offset: 88 (73%), Referenced to phase 2:SBT and 6:NBT, Start of Green | |

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



2: Scottsdale Road & Driveway A

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | | ↗↗ |
| Traffic Vol, veh/h | 0 | 4 | 2186 | 4 | 0 | 1757 |
| Future Vol, veh/h | 0 | 4 | 2186 | 4 | 0 | 1757 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 50 | 50 | 96 | 96 | 91 | 91 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 8 | 2277 | 4 | 0 | 1931 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 1139 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *471 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 1 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *471 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v12.78 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 471 |
| HCM Lane V/C Ratio | - | - | 0.017 |
| HCM Control Delay (s/veh) | - | - | 12.8 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | ↘ | ↗↗ |
| Traffic Vol, veh/h | 3 | 17 | 2173 | 21 | 5 | 1755 |
| Future Vol, veh/h | 3 | 17 | 2173 | 21 | 5 | 1755 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 79 | 79 | 96 | 96 | 91 | 91 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 22 | 2264 | 22 | 5 | 1929 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 3239 | 1132 | 0 | 0 | 2285 |
| Stage 1 | 2264 | - | - | - | - |
| Stage 2 | 975 | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 |
| Pot Cap-1 Maneuver | *~ 2 | *471 | - | - | 219 |
| Stage 1 | *95 | - | - | - | - |
| Stage 2 | *559 | - | - | - | - |
| Platoon blocked, % | 1 | 1 | - | - | 1 |
| Mov Cap-1 Maneuver | *~ 2 | *471 | - | - | 219 |
| Mov Cap-2 Maneuver | *~ 2 | - | - | - | - |
| Stage 1 | *95 | - | - | - | - |
| Stage 2 | *545 | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|------|
| HCM Control Delay, s/v13.01 | | 0 | 0.06 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 471 | 219 |
| HCM Lane V/C Ratio | - | - | 0.046 | 0.025 |
| HCM Control Delay (s/veh) | - | - | 13 | 21.9 |
| HCM Lane LOS | - | - | B | C |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗ | ↗ | | ↗↗ |
| Traffic Vol, veh/h | 0 | 0 | 2194 | 4 | 0 | 1758 |
| Future Vol, veh/h | 0 | 0 | 2194 | 4 | 0 | 1758 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 96 | 96 | 91 | 91 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2285 | 4 | 0 | 1932 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 1143 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.94 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.32 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *577 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 0 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *577 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-----|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|---------|------|------|-------|-------|
| Lane Configurations | ↔↔ | ↔ | ↕↕ | ↔ | ↔ | ↕↕ |
| Traffic Volume (veh/h) | 64 | 36 | 2163 | 93 | 4 | 1754 |
| Future Volume (veh/h) | 64 | 36 | 2163 | 93 | 4 | 1754 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 88 | 49 | 2230 | 96 | 4 | 1927 |
| Peak Hour Factor | 0.73 | 0.73 | 0.97 | 0.97 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 199 | 92 | 2627 | 1172 | 181 | 2967 |
| Arrive On Green | 0.06 | 0.06 | 0.74 | 0.74 | 0.09 | 1.00 |
| Sat Flow, veh/h | 3456 | 1585 | 3647 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 88 | 49 | 2230 | 96 | 4 | 1927 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 3.0 | 3.6 | 52.7 | 2.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.0 | 3.6 | 52.7 | 2.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 199 | 92 | 2627 | 1172 | 181 | 2967 |
| V/C Ratio(X) | 0.44 | 0.54 | 0.85 | 0.08 | 0.02 | 0.65 |
| Avail Cap(c_a), veh/h | 213 | 98 | 2627 | 1172 | 181 | 2967 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.7 | 55.0 | 11.0 | 4.3 | 26.7 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 1.9 | 3.7 | 0.1 | 0.0 | 1.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 3.2 | 16.8 | 0.6 | 0.1 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.2 | 56.8 | 14.6 | 4.5 | 26.7 | 1.1 |
| LnGrp LOS | E | E | B | A | C | A |
| Approach Vol, veh/h | 137 | | 2326 | | | 1931 |
| Approach Delay, s/veh | 55.8 | | 14.2 | | | 1.2 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 106.5 | | 13.5 | 11.5 | 95.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 1E+02 | | 7.4 | * 5 | * 89 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 5.6 | 2.0 | 54.7 |
| Green Ext Time (p_c), s | | 6.5 | | 0.0 | 0.0 | 8.6 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 9.8 | | | |
| HCM 7th LOS | | | A | | | |
| Notes | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 106 | 14 | 11 | 95 |
| Maximum Split (%) | 88.3% | 11.7% | 9.2% | 79.2% |
| Minimum Split (s) | 22.5 | 22.5 | 11 | 39.3 |
| Yellow Time (s) | 4.7 | 3.6 | 4 | 4.7 |
| All-Red Time (s) | 1.6 | 3 | 2 | 1.6 |
| Minimum Initial (s) | 10 | 7 | 5 | 5 |
| Vehicle Extension (s) | 1 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 7 |
| Flash Dont Walk (s) | | | | 26 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 75 | 61 | 50 | 75 |
| End Time (s) | 61 | 75 | 61 | 50 |
| Yield/Force Off (s) | 54.7 | 68.4 | 55 | 43.7 |
| Yield/Force Off 170(s) | 54.7 | 68.4 | 55 | 17.7 |
| Local Start Time (s) | 0 | 106 | 95 | 0 |
| Local Yield (s) | 99.7 | 113.4 | 100 | 88.7 |
| Local Yield 170(s) | 99.7 | 113.4 | 100 | 62.7 |

Intersection Summary

| | |
|--|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 110 |
| Offset: 75 (63%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



6: Scottsdale Road & Henkel Way

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑↑ | ↔ | ↔ | ↑↑↑ |
| Traffic Volume (veh/h) | 25 | 7 | 2249 | 7 | 0 | 1818 |
| Future Volume (veh/h) | 25 | 7 | 2249 | 7 | 0 | 1818 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 43 | 12 | 2319 | 7 | 0 | 1998 |
| Peak Hour Factor | 0.58 | 0.58 | 0.97 | 0.97 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 169 | 78 | 4401 | 1366 | 60 | 4401 |
| Arrive On Green | 0.05 | 0.05 | 0.86 | 0.86 | 0.00 | 0.86 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 156 | 5274 |
| Grp Volume(v), veh/h | 43 | 12 | 2319 | 7 | 0 | 1998 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 156 | 1702 |
| Q Serve(g_s), s | 1.4 | 0.9 | 13.8 | 0.1 | 0.0 | 10.7 |
| Cycle Q Clear(g_c), s | 1.4 | 0.9 | 13.8 | 0.1 | 0.0 | 10.7 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 169 | 78 | 4401 | 1366 | 60 | 4401 |
| V/C Ratio(X) | 0.25 | 0.15 | 0.53 | 0.01 | 0.00 | 0.45 |
| Avail Cap(c_a), veh/h | 490 | 225 | 4401 | 1366 | 60 | 4401 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.81 | 0.81 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.9 | 54.7 | 2.1 | 1.2 | 0.0 | 1.9 |
| Incr Delay (d2), s/veh | 0.3 | 0.3 | 0.4 | 0.0 | 0.0 | 0.3 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.4 | 1.6 | 0.0 | 0.0 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.2 | 55.0 | 2.5 | 1.2 | 0.0 | 2.2 |
| LnGrp LOS | E | E | A | A | | A |
| Approach Vol, veh/h | 55 | | 2326 | | | 1998 |
| Approach Delay, s/veh | 55.2 | | 2.5 | | | 2.2 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+Rc), s | | 109.1 | | 10.9 | | 109.1 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | | 5.7 |
| Max Green Setting (Gmax), s | | 92.3 | | 17.0 | | 92.3 |
| Max Q Clear Time (g_c+I1), s | | 12.7 | | 3.4 | | 15.8 |
| Green Ext Time (p_c), s | | 14.7 | | 0.0 | | 20.6 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 3.0 | | | |
| HCM 7th LOS | | | A | | | |

6: Scottsdale Road & Henkel Way

12/08/2023



| Phase Number | 2 | 4 | 6 |
|------------------------|-------|-------|-------|
| Movement | SBTL | WBL | NBT |
| Lead/Lag | | | |
| Lead-Lag Optimize | | | |
| Recall Mode | C-Max | None | C-Max |
| Maximum Split (s) | 98 | 22 | 98 |
| Maximum Split (%) | 81.7% | 18.3% | 81.7% |
| Minimum Split (s) | 22.5 | 22.5 | 31.7 |
| Yellow Time (s) | 4.7 | 3 | 4.7 |
| All-Red Time (s) | 1 | 2 | 1 |
| Minimum Initial (s) | 10 | 7 | 10 |
| Vehicle Extension (s) | 2 | 2 | 2 |
| Minimum Gap (s) | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 |
| Walk Time (s) | | | 4 |
| Flash Dont Walk (s) | | | 22 |
| Dual Entry | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes |
| Start Time (s) | 28 | 6 | 28 |
| End Time (s) | 6 | 28 | 6 |
| Yield/Force Off (s) | 0.3 | 23 | 0.3 |
| Yield/Force Off 170(s) | 0.3 | 23 | 98.3 |
| Local Start Time (s) | 0 | 98 | 0 |
| Local Yield (s) | 92.3 | 115 | 92.3 |
| Local Yield 170(s) | 92.3 | 115 | 70.3 |

Intersection Summary

| | |
|--|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 60 |
| Offset: 28 (23%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 6: Scottsdale Road & Henkel Way



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

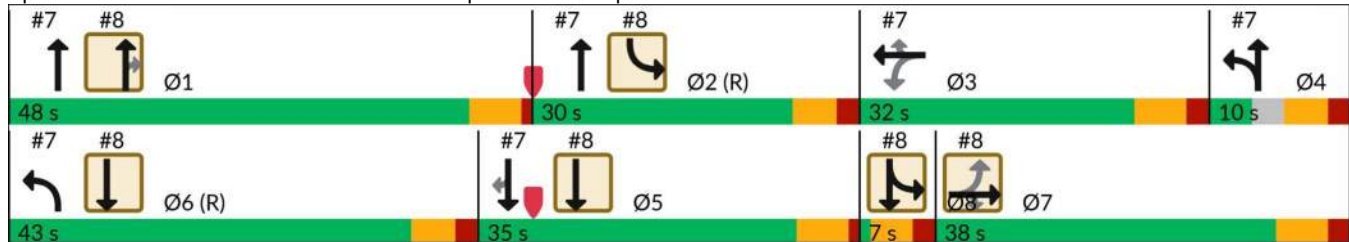


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-----|-----|-----|-------|-------|------|-------|-------|-----|-----|------|------|
| Lane Configurations | | | | ↖↗ | ↖ | ↗ | ↖↗ | ↑↑↑ | | | ↑↑↑↑ | ↗ |
| Traffic Volume (vph) | 0 | 0 | 0 | 614 | 47 | 706 | 657 | 1550 | 0 | 0 | 1334 | 509 |
| Future Volume (vph) | 0 | 0 | 0 | 614 | 47 | 706 | 657 | 1550 | 0 | 0 | 1334 | 509 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 41 | 139 | | | | | | 323 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 633 | 390 | 386 | 714 | 1685 | 0 | 0 | 1482 | 566 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3! | | 4 6! | 1 2 4 | | | 5! | |
| Permitted Phases | | | | 3! | | 3 | | | | | | 5 |
| Total Split (s) | | | | 32.0 | 32.0 | 32.0 | | | | | 35.0 | 35.0 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effect Green (s) | | | | 26.4 | 26.4 | 26.4 | 46.2 | 84.2 | | | 33.1 | 33.1 |
| Actuated g/C Ratio | | | | 0.21 | 0.21 | 0.21 | 0.38 | 0.68 | | | 0.27 | 0.27 |
| v/c Ratio | | | | 0.86 | 1.08 | 0.90 | 0.55 | 0.48 | | | 0.73 | 0.85 |
| Control Delay (s/veh) | | | | 59.8 | 111.9 | 54.6 | 11.8 | 4.2 | | | 44.0 | 32.5 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | | | 0.0 | 0.0 |
| Total Delay (s/veh) | | | | 59.8 | 111.9 | 54.6 | 12.0 | 4.4 | | | 44.0 | 32.5 |
| LOS | | | | E | F | D | B | A | | | D | C |
| Approach Delay (s/veh) | | | | | 72.8 | | | 6.7 | | | 40.8 | |
| Approach LOS | | | | | E | | | A | | | D | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay (s/veh): 34.5 Intersection LOS: C
 Intersection Capacity Utilization 83.1% ICU Level of Service E
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|------------------------|------|------|------|------|------|-----|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 48.0 | 30.0 | 10.0 | 43.0 | 38.0 | 7.0 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |

8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|------------------------|------|------|------|------|------|-----|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 30.0 | 32.0 | 10.0 | 35.0 | 43.0 | 7.0 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 28 | 347 | 15 | 0 | 379 | 24 | 0 | 0 | 22 | 0 | 0 | 187 |
| Future Vol, veh/h | 28 | 347 | 15 | 0 | 379 | 24 | 0 | 0 | 22 | 0 | 0 | 187 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 79 | 79 | 79 | 88 | 88 | 88 | 63 | 63 | 63 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 35 | 439 | 19 | 0 | 431 | 27 | 0 | 0 | 35 | 0 | 0 | 213 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 458 | 0 | 0 | - | - | 0 | - | - | 220 | - | - | 215 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1099 | - | - | 0 | - | - | 0 | 0 | 784 | 0 | 0 | 789 |
| Stage 1 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1099 | - | - | - | - | - | - | - | 784 | - | - | 789 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-----|----|-----|-------|
| HCM Control Delay, s/v | 0.6 | 0 | 9.8 | 11.23 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 784 | 1099 | - | - | - | - | 789 |
| HCM Lane V/C Ratio | 0.045 | 0.032 | - | - | - | - | 0.269 |
| HCM Control Delay (s/veh) | 9.8 | 8.4 | - | - | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | - | - | 1.1 |

10: Legacy Boulevard & 73rd Street

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | ↙ | ↑↑ | ↑↑ | | ↙ | ↗ |
| Traffic Vol, veh/h | 81 | 13 | 35 | 28 | 12 | 65 |
| Future Vol, veh/h | 81 | 13 | 35 | 28 | 12 | 65 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 110 | - | - | - | 150 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 78 | 78 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 14 | 45 | 36 | 13 | 70 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 81 | 0 | - | 0 | 242 40 |
| Stage 1 | - | - | - | - | 63 - |
| Stage 2 | - | - | - | - | 179 - |
| Critical Hdwy | 4.14 | - | - | - | 6.84 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 - |
| Follow-up Hdwy | 2.22 | - | - | - | 3.52 3.32 |
| Pot Cap-1 Maneuver | 1515 | - | - | - | 725 1022 |
| Stage 1 | - | - | - | - | 952 - |
| Stage 2 | - | - | - | - | 834 - |
| Platoon blocked, % | | - | - | - | |
| Mov Cap-1 Maneuver | 1515 | - | - | - | 684 1022 |
| Mov Cap-2 Maneuver | - | - | - | - | 684 - |
| Stage 1 | - | - | - | - | 898 - |
| Stage 2 | - | - | - | - | 834 - |

| Approach | EB | WB | SB |
|------------------------|------|----|------|
| HCM Control Delay, s/v | 6.48 | 0 | 9.03 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h) | 1515 | - | - | - | 684 | 1022 |
| HCM Lane V/C Ratio | 0.057 | - | - | - | 0.019 | 0.068 |
| HCM Control Delay (s/veh) | 7.5 | - | - | - | 10.4 | 8.8 |
| HCM Lane LOS | A | - | - | - | B | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.1 | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↗ | ↘ | ↑↑ | ↘ | ↗ |
| Traffic Vol, veh/h | 20 | 0 | 0 | 53 | 0 | 0 |
| Future Vol, veh/h | 20 | 0 | 0 | 53 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 64 | 64 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 0 | 0 | 83 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0 | 0 | 36 | 0 | 78 |
| Stage 1 | - | - | - | - | 36 |
| Stage 2 | - | - | - | - | 41 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1573 | - | 916 |
| Stage 1 | - | - | - | - | 981 |
| Stage 2 | - | - | - | - | 976 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1573 | - | 916 |
| Mov Cap-2 Maneuver | - | - | - | - | 916 |
| Stage 1 | - | - | - | - | 981 |
| Stage 2 | - | - | - | - | 976 |

| Approach | EB | WB | NB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | - | - | - | - | 1573 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | - | - | 0 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 150 | 0 | 0 | 5 |
| Future Vol, veh/h | 0 | 0 | 150 | 0 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 80 | 80 | 63 | 63 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 188 | 0 | 0 | 8 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 9.25 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 855 |
| HCM Lane V/C Ratio | - | - | 0.009 |
| HCM Control Delay (s/veh) | - | - | 9.3 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0 |



Appendix F – Trip Generation



One Scottsdale Planning Unit II

DMB Associates, Inc.

Trip Generation Calculations - Updated 11th Edition

Completed:
Checked:

| | | | | |
|------------------|--------------|---------------|------|--|
| | 9/23 | 6/23 | | |
| Restaurant | 102500 | 90000 sf | 0.75 | |
| Fine Dining | 76875 | 67500 | 0.25 | |
| High-Turnover | 25625 | 22500 | | |
| Retail | 42,500.00 | 45,000.00 sf | | |
| Multifamily (4+) | 1750 | 1750 units | | |
| Low-Rise | | | | |
| Mid-Rise | 1750 | 1750 | | |
| Office | 1,075,000.00 | 870,000.00 sf | | |
| Hotel | 270 | 270 keys | | |
| Henkel | 325156 | 325156 | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | |
|--|----------|------|----------------|--------------------|-------|-------|--------------|------|-------|---------------------------|------|-------|---------|-------|-------|--------------|-----|-----|---------------------------|-----|-----|--|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Shopping Plaza (40-150k) (w/o Supermarket) | 821 | 42.5 | 1000 Sq Ft GFA | 67.52 | 50% | 50% | 1.73 | 62% | 38% | 5.19 | 49% | 51% | 2,870 | 1,435 | 1,435 | 74 | 46 | 28 | 221 | 108 | 113 | |
| Shopping Plaza (40-150k) (w/o Supermarket) | 821 | 42.5 | 1000 Sq Ft GFA | 43.29 | 50% | 50% | 0.29 | 62% | 38% | 2.55 | 49% | 51% | 1,840 | 920 | 920 | 12 | 7 | 5 | 108 | 53 | 55 | |
| Shopping Plaza (40-150k) (w/o Supermarket) | 821 | 42.5 | 1000 Sq Ft GFA | 91.06 | 50% | 50% | 3.77 | 62% | 38% | 15.31 | 49% | 51% | 3,870 | 1,935 | 1,935 | 160 | 99 | 61 | 651 | 319 | 332 | |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | |
| Shopping Plaza (40-150k) (w/o Supermarket) | 821 | 42.5 | 1000 Sq Ft GFA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Shopping Plaza (40-150k) (w/o Supermarket) | | | | Standard Deviation | 19.25 | | | 1.06 | | | 2.28 | | | | | | | | | | | |
| | | | | Number of Studies | 7 | | | 13 | | | 42 | | | | | | | | | | | |
| | | | | Average Size | 59 | | | 67 | | | 79 | | | | | | | | | | | |
| | | | | R ² | N/A | | | N/A | | | N/A | | | | | | | | | | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | |
|----------|----------|-----|-------|--------------------|------|-------|----------------|------|-------|-----------------|------|-------|---------|-------|-------|--------------|-----|-----|--------------|-----|-----|--|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Hotel | 310 | 270 | Rooms | 7.99 | 50% | 50% | 0.46 | 56% | 44% | 0.59 | 51% | 49% | 2,158 | 1,079 | 1,079 | 125 | 70 | 55 | 160 | 81 | 79 | |
| Hotel | 310 | 270 | Rooms | 5.31 | 50% | 50% | 0.20 | 56% | 44% | 0.26 | 51% | 49% | 1,434 | 717 | 717 | 54 | 31 | 23 | 71 | 36 | 35 | |
| Hotel | 310 | 270 | Rooms | 9.53 | 50% | 50% | 0.84 | 56% | 44% | 1.06 | 51% | 49% | 2,574 | 1,287 | 1,287 | 227 | 128 | 99 | 287 | 146 | 141 | |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | |
| Hotel | 310 | 270 | Rooms | T=10.84(X)-423.51 | | | T=0.50(X)-7.45 | | | T=0.74(X)-27.89 | | | 2,503 | | | 1,252 | | | 1,251 | | | |
| Hotel | | | | Standard Deviation | 1.92 | | | 0.14 | | | 0.22 | | | | | | | | | | | |
| | | | | Number of Studies | 7 | | | 28 | | | 31 | | | | | | | | | | | |
| | | | | Average Size | 148 | | | 182 | | | 186 | | | | | | | | | | | |
| | | | | R ² | 0.85 | | | 0.84 | | | 0.78 | | | | | | | | | | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | |
|------------------------|----------|------|-------------|--------------------|-------|-------|--------------|------|-------|--------------|------|-------|---------|-------|-------|--------------|-----|-----|--------------|-----|-----|--|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Fine Dining Restaurant | 931 | 76.9 | 1000 SF GFA | 83.84 | 50% | 50% | 0.73 | 55% | 45% | 7.8 | 67% | 33% | 6,445 | 3,223 | 3,222 | 56 | 31 | 25 | 600 | 402 | 198 | |
| Fine Dining Restaurant | 931 | 76.9 | 1000 SF GFA | 33.45 | 50% | 50% | 0.25 | 55% | 45% | 2.62 | 67% | 33% | 2,571 | 1,286 | 1,285 | 19 | 10 | 9 | 201 | 135 | 66 | |
| Fine Dining Restaurant | 931 | 76.9 | 1000 SF GFA | 139.93 | 50% | 50% | 1.6 | 55% | 45% | 18.68 | 67% | 33% | 10,757 | 5,379 | 5,378 | 123 | 68 | 55 | 1,436 | 962 | 474 | |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | |
| Fine Dining Restaurant | 931 | 76.9 | 1000 SF GFA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Fine Dining Restaurant | | | | Standard Deviation | 40.01 | | | 0.42 | | | 4.49 | | | | | | | | | | | |
| | | | | Number of Studies | 10 | | | 7 | | | 19 | | | | | | | | | | | |
| | | | | Average Size | 9 | | | 10 | | | 9 | | | | | | | | | | | |
| | | | | R ² | N/A | | | N/A | | | N/A | | | | | | | | | | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | |
|-------------------------------------|----------|------|-------------|--------------------|-------|-------|--------------|-------|-------|---------------------------|------|-------|---------|-------|-------|--------------|-------|-------|---------------------------|-----|-----|--|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| High-Turnover (Sit-Down) Restaurant | 932 | 25.6 | 1000 SF GFA | 107.20 | 50% | 50% | 9.57 | 55% | 45% | 9.05 | 61% | 39% | 2,747 | 1,374 | 1,373 | 245 | 135 | 110 | 232 | 142 | 90 | |
| High-Turnover (Sit-Down) Restaurant | 932 | 25.6 | 1000 SF GFA | 13.04 | 50% | 50% | 0.76 | 55% | 45% | 0.92 | 61% | 39% | 334 | 167 | 167 | 19 | 10 | 9 | 24 | 15 | 9 | |
| High-Turnover (Sit-Down) Restaurant | 932 | 25.6 | 1000 SF GFA | 742.41 | 50% | 50% | 102.39 | 55% | 45% | 62.00 | 61% | 39% | 19,024 | 9,512 | 9,512 | 2,624 | 1,443 | 1,181 | 1,589 | 969 | 620 | |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | |
| High-Turnover (Sit-Down) Restaurant | 932 | 25.6 | 1000 SF GFA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| High-Turnover (Sit-Down) Restaurant | | | | Standard Deviation | 66.72 | | | 11.61 | | | 6.18 | | | | | | | | | | | |
| | | | | Number of Studies | 50 | | | 37 | | | 104 | | | | | | | | | | | |
| | | | | Average Size | 5 | | | 5 | | | 6 | | | | | | | | | | | |
| | | | | R ² | N/A | | | N/A | | | N/A | | | | | | | | | | | |

| 710 General Office Building | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--------------------|-------|-------------|--------------------------|------|-------|--------------------------|------|-------|--------------------------|------|-------|---------|--------|--------|--------------|-------|-----|--------------|-----|------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| General Office Building | 710 | 749.8 | 1000 SF GFA | 10.84 | 50% | 50% | 1.52 | 88% | 12% | 1.44 | 17% | 83% | 8,128 | 4,064 | 4,064 | 1,140 | 1003 | 137 | 1,080 | 184 | 896 |
| General Office Building | 710 | 749.8 | 1000 SF GFA | 3.27 | 50% | 50% | 0.32 | 88% | 12% | 0.26 | 17% | 83% | 2,452 | 1226 | 1226 | 240 | 211 | 29 | 195 | 33 | 162 |
| General Office Building | 710 | 749.8 | 1000 SF GFA | 27.56 | 50% | 50% | 4.93 | 88% | 12% | 6.2 | 17% | 83% | 20,666 | 10,333 | 10,333 | 3,697 | 3,253 | 444 | 4,649 | 790 | 3859 |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Equation | % In | % Out | Equation | % In | % Out | Equation | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| General Office Building | 710 | 749.8 | 1000 SF GFA | $\ln(T)=0.87\ln(X)+3.05$ | 50% | 50% | $\ln(T)=0.86\ln(X)+1.16$ | 88% | 12% | $\ln(T)=0.83\ln(X)+1.29$ | 17% | 83% | 6,696 | 3,348 | 3,348 | 947 | 833 | 114 | 884 | 150 | 734 |
| General Office Building | Standard Deviation | | | 4.76 | | | 0.58 | | | 0.6 | | | | | | | | | | | |
| | Number of Studies | | | 59 | | | 221 | | | 232 | | | | | | | | | | | |
| | Average Size | | | 163 | | | 201 | | | 199 | | | | | | | | | | | |
| | R ² | | | 0.78 | | | 0.78 | | | 0.77 | | | | | | | | | | | |

Average
Minimum
Maximum
Equation

| 221 Multifamily Housing (Mid-Rise) (Three to Ten Levels) | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|-------|----------------|-------------------|------|-------|------------------|------|-------|-----------------|------|-------|---------|-------|-------|--------------|-----|-----|--------------|-----|-----|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Mid-Rise) | 221 | 1,750 | Dwelling Units | 4.54 | 50% | 50% | 0.37 | 23% | 77% | 0.39 | 61% | 39% | 7,945 | 3973 | 3972 | 648 | 149 | 499 | 683 | 417 | 266 |
| Multifamily Housing (Mid-Rise) | 221 | 1,750 | Dwelling Units | 3.76 | 50% | 50% | 0.15 | 23% | 77% | 0.19 | 61% | 39% | 6,580 | 3290 | 3290 | 263 | 60 | 203 | 333 | 203 | 130 |
| Multifamily Housing (Mid-Rise) | 221 | 1,750 | Dwelling Units | 5.40 | 50% | 50% | 0.53 | 23% | 77% | 0.57 | 61% | 39% | 9,450 | 4725 | 4725 | 928 | 213 | 715 | 998 | 609 | 389 |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Equation | % In | % Out | Equation | % In | % Out | Equation | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Mid-Rise) | 221 | 1,750 | Dwelling Units | $T=4.77(X)-46.46$ | 50% | 50% | $T=.44(X)-11.61$ | 23% | 77% | $T=.39(X)+0.34$ | 61% | 39% | 8,301 | 4,151 | 4,150 | 758 | 174 | 584 | 683 | 417 | 266 |
| Multifamily Housing (Mid-Rise) | Standard Deviation | | | 0.51 | | | 0.09 | | | 0.08 | | | | | | | | | | | |
| | Number of Studies | | | 11 | | | 30 | | | 31 | | | | | | | | | | | |
| | Average Size | | | 201 | | | 173 | | | 169 | | | | | | | | | | | |
| | R ² | | | 0.93 | | | 0.91 | | | 0.91 | | | | | | | | | | | |

Average
Minimum
Maximum
Equation

| 220 Multifamily Housing (Low-Rise) (One to Three Levels) | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|-----|----------------|-------------------|------|-------|-------------------|------|-------|---------------------------|------|-------|---------|----|-----|--------------|----|-----|---------------------------|----|-----|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Low-Rise) | 220 | 0 | Dwelling Units | 6.74 | 50% | 50% | 0.40 | 24% | 76% | 0.51 | 63% | 37% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Multifamily Housing (Low-Rise) | 220 | 0 | Dwelling Units | 2.46 | 50% | 50% | 0.13 | 24% | 76% | 0.08 | 63% | 37% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Multifamily Housing (Low-Rise) | 220 | 0 | Dwelling Units | 12.50 | 50% | 50% | 0.73 | 24% | 76% | 1.04 | 63% | 37% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| | | | | Equation | % In | % Out | Equation | % In | % Out | Equation | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Low-Rise) | 220 | 0 | Dwelling Units | $T=6.41(X)+75.31$ | 50% | 50% | $T=0.31(X)+22.85$ | 24% | 76% | $T=0.43(X)+20.55$ | 63% | 37% | 75 | 38 | 37 | 23 | 6 | 17 | 21 | 13 | 8 |
| Multifamily Housing (Low-Rise) | Standard Deviation | | | 1.79 | | | 0.12 | | | 0.15 | | | | | | | | | | | |
| | Number of Studies | | | 22 | | | 49 | | | 59 | | | | | | | | | | | |
| | Average Size | | | 229 | | | 249 | | | 241 | | | | | | | | | | | |
| | R ² | | | 0.86 | | | 0.79 | | | 0.84 | | | | | | | | | | | |

Average
Minimum
Maximum
Equation

| 710 General Office Building | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|--------------------|-------|-------------|--------------------------|------|-------|--------------------------|------|-------|--------------------------|------|-------|---------|-------|-------|--------------|-------|-----|--------------|-----|------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| General Office Building | 710 | 325.2 | 1000 SF GFA | 10.84 | 50% | 50% | 1.52 | 88% | 12% | 1.44 | 17% | 83% | 3,525 | 1,763 | 1,762 | 494 | 435 | 59 | 468 | 80 | 388 |
| General Office Building | 710 | 325.2 | 1000 SF GFA | 3.27 | 50% | 50% | 0.32 | 88% | 12% | 0.26 | 17% | 83% | 1,063 | 532 | 531 | 104 | 92 | 12 | 85 | 14 | 71 |
| General Office Building | 710 | 325.2 | 1000 SF GFA | 27.56 | 50% | 50% | 4.93 | 88% | 12% | 6.2 | 17% | 83% | 8,961 | 4,481 | 4,480 | 1,603 | 1,411 | 192 | 2,016 | 343 | 1673 |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Equation | % In | % Out | Equation | % In | % Out | Equation | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| General Office Building | 710 | 325.2 | 1000 SF GFA | $\ln(T)=0.87\ln(X)+3.05$ | 50% | 50% | $\ln(T)=0.86\ln(X)+1.16$ | 88% | 12% | $\ln(T)=0.83\ln(X)+1.29$ | 17% | 83% | 3,237 | 1,619 | 1,618 | 462 | 407 | 55 | 442 | 75 | 367 |
| General Office Building | Standard Deviation | | | 4.76 | | | 0.58 | | | 0.6 | | | | | | | | | | | |
| | Number of Studies | | | 59 | | | 221 | | | 232 | | | | | | | | | | | |
| | Average Size | | | 163 | | | 201 | | | 199 | | | | | | | | | | | |
| | R ² | | | 0.78 | | | 0.78 | | | 0.77 | | | | | | | | | | | |

Average
Minimum
Maximum
Equation



One Scottsdale Planning Unit III

DMB Associates, Inc.

Trip Generation Calculations - Updated 11th Edition

Completed:
Checked:

| | 9/23 | 6/23 | | |
|------------------|------------|---------------|------|--|
| Restaurant | 13000 | 16000 sf | 0.75 | |
| High-Turnover | 9750 | 12000 | 0.25 | |
| Fast-Food | 3250 | 4000 | | |
| Retail | 38,000.00 | 18,500.00 sf | | |
| Day Care | - | 4,500.00 | | |
| Auto | 17000 | 16.00 fp | | |
| Gas Station (5k) | 16.00 | 9,500.00 | | |
| Strip Retail | 16,000.00 | 750 units | | |
| Multifamily (4+) | 750 | 425 | | |
| Low-Rise | 425 | 325 | | |
| Mid-Rise | 325 | 133,000.00 sf | | |
| Office | 223,000.00 | 130 keys | | |
| Hotel | 130 | | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
|---------------------------|--------------------|------|-------------|-------------------|------|-------|----------------------|------|-------|----------------------|------|-------|---------|-----|-----|--------------|----|-----|--------------|-----|-----|----------|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Strip Retail Plaza (<40k) | 822 | 16.0 | 1000 SF GLA | 54.45 | 50% | 50% | 2.36 | 60% | 40% | 6.59 | 50% | 50% | 871 | 436 | 435 | 38 | 23 | 15 | 105 | 53 | 52 | Average |
| Strip Retail Plaza (<40k) | 822 | 16.0 | 1000 SF GLA | 47.86 | 50% | 50% | 1.60 | 60% | 40% | 2.81 | 50% | 50% | 766 | 383 | 383 | 26 | 16 | 10 | 45 | 23 | 22 | Minimum |
| Strip Retail Plaza (<40k) | 822 | 16.0 | 1000 SF GLA | 65.07 | 50% | 50% | 3.73 | 60% | 40% | 15.20 | 50% | 50% | 1,041 | 521 | 520 | 60 | 36 | 24 | 243 | 122 | 121 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| Strip Retail Plaza (<40k) | 822 | 16.0 | 1000 SF GLA | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out | |
| | | | | T=42.20(X)+229.68 | | | Ln(T)=0.66Ln(X)+1.84 | | | Ln(T)=0.71Ln(X)+2.72 | | | 905 | 453 | 452 | 40 | 24 | 16 | 109 | 55 | 54 | Equation |
| Strip Retail Plaza (<40k) | Standard Deviation | | | 7.81 | | | 0.94 | | | 2.94 | | | | | | | | | | | | |
| | Number of Studies | | | 4 | | | 5 | | | 25 | | | | | | | | | | | | |
| | Average Size | | | 19 | | | 18 | | | 21 | | | | | | | | | | | | |
| | R ² | | | 0.96 | | | 0.57 | | | 0.56 | | | | | | | | | | | | |

| 945 Convenience Store/Gas (CFA 4-5.5k) | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|-----|-------------------|----------|------|-------|--------------|------|-------|--------------|------|-------|---------|-------|-------|--------------|-----|-----|--------------|-----|-----|----------|----------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | | |
| Convenience Store/Gas Station | 945 | 16 | Fueling Positions | 257.13 | 50% | 50% | 27.04 | 50% | 50% | 22.76 | 50% | 50% | 4,114 | 2,057 | 2,057 | 433 | 217 | 216 | 364 | 182 | 182 | Average | |
| Convenience Store/Gas Station | 945 | 16 | Fueling Positions | 193.00 | 50% | 50% | 7.78 | 50% | 50% | 9.78 | 50% | 50% | 3,088 | 1,544 | 1,544 | 124 | 62 | 62 | 156 | 78 | 78 | Minimum | |
| Convenience Store/Gas Station | 945 | 16 | Fueling Positions | 324.17 | 50% | 50% | 44.38 | 50% | 50% | 37.50 | 50% | 50% | 5,187 | 2,594 | 2,593 | 710 | 355 | 355 | 600 | 300 | 300 | Maximum | |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation | |
| Convenience Store/Gas Station | 945 | 16 | Fueling Positions | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out | | |
| | | | | N/A | | | N/A | | | N/A | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Equation |
| Convenience Store/Gas Station | Standard Deviation | | | 57.53 | | | 9.88 | | | 8.49 | | | | | | | | | | | | | |
| | Number of Studies | | | 5 | | | 18 | | | 23 | | | | | | | | | | | | | |
| | Average Size | | | 14 | | | 13 | | | 14 | | | | | | | | | | | | | |
| | R ² | | | N/A | | | N/A | | | N/A | | | | | | | | | | | | | |

| 942 Automobile Care Center | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--------------------|-----|-------------|----------------------|------|-------|--------------|------|-------|-----------------|------|-------|---------|-----|-----|--------------|-----|-----|--------------|----|-----|----------|
| Land Use | ITE Code | Qty | Unit | Weekday ¹ | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Automobile Care Center | 942 | 17 | 1000 SF GFA | 23.72 | 50% | 50% | 2.25 | 66% | 34% | 3.11 | 48% | 52% | 403 | 201 | 202 | 38 | 25 | 13 | 53 | 25 | 28 | Average |
| Automobile Care Center | 942 | 17 | 1000 SF GFA | N/A | N/A | N/A | 1.20 | 66% | 34% | 1.87 | 48% | 52% | N/A | N/A | N/A | 20 | 13 | 7 | 32 | 15 | 17 | Minimum |
| Automobile Care Center | 942 | 17 | 1000 SF GFA | N/A | 50% | N/A | 5.30 | 66% | 34% | 5.65 | 48% | 52% | N/A | N/A | N/A | 90 | 59 | 31 | 96 | 46 | 50 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| Automobile Care Center | 942 | 17 | 1000 SF GFA | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out | |
| | | | | N/A | | | N/A | | | T=2.41(X)+11.83 | | | N/A | N/A | N/A | N/A | N/A | N/A | 53 | 25 | 28 | Equation |
| Automobile Care Center | Standard Deviation | | | N/A | | | 1.49 | | | 1.09 | | | | | | | | | | | | |
| | Number of Studies | | | 2 | | | 6 | | | 6 | | | | | | | | | | | | |
| | Average Size | | | 31 | | | 17 | | | 17 | | | | | | | | | | | | |
| | R ² | | | N/A | | | N/A | | | 0.83 | | | | | | | | | | | | |

¹Weekday data statistics not available. Weekday rate shown is based on data provided for Saturday.

| 311 All Suites Hotel | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------------------|-----|-------|------------------|------|-------|-----------------|------|-------|----------------|------|-------|---------|-----|-----|--------------|----|-----|--------------|----|-----|----------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| All Suites Hotel | 311 | 130 | Rooms | 4.4 | 50% | 50% | 0.34 | 53% | 47% | 0.36 | 49% | 51% | 572 | 286 | 286 | 44 | 23 | 21 | 47 | 23 | 24 | Average |
| All Suites Hotel | 311 | 130 | Rooms | 3.11 | 50% | 50% | 0.13 | 53% | 47% | 0.22 | 49% | 51% | 404 | 202 | 202 | 17 | 9 | 8 | 29 | 14 | 15 | Minimum |
| All Suites Hotel | 311 | 130 | Rooms | 6.02 | 50% | 50% | 0.51 | 53% | 47% | 0.47 | 49% | 51% | 783 | 392 | 391 | 66 | 35 | 31 | 61 | 30 | 31 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| All Suites Hotel | 311 | 130 | Rooms | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out | |
| | | | | T=5.16(X)-112.23 | | | T=0.47(X)-21.50 | | | T=0.43(X)-9.93 | | | 559 | 280 | 279 | 40 | 21 | 19 | 46 | 23 | 23 | Equation |
| All Suites Hotel | Standard Deviation | | | 0.93 | | | 0.13 | | | 0.08 | | | | | | | | | | | | |
| | Number of Studies | | | 7 | | | 9 | | | 10 | | | | | | | | | | | | |
| | Average Size | | | 147 | | | 164 | | | 159 | | | | | | | | | | | | |
| | R ² | | | 0.92 | | | 0.74 | | | 0.87 | | | | | | | | | | | | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Average |
|-------------------------------------|----------|-----|-------------|---------|------|-------|--------------|------|-------|---------------------------|------|-------|---------|-------|-------|--------------|-----|-----|---------------------------|-----|-----|----------|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| High-Turnover (Sit-Down) Restaurant | 932 | 9.8 | 1000 SF GFA | 107.20 | 50% | 50% | 9.57 | 55% | 45% | 9.05 | 61% | 39% | 1,045 | 523 | 522 | 93 | 51 | 42 | 88 | 54 | 34 | Average |
| High-Turnover (Sit-Down) Restaurant | 932 | 9.8 | 1000 SF GFA | 13.04 | 50% | 50% | 0.76 | 55% | 45% | 0.92 | 61% | 39% | 127 | 64 | 63 | 7 | 4 | 3 | 9 | 5 | 4 | Minimum |
| High-Turnover (Sit-Down) Restaurant | 932 | 9.8 | 1000 SF GFA | 742.41 | 50% | 50% | 102.39 | 55% | 45% | 62.00 | 61% | 39% | 7,238 | 3,619 | 3,619 | 998 | 549 | 449 | 605 | 369 | 236 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Equation |
| High-Turnover (Sit-Down) Restaurant | 932 | 9.8 | 1000 SF GFA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |

| | | | | | | | |
|-------------------------------------|--------------------|-------|--|-------|--|------|--|
| High-Turnover (Sit-Down) Restaurant | Standard Deviation | 66.72 | | 11.61 | | 6.18 | |
| | Number of Studies | 50 | | 37 | | 104 | |
| | Average Size | 5 | | 5 | | 6 | |
| | R ² | N/A | | N/A | | N/A | |

| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
|--|----------|-----|-------------|---------|------|-------|--------------|------|-------|--------------|------|-------|---------|-------|-------|--------------|-----|-----|--------------|-----|-----|----------|
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Fast-Food Restaurant with Drive-Through Window | 934 | 3-3 | 1000 SF GFA | 467.48 | 50% | 50% | 44.61 | 51% | 49% | 33.03 | 52% | 48% | 1,519 | 760 | 759 | 145 | 74 | 71 | 107 | 56 | 51 | Average |
| Fast-Food Restaurant with Drive-Through Window | 934 | 3-3 | 1000 SF GFA | 98.89 | 50% | 50% | 1.05 | 51% | 49% | 8.77 | 52% | 48% | 321 | 161 | 160 | 3 | 2 | 1 | 29 | 15 | 14 | Minimum |
| Fast-Food Restaurant with Drive-Through Window | 934 | 3-3 | 1000 SF GFA | 1137.66 | 50% | 50% | 164.25 | 51% | 49% | 117.22 | 52% | 48% | 3,697 | 1,849 | 1,848 | 534 | 272 | 262 | 381 | 198 | 183 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| Fast-Food Restaurant with Drive-Through Window | 934 | 3-3 | 1000 SF GFA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |

| | | | | | | | |
|--|--------------------|--------|--|-------|--|-------|--|
| Fast-Food Restaurant with Drive-Through Window | Standard Deviation | 238.62 | | 27.14 | | 17.59 | |
| | Number of Studies | 71 | | 96 | | 190 | |
| | Average Size | 3 | | 4 | | 3 | |
| | R ² | N/A | | N/A | | N/A | |

| 720 Medical-Dental Office Building | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|----------|-------|-------------|---------------------|------|-------|--------------------------|------|-------|------------------|------|-------|---------|--------|--------|--------------|-------|-----|--------------|-----|------|----------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Medical-Dental Office Building | 720 | 223.0 | 1000 SF GFA | 36.00 | 50% | 50% | 3.10 | 79% | 21% | 3.93 | 30% | 70% | 8,028 | 4,014 | 4,014 | 691 | 546 | 145 | 876 | 263 | 613 | Average |
| Medical-Dental Office Building | 720 | 223.0 | 1000 SF GFA | 14.52 | 50% | 50% | 0.87 | 79% | 21% | 0.62 | 30% | 70% | 3,238 | 1619 | 1619 | 194 | 153 | 41 | 138 | 41 | 97 | Minimum |
| Medical-Dental Office Building | 720 | 223.0 | 1000 SF GFA | 100.75 | 50% | 50% | 14.3 | 79% | 21% | 8.86 | 30% | 70% | 22,467 | 11,234 | 11,233 | 3,189 | 2,519 | 670 | 1,976 | 593 | 1383 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| Medical-Dental Office Building | 720 | 223.0 | 1000 SF GFA | $T=42.97(X)-108.01$ | 50% | 50% | $\ln(T)=0.90\ln(X)+1.34$ | 79% | 21% | $T=4.07(X)-3.17$ | 30% | 70% | 9,474 | 4,737 | 4,737 | 496 | 392 | 104 | 904 | 271 | 633 | |

| | | | | | | | |
|--------------------------------|--------------------|-------|--|------|--|------|--|
| Medical-Dental Office Building | Standard Deviation | 13.38 | | 1.49 | | 1.86 | |
| | Number of Studies | 18 | | 24 | | 30 | |
| | Average Size | 15 | | 25 | | 23 | |
| | R ² | 0.92 | | 0.80 | | 0.77 | |

| 721 - Multifamily Housing (Mid-Rise) (Three to Ten Levels) | | | | | | | | | | | | | | | | | | | | | | |
|--|----------|-----|----------------|-------------------|------|-------|------------------|------|-------|-----------------|------|-------|---------|-----|-----|--------------|----|-----|--------------|-----|-----|----------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Average |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out | |
| Multifamily Housing (Mid-Rise) | 221 | 325 | Dwelling Units | 4.54 | 50% | 50% | 0.37 | 23% | 77% | 0.39 | 61% | 39% | 1,476 | 738 | 738 | 120 | 28 | 92 | 127 | 77 | 50 | Average |
| Multifamily Housing (Mid-Rise) | 221 | 325 | Dwelling Units | 3.76 | 50% | 50% | 0.15 | 23% | 77% | 0.19 | 61% | 39% | 1,222 | 611 | 611 | 49 | 11 | 38 | 62 | 38 | 24 | Minimum |
| Multifamily Housing (Mid-Rise) | 221 | 325 | Dwelling Units | 5.40 | 50% | 50% | 0.53 | 23% | 77% | 0.57 | 61% | 39% | 1,755 | 878 | 877 | 172 | 40 | 132 | 185 | 113 | 72 | Maximum |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Weekday | | | AM Peak Hour | | | PM Peak Hour | | | Equation |
| Multifamily Housing (Mid-Rise) | 221 | 325 | Dwelling Units | $T=4.77(X)-46.46$ | 50% | 50% | $T=.44(X)-11.61$ | 23% | 77% | $T=.39(X)+0.34$ | 61% | 39% | 1,504 | 752 | 752 | 131 | 30 | 101 | 127 | 77 | 50 | |

| | | | | | | | |
|--------------------------------|--------------------|------|--|------|--|------|--|
| Multifamily Housing (Mid-Rise) | Standard Deviation | 0.51 | | 0.09 | | 0.08 | |
| | Number of Studies | 11 | | 30 | | 31 | |
| | Average Size | 201 | | 173 | | 169 | |
| | R ² | 0.93 | | 0.91 | | 0.91 | |

| 520 Multifamily Housing (Lo (One to Three Levels)) | | | | | | | | | | | | | | | | | | | | | |
|--|----------|-----|----------------|-----------------|------|-------|-----------------|------|-------|---------------------------|------|-------|---------|-------|-------|--------------|----|-----|---------------------------|-----|-----|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Low-Rise) | 220 | 425 | Dwelling Units | 6.74 | 50% | 50% | 0.40 | 24% | 76% | 0.51 | 63% | 37% | 2,865 | 1,433 | 1,432 | 170 | 41 | 129 | 217 | 137 | 80 |
| Multifamily Housing (Low-Rise) | 220 | 425 | Dwelling Units | 2.46 | 50% | 50% | 0.13 | 24% | 76% | 0.08 | 63% | 37% | 1,046 | 523 | 523 | 55 | 13 | 42 | 34 | 21 | 13 |
| Multifamily Housing (Low-Rise) | 220 | 425 | Dwelling Units | 12.50 | 50% | 50% | 0.73 | 24% | 76% | 1.04 | 63% | 37% | 5,313 | 2,657 | 2,656 | 310 | 74 | 236 | 442 | 278 | 164 |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| Multifamily Housing (Low-Rise) | 220 | 425 | Dwelling Units | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out |
| Multifamily Housing (Low-Rise) | 220 | 425 | Dwelling Units | T=6.41(X)+75.31 | | | T=0.31(X)+22.85 | | | T=0.43(X)+20.55 | | | 2,800 | 1,400 | 1,400 | 155 | 37 | 118 | 203 | 128 | 75 |

Average
Minimum
Maximum
Equation

| | | | | | | | |
|--------------------------------|--------------------|------|--|------|--|------|--|
| Multifamily Housing (Low-Rise) | Standard Deviation | 1.79 | | 0.12 | | 0.15 | |
| | Number of Studies | 22 | | 49 | | 59 | |
| | Average Size | 229 | | 241 | | 241 | |
| | R ² | 0.86 | | 0.79 | | 0.84 | |

| 565 Day Care Center | | | | | | | | | | | | | | | | | | | | | |
|---------------------|----------|---------|--------------------|----------|------|-------|--------------|------|-------|---------------------------|------|-------|---------|-------|-------|--------------|-------|-------|---------------------------|-------|---------|
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| | | | | Rate | % In | % Out | Rate | % In | % Out | Rate | % In | % Out | Total | In | Out | Total | In | Out | Total | In | Out |
| Day Care Center | 565 | #VALUE! | 1000 SF GFA | 47.62 | 50% | 50% | 11.00 | 53% | 47% | 11.12 | 47% | 53% | #VALUE! | ##### | ##### | ##### | ##### | ##### | ##### | ##### | #VALUE! |
| Day Care Center | 565 | #VALUE! | 1000 SF GFA | 12.12 | 50% | 50% | 1.79 | 53% | 47% | 1.56 | 47% | 53% | #VALUE! | ##### | ##### | ##### | ##### | ##### | ##### | ##### | #VALUE! |
| Day Care Center | 565 | #VALUE! | no longer proposed | 211.06 | 50% | 50% | 57.02 | 53% | 47% | 40.85 | 47% | 53% | #VALUE! | ##### | ##### | ##### | ##### | ##### | ##### | ##### | #VALUE! |
| Land Use | ITE Code | Qty | Unit | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | | Weekday | | | AM Peak Hour | | | PM Peak Hour of Generator | | |
| Day Care Center | 565 | #VALUE! | 1000 SF GFA | Equation | | | Equation | | | Equation | | | Total | In | Out | Total | In | Out | Total | In | Out |
| Day Care Center | 565 | #VALUE! | 1000 SF GFA | N/A | | | N/A | | | N/A | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Average
Minimum
Maximum
Equation

| | | | | | | | |
|-----------------|--------------------|-------|--|------|--|------|--|
| Day Care Center | Standard Deviation | 29.78 | | 6.08 | | 6.28 | |
| | Number of Studies | 27 | | 89 | | 90 | |
| | Average Size | 5 | | 5 | | 5 | |
| | R ² | N/A | | N/A | | N/A | |



One Scottsdale Planning Unit II & III

DMB Associates, Inc.

Pass-by Calculations

Completed: KS 6/14/2021
Checked: SS 9/1/2021

| PU II | Land Use | Square Feet | Dwelling Units/Rooms | After Internal Capture | | | | | | | | | After Pass-By | | | After Internal Capture | | | | | | | | | After Pass-By | | |
|-------|-------------------|-------------|----------------------|------------------------|------|-------|------------|------|-------|---------|------------|-------|---------------|--------|------------------|------------------------|-------|------------|-------|-------|---------|------------|-------|-------|---------------|--|--|
| | | | | BEFORE REDUCTION | | | AM REDUCED | | | PASS-BY | AM REDUCED | | | Rate % | BEFORE REDUCTION | | | PM REDUCED | | | PASS-BY | PM REDUCED | | | | | |
| | | | | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | | |
| 1 | Office - 710 | 1,075,000 | | 1,136 | 155 | 1,291 | 1,040 | 102 | 1,142 | | 1,040 | 102 | 1,142 | | 203 | 989 | 1,192 | 181 | 952 | 1,133 | | 181 | 952 | 1,133 | | | |
| 2 | Retail - 821 | 42,500.00 | | 19 | 28 | 47 | 21 | 13 | 34 | | 21 | 13 | 34 | | 108 | 113 | 221 | 32 | 43 | 75 | 40% | 19 | 26 | 45 | | | |
| 3 | Restaurant - 931 | 76,875 | | 31 | 25 | 56 | 16 | 15 | 31 | | 16 | 15 | 31 | | 402 | 198 | 600 | 308 | 105 | 413 | 44% | 172 | 59 | 231 | | | |
| 3 | Restaurant - 932 | 25,625 | | 135 | 110 | 245 | 70 | 66 | 136 | | 70 | 66 | 136 | | 142 | 90 | 232 | 109 | 48 | 157 | 43% | 62 | 27 | 89 | | | |
| 4 | Residential - 221 | | 1750 | 174 | 584 | 758 | 166 | 533 | 699 | | 166 | 533 | 699 | | 417 | 266 | 683 | 319 | 180 | 499 | | 319 | 180 | 499 | | | |
| 5 | Hotel - 310 | | 270 | 72 | 56 | 128 | 69 | 15 | 84 | | 69 | 15 | 84 | | 87 | 85 | 172 | 53 | 56 | 109 | | 53 | 56 | 109 | | | |
| | TOTAL | | | 1,567 | 958 | 2,525 | 1,382 | 744 | 2,126 | | 1,382 | 744 | 2,126 | | 1,359 | 1,741 | 3,100 | 1,002 | 1,384 | 2,386 | | 806 | 1,300 | 2,106 | | | |

Restaurant AM PM
IN 0.19 0.74
OUT 0.19 0.69
0.84198
0.67935 0.760668
weekday after reductions 31062.82

| PU III | Land Use | Square Feet | Dwelling Units/Rooms | After Internal Capture | | | | | | | | | After Pass-By | | | After Internal Capture | | | | | | | | | After Pass-By | | |
|--------|-------------------|-------------|----------------------|------------------------|------|-------|------------|------|-------|---------|------------|-------|---------------|--------|------------|------------------------|-------|------------|-------|-------|---------|------------|-------|-------|---------------|--|--|
| | | | | AM PEAK HR | | | AM REDUCED | | | PASS-BY | AM REDUCED | | | Rate % | PM PEAK HR | | | PM REDUCED | | | PASS-BY | PM REDUCED | | | | | |
| | | | | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | ENTER | EXIT | TOTAL | | |
| 1 | Office - 720 | 223,000 | | 392 | 104 | 496 | 325 | 46 | 371 | | 325 | 46 | 371 | | 271 | 633 | 904 | 258 | 602 | 860 | | 258 | 602 | 860 | | | |
| 2 | Retail - 822 | 16,000.00 | | 23 | 15 | 38 | 19 | 12 | 31 | | 19 | 12 | 31 | | 53 | 52 | 105 | 35 | 31 | 66 | 40% | 21 | 19 | 40 | | | |
| 2 | Retail - 942 | 17,000.00 | | 25 | 13 | 38 | 20 | 10 | 30 | | 20 | 10 | 30 | | 25 | 28 | 53 | 17 | 16 | 33 | | 17 | 16 | 33 | | | |
| 2 | Retail - 945 | 5,000.00 | | 217 | 216 | 433 | 176 | 173 | 349 | 76% | 42 | 42 | 84 | | 182 | 182 | 364 | 122 | 106 | 228 | 75% | 31 | 27 | 58 | | | |
| 3 | Restaurant - 932 | 9,750 | | 51 | 42 | 93 | 15 | 22 | 37 | | 15 | 22 | 37 | | 54 | 34 | 88 | 17 | 11 | 28 | 43% | 10 | 6 | 16 | | | |
| 3 | Restaurant - 934 | 3,250 | | 74 | 71 | 145 | 22 | 36 | 58 | 50% | 11 | 18 | 29 | | 56 | 51 | 107 | 38 | 15 | 53 | 55% | 17 | 7 | 24 | | | |
| 4 | Residential - 220 | | 425 | 37 | 118 | 155 | 35 | 101 | 136 | | 35 | 101 | 136 | | 128 | 75 | 203 | 71 | 46 | 117 | | 71 | 46 | 117 | | | |
| 4 | Residential - 221 | | 325 | 30 | 101 | 131 | 28 | 87 | 115 | | 28 | 87 | 115 | | 77 | 50 | 127 | 43 | 30 | 73 | | 43 | 30 | 73 | | | |
| 5 | Hotel - 310 | | 130 | 23 | 21 | 44 | 22 | 4 | 26 | | 22 | 4 | 26 | | 23 | 24 | 47 | 10 | 14 | 24 | | 10 | 14 | 24 | | | |
| | TOTAL | | | 872 | 701 | 1,573 | 662 | 491 | 1,153 | | 517 | 342 | 859 | | 869 | 1,129 | 1,998 | 611 | 871 | 1,482 | | 478 | 767 | 1,245 | | | |

Restaurant AM PM
IN 0.41 0.30
OUT 0.37 0.40
27% check
26% check
26% check

| | | | | | |
|---------------|----|-----|---------------|-----|-----|
| Restaurant | 11 | 18 | QT | 134 | 131 |
| % from Legacy | | | % from Legacy | 34 | 33 |
| Scottsdale | 11 | 18 | Scottsdale | 100 | 98 |
| Int 3 | IN | OUT | Int 4 | IN | OUT |
| NBR | 6 | | NBR | 100 | |
| SBL | 5 | | WBR | | 98 |
| WBR | | 18 | | | |
| total | 11 | 18 | Int 5 | | |
| | | | SBL | 34 | |
| | | | WBL | | 33 |
| | | | Int 16 | | |
| | | | EBT | 34 | |
| | | | SBR | | 33 |
| | | | Int 10 | | |
| | | | EBU | 34 | |
| | | | total | 134 | 131 |

| | | | | | |
|---------------|----|-----|---------------|----|-----|
| Restaura | 42 | 25 | QT | 91 | 79 |
| % from Legacy | | | % from Legacy | 23 | 20 |
| Scottsda | 42 | 25 | Scottsdale | 68 | 59 |
| Int 3 | IN | OUT | Int 4 | IN | OUT |
| NBR | 21 | | NBR | 68 | |
| SBL | 21 | | WBR | | 59 |
| WBR | | 25 | | | |
| total | 42 | 25 | Int 5 | | |
| | | | SBL | 23 | |
| | | | WBL | | 20 |
| | | | Int 16 | | |
| | | | EBT | 23 | |
| | | | SBR | | 20 |
| | | | Int 10 | | |
| | | | EBU | 23 | |
| | | | total | 91 | 79 |

AM PM Ave
88% 95% 92%
72% 34% 53%
55% 69% 62%
56% 68% 62%
92% 73% 83%
66% 63% 64%
19%
6%

| | | |
|---------------|-----|-----|
| Restaurant | 196 | 84 |
| % from Legacy | | |
| Scottsdale | 196 | 84 |
| Int 6 | IN | OUT |
| NBR | 33 | |
| SBL | 33 | |
| WBR | | 17 |
| WBL | | 17 |
| Int 15 | | |
| NBR | 33 | |
| SBL | 33 | |
| WBR | | 17 |
| Int 14 | | |
| NBR | 33 | |
| SBL | | |
| WBR | | 17 |
| Int 13 | | |
| NBR | 31 | |
| WBR | | 16 |
| total | 196 | 84 |

75% 95% 85%
82% 63% 72%
79% 62% 71%
81% 63% 72%
40% 32% 36%
40% 50% 45%
88% 58% 73%
88% 57% 73%
59% 51% 55%
26%
21%



Appendix G – MAG 2023 Socioeconomic Projections



Socioeconomic Projections

Population and Employment

by Municipal Planning Area, Jurisdiction, and Regional Analysis Zone

June 2023



302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003



(602) 254-6300
www.azmag.gov

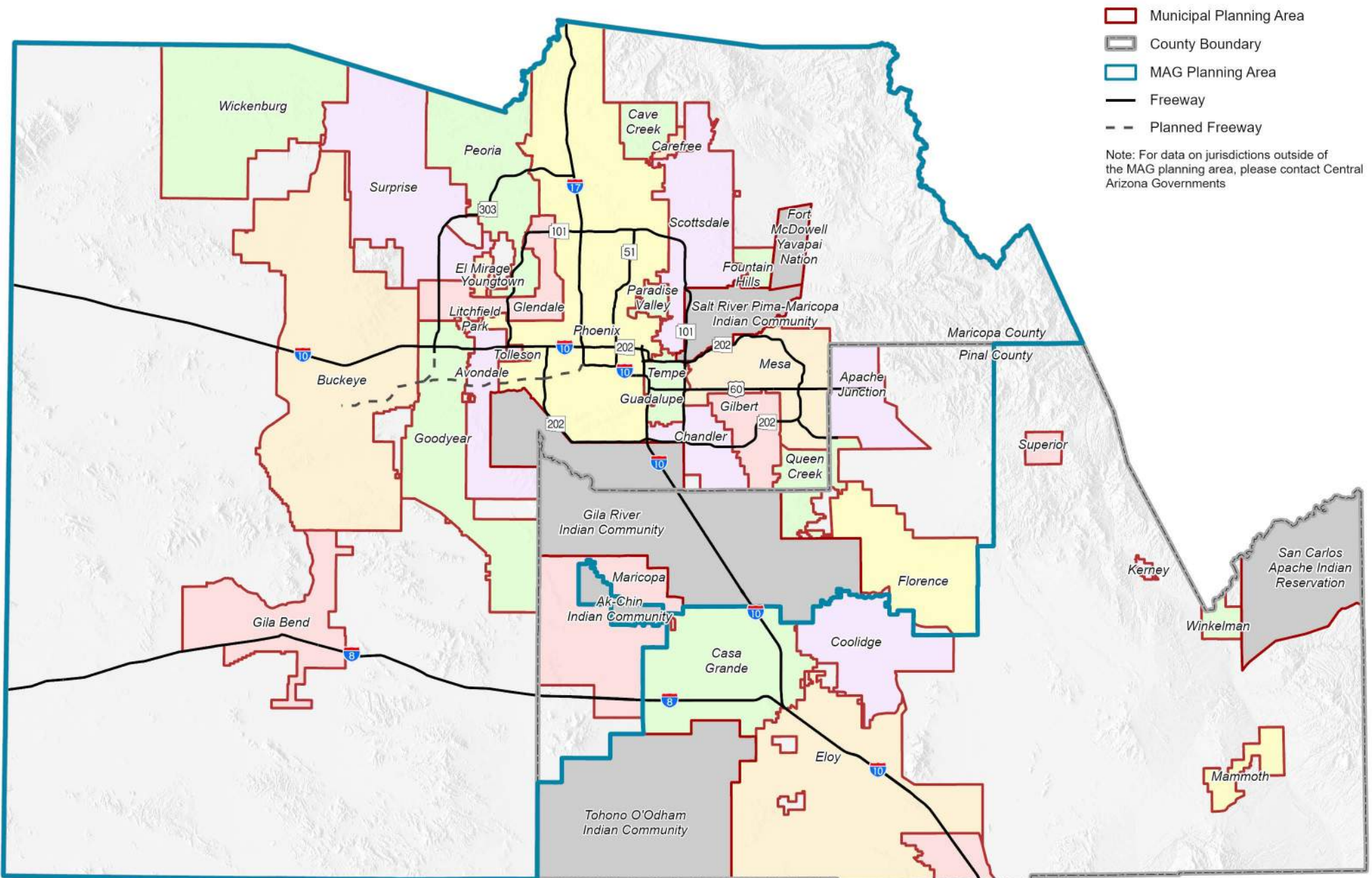
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**Population and Employment Projections
by
Municipal Planning Area (MPA)**

2020 to 2060

Municipal Planning Areas (2023) Maricopa and Pinal Counties, Arizona



0 5 10 15 20 25 30 35 40 Miles

Date: May 2023
Source: MAG and the MAG Member Agencies, CAG and the CAG Member Agencies

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

20-ZN-2002#5
12/18/2023

Maricopa Association of Governments
Table 1: Total Population by Municipal Planning Area
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| Municipal Planning Area | Total Population | | | | | |
|--|------------------|-----------|-----------|-----------|-----------|-----------|
| | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Apache Junction | 52,700 | 53,700 | 67,100 | 84,200 | 100,800 | 127,600 |
| Avondale | 91,100 | 94,000 | 117,800 | 130,900 | 135,400 | 137,700 |
| Buckeye | 109,700 | 124,400 | 194,400 | 296,200 | 397,800 | 491,000 |
| Carefree | 3,700 | 3,700 | 4,100 | 4,100 | 4,200 | 4,200 |
| Cave Creek | 5,000 | 5,300 | 5,600 | 5,900 | 6,100 | 6,200 |
| Chandler | 286,100 | 292,000 | 304,300 | 315,900 | 336,500 | 337,600 |
| El Mirage | 35,900 | 36,300 | 37,800 | 38,400 | 38,500 | 38,600 |
| Florence | 76,600 | 78,100 | 106,700 | 154,000 | 197,500 | 242,900 |
| Fort McDowell Yavapai Native Nation | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 23,900 | 24,000 | 25,200 | 25,700 | 26,000 | 26,100 |
| Gila Bend | 2,100 | 2,100 | 2,500 | 2,500 | 2,500 | 2,500 |
| Gila River Indian Native Nation | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 272,400 | 281,200 | 301,600 | 311,600 | 323,900 | 325,100 |
| Glendale | 282,200 | 291,000 | 323,600 | 345,300 | 353,200 | 354,900 |
| Goodyear | 99,900 | 109,200 | 165,100 | 210,000 | 241,200 | 276,700 |
| Guadalupe | 5,300 | 5,300 | 5,400 | 5,600 | 5,700 | 5,700 |
| Litchfield Park | 13,300 | 13,400 | 14,200 | 14,300 | 14,300 | 14,300 |
| Maricopa | 64,800 | 71,500 | 100,500 | 122,200 | 141,400 | 159,800 |
| Mesa | 550,300 | 561,500 | 589,900 | 624,200 | 645,500 | 661,200 |
| Paradise Valley | 12,700 | 12,700 | 13,300 | 13,300 | 13,400 | 13,400 |
| Peoria | 207,400 | 215,600 | 244,500 | 288,900 | 318,100 | 346,800 |
| Phoenix | 1,665,200 | 1,711,800 | 1,867,300 | 2,007,800 | 2,101,500 | 2,184,600 |
| Queen Creek | 72,700 | 84,700 | 121,000 | 135,700 | 149,400 | 154,900 |
| Salt River Pima-Maricopa Native Nation | 6,300 | 6,400 | 5,500 | 5,900 | 6,000 | 6,000 |
| Scottsdale | 241,800 | 245,100 | 275,700 | 286,700 | 301,300 | 307,300 |
| Surprise | 155,600 | 167,500 | 255,700 | 342,300 | 402,900 | 446,500 |
| Tempe | 181,600 | 187,400 | 219,300 | 247,500 | 258,000 | 269,700 |
| Tolleson | 7,300 | 7,300 | 8,100 | 8,900 | 9,600 | 10,300 |
| Unincorporated Maricopa County | 99,700 | 101,600 | 107,100 | 110,800 | 120,400 | 136,200 |
| Unincorporated Pinal County | 66,400 | 69,100 | 76,500 | 87,500 | 99,600 | 117,900 |
| Wickenburg | 7,800 | 8,000 | 8,600 | 8,600 | 8,700 | 8,700 |
| Youngtown | 7,100 | 7,100 | 7,500 | 7,700 | 7,800 | 7,800 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 2: Total Employment by Municipal Planning Area
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| Municipal Planning Area | Total Employment | | | | | |
|--|------------------|---------|-----------|-----------|-----------|-----------|
| | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Apache Junction | 7,900 | 9,200 | 15,600 | 19,000 | 22,800 | 27,500 |
| Avondale | 24,900 | 28,100 | 33,600 | 39,600 | 42,400 | 46,800 |
| Buckeye | 25,900 | 26,200 | 50,100 | 92,400 | 126,800 | 183,600 |
| Carefree | 1,600 | 1,600 | 1,700 | 1,700 | 1,800 | 1,900 |
| Cave Creek | 2,400 | 2,600 | 2,800 | 3,000 | 3,300 | 3,500 |
| Chandler | 157,400 | 166,400 | 189,400 | 204,500 | 216,000 | 224,700 |
| El Mirage | 5,700 | 6,300 | 10,200 | 13,600 | 15,300 | 16,400 |
| Florence | 9,700 | 9,900 | 12,100 | 18,500 | 26,600 | 35,500 |
| Fort McDowell Yavapai Native Nation | 900 | 900 | 900 | 900 | 900 | 900 |
| Fountain Hills | 7,800 | 8,200 | 9,200 | 10,100 | 10,700 | 11,200 |
| Gila Bend | 1,000 | 1,000 | 1,100 | 1,200 | 1,300 | 2,000 |
| Gila River Indian Native Nation | 9,000 | 9,000 | 12,300 | 14,000 | 14,800 | 17,500 |
| Gilbert | 98,100 | 108,000 | 122,700 | 136,400 | 143,900 | 151,300 |
| Glendale | 103,300 | 111,900 | 136,400 | 155,800 | 171,900 | 183,900 |
| Goodyear | 46,000 | 59,200 | 87,200 | 110,600 | 124,100 | 142,800 |
| Guadalupe | 1,200 | 1,100 | 1,200 | 1,300 | 1,300 | 1,400 |
| Litchfield Park | 3,700 | 3,500 | 4,900 | 5,300 | 5,600 | 6,000 |
| Maricopa | 7,400 | 8,400 | 11,100 | 17,700 | 24,700 | 32,700 |
| Mesa | 197,400 | 208,200 | 237,500 | 277,300 | 308,900 | 331,500 |
| Paradise Valley | 4,700 | 4,700 | 5,100 | 5,500 | 5,500 | 5,800 |
| Peoria | 60,400 | 62,700 | 71,700 | 89,200 | 98,200 | 109,600 |
| Phoenix | 881,000 | 933,700 | 1,048,500 | 1,149,000 | 1,216,700 | 1,272,600 |
| Queen Creek | 21,100 | 22,300 | 30,700 | 35,000 | 39,700 | 42,900 |
| Salt River Pima-Maricopa Native Nation | 18,100 | 21,900 | 31,200 | 34,800 | 36,600 | 38,600 |
| Scottsdale | 188,900 | 207,100 | 230,500 | 246,500 | 255,000 | 264,000 |
| Surprise | 38,600 | 43,500 | 74,200 | 92,600 | 108,800 | 130,000 |
| Tempe | 192,400 | 207,900 | 233,700 | 253,400 | 264,400 | 273,000 |
| Tolleson | 17,600 | 19,000 | 20,600 | 21,500 | 22,000 | 22,400 |
| Unincorporated Maricopa County | 28,800 | 31,100 | 36,300 | 41,000 | 48,100 | 56,100 |
| Unincorporated Pinal County | 4,500 | 5,000 | 6,000 | 8,200 | 11,900 | 17,700 |
| Wickenburg | 4,300 | 4,200 | 4,400 | 4,500 | 4,500 | 4,600 |
| Youngtown | 1,600 | 1,600 | 1,700 | 2,200 | 2,300 | 2,500 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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**Population Projections
by
Jurisdiction**

Annually 2020 to 2060

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|-----------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Apache Junction | 38,600 | 39,200 | 39,400 | 41,400 | 43,100 | 45,100 |
| Avondale | 89,500 | 90,800 | 92,300 | 95,200 | 99,400 | 104,500 |
| Buckeye | 93,600 | 102,000 | 106,300 | 111,500 | 119,100 | 127,700 |
| Carefree | 3,700 | 3,700 | 3,700 | 3,800 | 3,800 | 3,900 |
| Cave Creek | 4,900 | 5,000 | 5,200 | 5,200 | 5,300 | 5,300 |
| Chandler | 277,100 | 280,200 | 282,900 | 285,200 | 286,800 | 287,500 |
| El Mirage | 35,900 | 36,100 | 36,300 | 36,700 | 37,000 | 37,300 |
| Florence | 26,900 | 25,200 | 25,200 | 26,200 | 26,800 | 28,800 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 23,900 | 23,900 | 24,000 | 24,400 | 24,600 | 24,900 |
| Gila Bend | 1,900 | 1,900 | 1,900 | 1,900 | 2,100 | 2,200 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 268,700 | 273,800 | 277,500 | 283,800 | 287,500 | 290,300 |
| Glendale | 248,700 | 250,600 | 254,000 | 258,300 | 261,600 | 264,400 |
| Goodyear | 96,800 | 101,700 | 106,100 | 113,800 | 120,300 | 126,400 |
| Guadalupe | 5,300 | 5,300 | 5,300 | 5,300 | 5,300 | 5,300 |
| Litchfield Park | 6,900 | 7,000 | 7,000 | 7,100 | 7,100 | 7,100 |
| Maricopa | 58,600 | 61,100 | 64,700 | 67,300 | 70,300 | 73,100 |
| Mesa | 505,400 | 510,800 | 516,400 | 523,000 | 527,000 | 529,900 |
| Paradise Valley | 12,700 | 12,700 | 12,700 | 12,800 | 13,100 | 13,300 |
| Peoria | 191,800 | 195,600 | 199,400 | 200,800 | 202,800 | 206,100 |
| Phoenix | 1,611,200 | 1,630,200 | 1,657,000 | 1,674,600 | 1,696,300 | 1,721,200 |
| Queen Creek | 60,800 | 66,300 | 71,000 | 78,000 | 83,400 | 86,700 |
| Salt River | 6,300 | 6,300 | 6,400 | 6,400 | 5,400 | 5,400 |
| Scottsdale | 241,700 | 243,500 | 245,000 | 250,600 | 256,300 | 259,200 |
| Surprise | 144,200 | 149,700 | 155,400 | 162,000 | 171,100 | 182,100 |
| Tempe | 181,600 | 181,500 | 187,400 | 196,200 | 201,100 | 204,100 |
| Tolleson | 7,300 | 7,300 | 7,300 | 7,300 | 7,400 | 7,600 |
| Unincorporated Maricopa County | 307,500 | 312,600 | 317,700 | 322,100 | 327,400 | 333,400 |
| Unincorporated Pinal County | 141,500 | 145,400 | 149,800 | 153,300 | 156,700 | 160,700 |
| Wickenburg | 7,500 | 7,700 | 8,000 | 8,300 | 8,700 | 9,100 |
| Youngtown | 7,100 | 7,100 | 7,100 | 7,100 | 7,300 | 7,400 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2026 | 2027 | 2028 | 2029 | 2030 |
| Apache Junction | 46,800 | 47,900 | 49,400 | 51,600 | 52,800 |
| Avondale | 107,500 | 110,100 | 112,100 | 113,400 | 114,200 |
| Buckeye | 135,200 | 143,200 | 150,300 | 158,200 | 164,700 |
| Carefree | 3,900 | 4,000 | 4,100 | 4,100 | 4,100 |
| Cave Creek | 5,300 | 5,400 | 5,400 | 5,400 | 5,500 |
| Chandler | 289,400 | 290,900 | 292,400 | 293,400 | 294,400 |
| El Mirage | 37,500 | 37,500 | 37,600 | 37,700 | 37,800 |
| Florence | 31,200 | 32,600 | 34,900 | 36,900 | 38,300 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 24,900 | 25,000 | 25,000 | 25,100 | 25,200 |
| Gila Bend | 2,200 | 2,200 | 2,200 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 291,800 | 293,700 | 295,100 | 296,300 | 297,400 |
| Glendale | 266,700 | 268,400 | 271,200 | 273,900 | 275,200 |
| Goodyear | 133,500 | 142,600 | 151,200 | 156,700 | 161,000 |
| Guadalupe | 5,400 | 5,400 | 5,400 | 5,400 | 5,400 |
| Litchfield Park | 7,100 | 7,200 | 7,200 | 7,300 | 7,700 |
| Maricopa | 78,000 | 82,300 | 87,000 | 89,900 | 91,500 |
| Mesa | 533,400 | 536,400 | 538,300 | 540,900 | 543,900 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 209,700 | 213,700 | 217,200 | 221,200 | 224,300 |
| Phoenix | 1,741,500 | 1,758,200 | 1,775,500 | 1,793,600 | 1,809,300 |
| Queen Creek | 89,700 | 92,600 | 94,700 | 95,900 | 97,000 |
| Salt River | 5,400 | 5,500 | 5,500 | 5,500 | 5,500 |
| Scottsdale | 261,500 | 266,200 | 270,100 | 273,400 | 275,600 |
| Surprise | 194,500 | 206,000 | 216,400 | 226,100 | 234,600 |
| Tempe | 206,400 | 208,500 | 211,700 | 215,200 | 219,200 |
| Tolleson | 7,700 | 7,700 | 7,700 | 7,700 | 8,100 |
| Unincorporated Maricopa County | 341,400 | 347,500 | 354,100 | 360,600 | 371,800 |
| Unincorporated Pinal County | 164,100 | 168,200 | 171,700 | 175,500 | 181,100 |
| Wickenburg | 9,300 | 9,600 | 9,900 | 10,200 | 10,500 |
| Youngtown | 7,400 | 7,400 | 7,500 | 7,500 | 7,500 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2031 | 2032 | 2033 | 2034 | 2035 |
| Apache Junction | 54,800 | 56,600 | 57,800 | 58,500 | 60,100 |
| Avondale | 115,700 | 116,900 | 118,400 | 119,800 | 120,500 |
| Buckeye | 169,700 | 174,400 | 180,700 | 186,900 | 193,100 |
| Carefree | 4,100 | 4,100 | 4,100 | 4,100 | 4,100 |
| Cave Creek | 5,500 | 5,500 | 5,600 | 5,600 | 5,700 |
| Chandler | 295,800 | 297,400 | 298,900 | 299,500 | 300,700 |
| El Mirage | 37,800 | 38,000 | 38,200 | 38,200 | 38,200 |
| Florence | 40,500 | 42,100 | 44,400 | 46,500 | 47,500 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 25,300 | 25,300 | 25,300 | 25,400 | 25,500 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 297,800 | 298,600 | 300,200 | 301,500 | 301,800 |
| Glendale | 277,600 | 279,800 | 281,600 | 283,000 | 285,300 |
| Goodyear | 166,200 | 169,700 | 173,700 | 177,500 | 181,100 |
| Guadalupe | 5,400 | 5,500 | 5,500 | 5,500 | 5,600 |
| Litchfield Park | 7,700 | 7,800 | 7,800 | 7,800 | 7,800 |
| Maricopa | 93,300 | 95,600 | 96,800 | 98,400 | 101,200 |
| Mesa | 547,900 | 552,100 | 556,500 | 560,000 | 562,100 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 228,200 | 233,300 | 236,800 | 241,700 | 245,200 |
| Phoenix | 1,823,600 | 1,838,400 | 1,852,500 | 1,866,300 | 1,881,500 |
| Queen Creek | 98,300 | 99,800 | 101,500 | 104,500 | 105,300 |
| Salt River | 5,500 | 5,800 | 5,800 | 5,800 | 5,800 |
| Scottsdale | 277,800 | 279,700 | 280,600 | 281,500 | 283,000 |
| Surprise | 240,400 | 245,400 | 250,600 | 256,300 | 261,900 |
| Tempe | 221,100 | 224,600 | 227,600 | 230,200 | 233,000 |
| Tolleson | 8,100 | 8,200 | 8,200 | 8,300 | 8,400 |
| Unincorporated Maricopa County | 384,400 | 395,400 | 406,200 | 417,000 | 428,300 |
| Unincorporated Pinal County | 186,000 | 190,500 | 195,800 | 200,000 | 205,500 |
| Wickenburg | 10,800 | 11,000 | 11,300 | 11,600 | 11,900 |
| Youngtown | 7,600 | 7,600 | 7,600 | 7,700 | 7,700 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions/areas outside of the MAG planning area, please contact Central Arizona Governments

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2036 | 2037 | 2038 | 2039 | 2040 |
| Apache Junction | 61,700 | 62,600 | 64,700 | 65,800 | 67,100 |
| Avondale | 121,100 | 121,500 | 122,800 | 123,100 | 123,800 |
| Buckeye | 200,300 | 208,500 | 219,000 | 227,900 | 235,900 |
| Carefree | 4,100 | 4,100 | 4,100 | 4,100 | 4,100 |
| Cave Creek | 5,700 | 5,700 | 5,700 | 5,800 | 5,800 |
| Chandler | 301,300 | 301,900 | 302,500 | 303,300 | 304,900 |
| El Mirage | 38,300 | 38,400 | 38,400 | 38,400 | 38,400 |
| Florence | 48,900 | 51,200 | 53,200 | 54,400 | 56,300 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 25,500 | 25,600 | 25,600 | 25,600 | 25,700 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 302,900 | 303,500 | 304,500 | 305,200 | 305,700 |
| Glendale | 286,600 | 288,400 | 290,200 | 291,100 | 291,900 |
| Goodyear | 184,700 | 189,400 | 191,900 | 195,500 | 199,500 |
| Guadalupe | 5,600 | 5,600 | 5,600 | 5,600 | 5,600 |
| Litchfield Park | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |
| Maricopa | 102,300 | 103,600 | 104,700 | 105,500 | 106,800 |
| Mesa | 565,300 | 568,100 | 570,600 | 574,000 | 576,300 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 249,200 | 252,500 | 256,400 | 259,500 | 262,600 |
| Phoenix | 1,896,100 | 1,909,600 | 1,920,500 | 1,932,000 | 1,943,100 |
| Queen Creek | 105,800 | 108,000 | 108,700 | 109,800 | 110,700 |
| Salt River | 5,800 | 5,800 | 5,800 | 5,800 | 5,900 |
| Scottsdale | 284,400 | 284,900 | 285,500 | 286,100 | 286,600 |
| Surprise | 267,000 | 272,100 | 276,500 | 280,600 | 284,800 |
| Tempe | 235,200 | 237,100 | 239,400 | 243,300 | 246,200 |
| Tolleson | 8,500 | 8,800 | 8,800 | 8,800 | 8,900 |
| Unincorporated Maricopa County | 438,700 | 448,900 | 459,200 | 468,900 | 478,500 |
| Unincorporated Pinal County | 211,300 | 215,100 | 219,200 | 224,600 | 229,000 |
| Wickenburg | 12,100 | 12,400 | 12,700 | 13,000 | 13,300 |
| Youngtown | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2041 | 2042 | 2043 | 2044 | 2045 |
| Apache Junction | 68,100 | 69,500 | 70,100 | 70,800 | 71,400 |
| Avondale | 124,200 | 124,600 | 125,400 | 125,700 | 125,900 |
| Buckeye | 244,400 | 251,900 | 261,000 | 269,800 | 275,900 |
| Carefree | 4,100 | 4,100 | 4,200 | 4,200 | 4,200 |
| Cave Creek | 5,800 | 5,800 | 5,800 | 5,900 | 5,900 |
| Chandler | 308,500 | 311,500 | 315,500 | 317,900 | 320,400 |
| El Mirage | 38,400 | 38,400 | 38,400 | 38,400 | 38,400 |
| Florence | 58,300 | 60,700 | 62,400 | 64,600 | 65,800 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 25,800 | 25,800 | 25,800 | 25,800 | 25,900 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 307,200 | 309,600 | 310,500 | 312,100 | 313,500 |
| Glendale | 293,300 | 294,200 | 295,200 | 296,000 | 296,800 |
| Goodyear | 201,800 | 205,000 | 207,600 | 210,800 | 213,700 |
| Guadalupe | 5,600 | 5,600 | 5,600 | 5,700 | 5,700 |
| Litchfield Park | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |
| Maricopa | 107,700 | 108,600 | 110,700 | 111,400 | 112,600 |
| Mesa | 578,300 | 580,500 | 582,500 | 584,000 | 586,100 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 266,500 | 269,800 | 272,700 | 274,400 | 276,400 |
| Phoenix | 1,951,300 | 1,960,100 | 1,967,700 | 1,976,200 | 1,985,700 |
| Queen Creek | 112,400 | 113,100 | 114,600 | 115,700 | 117,500 |
| Salt River | 5,900 | 5,900 | 5,900 | 5,900 | 6,000 |
| Scottsdale | 288,700 | 290,000 | 291,700 | 293,800 | 294,900 |
| Surprise | 289,300 | 292,800 | 296,200 | 299,200 | 303,100 |
| Tempe | 247,700 | 248,900 | 249,900 | 250,600 | 251,300 |
| Tolleson | 9,100 | 9,200 | 9,200 | 9,300 | 9,300 |
| Unincorporated Maricopa County | 486,500 | 495,700 | 503,400 | 512,300 | 521,400 |
| Unincorporated Pinal County | 232,700 | 236,500 | 240,900 | 244,900 | 251,400 |
| Wickenburg | 13,500 | 13,800 | 13,900 | 14,100 | 14,200 |
| Youngtown | 7,700 | 7,700 | 7,700 | 7,700 | 7,700 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2046 | 2047 | 2048 | 2049 | 2050 |
| Apache Junction | 73,100 | 73,600 | 74,700 | 75,800 | 76,600 |
| Avondale | 126,100 | 126,100 | 126,400 | 126,900 | 127,000 |
| Buckeye | 282,400 | 288,900 | 296,300 | 301,800 | 307,600 |
| Carefree | 4,200 | 4,200 | 4,200 | 4,200 | 4,200 |
| Cave Creek | 5,900 | 5,900 | 5,900 | 6,000 | 6,000 |
| Chandler | 322,300 | 323,600 | 324,300 | 324,500 | 325,400 |
| El Mirage | 38,500 | 38,500 | 38,500 | 38,500 | 38,500 |
| Florence | 67,400 | 68,600 | 70,200 | 72,400 | 75,000 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 25,900 | 25,900 | 25,900 | 25,900 | 26,000 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 314,600 | 315,700 | 316,000 | 316,400 | 316,600 |
| Glendale | 297,800 | 298,000 | 298,200 | 298,400 | 298,700 |
| Goodyear | 216,400 | 219,500 | 221,800 | 224,400 | 226,400 |
| Guadalupe | 5,700 | 5,700 | 5,700 | 5,700 | 5,700 |
| Litchfield Park | 7,800 | 7,800 | 7,900 | 7,900 | 7,900 |
| Maricopa | 113,900 | 114,800 | 115,300 | 115,800 | 117,600 |
| Mesa | 587,700 | 589,600 | 591,800 | 593,900 | 596,100 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 279,200 | 282,000 | 284,000 | 286,600 | 288,900 |
| Phoenix | 1,995,700 | 2,005,300 | 2,014,900 | 2,023,700 | 2,032,900 |
| Queen Creek | 118,800 | 119,800 | 121,100 | 121,900 | 123,600 |
| Salt River | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Scottsdale | 296,600 | 298,000 | 298,800 | 300,500 | 301,200 |
| Surprise | 305,600 | 308,500 | 311,400 | 313,500 | 316,400 |
| Tempe | 251,800 | 252,200 | 253,000 | 254,700 | 255,500 |
| Tolleson | 9,300 | 9,400 | 9,400 | 9,600 | 9,600 |
| Unincorporated Maricopa County | 529,900 | 538,400 | 548,000 | 556,900 | 566,600 |
| Unincorporated Pinal County | 256,600 | 262,800 | 268,000 | 273,500 | 280,000 |
| Wickenburg | 14,300 | 14,400 | 14,400 | 14,400 | 14,400 |
| Youngtown | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2051 | 2052 | 2053 | 2054 | 2055 |
| Apache Junction | 78,600 | 79,900 | 81,400 | 82,600 | 83,600 |
| Avondale | 127,300 | 127,400 | 127,600 | 127,700 | 128,000 |
| Buckeye | 313,800 | 320,000 | 327,500 | 333,500 | 343,300 |
| Carefree | 4,200 | 4,200 | 4,200 | 4,200 | 4,200 |
| Cave Creek | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Chandler | 325,700 | 325,800 | 326,100 | 326,100 | 326,200 |
| El Mirage | 38,500 | 38,600 | 38,600 | 38,600 | 38,600 |
| Florence | 77,500 | 80,400 | 82,000 | 84,600 | 86,600 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 26,000 | 26,000 | 26,000 | 26,000 | 26,000 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 316,800 | 317,000 | 317,100 | 317,200 | 317,200 |
| Glendale | 298,900 | 299,200 | 299,700 | 299,800 | 299,800 |
| Goodyear | 229,200 | 232,000 | 234,400 | 237,400 | 239,200 |
| Guadalupe | 5,700 | 5,700 | 5,700 | 5,700 | 5,700 |
| Litchfield Park | 7,900 | 7,900 | 7,900 | 7,900 | 7,900 |
| Maricopa | 118,200 | 119,400 | 120,300 | 121,800 | 122,900 |
| Mesa | 597,600 | 599,100 | 600,700 | 602,500 | 603,900 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 292,400 | 294,200 | 295,900 | 299,000 | 301,300 |
| Phoenix | 2,042,300 | 2,050,400 | 2,059,700 | 2,068,800 | 2,076,500 |
| Queen Creek | 124,300 | 125,200 | 125,400 | 125,800 | 126,300 |
| Salt River | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Scottsdale | 302,000 | 303,000 | 303,400 | 304,200 | 304,700 |
| Surprise | 318,500 | 320,500 | 323,300 | 324,700 | 326,000 |
| Tempe | 257,200 | 258,800 | 259,500 | 260,500 | 261,700 |
| Tolleson | 9,700 | 9,900 | 10,200 | 10,200 | 10,200 |
| Unincorporated Maricopa County | 573,700 | 582,900 | 590,400 | 598,600 | 606,300 |
| Unincorporated Pinal County | 285,200 | 291,000 | 296,700 | 303,100 | 310,800 |
| Wickenburg | 14,400 | 14,400 | 14,400 | 14,400 | 14,400 |
| Youngtown | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 3: Annual Population by Jurisdiction
July 1, 2020, 2021, 2022 and Projections July 1, 2023 to July 1, 2060

| Place | Total Population | | | | |
|--------------------------------|------------------|-----------|-----------|-----------|-----------|
| | 2056 | 2057 | 2058 | 2059 | 2060 |
| Apache Junction | 85,900 | 87,600 | 89,200 | 90,100 | 91,100 |
| Avondale | 128,100 | 128,300 | 128,500 | 128,600 | 128,800 |
| Buckeye | 350,100 | 356,200 | 362,900 | 369,700 | 375,800 |
| Carefree | 4,200 | 4,200 | 4,200 | 4,200 | 4,200 |
| Cave Creek | 6,000 | 6,000 | 6,000 | 6,100 | 6,100 |
| Chandler | 326,200 | 326,300 | 326,400 | 326,400 | 326,400 |
| El Mirage | 38,600 | 38,600 | 38,600 | 38,600 | 38,600 |
| Florence | 88,400 | 90,000 | 92,500 | 94,400 | 96,700 |
| Fort McDowell | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Fountain Hills | 26,000 | 26,000 | 26,100 | 26,100 | 26,100 |
| Gila Bend | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Gila River | 14,100 | 14,100 | 14,100 | 14,100 | 14,100 |
| Gilbert | 317,300 | 317,500 | 317,500 | 317,500 | 317,600 |
| Glendale | 299,900 | 300,000 | 300,100 | 300,100 | 300,200 |
| Goodyear | 242,600 | 245,700 | 248,800 | 253,100 | 256,900 |
| Guadalupe | 5,700 | 5,700 | 5,700 | 5,700 | 5,700 |
| Litchfield Park | 7,900 | 7,900 | 7,900 | 7,900 | 7,900 |
| Maricopa | 123,600 | 125,300 | 126,600 | 127,900 | 128,900 |
| Mesa | 606,300 | 607,300 | 608,300 | 609,500 | 610,500 |
| Paradise Valley | 13,300 | 13,300 | 13,300 | 13,300 | 13,300 |
| Peoria | 303,500 | 306,600 | 308,900 | 311,400 | 314,600 |
| Phoenix | 2,083,400 | 2,092,300 | 2,100,700 | 2,108,100 | 2,114,000 |
| Queen Creek | 126,500 | 126,700 | 126,800 | 126,900 | 127,100 |
| Salt River | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Scottsdale | 305,200 | 305,300 | 305,600 | 306,200 | 307,100 |
| Surprise | 328,200 | 329,600 | 331,700 | 333,400 | 335,700 |
| Tempe | 262,900 | 264,100 | 264,400 | 265,800 | 266,700 |
| Tolleson | 10,200 | 10,300 | 10,300 | 10,300 | 10,300 |
| Unincorporated Maricopa County | 614,200 | 622,100 | 630,700 | 637,500 | 645,800 |
| Unincorporated Pinal County | 317,600 | 323,100 | 329,800 | 336,200 | 342,200 |
| Wickenburg | 14,400 | 14,400 | 14,400 | 14,400 | 14,400 |
| Youngtown | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community, and the Maricopa County and Yavapai County portions of Peoria and Wickenburg. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

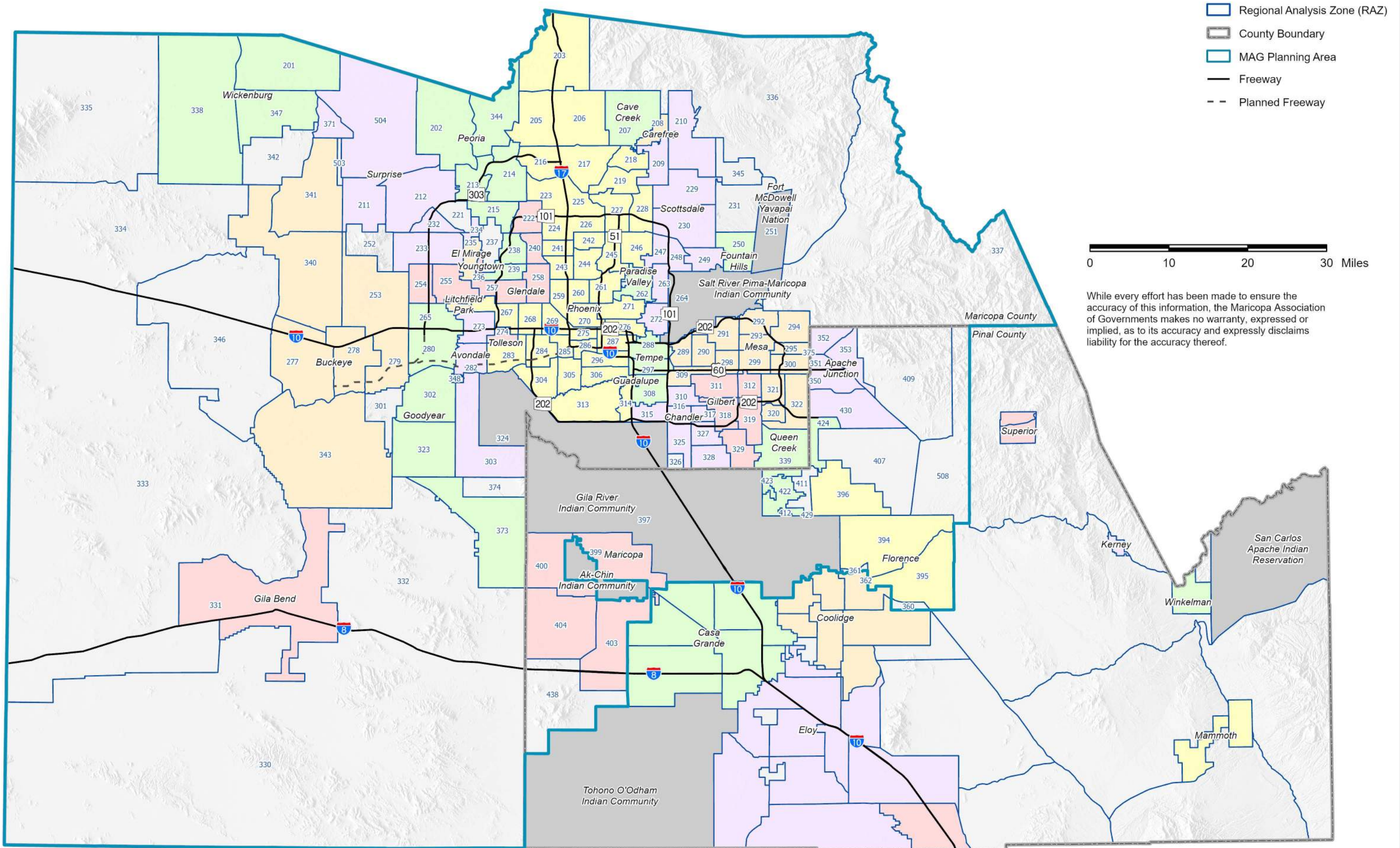
For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

**Population and Employment Projections
by
Regional Analysis Zone (RAZ)**

2020 to 2060

Regional Analysis Zones (RAZ), 2023

Maricopa and Pinal Counties, Arizona



Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|----------------------------|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Apache Junction MPA | | | | | | | |
| 350 | Pinal | 7,091 | 7,125 | 8,392 | 14,396 | 18,790 | 28,250 |
| 351 | Pinal | 22,875 | 23,296 | 24,556 | 24,774 | 25,682 | 28,417 |
| 352 | Pinal | 11,054 | 11,252 | 11,614 | 11,801 | 11,900 | 12,071 |
| 353 | Pinal | 11,257 | 11,534 | 12,609 | 13,862 | 14,900 | 16,713 |
| 375 | Maricopa | 395 | 400 | 400 | 400 | 400 | 400 |
| 430 | Pinal | 73 | 73 | 9,573 | 18,952 | 29,145 | 41,796 |
| | Total | 52,745 | 53,680 | 67,144 | 84,185 | 100,817 | 127,647 |
| Avondale MPA | | | | | | | |
| 273 | Maricopa | 61,316 | 62,674 | 77,365 | 84,851 | 87,225 | 88,019 |
| 282 | Maricopa | 29,787 | 31,287 | 40,383 | 45,913 | 48,127 | 49,359 |
| 303 | Maricopa | 23 | 23 | 23 | 89 | 89 | 282 |
| | Total | 91,126 | 93,984 | 117,771 | 130,853 | 135,441 | 137,660 |
| Buckeye MPA | | | | | | | |
| 253 | Maricopa | 24,233 | 31,050 | 50,127 | 63,296 | 72,165 | 79,515 |
| 277 | Maricopa | 3,025 | 3,151 | 4,021 | 16,956 | 31,517 | 45,780 |
| 278 | Maricopa | 40,796 | 42,985 | 72,290 | 89,978 | 101,838 | 109,693 |
| 279 | Maricopa | 21,255 | 23,614 | 31,448 | 47,782 | 56,768 | 63,454 |
| 340 | Maricopa | 8,151 | 9,662 | 16,010 | 46,680 | 88,591 | 131,681 |
| 341 | Maricopa | 7,507 | 9,319 | 15,830 | 26,856 | 42,293 | 56,246 |
| 343 | Maricopa | 4,773 | 4,634 | 4,634 | 4,634 | 4,634 | 4,634 |
| | Total | 109,740 | 124,415 | 194,360 | 296,182 | 397,806 | 491,003 |
| Carefree MPA | | | | | | | |
| 208 | Maricopa | 3,692 | 3,721 | 4,076 | 4,146 | 4,175 | 4,213 |
| | Total | 3,692 | 3,721 | 4,076 | 4,146 | 4,175 | 4,213 |
| Cave Creek MPA | | | | | | | |
| 207 | Maricopa | 5,029 | 5,283 | 5,579 | 5,901 | 6,098 | 6,181 |
| | Total | 5,029 | 5,283 | 5,579 | 5,901 | 6,098 | 6,181 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|--|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Chandler MPA | | | | | | | |
| 310 | Maricopa | 52,605 | 53,151 | 53,951 | 55,245 | 67,304 | 68,080 |
| 315 | Maricopa | 40,816 | 41,024 | 41,126 | 42,128 | 42,486 | 42,620 |
| 316 | Maricopa | 37,089 | 37,366 | 42,624 | 46,383 | 48,689 | 48,730 |
| 317 | Maricopa | 33,314 | 33,627 | 34,815 | 38,544 | 43,787 | 43,818 |
| 325 | Maricopa | 47,238 | 49,471 | 50,721 | 51,342 | 51,796 | 51,860 |
| 327 | Maricopa | 27,143 | 28,146 | 29,766 | 30,180 | 30,253 | 30,253 |
| 328 | Maricopa | 47,865 | 49,184 | 51,261 | 52,110 | 52,212 | 52,237 |
| | Total | 286,070 | 291,969 | 304,264 | 315,932 | 336,527 | 337,598 |
| El Mirage MPA | | | | | | | |
| 235 | Maricopa | 35,927 | 36,275 | 37,825 | 38,412 | 38,539 | 38,649 |
| | Total | 35,927 | 36,275 | 37,825 | 38,412 | 38,539 | 38,649 |
| Florence MPA | | | | | | | |
| 394 | Pinal | 24,189 | 24,585 | 40,293 | 60,963 | 76,838 | 94,450 |
| 395 | Pinal | 11,112 | 9,895 | 10,092 | 13,181 | 20,578 | 30,315 |
| 396 | Pinal | 41,252 | 43,666 | 56,358 | 79,855 | 100,044 | 118,095 |
| | Total | 76,553 | 78,146 | 106,743 | 153,999 | 197,460 | 242,860 |
| Fort McDowell Yavapai Native Nation MPA | | | | | | | |
| 251 | Maricopa | 1,152 | 1,153 | 1,154 | 1,154 | 1,154 | 1,154 |
| | Total | 1,152 | 1,153 | 1,154 | 1,154 | 1,154 | 1,154 |
| Fountain Hills MPA | | | | | | | |
| 250 | Maricopa | 23,857 | 23,972 | 25,185 | 25,739 | 25,967 | 26,076 |
| | Total | 23,857 | 23,972 | 25,185 | 25,739 | 25,967 | 26,076 |
| Gila Bend MPA | | | | | | | |
| 331 | Maricopa | 2,133 | 2,134 | 2,501 | 2,501 | 2,513 | 2,513 |
| | Total | 2,133 | 2,134 | 2,501 | 2,501 | 2,513 | 2,513 |
| Gila River Indian Native Nation MPA | | | | | | | |
| 324 | Maricopa | 3,583 | 3,585 | 3,588 | 3,589 | 3,590 | 3,591 |
| 397 | Pinal | 10,471 | 10,472 | 10,472 | 10,472 | 10,472 | 10,472 |
| | Total | 14,054 | 14,057 | 14,060 | 14,061 | 14,062 | 14,063 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|----------------------------|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Gilbert MPA | | | | | | | |
| 311 | Maricopa | 69,411 | 69,642 | 71,276 | 73,517 | 79,515 | 79,903 |
| 312 | Maricopa | 33,899 | 34,719 | 37,361 | 37,735 | 38,700 | 38,794 |
| 318 | Maricopa | 47,594 | 50,126 | 54,807 | 55,829 | 56,183 | 56,195 |
| 319 | Maricopa | 78,161 | 81,684 | 88,273 | 90,087 | 93,671 | 93,976 |
| 329 | Maricopa | 43,314 | 45,035 | 49,913 | 54,426 | 55,868 | 56,256 |
| | Total | 272,379 | 281,206 | 301,630 | 311,594 | 323,937 | 325,124 |
| Glendale MPA | | | | | | | |
| 222 | Maricopa | 47,229 | 47,901 | 48,910 | 49,860 | 50,144 | 50,408 |
| 240 | Maricopa | 43,470 | 43,950 | 46,828 | 47,339 | 47,488 | 47,627 |
| 254 | Maricopa | 14,461 | 15,963 | 25,521 | 28,608 | 29,298 | 29,460 |
| 255 | Maricopa | 19,612 | 21,628 | 26,112 | 27,621 | 27,967 | 28,157 |
| 257 | Maricopa | 52,362 | 55,426 | 67,618 | 81,939 | 87,370 | 88,010 |
| 258 | Maricopa | 105,065 | 106,175 | 108,565 | 109,980 | 110,903 | 111,284 |
| | Total | 282,199 | 291,043 | 323,554 | 345,347 | 353,170 | 354,946 |
| Goodyear MPA | | | | | | | |
| 265 | Maricopa | 37,748 | 41,993 | 48,211 | 51,222 | 52,679 | 53,412 |
| 280 | Maricopa | 46,160 | 49,944 | 76,288 | 87,075 | 90,433 | 92,968 |
| 302 | Maricopa | 15,502 | 16,790 | 34,171 | 50,615 | 58,251 | 61,535 |
| 323 | Maricopa | 350 | 361 | 6,307 | 20,913 | 39,666 | 68,609 |
| 373 | Maricopa | 142 | 142 | 142 | 142 | 142 | 142 |
| | Total | 99,902 | 109,230 | 165,119 | 209,967 | 241,171 | 276,666 |
| Guadalupe MPA | | | | | | | |
| 307 | Maricopa | 5,326 | 5,333 | 5,424 | 5,625 | 5,665 | 5,670 |
| | Total | 5,326 | 5,333 | 5,424 | 5,625 | 5,665 | 5,670 |
| Litchfield Park MPA | | | | | | | |
| 266 | Maricopa | 13,280 | 13,443 | 14,181 | 14,279 | 14,286 | 14,320 |
| | Total | 13,280 | 13,443 | 14,181 | 14,279 | 14,286 | 14,320 |
| Maricopa MPA | | | | | | | |
| 399 | Pinal | 58,794 | 64,928 | 91,824 | 106,902 | 117,432 | 127,948 |
| 400 | Pinal | 1,990 | 2,410 | 3,759 | 4,638 | 5,349 | 6,530 |
| 403 | Pinal | 908 | 923 | 1,479 | 6,984 | 14,931 | 21,217 |
| 404 | Pinal | 3,149 | 3,285 | 3,476 | 3,652 | 3,677 | 4,155 |
| | Total | 64,841 | 71,546 | 100,538 | 122,176 | 141,389 | 159,850 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

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Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|----------------------------|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Mesa MPA | | | | | | | |
| 289 | Maricopa | 61,363 | 61,990 | 63,704 | 73,872 | 77,197 | 79,794 |
| 290 | Maricopa | 77,816 | 78,733 | 81,667 | 90,338 | 100,200 | 104,837 |
| 291 | Maricopa | 48,178 | 48,335 | 50,819 | 54,026 | 54,403 | 54,645 |
| 292 | Maricopa | 23,477 | 23,614 | 24,730 | 24,944 | 24,974 | 25,011 |
| 293 | Maricopa | 32,057 | 32,192 | 32,498 | 32,571 | 32,574 | 32,667 |
| 294 | Maricopa | 11,120 | 11,248 | 11,717 | 11,979 | 12,002 | 12,007 |
| 295 | Maricopa | 22,502 | 23,247 | 23,820 | 24,730 | 24,756 | 24,792 |
| 298 | Maricopa | 54,657 | 54,707 | 54,846 | 54,994 | 55,915 | 57,072 |
| 299 | Maricopa | 44,407 | 45,334 | 47,086 | 48,682 | 48,980 | 49,724 |
| 300 | Maricopa | 48,743 | 50,173 | 54,401 | 55,788 | 57,080 | 57,897 |
| 309 | Maricopa | 47,261 | 48,389 | 48,776 | 49,042 | 49,144 | 49,993 |
| 320 | Maricopa | 986 | 1,409 | 1,469 | 1,537 | 1,572 | 1,791 |
| 321 | Maricopa | 24,022 | 24,365 | 27,907 | 32,803 | 34,575 | 35,951 |
| 322 | Maricopa | 53,753 | 57,756 | 66,431 | 68,881 | 72,115 | 74,991 |
| | Total | 550,342 | 561,492 | 589,871 | 624,187 | 645,487 | 661,172 |
| Paradise Valley MPA | | | | | | | |
| 262 | Maricopa | 12,705 | 12,734 | 13,329 | 13,347 | 13,360 | 13,383 |
| | Total | 12,705 | 12,734 | 13,329 | 13,347 | 13,360 | 13,383 |
| Peoria MPA | | | | | | | |
| 202 | Maricopa | 3,535 | 5,081 | 17,108 | 33,079 | 44,957 | 54,978 |
| 213 | Maricopa | 19,517 | 21,595 | 25,727 | 34,023 | 39,105 | 45,948 |
| 214 | Maricopa | 34,605 | 35,794 | 40,241 | 48,606 | 52,694 | 57,730 |
| 215 | Maricopa | 55,587 | 56,515 | 59,575 | 61,562 | 62,455 | 62,832 |
| 238 | Maricopa | 56,536 | 57,207 | 57,600 | 58,753 | 59,056 | 59,182 |
| 239 | Maricopa | 37,502 | 39,288 | 41,844 | 44,884 | 45,630 | 47,203 |
| 344 | Maricopa | 117 | 117 | 2,439 | 7,965 | 14,189 | 18,966 |
| | Total | 207,399 | 215,597 | 244,534 | 288,872 | 318,086 | 346,839 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|--------------------|----------|------------------|--------|--------|--------|---------|---------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Phoenix MPA | | | | | | | |
| 203 | Maricopa | 2,525 | 2,587 | 2,846 | 5,540 | 7,758 | 8,783 |
| 205 | Maricopa | 6,473 | 6,461 | 7,641 | 18,032 | 24,109 | 33,046 |
| 206 | Maricopa | 43,843 | 44,197 | 46,066 | 47,023 | 48,516 | 49,502 |
| 216 | Maricopa | 0 | 0 | 12,562 | 21,681 | 27,785 | 31,329 |
| 217 | Maricopa | 20,369 | 20,860 | 26,504 | 36,001 | 41,197 | 46,180 |
| 218 | Maricopa | 16,431 | 16,563 | 16,935 | 18,085 | 18,383 | 18,930 |
| 219 | Maricopa | 11,455 | 11,505 | 14,896 | 21,074 | 25,449 | 27,913 |
| 223 | Maricopa | 49,186 | 50,405 | 53,495 | 54,557 | 54,930 | 55,003 |
| 224 | Maricopa | 47,101 | 47,109 | 47,501 | 47,620 | 47,667 | 47,675 |
| 225 | Maricopa | 20,886 | 25,304 | 37,255 | 39,442 | 40,141 | 40,905 |
| 226 | Maricopa | 69,525 | 69,671 | 70,560 | 70,748 | 70,830 | 70,846 |
| 227 | Maricopa | 53,307 | 54,153 | 58,325 | 61,940 | 66,618 | 69,185 |
| 228 | Maricopa | 16,387 | 18,806 | 34,105 | 42,640 | 48,369 | 52,681 |
| 241 | Maricopa | 44,876 | 44,883 | 45,284 | 45,433 | 45,802 | 46,011 |
| 242 | Maricopa | 29,425 | 29,433 | 30,260 | 30,847 | 30,961 | 30,977 |
| 243 | Maricopa | 62,130 | 62,738 | 64,474 | 71,869 | 77,087 | 81,192 |
| 244 | Maricopa | 51,260 | 51,535 | 52,391 | 53,379 | 54,523 | 55,755 |
| 245 | Maricopa | 55,746 | 55,906 | 56,372 | 56,812 | 57,047 | 57,122 |
| 246 | Maricopa | 56,737 | 61,638 | 69,859 | 71,238 | 71,514 | 72,701 |
| 259 | Maricopa | 85,811 | 85,399 | 87,751 | 93,624 | 97,427 | 101,874 |
| 260 | Maricopa | 56,437 | 56,711 | 60,212 | 69,097 | 74,351 | 76,850 |
| 261 | Maricopa | 33,992 | 34,755 | 35,784 | 37,666 | 38,456 | 41,030 |
| 267 | Maricopa | 85,636 | 87,169 | 92,396 | 96,988 | 99,248 | 101,622 |
| 268 | Maricopa | 94,997 | 95,000 | 95,974 | 96,713 | 96,809 | 96,967 |
| 269 | Maricopa | 61,569 | 61,611 | 61,925 | 63,059 | 63,262 | 63,952 |
| 270 | Maricopa | 67,444 | 72,646 | 80,659 | 94,788 | 104,104 | 111,188 |
| 271 | Maricopa | 62,834 | 64,417 | 67,112 | 67,704 | 68,834 | 69,919 |
| 275 | Maricopa | 29,734 | 40,784 | 53,976 | 66,331 | 72,794 | 76,615 |
| 276 | Maricopa | 49,834 | 51,047 | 54,216 | 57,531 | 59,270 | 60,882 |
| 283 | Maricopa | 49,248 | 51,090 | 59,530 | 64,863 | 66,970 | 67,635 |
| 284 | Maricopa | 14,737 | 15,266 | 15,978 | 16,718 | 17,046 | 18,398 |
| 285 | Maricopa | 13,861 | 14,162 | 14,224 | 14,262 | 14,294 | 14,406 |
| 286 | Maricopa | 13,171 | 13,293 | 13,911 | 15,539 | 17,831 | 19,366 |
| 287 | Maricopa | 17,209 | 17,801 | 21,438 | 23,944 | 25,386 | 26,238 |
| 296 | Maricopa | 38,166 | 38,522 | 40,679 | 42,354 | 47,862 | 55,494 |
| 304 | Maricopa | 51,517 | 54,477 | 69,024 | 72,738 | 74,709 | 77,796 |
| 305 | Maricopa | 44,075 | 45,515 | 51,580 | 53,579 | 54,538 | 54,778 |
| 306 | Maricopa | 56,738 | 57,692 | 60,556 | 61,248 | 63,777 | 67,362 |
| 313 | Maricopa | 42,895 | 43,075 | 45,075 | 46,866 | 47,618 | 48,173 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

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Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|---|--------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| 314 | Maricopa | 37,654 | 37,656 | 37,924 | 38,208 | 38,245 | 38,273 |
| | Total | 1,665,221 | 1,711,842 | 1,867,255 | 2,007,781 | 2,101,517 | 2,184,554 |
| Queen Creek MPA | | | | | | | |
| 339 | Maricopa | 58,034 | 67,372 | 91,357 | 98,352 | 102,698 | 104,899 |
| 422 | Pinal | 9 | 9 | 355 | 825 | 1,090 | 1,187 |
| 423 | Pinal | 1,284 | 1,804 | 7,229 | 10,394 | 13,757 | 15,034 |
| 424 | Pinal | 13,374 | 15,505 | 22,063 | 26,173 | 31,897 | 33,784 |
| | Total | 72,701 | 84,690 | 121,004 | 135,744 | 149,442 | 154,904 |
| Salt River Pima-Maricopa Native Nation MPA | | | | | | | |
| 264 | Maricopa | 6,321 | 6,371 | 5,472 | 5,910 | 5,958 | 5,986 |
| | Total | 6,321 | 6,371 | 5,472 | 5,910 | 5,958 | 5,986 |
| Scottsdale MPA | | | | | | | |
| 209 | Maricopa | 12,186 | 12,237 | 13,925 | 14,813 | 15,229 | 15,325 |
| 210 | Maricopa | 5,401 | 5,440 | 10,837 | 13,513 | 14,877 | 15,103 |
| 229 | Maricopa | 20,082 | 20,629 | 25,671 | 27,204 | 27,965 | 28,388 |
| 230 | Maricopa | 32,628 | 33,161 | 38,951 | 42,175 | 50,225 | 52,713 |
| 247 | Maricopa | 12,989 | 13,444 | 14,890 | 14,914 | 15,979 | 16,882 |
| 248 | Maricopa | 35,985 | 36,003 | 36,241 | 36,342 | 36,555 | 36,721 |
| 249 | Maricopa | 21,224 | 21,278 | 21,705 | 21,939 | 21,943 | 21,943 |
| 263 | Maricopa | 34,070 | 34,350 | 35,754 | 36,059 | 36,068 | 36,086 |
| 272 | Maricopa | 67,265 | 68,529 | 77,768 | 79,739 | 82,453 | 84,092 |
| | Total | 241,830 | 245,071 | 275,742 | 286,698 | 301,294 | 307,253 |
| Surprise MPA | | | | | | | |
| 211 | Maricopa | 953 | 986 | 15,067 | 34,178 | 46,346 | 51,784 |
| 212 | Maricopa | 14,308 | 19,823 | 60,689 | 86,822 | 102,313 | 111,271 |
| 232 | Maricopa | 30,239 | 30,649 | 30,736 | 30,776 | 30,805 | 30,830 |
| 233 | Maricopa | 93,826 | 99,071 | 122,651 | 131,248 | 135,641 | 137,859 |
| 234 | Maricopa | 9,478 | 9,570 | 10,536 | 10,937 | 11,016 | 11,054 |
| 371 | Maricopa | 250 | 272 | 272 | 552 | 3,233 | 8,500 |
| 504 | Maricopa | 6,509 | 7,108 | 15,748 | 47,799 | 73,562 | 95,230 |
| | Total | 155,563 | 167,479 | 255,699 | 342,312 | 402,916 | 446,528 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

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Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|---|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Tempe MPA | | | | | | | |
| 288 | Maricopa | 75,725 | 81,192 | 110,909 | 135,408 | 142,669 | 151,078 |
| 297 | Maricopa | 50,706 | 51,001 | 53,103 | 56,764 | 59,634 | 62,368 |
| 308 | Maricopa | 55,184 | 55,196 | 55,321 | 55,374 | 55,664 | 56,243 |
| | Total | 181,615 | 187,389 | 219,333 | 247,546 | 257,967 | 269,689 |
| Tolleson MPA | | | | | | | |
| 274 | Maricopa | 7,262 | 7,315 | 8,082 | 8,907 | 9,617 | 10,336 |
| | Total | 7,262 | 7,315 | 8,082 | 8,907 | 9,617 | 10,336 |
| Unincorporated Maricopa County MPA | | | | | | | |
| 221 | Maricopa | 27,252 | 27,355 | 27,480 | 27,644 | 27,710 | 27,755 |
| 231 | Maricopa | 2,440 | 2,492 | 2,497 | 2,497 | 2,497 | 2,497 |
| 237 | Maricopa | 38,529 | 38,572 | 38,804 | 38,918 | 38,997 | 39,071 |
| 252 | Maricopa | 0 | 0 | 0 | 0 | 0 | 0 |
| 301 | Maricopa | 3,997 | 4,086 | 4,419 | 4,665 | 4,771 | 4,796 |
| 326 | Maricopa | 11,273 | 11,279 | 11,314 | 11,341 | 11,354 | 11,361 |
| 330 | Maricopa | 124 | 124 | 124 | 124 | 124 | 124 |
| 332 | Maricopa | 4 | 4 | 4 | 4 | 4 | 4 |
| 333 | Maricopa | 766 | 766 | 1,861 | 2,373 | 2,820 | 3,297 |
| 334 | Maricopa | 0 | 0 | 49 | 126 | 156 | 211 |
| 335 | Maricopa | 871 | 909 | 942 | 1,006 | 1,085 | 1,140 |
| 336 | Maricopa | 701 | 775 | 2,460 | 2,577 | 2,694 | 2,872 |
| 337 | Maricopa | 53 | 53 | 78 | 86 | 100 | 119 |
| 342 | Maricopa | 207 | 208 | 619 | 1,150 | 1,564 | 1,999 |
| 345 | Maricopa | 5,273 | 6,212 | 6,216 | 6,216 | 6,221 | 6,221 |
| 346 | Maricopa | 7,218 | 7,676 | 9,073 | 9,821 | 16,246 | 29,782 |
| 348 | Maricopa | 423 | 425 | 425 | 425 | 425 | 425 |
| 349 | Maricopa | 349 | 349 | 352 | 360 | 362 | 367 |
| 374 | Maricopa | 0 | 0 | 0 | 0 | 0 | 0 |
| 503 | Maricopa | 255 | 287 | 341 | 1,435 | 3,233 | 4,134 |
| | Total | 99,735 | 101,572 | 107,058 | 110,768 | 120,363 | 136,175 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Population | | | | | |
|--|--------------|------------------|---------------|---------------|---------------|---------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Unincorporated Pinal County MPA | | | | | | | |
| 360 | Pinal | 17 | 24 | 24 | 24 | 24 | 328 |
| 361 | Pinal | 2 | 2 | 2 | 2 | 2 | 2 |
| 362 | Pinal | 0 | 0 | 0 | 0 | 0 | 0 |
| 407 | Pinal | 29,050 | 29,199 | 33,311 | 39,775 | 50,219 | 65,883 |
| 409 | Pinal | 8,179 | 8,851 | 11,036 | 15,213 | 16,738 | 18,866 |
| 411 | Pinal | 28,822 | 30,662 | 31,819 | 32,195 | 32,285 | 32,547 |
| 412 | Pinal | 207 | 216 | 216 | 216 | 216 | 216 |
| 429 | Pinal | 19 | 28 | 28 | 28 | 28 | 28 |
| 438 | Pinal | 70 | 70 | 70 | 70 | 70 | 70 |
| 508 | Pinal | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 66,366 | 69,052 | 76,506 | 87,523 | 99,582 | 117,940 |
| Wickenburg MPA | | | | | | | |
| 201 | Maricopa | 7,771 | 7,932 | 8,499 | 8,570 | 8,603 | 8,643 |
| 338 | Maricopa | 55 | 58 | 58 | 58 | 58 | 58 |
| 347 | Maricopa | 0 | 0 | 0 | 0 | 6 | 6 |
| | Total | 7,826 | 7,990 | 8,557 | 8,628 | 8,667 | 8,707 |
| Youngtown MPA | | | | | | | |
| 236 | Maricopa | 7,056 | 7,060 | 7,491 | 7,726 | 7,780 | 7,822 |
| | Total | 7,056 | 7,060 | 7,491 | 7,726 | 7,780 | 7,822 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|----------------------------|--------------|------------------|---------------|---------------|---------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Apache Junction MPA | | | | | | | |
| 350 | Pinal | 1,339 | 1,781 | 1,881 | 2,198 | 2,923 | 4,083 |
| 351 | Pinal | 3,452 | 3,498 | 3,780 | 4,413 | 5,113 | 6,271 |
| 352 | Pinal | 1,734 | 1,744 | 1,898 | 2,198 | 2,607 | 3,078 |
| 353 | Pinal | 1,277 | 1,507 | 1,671 | 1,928 | 2,520 | 3,132 |
| 375 | Maricopa | 33 | 28 | 28 | 33 | 31 | 31 |
| 430 | Pinal | 25 | 639 | 6,345 | 8,225 | 9,564 | 10,933 |
| | Total | 7,860 | 9,197 | 15,603 | 18,995 | 22,758 | 27,528 |
| Avondale MPA | | | | | | | |
| 273 | Maricopa | 19,957 | 23,047 | 27,706 | 31,181 | 32,934 | 34,258 |
| 282 | Maricopa | 4,877 | 4,979 | 5,767 | 7,878 | 8,745 | 11,439 |
| 303 | Maricopa | 52 | 53 | 77 | 581 | 709 | 1,061 |
| | Total | 24,886 | 28,079 | 33,550 | 39,640 | 42,388 | 46,758 |
| Buckeye MPA | | | | | | | |
| 253 | Maricopa | 7,732 | 6,056 | 8,349 | 12,836 | 15,513 | 17,748 |
| 277 | Maricopa | 879 | 844 | 3,165 | 13,819 | 22,307 | 44,205 |
| 278 | Maricopa | 9,742 | 11,936 | 16,011 | 22,737 | 27,143 | 30,452 |
| 279 | Maricopa | 3,532 | 4,118 | 8,886 | 16,491 | 22,877 | 31,214 |
| 340 | Maricopa | 1,249 | 874 | 6,133 | 15,157 | 22,546 | 37,319 |
| 341 | Maricopa | 1,519 | 1,281 | 6,068 | 9,882 | 14,901 | 21,174 |
| 343 | Maricopa | 1,276 | 1,062 | 1,521 | 1,482 | 1,492 | 1,469 |
| | Total | 25,929 | 26,171 | 50,133 | 92,404 | 126,779 | 183,581 |
| Carefree MPA | | | | | | | |
| 208 | Maricopa | 1,553 | 1,553 | 1,659 | 1,748 | 1,807 | 1,876 |
| | Total | 1,553 | 1,553 | 1,659 | 1,748 | 1,807 | 1,876 |
| Cave Creek MPA | | | | | | | |
| 207 | Maricopa | 2,394 | 2,587 | 2,826 | 2,971 | 3,251 | 3,490 |
| | Total | 2,394 | 2,587 | 2,826 | 2,971 | 3,251 | 3,490 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|--|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Chandler MPA | | | | | | | |
| 310 | Maricopa | 21,336 | 21,647 | 22,852 | 24,773 | 29,165 | 31,402 |
| 315 | Maricopa | 40,905 | 42,057 | 44,289 | 46,475 | 47,570 | 48,430 |
| 316 | Maricopa | 28,818 | 28,354 | 31,693 | 34,155 | 35,131 | 36,130 |
| 317 | Maricopa | 8,446 | 8,590 | 9,707 | 11,486 | 12,571 | 14,044 |
| 325 | Maricopa | 33,588 | 38,276 | 48,197 | 51,538 | 53,785 | 55,244 |
| 327 | Maricopa | 14,410 | 17,261 | 21,978 | 24,436 | 25,762 | 26,985 |
| 328 | Maricopa | 9,898 | 10,249 | 10,702 | 11,589 | 12,022 | 12,488 |
| | Total | 157,401 | 166,434 | 189,418 | 204,452 | 216,006 | 224,723 |
| El Mirage MPA | | | | | | | |
| 235 | Maricopa | 5,664 | 6,338 | 10,238 | 13,573 | 15,318 | 16,450 |
| | Total | 5,664 | 6,338 | 10,238 | 13,573 | 15,318 | 16,450 |
| Florence MPA | | | | | | | |
| 394 | Pinal | 4,953 | 5,022 | 6,089 | 8,847 | 12,588 | 16,675 |
| 395 | Pinal | 1,953 | 1,575 | 1,901 | 3,038 | 4,270 | 5,551 |
| 396 | Pinal | 2,747 | 3,279 | 4,148 | 6,616 | 9,776 | 13,251 |
| | Total | 9,653 | 9,876 | 12,138 | 18,501 | 26,634 | 35,477 |
| Fort McDowell Yavapai Native Nation MPA | | | | | | | |
| 251 | Maricopa | 917 | 881 | 879 | 879 | 881 | 874 |
| | Total | 917 | 881 | 879 | 879 | 881 | 874 |
| Fountain Hills MPA | | | | | | | |
| 250 | Maricopa | 7,850 | 8,248 | 9,206 | 10,083 | 10,706 | 11,217 |
| | Total | 7,850 | 8,248 | 9,206 | 10,083 | 10,706 | 11,217 |
| Gila Bend MPA | | | | | | | |
| 331 | Maricopa | 952 | 1,047 | 1,107 | 1,224 | 1,304 | 2,016 |
| | Total | 952 | 1,047 | 1,107 | 1,224 | 1,304 | 2,016 |
| Gila River Indian Native Nation MPA | | | | | | | |
| 324 | Maricopa | 6,857 | 6,956 | 9,476 | 11,136 | 11,785 | 14,310 |
| 397 | Pinal | 2,115 | 2,011 | 2,801 | 2,910 | 3,038 | 3,174 |
| | Total | 8,972 | 8,967 | 12,277 | 14,046 | 14,823 | 17,484 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|----------------------------|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Gilbert MPA | | | | | | | |
| 311 | Maricopa | 34,378 | 37,029 | 40,646 | 43,856 | 45,241 | 47,559 |
| 312 | Maricopa | 10,744 | 11,669 | 12,871 | 14,658 | 15,856 | 16,964 |
| 318 | Maricopa | 29,706 | 33,753 | 40,466 | 44,899 | 47,678 | 49,534 |
| 319 | Maricopa | 14,725 | 16,899 | 19,885 | 22,876 | 24,162 | 25,725 |
| 329 | Maricopa | 8,588 | 8,608 | 8,856 | 10,074 | 10,950 | 11,552 |
| | Total | 98,141 | 107,958 | 122,724 | 136,363 | 143,887 | 151,334 |
| Glendale MPA | | | | | | | |
| 222 | Maricopa | 22,906 | 23,439 | 25,026 | 26,437 | 26,952 | 27,844 |
| 240 | Maricopa | 19,545 | 19,697 | 20,758 | 21,975 | 22,587 | 23,080 |
| 254 | Maricopa | 2,507 | 5,259 | 8,523 | 9,935 | 11,677 | 13,809 |
| 255 | Maricopa | 13,868 | 16,481 | 26,065 | 32,509 | 38,608 | 42,172 |
| 257 | Maricopa | 18,179 | 19,108 | 26,788 | 33,513 | 39,498 | 43,738 |
| 258 | Maricopa | 26,266 | 27,923 | 29,259 | 31,463 | 32,543 | 33,298 |
| | Total | 103,271 | 111,907 | 136,419 | 155,832 | 171,865 | 183,941 |
| Goodyear MPA | | | | | | | |
| 265 | Maricopa | 19,980 | 24,515 | 32,257 | 38,237 | 42,439 | 46,093 |
| 280 | Maricopa | 22,306 | 31,545 | 45,534 | 54,101 | 59,139 | 63,884 |
| 302 | Maricopa | 3,589 | 2,959 | 6,817 | 10,753 | 11,740 | 13,968 |
| 323 | Maricopa | 30 | 56 | 2,531 | 7,418 | 10,692 | 18,802 |
| 373 | Maricopa | 71 | 75 | 77 | 79 | 70 | 76 |
| | Total | 45,976 | 59,150 | 87,216 | 110,588 | 124,080 | 142,823 |
| Guadalupe MPA | | | | | | | |
| 307 | Maricopa | 1,157 | 1,121 | 1,239 | 1,338 | 1,304 | 1,370 |
| | Total | 1,157 | 1,121 | 1,239 | 1,338 | 1,304 | 1,370 |
| Litchfield Park MPA | | | | | | | |
| 266 | Maricopa | 3,689 | 3,467 | 4,934 | 5,305 | 5,561 | 5,952 |
| | Total | 3,689 | 3,467 | 4,934 | 5,305 | 5,561 | 5,952 |
| Maricopa MPA | | | | | | | |
| 399 | Pinal | 6,598 | 7,668 | 9,915 | 14,274 | 19,271 | 24,435 |
| 400 | Pinal | 309 | 313 | 412 | 870 | 1,490 | 2,757 |
| 403 | Pinal | 264 | 233 | 357 | 1,487 | 2,224 | 3,057 |
| 404 | Pinal | 224 | 220 | 389 | 1,110 | 1,760 | 2,425 |
| | Total | 7,395 | 8,434 | 11,073 | 17,741 | 24,745 | 32,674 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|----------------------------|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Mesa MPA | | | | | | | |
| 289 | Maricopa | 23,744 | 26,233 | 27,828 | 32,732 | 34,435 | 35,321 |
| 290 | Maricopa | 22,402 | 22,835 | 24,513 | 28,633 | 31,667 | 34,230 |
| 291 | Maricopa | 11,770 | 12,215 | 14,821 | 16,304 | 18,248 | 18,972 |
| 292 | Maricopa | 13,839 | 14,280 | 15,070 | 16,766 | 17,369 | 18,521 |
| 293 | Maricopa | 10,632 | 11,350 | 12,170 | 12,949 | 13,456 | 13,823 |
| 294 | Maricopa | 1,192 | 1,336 | 1,497 | 1,596 | 1,736 | 1,872 |
| 295 | Maricopa | 3,331 | 3,432 | 3,737 | 4,052 | 4,250 | 4,486 |
| 298 | Maricopa | 13,663 | 14,237 | 14,808 | 15,692 | 16,457 | 17,160 |
| 299 | Maricopa | 27,991 | 29,640 | 31,213 | 32,933 | 34,095 | 35,479 |
| 300 | Maricopa | 10,566 | 11,297 | 14,468 | 17,030 | 18,156 | 19,471 |
| 309 | Maricopa | 35,488 | 35,870 | 37,759 | 39,634 | 41,093 | 42,337 |
| 320 | Maricopa | 3,415 | 3,303 | 4,153 | 5,249 | 5,940 | 7,093 |
| 321 | Maricopa | 5,937 | 8,154 | 14,286 | 23,611 | 27,297 | 33,363 |
| 322 | Maricopa | 13,451 | 14,060 | 21,190 | 30,154 | 44,704 | 49,385 |
| | Total | 197,421 | 208,242 | 237,513 | 277,335 | 308,903 | 331,513 |
| Paradise Valley MPA | | | | | | | |
| 262 | Maricopa | 4,703 | 4,673 | 5,138 | 5,485 | 5,545 | 5,774 |
| | Total | 4,703 | 4,673 | 5,138 | 5,485 | 5,545 | 5,774 |
| Peoria MPA | | | | | | | |
| 202 | Maricopa | 1,475 | 1,368 | 2,282 | 4,697 | 5,601 | 6,132 |
| 213 | Maricopa | 3,257 | 2,722 | 5,036 | 8,293 | 11,305 | 12,499 |
| 214 | Maricopa | 8,120 | 8,356 | 10,135 | 16,211 | 19,493 | 24,856 |
| 215 | Maricopa | 13,118 | 13,758 | 14,427 | 15,445 | 15,767 | 16,358 |
| 238 | Maricopa | 21,323 | 22,590 | 24,543 | 25,779 | 26,822 | 28,744 |
| 239 | Maricopa | 13,042 | 13,864 | 14,934 | 16,531 | 17,150 | 17,872 |
| 344 | Maricopa | 63 | 81 | 336 | 2,224 | 2,055 | 3,171 |
| | Total | 60,398 | 62,739 | 71,693 | 89,180 | 98,193 | 109,632 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|--------------------|----------|------------------|--------|--------|---------|---------|---------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Phoenix MPA | | | | | | | |
| 203 | Maricopa | 425 | 509 | 740 | 926 | 825 | 959 |
| 205 | Maricopa | 3,013 | 3,062 | 4,266 | 10,047 | 20,759 | 30,600 |
| 206 | Maricopa | 8,529 | 9,195 | 9,979 | 10,749 | 11,316 | 12,058 |
| 216 | Maricopa | 0 | 4,352 | 29,781 | 38,149 | 42,174 | 43,408 |
| 217 | Maricopa | 4,940 | 5,498 | 8,464 | 12,782 | 14,746 | 17,545 |
| 218 | Maricopa | 3,636 | 3,626 | 3,958 | 4,326 | 4,460 | 4,582 |
| 219 | Maricopa | 2,462 | 2,671 | 3,812 | 4,913 | 5,621 | 5,234 |
| 223 | Maricopa | 13,146 | 13,582 | 15,268 | 16,029 | 16,845 | 17,277 |
| 224 | Maricopa | 24,567 | 22,455 | 23,720 | 24,716 | 25,487 | 26,093 |
| 225 | Maricopa | 46,058 | 48,786 | 53,491 | 58,044 | 61,086 | 64,007 |
| 226 | Maricopa | 20,235 | 22,298 | 25,423 | 26,558 | 27,408 | 28,200 |
| 227 | Maricopa | 15,331 | 16,031 | 18,241 | 20,894 | 23,210 | 24,952 |
| 228 | Maricopa | 24,042 | 26,148 | 34,715 | 40,064 | 43,628 | 46,396 |
| 241 | Maricopa | 10,900 | 11,218 | 12,339 | 13,555 | 14,342 | 15,092 |
| 242 | Maricopa | 8,573 | 8,567 | 9,236 | 9,785 | 10,196 | 10,591 |
| 243 | Maricopa | 35,776 | 35,441 | 38,236 | 42,474 | 44,605 | 46,055 |
| 244 | Maricopa | 14,735 | 14,623 | 15,349 | 16,246 | 17,002 | 17,260 |
| 245 | Maricopa | 15,992 | 16,994 | 18,310 | 19,305 | 19,925 | 20,696 |
| 246 | Maricopa | 32,489 | 35,221 | 40,325 | 44,425 | 46,222 | 47,638 |
| 259 | Maricopa | 18,515 | 19,578 | 21,576 | 24,402 | 25,691 | 27,166 |
| 260 | Maricopa | 20,960 | 21,081 | 22,918 | 24,947 | 26,207 | 26,943 |
| 261 | Maricopa | 30,926 | 32,814 | 34,387 | 36,115 | 37,191 | 38,784 |
| 267 | Maricopa | 18,647 | 20,016 | 23,120 | 26,212 | 27,451 | 28,061 |
| 268 | Maricopa | 17,251 | 18,530 | 20,012 | 21,677 | 22,580 | 23,319 |
| 269 | Maricopa | 29,052 | 30,144 | 31,793 | 33,406 | 34,082 | 34,768 |
| 270 | Maricopa | 87,187 | 90,657 | 96,401 | 100,859 | 103,562 | 105,480 |
| 271 | Maricopa | 45,469 | 47,288 | 51,111 | 55,503 | 57,958 | 60,487 |
| 275 | Maricopa | 73,210 | 80,774 | 91,979 | 102,896 | 106,691 | 109,213 |
| 276 | Maricopa | 21,854 | 21,936 | 23,384 | 24,838 | 25,945 | 26,991 |
| 283 | Maricopa | 14,676 | 17,851 | 19,509 | 21,693 | 22,776 | 23,748 |
| 284 | Maricopa | 28,778 | 35,165 | 35,773 | 37,947 | 39,351 | 40,239 |
| 285 | Maricopa | 14,943 | 15,046 | 15,672 | 16,108 | 16,229 | 16,380 |
| 286 | Maricopa | 14,346 | 14,702 | 15,213 | 16,778 | 17,637 | 18,521 |
| 287 | Maricopa | 58,488 | 63,378 | 66,692 | 69,123 | 70,019 | 71,145 |
| 296 | Maricopa | 44,790 | 45,745 | 48,564 | 51,496 | 56,345 | 59,807 |
| 304 | Maricopa | 9,819 | 9,986 | 12,394 | 15,182 | 17,122 | 19,706 |
| 305 | Maricopa | 5,988 | 6,351 | 6,836 | 7,452 | 7,705 | 8,076 |
| 306 | Maricopa | 16,696 | 16,255 | 17,318 | 18,598 | 21,476 | 23,408 |
| 313 | Maricopa | 7,866 | 8,514 | 9,615 | 10,372 | 10,723 | 11,210 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|---|--------------|------------------|----------------|------------------|------------------|------------------|------------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| 314 | Maricopa | 16,702 | 17,622 | 18,549 | 19,406 | 20,096 | 20,515 |
| | Total | 881,012 | 933,710 | 1,048,469 | 1,148,997 | 1,216,694 | 1,272,610 |
| Queen Creek MPA | | | | | | | |
| 339 | Maricopa | 18,769 | 18,775 | 20,882 | 22,905 | 24,993 | 25,560 |
| 422 | Pinal | 4 | 5 | 18 | 10 | 13 | 11 |
| 423 | Pinal | 280 | 326 | 476 | 517 | 590 | 704 |
| 424 | Pinal | 2,070 | 3,173 | 9,344 | 11,605 | 14,147 | 16,635 |
| | Total | 21,123 | 22,279 | 30,720 | 35,037 | 39,743 | 42,910 |
| Salt River Pima-Maricopa Native Nation MPA | | | | | | | |
| 264 | Maricopa | 18,082 | 21,926 | 31,221 | 34,773 | 36,622 | 38,555 |
| | Total | 18,082 | 21,926 | 31,221 | 34,773 | 36,622 | 38,555 |
| Scottsdale MPA | | | | | | | |
| 209 | Maricopa | 3,854 | 4,258 | 4,520 | 4,853 | 4,881 | 4,978 |
| 210 | Maricopa | 1,852 | 2,177 | 2,806 | 2,964 | 2,828 | 2,879 |
| 229 | Maricopa | 8,991 | 9,983 | 10,644 | 11,234 | 11,838 | 12,116 |
| 230 | Maricopa | 24,226 | 30,040 | 40,253 | 45,792 | 48,592 | 52,914 |
| 247 | Maricopa | 40,070 | 43,073 | 47,056 | 49,429 | 50,982 | 51,973 |
| 248 | Maricopa | 27,590 | 29,183 | 30,553 | 31,792 | 32,545 | 33,294 |
| 249 | Maricopa | 7,249 | 7,269 | 7,709 | 8,171 | 8,457 | 8,756 |
| 263 | Maricopa | 25,146 | 24,848 | 26,470 | 28,396 | 29,378 | 30,168 |
| 272 | Maricopa | 49,943 | 56,279 | 60,496 | 63,828 | 65,484 | 66,914 |
| | Total | 188,921 | 207,110 | 230,507 | 246,459 | 254,985 | 263,992 |
| Surprise MPA | | | | | | | |
| 211 | Maricopa | 86 | 83 | 3,047 | 5,069 | 7,289 | 9,639 |
| 212 | Maricopa | 5,016 | 4,850 | 9,277 | 12,507 | 13,932 | 14,250 |
| 232 | Maricopa | 8,500 | 9,681 | 10,122 | 10,801 | 11,246 | 11,931 |
| 233 | Maricopa | 21,007 | 24,586 | 33,833 | 42,029 | 47,367 | 53,762 |
| 234 | Maricopa | 2,812 | 3,221 | 3,515 | 3,543 | 3,696 | 3,810 |
| 371 | Maricopa | 27 | 34 | 30 | 288 | 2,148 | 2,760 |
| 504 | Maricopa | 1,113 | 1,027 | 14,349 | 18,383 | 23,077 | 33,888 |
| | Total | 38,561 | 43,482 | 74,173 | 92,620 | 108,755 | 130,040 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|---|--------------|------------------|----------------|----------------|----------------|----------------|----------------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Tempe MPA | | | | | | | |
| 288 | Maricopa | 91,378 | 99,650 | 117,718 | 131,204 | 138,933 | 144,771 |
| 297 | Maricopa | 42,845 | 44,530 | 46,933 | 50,104 | 51,618 | 53,003 |
| 308 | Maricopa | 58,139 | 63,676 | 69,098 | 72,109 | 73,858 | 75,193 |
| | Total | 192,362 | 207,856 | 233,749 | 253,417 | 264,409 | 272,967 |
| Tolleson MPA | | | | | | | |
| 274 | Maricopa | 17,597 | 18,974 | 20,565 | 21,544 | 22,046 | 22,440 |
| | Total | 17,597 | 18,974 | 20,565 | 21,544 | 22,046 | 22,440 |
| Unincorporated Maricopa County MPA | | | | | | | |
| 221 | Maricopa | 7,981 | 8,917 | 9,478 | 10,013 | 10,216 | 10,556 |
| 231 | Maricopa | 426 | 438 | 486 | 532 | 550 | 583 |
| 237 | Maricopa | 10,668 | 11,918 | 12,778 | 13,527 | 14,112 | 14,478 |
| 252 | Maricopa | 18 | 43 | 43 | 45 | 42 | 40 |
| 301 | Maricopa | 374 | 402 | 458 | 447 | 521 | 493 |
| 326 | Maricopa | 1,610 | 1,858 | 2,125 | 2,251 | 2,283 | 2,471 |
| 330 | Maricopa | 42 | 39 | 41 | 41 | 42 | 46 |
| 332 | Maricopa | 2 | 1 | 4 | 4 | 4 | 5 |
| 333 | Maricopa | 560 | 734 | 1,693 | 1,776 | 2,116 | 2,319 |
| 334 | Maricopa | 0 | 0 | 13 | 10 | 20 | 15 |
| 335 | Maricopa | 404 | 429 | 453 | 468 | 445 | 461 |
| 336 | Maricopa | 134 | 163 | 187 | 206 | 196 | 239 |
| 337 | Maricopa | 230 | 234 | 245 | 246 | 249 | 257 |
| 342 | Maricopa | 47 | 52 | 239 | 399 | 604 | 700 |
| 345 | Maricopa | 1,420 | 1,091 | 951 | 1,022 | 1,106 | 1,138 |
| 346 | Maricopa | 4,767 | 4,624 | 6,978 | 9,546 | 14,986 | 21,453 |
| 348 | Maricopa | 42 | 51 | 56 | 58 | 60 | 65 |
| 349 | Maricopa | 30 | 43 | 42 | 52 | 53 | 56 |
| 374 | Maricopa | 0 | 0 | 0 | 0 | 0 | 0 |
| 503 | Maricopa | 39 | 33 | 68 | 391 | 493 | 700 |
| | Total | 28,794 | 31,070 | 36,338 | 41,034 | 48,098 | 56,075 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

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Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2020, 2022 and Projections July 1, 2030 to July 1, 2060

| RAZ | County | Total Employment | | | | | |
|--|----------|------------------|-------|-------|-------|--------|--------|
| | | 2020 | 2022 | 2030 | 2040 | 2050 | 2060 |
| Unincorporated Pinal County MPA | | | | | | | |
| 360 | Pinal | 17 | 2 | 1 | 1 | 8 | 5 |
| 361 | Pinal | 62 | 74 | 77 | 79 | 77 | 85 |
| 362 | Pinal | 0 | 0 | 0 | 0 | 1 | 0 |
| 407 | Pinal | 1,905 | 2,122 | 2,506 | 3,371 | 5,112 | 8,153 |
| 409 | Pinal | 709 | 850 | 1,060 | 1,441 | 1,683 | 2,282 |
| 411 | Pinal | 1,744 | 1,970 | 2,371 | 3,123 | 4,112 | 5,468 |
| 412 | Pinal | 9 | 6 | 7 | 11 | 11 | 16 |
| 429 | Pinal | 1 | 3 | 2 | 39 | 82 | 139 |
| 438 | Pinal | 5 | 5 | 6 | 7 | 17 | 20 |
| 508 | Pinal | 0 | 0 | 0 | 136 | 840 | 1,520 |
| Total | | 4,452 | 5,032 | 6,030 | 8,208 | 11,943 | 17,688 |
| Wickenburg MPA | | | | | | | |
| 201 | Maricopa | 4,265 | 4,211 | 4,371 | 4,468 | 4,495 | 4,593 |
| 338 | Maricopa | 4 | 3 | 4 | 3 | 4 | 6 |
| 347 | Maricopa | 0 | 8 | 7 | 7 | 8 | 6 |
| Total | | 4,269 | 4,222 | 4,382 | 4,478 | 4,507 | 4,605 |
| Youngtown MPA | | | | | | | |
| 236 | Maricopa | 1,591 | 1,574 | 1,708 | 2,245 | 2,291 | 2,469 |
| Total | | 1,591 | 1,574 | 1,708 | 2,245 | 2,291 | 2,469 |

Notes: These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion. Unincorporated Pinal County only includes portions in the MAG planning area.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

**Population and Employment Projections
by
County**

2020 to 2060

Maricopa Association of Governments

**Table 6: Population and Employment Projections for Maricopa and Pinal Counties
July 1, 2020 and Projections July 1, 2025 to July 1, 2060**

| Maricopa County | | | Pinal County | | |
|-----------------|------------|------------|--------------|------------|------------|
| Year | Population | Employment | Year | Population | Employment |
| 2020 | 4,436,700 | 2,139,200 | 2020 | 428,200 | 66,600 |
| 2025 | 4,841,700 | 2,464,300 | 2025 | 502,900 | 89,200 |
| 2030 | 5,200,400 | 2,677,400 | 2030 | 587,800 | 109,200 |
| 2035 | 5,497,700 | 2,863,800 | 2035 | 680,100 | 126,200 |
| 2040 | 5,762,700 | 3,028,000 | 2040 | 778,900 | 145,100 |
| 2045 | 5,990,700 | 3,146,700 | 2045 | 883,000 | 165,600 |
| 2050 | 6,186,100 | 3,273,000 | 2050 | 994,200 | 189,700 |
| 2055 | 6,362,700 | 3,401,100 | 2055 | 1,110,900 | 216,200 |
| 2060 | 6,529,100 | 3,527,000 | 2060 | 1,230,500 | 245,500 |

Notes: Numbers rounded to the nearest 100.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2023

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

For data on jurisdictions outside of the MAG planning area, please contact Central Arizona Governments.

**A RESOLUTION OF THE MARICOPA ASSOCIATION OF GOVERNMENTS
APPROVING THE 2023 MAG SOCIOECONOMIC PROJECTIONS**

WHEREAS, the Maricopa Association of Governments (MAG) was formed in 1967 as a Council of Governments and provides regional planning assistance in transportation, air quality, water quality, solid waste, population projections, growth/open space, human services, 9-1-1 and public works; and

WHEREAS, an official set of projections is required to be used in transportation, air quality and water quality management plans as well as providing the base for all other regional planning activities; and

WHEREAS, the MAG Metropolitan Planning Organization (MPO) area encompasses area within both Maricopa County and Pinal County; and

WHEREAS, the MAG region had a population in 2020 of 4.8 million, which accounts for 67% of the state; and

WHEREAS, up-to-date projections are crucial for managing future growth; and

WHEREAS, the general plans of local jurisdictions go beyond their current corporate limits in order to plan for and guide future growth; and

WHEREAS, socioeconomic projections require that the future corporate limits and a consistent geography over time be established for each jurisdiction; and

WHEREAS, Municipal Planning Area boundaries are determined by MAG member agencies in consultation with MAG; and

WHEREAS, Municipal Planning Areas identify the anticipated future corporate limits of a city or town, have been used by MAG in preparing projections since 1983, and are used in the MAG 208 Water Quality Management Plan; and

WHEREAS, MAG worked jointly with Central Arizona Governments (CAG) to create the 2023 MAG Socioeconomic Projections for areas within Pinal County; and

WHEREAS, the county projections are consistent with the statewide projections created by the Arizona State Demographer's Office;

NOW THEREFORE, BE IT RESOLVED that the Regional Council for the Maricopa Association of Governments approves the Municipal Planning Areas and the 2023 MAG socioeconomic projections of population and employment for July 1, 2030, 2040, 2050, and 2060 by Municipal Planning Area and Regional Analysis Zone and by incorporated area annually for July 1, 2023, through 2060 for use in all regional planning activities.

PASSED AND ADOPTED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS THIS TWENTY-EIGHTH DAY OF JUNE, 2023.



ATTEST:

Handwritten signature of Kenneth Weise in black ink.

Mayor Kenneth Weise
Chair, MAG Regional Council

Handwritten signature of Eric J. Anderson in black ink.

Eric J. Anderson
MAG Executive Director

Appendices

Appendix A: Notes and Caveats _____ **36**

Appendix B: Glossary of Terms _____ **37**

APPENDIX A

NOTES AND CAVEATS FOR 2023 PROJECTIONS

1. The projections by municipal planning area (MPA) and regional analysis zone (RAZ) were prepared to be consistent with the July 1, 2022, population estimates and have been prepared for July 1st of the base year 2020 and projected for July 1st of 2030, 2040, 2050, and 2060.
2. The population projections are for resident population only and do not include non-resident seasonal or transient population.
3. The projections are required to use the latest census as the base. The Census 2020 data were released in August 2022. Subsequent to the release, the Arizona State Demographer prepared a new set of Maricopa County projections consistent with the 2022 population estimate.
4. The MAG socioeconomic projections by MPA and RAZ were reviewed and recommended for approval by the MAG Population Technical Advisory Committee (POPTAC) on June 6, 2023, and by the MAG Management Committee on June 14, 2023. The projections unanimously adopted by MAG Regional Council on June 28, 2023.
5. The projections were based on the latest version of each member agency's general plan and known developments. These plans are subject to change.
6. The databases and assumptions upon which the projections are based have been reviewed by MAG member agencies and revised by MAG staff based on input received.
7. The projections are based upon previous review and local insight by members of the MAG POPTAC, member agency staff, and other local and regional stakeholders.
8. The projections should be used with caution. They are subject to change as a result of fluctuation in economic and development conditions, local development policies and updated data.

APPENDIX B

GLOSSARY OF TERMS

Base Population: Population base for the current estimate, usually the last Decennial Census or a special census or census survey taken since then.

Employment: The total number of jobs of persons receiving wage or salary to work in a given industry. This measure of employment only includes persons over the age of 16 and does not include working within the home without outside wage or volunteering. An employee works in the designated weekly time period at least one hour.

Municipal Planning Area (MPA): An MPA represents the area of planning concern for a municipality and is based upon its anticipated future corporate limits.

Projection: Numerical outcome of a set of assumptions (based on past trends) relating to future trends. The numbers are conditional upon these assumptions being fulfilled.

Regional Analysis Zone (RAZ): An area within an MPA. RAZs can be either coterminous with or may be aggregated to form an MPA.



Appendix H – Year 2028 Build Capacity Analysis

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 303 | 72 | 1663 | 550 | 118 | 2209 |
| Future Volume (veh/h) | 303 | 72 | 1663 | 550 | 118 | 2209 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 329 | 78 | 1808 | 598 | 128 | 2401 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 432 | 198 | 2362 | 733 | 419 | 2695 |
| Arrive On Green | 0.12 | 0.12 | 0.31 | 0.31 | 0.24 | 0.76 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 329 | 78 | 1808 | 598 | 128 | 2401 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 11.0 | 5.4 | 38.4 | 41.8 | 7.1 | 60.4 |
| Cycle Q Clear(g_c), s | 11.0 | 5.4 | 38.4 | 41.8 | 7.1 | 60.4 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 432 | 198 | 2362 | 733 | 419 | 2695 |
| V/C Ratio(X) | 0.76 | 0.39 | 0.77 | 0.82 | 0.31 | 0.89 |
| Avail Cap(c_a), veh/h | 922 | 423 | 2362 | 733 | 419 | 2695 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.8 | 48.3 | 35.5 | 36.7 | 37.8 | 10.8 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 2.4 | 9.7 | 0.2 | 5.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.7 | 4.9 | 16.8 | 18.5 | 3.0 | 18.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 51.8 | 48.8 | 38.0 | 46.4 | 38.0 | 15.8 |
| LnGrp LOS | D | D | D | D | D | B |
| Approach Vol, veh/h | 407 | | 2406 | | | 2529 |
| Approach Delay, s/veh | 51.2 | | 40.1 | | | 16.9 |
| Approach LOS | D | | D | | | B |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 98.3 | | 21.7 | 35.5 | 62.8 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 74.0 | | 32.0 | 12.1 | * 56 |
| Max Q Clear Time (g_c+I1), s | | 62.4 | | 13.0 | 9.1 | 43.8 |
| Green Ext Time (p_c), s | | 3.6 | | 0.7 | 0.0 | 4.6 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 29.9 | | | |
| HCM 7th LOS | | | C | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

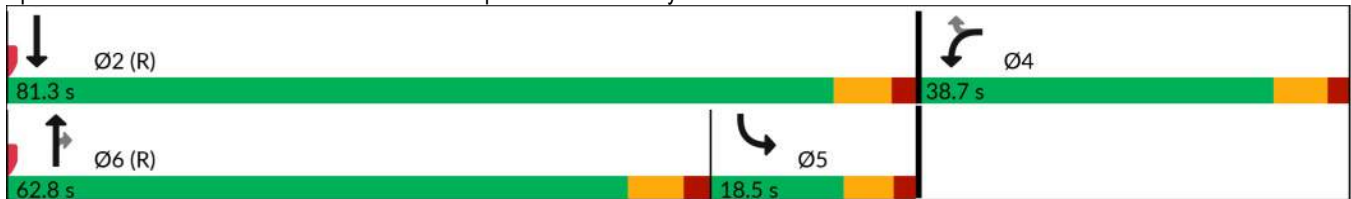


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBT | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 81.3 | 38.7 | 18.5 | 62.8 |
| Maximum Split (%) | 67.8% | 32.3% | 15.4% | 52.3% |
| Minimum Split (s) | 22.5 | 38.7 | 11.4 | 48.3 |
| Yellow Time (s) | 5.1 | 4.7 | 4.4 | 5.1 |
| All-Red Time (s) | 2.2 | 2 | 2 | 2.2 |
| Minimum Initial (s) | 10 | 15 | 5 | 10 |
| Vehicle Extension (s) | 0.2 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | 8 | | 4 |
| Flash Dont Walk (s) | | 24 | | 37 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 44 | 5.3 | 106.8 | 44 |
| End Time (s) | 5.3 | 44 | 5.3 | 106.8 |
| Yield/Force Off (s) | 118 | 37.3 | 118.9 | 99.5 |
| Yield/Force Off 170(s) | 118 | 13.3 | 118.9 | 62.5 |
| Local Start Time (s) | 0 | 81.3 | 62.8 | 0 |
| Local Yield (s) | 74 | 113.3 | 74.9 | 55.5 |
| Local Yield 170(s) | 74 | 89.3 | 74.9 | 18.5 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 140 |
| Offset: 44 (37%), Referenced to phase 2:SBT and 6:NBT, Start of Green | |

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

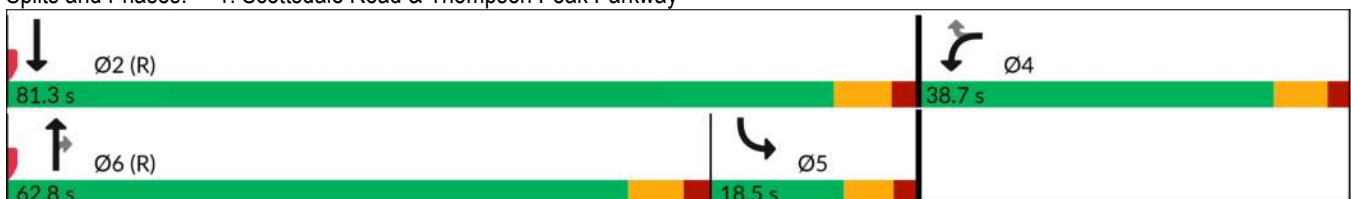


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|-------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑ |
| Traffic Volume (vph) | 303 | 72 | 1663 | 550 | 118 | 2209 |
| Future Volume (vph) | 303 | 72 | 1663 | 550 | 118 | 2209 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Satd. Flow (RTOR) | | 78 | | 598 | | |
| Lane Group Flow (vph) | 329 | 78 | 1808 | 598 | 128 | 2401 |
| Turn Type | Prot | Perm | NA | Perm | Prot | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | | |
| Total Split (s) | 38.7 | 38.7 | 62.8 | 62.8 | 18.5 | 81.3 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.3 | 7.3 | 6.4 | 7.3 |
| Act Effect Green (s) | 16.8 | 16.8 | 70.7 | 70.7 | 12.1 | 89.2 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.59 | 0.59 | 0.10 | 0.74 |
| v/c Ratio | 0.69 | 0.27 | 0.60 | 0.51 | 0.72 | 0.91 |
| Control Delay (s/veh) | 56.7 | 12.0 | 2.5 | 1.2 | 75.1 | 19.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 56.7 | 12.0 | 2.5 | 1.2 | 75.1 | 19.6 |
| LOS | E | B | A | A | E | B |
| Approach Delay (s/veh) | 48.1 | | 2.2 | | | 22.4 |
| Approach LOS | D | | A | | | C |
| Queue Length 50th (ft) | 127 | 0 | 20 | 0 | 98 | 650 |
| Queue Length 95th (ft) | 170 | 43 | 60 | 0 | #190 | #1007 |
| Internal Link Dist (ft) | 572 | | 390 | | | 2341 |
| Turn Bay Length (ft) | 120 | | | 275 | 200 | |
| Base Capacity (vph) | 915 | 479 | 2996 | 1178 | 178 | 2630 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.16 | 0.60 | 0.51 | 0.72 | 0.91 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 44 (37%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay (s/veh): 15.3 Intersection LOS: B
 Intersection Capacity Utilization 85.2% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



Lokahi, LLC

Queues

2: Scottsdale Road & Driveway A

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↑↑↑ | ↗ | | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 10 | 2204 | 19 | 0 | 2511 |
| Future Vol, veh/h | 0 | 10 | 2204 | 19 | 0 | 2511 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 2396 | 21 | 0 | 2729 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1198 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *561 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *561 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v11.54 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 561 |
| HCM Lane V/C Ratio | - | - | 0.019 |
| HCM Control Delay (s/veh) | - | - | 11.5 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|-------|-------|------|-------|-------|
| Int Delay, s/veh | 0.9 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ ↑↑↑ | ↗ ↑↑↑ | ↗ ↑ | ↘ ↑↑↑ | ↘ ↑↑↑ |
| Traffic Vol, veh/h | 0 | 54 | 2181 | 74 | 87 | 2427 |
| Future Vol, veh/h | 0 | 54 | 2181 | 74 | 87 | 2427 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 100 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 59 | 2371 | 80 | 95 | 2638 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 1185 | 0 | 0 | 2451 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | 5.34 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | 3.12 |
| Pot Cap-1 Maneuver | 0 | *576 | - | - | 189 |
| Stage 1 | 0 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - |
| Platoon blocked, % | | 0 | - | - | 0 |
| Mov Cap-1 Maneuver | - | *576 | - | - | 189 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 11.96 | 0 | 1.44 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|------|
| Capacity (veh/h) | - | - | 576 | 189 |
| HCM Lane V/C Ratio | - | - | 0.102 | 0.5 |
| HCM Control Delay (s/veh) | - | - | 12 | 41.7 |
| HCM Lane LOS | - | - | B | E |
| HCM 95th %tile Q(veh) | - | - | 0.3 | 2.5 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 103 | 2149 | 164 | 0 | 2435 |
| Future Vol, veh/h | 0 | 103 | 2149 | 164 | 0 | 2435 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 112 | 2336 | 178 | 0 | 2647 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1168 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *643 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *643 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|----|
| HCM Control Delay, s/v | 11.78 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 643 |
| HCM Lane V/C Ratio | - | - | 0.174 |
| HCM Control Delay (s/veh) | - | - | 11.8 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0.6 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|-------|------|------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 276 | 63 | 2251 | 78 | 185 | 2250 |
| Future Volume (veh/h) | 276 | 63 | 2251 | 78 | 185 | 2250 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 300 | 68 | 2447 | 85 | 201 | 2446 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 361 | 166 | 2966 | 921 | 358 | 4024 |
| Arrive On Green | 0.10 | 0.10 | 0.58 | 0.58 | 0.15 | 0.79 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 300 | 68 | 2447 | 85 | 201 | 2446 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 10.2 | 4.8 | 46.3 | 2.9 | 6.6 | 23.4 |
| Cycle Q Clear(g_c), s | 10.2 | 4.8 | 46.3 | 2.9 | 6.6 | 23.4 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 361 | 166 | 2966 | 921 | 358 | 4024 |
| V/C Ratio(X) | 0.83 | 0.41 | 0.83 | 0.09 | 0.56 | 0.61 |
| Avail Cap(c_a), veh/h | 472 | 217 | 2966 | 921 | 358 | 4024 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.7 | 50.3 | 20.2 | 11.1 | 43.1 | 5.2 |
| Incr Delay (d2), s/veh | 7.4 | 0.6 | 2.8 | 0.2 | 1.2 | 0.7 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.8 | 4.3 | 17.1 | 1.0 | 5.3 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 60.1 | 50.9 | 23.0 | 11.3 | 44.3 | 5.9 |
| LnGrp LOS | E | D | C | B | D | A |
| Approach Vol, veh/h | 368 | | 2532 | | | 2647 |
| Approach Delay, s/veh | 58.4 | | 22.6 | | | 8.8 |
| Approach LOS | E | | C | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 100.9 | | 19.1 | 24.9 | 76.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 91 | | 16.4 | * 15 | * 70 |
| Max Q Clear Time (g_c+I1), s | | 25.4 | | 12.2 | 8.6 | 48.3 |
| Green Ext Time (p_c), s | | 9.9 | | 0.3 | 0.1 | 8.3 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 18.4 | | | |
| HCM 7th LOS | | | B | | | |
| Notes | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 97 | 23 | 21 | 76 |
| Maximum Split (%) | 80.8% | 19.2% | 17.5% | 63.3% |
| Minimum Split (s) | 22.5 | 22.5 | 11 | 39.3 |
| Yellow Time (s) | 4.7 | 3.6 | 4 | 4.7 |
| All-Red Time (s) | 1.6 | 3 | 2 | 1.6 |
| Minimum Initial (s) | 10 | 7 | 5 | 5 |
| Vehicle Extension (s) | 1 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 7 |
| Flash Dont Walk (s) | | | | 26 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 115 | 92 | 71 | 115 |
| End Time (s) | 92 | 115 | 92 | 71 |
| Yield/Force Off (s) | 85.7 | 108.4 | 86 | 64.7 |
| Yield/Force Off 170(s) | 85.7 | 108.4 | 86 | 38.7 |
| Local Start Time (s) | 0 | 97 | 76 | 0 |
| Local Yield (s) | 90.7 | 113.4 | 91 | 69.7 |
| Local Yield 170(s) | 90.7 | 113.4 | 91 | 43.7 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 90 |
| Offset: 115 (96%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



5: Scottsdale Road & Legacy Boulevard

12/08/2023

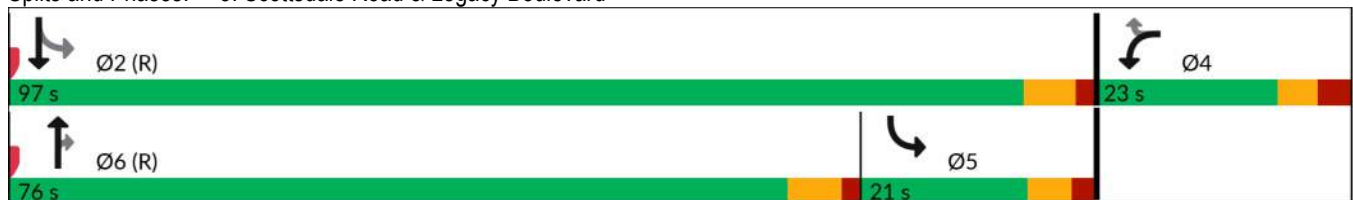


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (vph) | 276 | 63 | 2251 | 78 | 185 | 2250 |
| Future Volume (vph) | 276 | 63 | 2251 | 78 | 185 | 2250 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 5085 |
| Flt Permitted | 0.950 | | | | 0.051 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 95 | 5085 |
| Satd. Flow (RTOR) | | 68 | | 45 | | |
| Lane Group Flow (vph) | 300 | 68 | 2447 | 85 | 201 | 2446 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | 2 | |
| Total Split (s) | 23.0 | 23.0 | 76.0 | 76.0 | 21.0 | 97.0 |
| Total Lost Time (s) | 6.6 | 6.6 | 6.3 | 6.3 | 6.0 | 6.3 |
| Act Effct Green (s) | 14.3 | 14.3 | 71.8 | 71.8 | 93.1 | 92.8 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.60 | 0.60 | 0.78 | 0.77 |
| v/c Ratio | 0.74 | 0.27 | 0.80 | 0.09 | 0.71 | 0.62 |
| Control Delay (s/veh) | 64.3 | 15.9 | 21.6 | 5.9 | 48.2 | 9.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 64.3 | 15.9 | 21.6 | 5.9 | 48.2 | 9.9 |
| LOS | E | B | C | A | D | A |
| Approach Delay (s/veh) | 55.4 | | 21.1 | | | 12.8 |
| Approach LOS | E | | C | | | B |
| Queue Length 50th (ft) | 118 | 3 | 512 | 12 | 92 | 370 |
| Queue Length 95th (ft) | 162 | m40 | 601 | 35 | m118 | 516 |
| Internal Link Dist (ft) | 296 | | 311 | | | 320 |
| Turn Bay Length (ft) | 240 | | | 140 | 190 | |
| Base Capacity (vph) | 469 | 275 | 3044 | 965 | 283 | 3934 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.64 | 0.25 | 0.80 | 0.09 | 0.71 | 0.62 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 115 (96%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay (s/veh): 19.4 Intersection LOS: B
 Intersection Capacity Utilization 77.4% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



Year 2028 AM Build Peak Hour - Baseline
 Lokahi, LLC

Synchro 12 Report
 Queues

6: Scottsdale Road & Henkel Way

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 218 | 66 | 2414 | 183 | 178 | 2316 |
| Future Volume (veh/h) | 218 | 66 | 2414 | 183 | 178 | 2316 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 237 | 72 | 2624 | 199 | 193 | 2517 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 295 | 135 | 3718 | 1154 | 221 | 4250 |
| Arrive On Green | 0.09 | 0.09 | 0.73 | 0.73 | 0.07 | 0.83 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 237 | 72 | 2624 | 199 | 193 | 2517 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 8.8 | 5.7 | 37.4 | 5.1 | 6.7 | 21.2 |
| Cycle Q Clear(g_c), s | 8.8 | 5.7 | 37.4 | 5.1 | 6.7 | 21.2 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 295 | 135 | 3718 | 1154 | 221 | 4250 |
| V/C Ratio(X) | 0.80 | 0.53 | 0.71 | 0.17 | 0.87 | 0.59 |
| Avail Cap(c_a), veh/h | 468 | 215 | 3718 | 1154 | 337 | 4250 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 58.4 | 57.0 | 9.9 | 5.5 | 39.3 | 3.6 |
| Incr Delay (d2), s/veh | 2.2 | 1.2 | 0.8 | 0.2 | 14.6 | 0.6 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.9 | 5.0 | 11.5 | 1.5 | 7.0 | 4.4 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 60.6 | 58.2 | 10.7 | 5.7 | 53.9 | 4.2 |
| LnGrp LOS | E | E | B | A | D | A |
| Approach Vol, veh/h | 309 | | 2823 | | | 2710 |
| Approach Delay, s/veh | 60.0 | | 10.3 | | | 7.8 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 113.9 | | 16.1 | 13.5 | 100.3 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | 4.5 | 5.7 |
| Max Green Setting (Gmax), s | | 101.2 | | 17.6 | 17.5 | 79.2 |
| Max Q Clear Time (g_c+I1), s | | 23.2 | | 10.8 | 8.7 | 39.4 |
| Green Ext Time (p_c), s | | 25.3 | | 0.3 | 0.3 | 22.6 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 11.8 | | | |
| HCM 7th LOS | | | B | | | |

6: Scottsdale Road & Henkel Way

12/08/2023

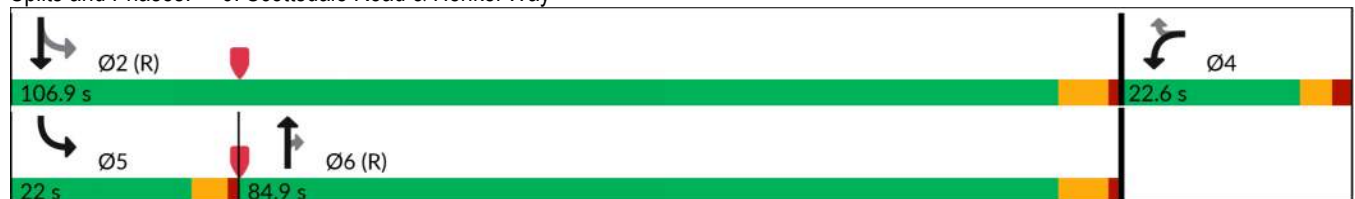


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lead | Lag |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 106.9 | 22.6 | 22 | 84.9 |
| Maximum Split (%) | 82.5% | 17.5% | 17.0% | 65.6% |
| Minimum Split (s) | 22.5 | 22.5 | 9.5 | 31.7 |
| Yellow Time (s) | 4.7 | 3 | 3.5 | 4.7 |
| All-Red Time (s) | 1 | 2 | 1 | 1 |
| Minimum Initial (s) | 10 | 7 | 5 | 10 |
| Vehicle Extension (s) | 2 | 2 | 3 | 2 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 4 |
| Flash Dont Walk (s) | | | | 22 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 118.5 | 95.9 | 118.5 | 11 |
| End Time (s) | 95.9 | 118.5 | 11 | 95.9 |
| Yield/Force Off (s) | 90.2 | 113.5 | 6.5 | 90.2 |
| Yield/Force Off 170(s) | 90.2 | 113.5 | 6.5 | 68.2 |
| Local Start Time (s) | 107.5 | 84.9 | 107.5 | 0 |
| Local Yield (s) | 79.2 | 102.5 | 125 | 79.2 |
| Local Yield 170(s) | 79.2 | 102.5 | 125 | 57.2 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 129.5 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 90 |
| Offset: 11 (8%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 6: Scottsdale Road & Henkel Way



6: Scottsdale Road & Henkel Way

12/08/2023

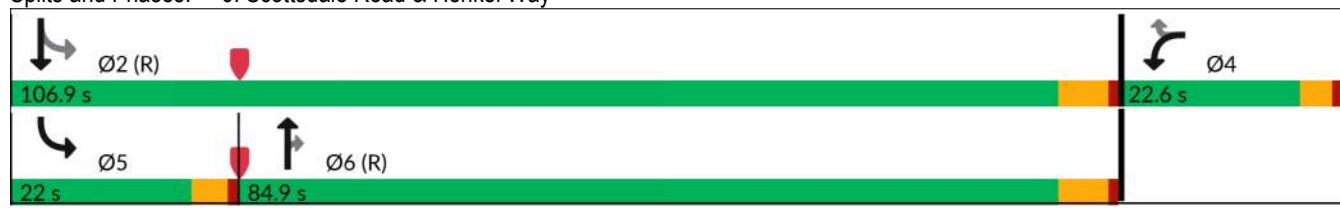


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|-------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (vph) | 218 | 66 | 2414 | 183 | 178 | 2316 |
| Future Volume (vph) | 218 | 66 | 2414 | 183 | 178 | 2316 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 5085 |
| Flt Permitted | 0.950 | | | | 0.044 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 82 | 5085 |
| Satd. Flow (RTOR) | | 72 | | 104 | | |
| Lane Group Flow (vph) | 237 | 72 | 2624 | 199 | 193 | 2517 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | 2 | |
| Total Split (s) | 22.6 | 22.6 | 84.9 | 84.9 | 22.0 | 106.9 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.7 | 5.7 | 4.5 | 5.7 |
| Act Effct Green (s) | 13.3 | 13.3 | 87.3 | 87.3 | 106.7 | 105.5 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.67 | 0.67 | 0.82 | 0.81 |
| v/c Ratio | 0.67 | 0.32 | 0.77 | 0.18 | 0.78 | 0.61 |
| Control Delay (s/veh) | 65.5 | 15.0 | 17.3 | 4.9 | 54.7 | 5.4 |
| Queue Delay | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 65.5 | 15.0 | 19.1 | 4.9 | 54.7 | 5.4 |
| LOS | E | B | B | A | D | A |
| Approach Delay (s/veh) | 53.7 | | 18.1 | | | 8.9 |
| Approach LOS | D | | B | | | A |
| Queue Length 50th (ft) | 100 | 0 | 510 | 26 | 105 | 228 |
| Queue Length 95th (ft) | 141 | 45 | 681 | 64 | 188 | 309 |
| Internal Link Dist (ft) | 358 | | 611 | | | 258 |
| Turn Bay Length (ft) | 150 | | | 150 | 198 | |
| Base Capacity (vph) | 466 | 277 | 3427 | 1100 | 296 | 4143 |
| Starvation Cap Reductn | 0 | 0 | 603 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.51 | 0.26 | 0.93 | 0.18 | 0.65 | 0.61 |

Intersection Summary

Cycle Length: 129.5
 Actuated Cycle Length: 129.5
 Offset: 11 (8%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay (s/veh): 15.7 Intersection LOS: B
 Intersection Capacity Utilization 75.4% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 6: Scottsdale Road & Henkel Way



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-----|-----|-----|-------|------|------|-------|-------|-----|-----|-------|------|
| Lane Configurations | | | | ↔↔ | ↔ | ↔ | ↔↔ | ↑↑↑ | | | ↑↑↑↑ | ↔ |
| Traffic Volume (vph) | 0 | 0 | 0 | 457 | 26 | 649 | 409 | 1948 | 0 | 0 | 1906 | 629 |
| Future Volume (vph) | 0 | 0 | 0 | 457 | 26 | 649 | 409 | 1948 | 0 | 0 | 1906 | 629 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1524 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1524 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 3 | 190 | | | | | | 652 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 497 | 366 | 367 | 445 | 2117 | 0 | 0 | 2072 | 684 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3 | | 4 6 | 1 2 4 | | | | 5 |
| Permitted Phases | | | | 3 | | 3 | | | | | | 5 |
| Total Split (s) | | | | 54.7 | 54.7 | 54.7 | | | | | 27.7 | 27.7 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effect Green (s) | | | | 37.2 | 37.2 | 37.2 | 45.4 | 73.4 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | | | | 0.30 | 0.30 | 0.30 | 0.37 | 0.60 | | | 0.18 | 0.18 |
| v/c Ratio | | | | 0.48 | 0.79 | 0.63 | 0.35 | 0.70 | | | 1.54 | 0.84 |
| Control Delay (s/veh) | | | | 35.5 | 50.9 | 20.7 | 30.4 | 5.9 | | | 280.0 | 15.0 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | | | 0.1 | 0.0 |
| Total Delay (s/veh) | | | | 35.5 | 50.9 | 20.7 | 30.4 | 9.1 | | | 280.1 | 15.0 |
| LOS | | | | D | D | C | C | A | | | F | B |
| Approach Delay (s/veh) | | | | | 35.7 | | | 12.8 | | | 214.3 | |
| Approach LOS | | | | | D | | | B | | | F | |
| Queue Length 50th (ft) | | | | 165 | 277 | 125 | 108 | 152 | | | ~570 | 22 |
| Queue Length 95th (ft) | | | | 189 | 352 | 205 | m131 | m264 | | | #634 | #194 |
| Internal Link Dist (ft) | | 996 | | | 1228 | | | 340 | | | 611 | |
| Turn Bay Length (ft) | | | | 320 | | 320 | | | | | | 400 |
| Base Capacity (vph) | | | | 1339 | 596 | 702 | 1266 | 3033 | | | 1349 | 818 |
| Starvation Cap Reductn | | | | 0 | 0 | 0 | 0 | 793 | | | 0 | 0 |
| Spillback Cap Reductn | | | | 2 | 0 | 0 | 0 | 0 | | | 38 | 0 |
| Storage Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Reduced v/c Ratio | | | | 0.37 | 0.61 | 0.52 | 0.35 | 0.95 | | | 1.58 | 0.84 |

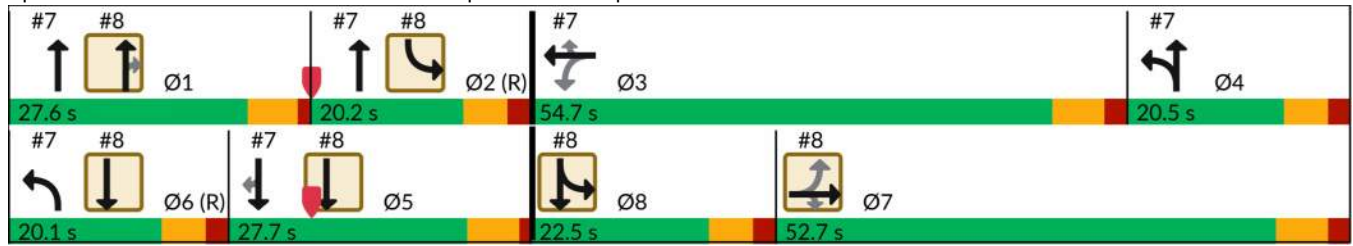
Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.54
 Intersection Signal Delay (s/veh): 101.9 Intersection LOS: F
 Intersection Capacity Utilization 137.5% ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 27.6 | 20.2 | 20.5 | 20.1 | 52.7 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

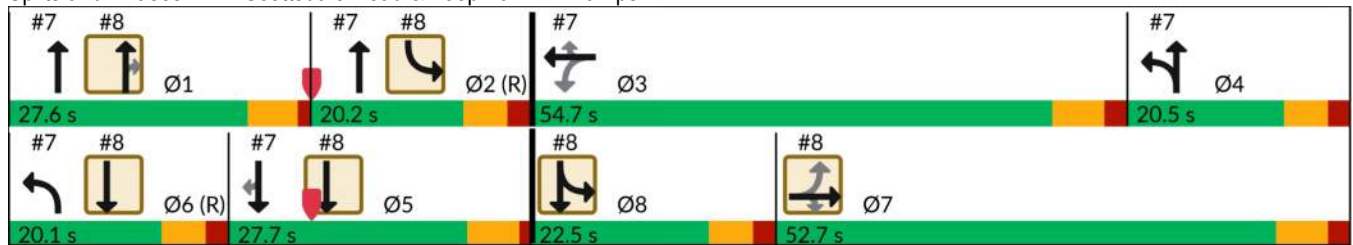


| Phase Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Node Number | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| Movement | NBT | NBT | WBTL | NBTL | SBT | NBL | EBTL | SBTL |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | C-Min | None | None | Max | C-Min | None | None |
| Maximum Split (s) | 27.6 | 20.2 | 54.7 | 20.5 | 27.7 | 20.1 | 52.7 | 22.5 |
| Maximum Split (%) | 22.4% | 16.4% | 44.5% | 16.7% | 22.5% | 16.3% | 42.8% | 18.3% |
| Minimum Split (s) | 27.7 | 22.5 | 56.7 | 22.5 | 29.7 | 22.5 | 54.7 | 22.5 |
| Yellow Time (s) | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 |
| All-Red Time (s) | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| Minimum Initial (s) | 10 | 5 | 7 | 2 | 10 | 5 | 7 | 2 |
| Vehicle Extension (s) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Minimum Gap (s) | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Walk Time (s) | 4 | | 4 | | 4 | | 4 | |
| Flash Dont Walk (s) | 18 | | 46 | | 20 | | 44 | |
| Dual Entry | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Start Time (s) | 57.4 | 85 | 105.2 | 36.9 | 77.5 | 57.4 | 4.7 | 105.2 |
| End Time (s) | 85 | 105.2 | 36.9 | 57.4 | 105.2 | 77.5 | 57.4 | 4.7 |
| Yield/Force Off (s) | 79.3 | 99.2 | 30.2 | 51.4 | 99.5 | 71.5 | 50.7 | 121.7 |
| Yield/Force Off 170(s) | 61.3 | 99.2 | 107.2 | 51.4 | 79.5 | 71.5 | 6.7 | 121.7 |
| Local Start Time (s) | 95.4 | 0 | 20.2 | 74.9 | 115.5 | 95.4 | 42.7 | 20.2 |
| Local Yield (s) | 117.3 | 14.2 | 68.2 | 89.4 | 14.5 | 109.5 | 88.7 | 36.7 |
| Local Yield 170(s) | 99.3 | 14.2 | 22.2 | 89.4 | 117.5 | 109.5 | 44.7 | 36.7 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 123 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 145 |
| Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green | |

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|------|-----|------|-----|-----|------|------|-------|-------|-----|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1065 | 3 | 990 | 0 | 0 | 0 | 0 | 1292 | 338 | 755 | 1608 | 0 |
| Future Volume (vph) | 1065 | 3 | 990 | 0 | 0 | 0 | 0 | 1292 | 338 | 755 | 1608 | 0 |
| Satd. Flow (prot) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Satd. Flow (RTOR) | | 11 | 184 | | | | | | 367 | | | |
| Lane Group Flow (vph) | 1158 | 541 | 538 | 0 | 0 | 0 | 0 | 1404 | 367 | 821 | 1748 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | | 7 | | | | | | 1 | | 2 8 | 5 6 8 | |
| Permitted Phases | 7 | | 7 | | | | | | 1 | | | |
| Total Split (s) | 52.7 | 52.7 | 52.7 | | | | | 27.6 | 27.6 | | | |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 | | | |
| Act Effct Green (s) | 46.0 | 46.0 | 46.0 | | | | | 21.9 | 21.9 | 36.7 | 64.6 | |
| Actuated g/C Ratio | 0.37 | 0.37 | 0.37 | | | | | 0.18 | 0.18 | 0.30 | 0.53 | |
| v/c Ratio | 0.90 | 0.95 | 0.79 | | | | | 1.05 | 0.63 | 0.80 | 0.65 | |
| Control Delay (s/veh) | 47.3 | 64.3 | 32.1 | | | | | 86.1 | 9.7 | 11.2 | 12.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 11.7 | 0.6 | |
| Total Delay (s/veh) | 47.3 | 64.3 | 32.1 | | | | | 86.1 | 9.7 | 22.9 | 13.1 | |
| LOS | D | E | C | | | | | F | A | C | B | |
| Approach Delay (s/veh) | | 47.8 | | | | | | 70.2 | | | 16.2 | |
| Approach LOS | | D | | | | | | E | | | B | |
| Queue Length 50th (ft) | 444 | 428 | 273 | | | | | ~299 | 0 | 30 | 163 | |
| Queue Length 95th (ft) | #573 | #671 | 440 | | | | | #363 | 88 | m29 | m43 | |
| Internal Link Dist (ft) | | 1060 | | | 1321 | | | 938 | | | 340 | |
| Turn Bay Length (ft) | 200 | | 200 | | | | | | 350 | | | |
| Base Capacity (vph) | 1283 | 570 | 677 | | | | | 1343 | 583 | 1024 | 2670 | |
| Starvation Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 190 | 497 | |
| Spillback Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.90 | 0.95 | 0.79 | | | | | 1.05 | 0.63 | 0.98 | 0.80 | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.54
 Intersection Signal Delay (s/veh): 41.5 Intersection LOS: D
 Intersection Capacity Utilization 137.5% ICU Level of Service H
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

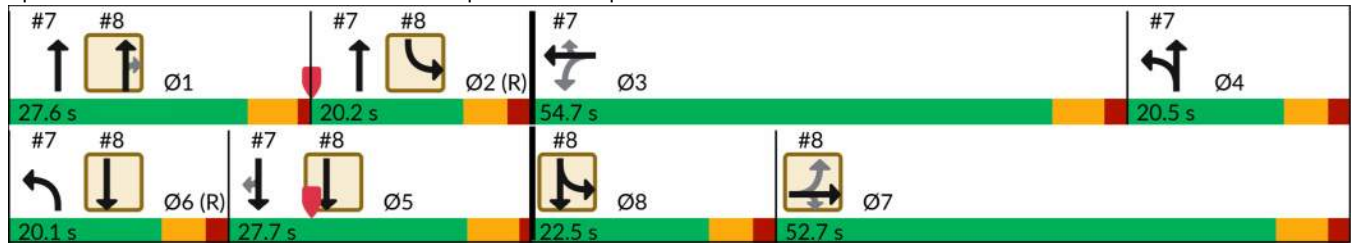
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

Splits and Phases: 8: Scottsdale Road & Loop 101 EB Ramps



| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 20.2 | 54.7 | 20.5 | 27.7 | 20.1 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 172 | 435 | 71 | 0 | 302 | 51 | 0 | 0 | 86 | 0 | 0 | 88 |
| Future Vol, veh/h | 172 | 435 | 71 | 0 | 302 | 51 | 0 | 0 | 86 | 0 | 0 | 88 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 187 | 473 | 77 | 0 | 328 | 55 | 0 | 0 | 93 | 0 | 0 | 96 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 384 | 0 | 0 | - | - | 0 | - | - | 236 | - | - | 164 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1171 | - | - | 0 | - | 0 | 0 | 0 | 765 | 0 | 0 | 852 |
| Stage 1 | - | - | - | 0 | - | 0 | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | 0 | - | 0 | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1171 | - | - | - | - | - | - | - | 765 | - | - | 852 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|-----|----|-------|------|
| HCM Control Delay, s/v | 2.2 | 0 | 10.36 | 9.76 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 765 | 1171 | - | - | - | - | 852 |
| HCM Lane V/C Ratio | 0.122 | 0.16 | - | - | - | - | 0.112 |
| HCM Control Delay (s/veh) | 10.4 | 8.7 | - | - | - | - | 9.8 |
| HCM Lane LOS | B | A | - | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.4 | 0.6 | - | - | - | - | 0.4 |

| Intersection | | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 10.3 | | | | | | | | | | | | |
| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | ↕↕ | ↕ | ↕ | ↕↕ | | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ |
| Traffic Vol, veh/h | 49 | 31 | 104 | 50 | 83 | 57 | 77 | 102 | 32 | 42 | 98 | 83 | 48 |
| Future Vol, veh/h | 49 | 31 | 104 | 50 | 83 | 57 | 77 | 102 | 32 | 42 | 98 | 83 | 48 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | 110 | - | 160 | 200 | - | - | 100 | - | 100 | 150 | - | 150 |
| Veh in Median Storage, # | - | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 53 | 34 | 113 | 54 | 90 | 62 | 84 | 111 | 35 | 46 | 107 | 90 | 52 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | | |
|----------------------|--------|------|---|--------|------|---|--------|------|------|--------|------|------|------|
| Conflicting Flow All | 146 | 146 | 0 | 0 | 167 | 0 | 0 | 543 | 613 | 57 | 532 | 626 | 73 |
| Stage 1 | - | - | - | - | - | - | - | 287 | 287 | - | 284 | 284 | - |
| Stage 2 | - | - | - | - | - | - | - | 257 | 326 | - | 248 | 341 | - |
| Critical Hdwy | 6.44 | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.52 | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1158 | 1434 | - | - | 1408 | - | - | 422 | 406 | 998 | 430 | 399 | 974 |
| Stage 1 | - | - | - | - | - | - | - | 696 | 673 | - | 699 | 675 | - |
| Stage 2 | - | - | - | - | - | - | - | 726 | 647 | - | 734 | 637 | - |
| Platoon blocked, % | | | - | - | | | - | | | | | | |
| Mov Cap-1 Maneuver | 1206 | 1206 | - | - | 1408 | - | - | 278 | 367 | 998 | 339 | 361 | 974 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | 278 | 367 | - | 339 | 361 | - |
| Stage 1 | - | - | - | - | - | - | - | 672 | 650 | - | 654 | 632 | - |
| Stage 2 | - | - | - | - | - | - | - | 551 | 605 | - | 640 | 615 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|------------------------|------|--|--|------|--|--|-------|--|--|-------|--|--|
| HCM Control Delay, s/v | 2.81 | | | 2.96 | | | 20.23 | | | 17.22 | | |
| HCM LOS | | | | | | | C | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---------------------------|-------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | 278 | 367 | 998 | 1206 | - | - | 1408 | - | - | 339 | 361 | 974 |
| HCM Lane V/C Ratio | 0.399 | 0.095 | 0.046 | 0.072 | - | - | 0.064 | - | - | 0.314 | 0.25 | 0.054 |
| HCM Control Delay (s/veh) | 26.3 | 15.8 | 8.8 | 8.2 | - | - | 7.7 | - | - | 20.4 | 18.3 | 8.9 |
| HCM Lane LOS | D | C | A | A | - | - | A | - | - | C | C | A |
| HCM 95th %tile Q(veh) | 1.8 | 0.3 | 0.1 | 0.2 | - | - | 0.2 | - | - | 1.3 | 1 | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↗ | ↘ | ↑↑ | ↘ | ↗ |
| Traffic Vol, veh/h | 130 | 116 | 83 | 160 | 58 | 42 |
| Future Vol, veh/h | 130 | 116 | 83 | 160 | 58 | 42 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 141 | 126 | 90 | 174 | 63 | 46 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 267 | 0 | 409 |
| Stage 1 | - | - | - | - | 141 |
| Stage 2 | - | - | - | - | 267 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1293 | - | 571 |
| Stage 1 | - | - | - | - | 871 |
| Stage 2 | - | - | - | - | 753 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1293 | - | 531 |
| Mov Cap-2 Maneuver | - | - | - | - | 531 |
| Stage 1 | - | - | - | - | 871 |
| Stage 2 | - | - | - | - | 701 |

| Approach | EB | WB | NB |
|------------------------|----|------|-------|
| HCM Control Delay, s/v | 0 | 2.73 | 11.08 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | 531 | 977 | - | - | 1293 | - |
| HCM Lane V/C Ratio | 0.119 | 0.047 | - | - | 0.07 | - |
| HCM Control Delay (s/veh) | 12.7 | 8.9 | - | - | 8 | - |
| HCM Lane LOS | B | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.4 | 0.1 | - | - | 0.2 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 146 | 59 | 0 | 44 |
| Future Vol, veh/h | 0 | 0 | 146 | 59 | 0 | 44 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 159 | 64 | 0 | 48 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 9.29 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 887 |
| HCM Lane V/C Ratio | - | - | 0.054 |
| HCM Control Delay (s/veh) | - | - | 9.3 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 32 | 2297 | 78 | 0 | 2527 |
| Future Vol, veh/h | 0 | 32 | 2297 | 78 | 0 | 2527 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 100 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 35 | 2497 | 85 | 0 | 2747 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1248 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *560 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *560 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|----|
| HCM Control Delay, s/v | 11.85 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 560 |
| HCM Lane V/C Ratio | - | - | 0.062 |
| HCM Control Delay (s/veh) | - | - | 11.9 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0.2 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

14: Scottsdale Road & Driveway G

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 25 | 2349 | 78 | 0 | 2527 |
| Future Vol, veh/h | 0 | 25 | 2349 | 78 | 0 | 2527 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 100 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 27 | 2553 | 85 | 0 | 2747 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1277 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *546 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *546 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v11.93 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|------|
| Capacity (veh/h) | - | - | 546 |
| HCM Lane V/C Ratio | - | - | 0.05 |
| HCM Control Delay (s/veh) | - | - | 11.9 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0.2 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | |
|--------------------------|------|-------|------|------|-------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ ↑↑↑ | ↑↑↑ | | ↘ ↑↑↑ | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 25 | 2402 | 78 | 33 | 2494 |
| Future Vol, veh/h | 0 | 25 | 2402 | 78 | 33 | 2494 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 27 | 2611 | 85 | 36 | 2711 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 1348 | 0 | 0 | 2696 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | 5.34 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | 3.12 |
| Pot Cap-1 Maneuver | 0 | *631 | - | - | 100 |
| Stage 1 | 0 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - |
| Platoon blocked, % | | 0 | - | - | 0 |
| Mov Cap-1 Maneuver | - | *631 | - | - | 100 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|------|
| HCM Control Delay, s/v10.96 | | 0 | 0.79 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|------|
| Capacity (veh/h) | - | - | 631 | 100 |
| HCM Lane V/C Ratio | - | - | 0.043 | 0.36 |
| HCM Control Delay (s/veh) | - | - | 11 | 60.3 |
| HCM Lane LOS | - | - | B | F |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 1.4 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑ | ↑ | | ↑↑ | ↑ | | | ↑ | | | ↑ |
| Traffic Vol, veh/h | 0 | 247 | 17 | 0 | 294 | 52 | 0 | 0 | 11 | 0 | 0 | 39 |
| Future Vol, veh/h | 0 | 247 | 17 | 0 | 294 | 52 | 0 | 0 | 11 | 0 | 0 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 100 | - | - | 100 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 268 | 18 | 0 | 320 | 57 | 0 | 0 | 12 | 0 | 0 | 42 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | - | 0 | 0 | - | - | 0 | - | - | 134 | - | - | 160 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 0 | - | - | 0 | - | - | 0 | 0 | 890 | 0 | 0 | 857 |
| Stage 1 | 0 | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | 0 | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | - | - | - | 890 | - | - | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|----|----|-----|------|
| HCM Control Delay, s/v | 0 | 0 | 9.1 | 9.42 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 890 | - | - | - | - | 857 |
| HCM Lane V/C Ratio | 0.013 | - | - | - | - | 0.049 |
| HCM Control Delay (s/veh) | 9.1 | - | - | - | - | 9.4 |
| HCM Lane LOS | A | - | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 241 | 33 | 0 | 218 | 0 | 16 |
| Future Vol, veh/h | 241 | 33 | 0 | 218 | 0 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 100 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 262 | 36 | 0 | 237 | 0 | 17 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|---|------|
| Conflicting Flow All | 0 | 0 | - | - | - | 131 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 894 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | - | - | - | 894 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | NB |
|------------------------|----|----|------|
| HCM Control Delay, s/v | 0 | 0 | 9.11 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|---------------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 894 | - | - | - |
| HCM Lane V/C Ratio | 0.019 | - | - | - |
| HCM Control Delay (s/veh) | 9.1 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑↑ | ↔ | ↔ | ↑↑ |
| Traffic Volume (veh/h) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Future Volume (veh/h) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 673 | 309 | 2553 | 793 | 227 | 2447 |
| Arrive On Green | 0.19 | 0.19 | 1.00 | 1.00 | 0.13 | 0.69 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 20.3 | 6.2 | 0.0 | 0.0 | 3.5 | 26.9 |
| Cycle Q Clear(g_c), s | 20.3 | 6.2 | 0.0 | 0.0 | 3.5 | 26.9 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 673 | 309 | 2553 | 793 | 227 | 2447 |
| V/C Ratio(X) | 0.89 | 0.31 | 0.87 | 0.48 | 0.26 | 0.61 |
| Avail Cap(c_a), veh/h | 922 | 423 | 2553 | 793 | 227 | 2447 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.1 | 41.4 | 0.0 | 0.0 | 47.2 | 10.0 |
| Incr Delay (d2), s/veh | 7.0 | 0.2 | 4.3 | 2.1 | 0.2 | 1.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.1 | 5.7 | 1.0 | 0.5 | 1.5 | 9.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 54.1 | 41.6 | 4.3 | 2.1 | 47.4 | 11.1 |
| LnGrp LOS | D | D | A | A | D | B |
| Approach Vol, veh/h | 696 | | 2595 | | | 1545 |
| Approach Delay, s/veh | 52.4 | | 4.0 | | | 12.5 |
| Approach LOS | D | | A | | | B |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 89.9 | | 30.1 | 22.6 | 67.3 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 74.0 | | 32.0 | 7.6 | * 60 |
| Max Q Clear Time (g_c+I1), s | | 28.9 | | 22.3 | 5.5 | 2.0 |
| Green Ext Time (p_c), s | | 1.9 | | 1.0 | 0.0 | 8.3 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 13.7 | | | |
| HCM 7th LOS | | | B | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

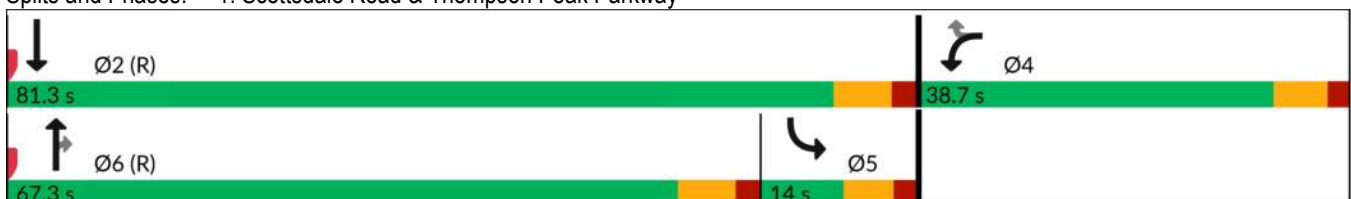


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑ |
| Traffic Volume (vph) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Future Volume (vph) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Satd. Flow (RTOR) | | 95 | | 337 | | |
| Lane Group Flow (vph) | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Turn Type | Prot | Perm | NA | Perm | Prot | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | | |
| Total Split (s) | 38.7 | 38.7 | 67.3 | 67.3 | 14.0 | 81.3 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.3 | 7.3 | 6.4 | 7.3 |
| Act Effct Green (s) | 25.4 | 25.4 | 69.4 | 69.4 | 7.1 | 80.6 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.58 | 0.58 | 0.06 | 0.67 |
| v/c Ratio | 0.83 | 0.23 | 0.75 | 0.36 | 0.56 | 0.63 |
| Control Delay (s/veh) | 55.4 | 8.4 | 17.8 | 2.6 | 74.9 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 55.4 | 8.4 | 17.8 | 2.6 | 74.9 | 13.2 |
| LOS | E | A | B | A | E | B |
| Approach Delay (s/veh) | 49.0 | | 15.6 | | | 15.5 |
| Approach LOS | D | | B | | | B |
| Queue Length 50th (ft) | 231 | 0 | 284 | 14 | 44 | 313 |
| Queue Length 95th (ft) | 279 | 42 | 244 | 41 | #92 | 442 |
| Internal Link Dist (ft) | 572 | | 390 | | | 2341 |
| Turn Bay Length (ft) | 120 | | | 275 | 200 | |
| Base Capacity (vph) | 915 | 491 | 2942 | 1058 | 112 | 2378 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.66 | 0.19 | 0.75 | 0.36 | 0.52 | 0.63 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 88 (73%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay (s/veh): 20.4 Intersection LOS: C
 Intersection Capacity Utilization 71.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



Lokahi, LLC

Queues

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

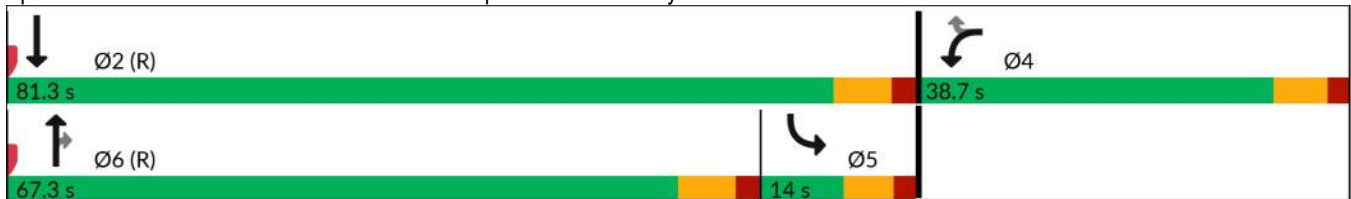


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBT | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 81.3 | 38.7 | 14 | 67.3 |
| Maximum Split (%) | 67.8% | 32.3% | 11.7% | 56.1% |
| Minimum Split (s) | 22.5 | 38.7 | 11.4 | 48.3 |
| Yellow Time (s) | 5.1 | 4.7 | 4.4 | 5.1 |
| All-Red Time (s) | 2.2 | 2 | 2 | 2.2 |
| Minimum Initial (s) | 10 | 15 | 5 | 10 |
| Vehicle Extension (s) | 0.2 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | 8 | | 4 |
| Flash Dont Walk (s) | | 24 | | 37 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 88 | 49.3 | 35.3 | 88 |
| End Time (s) | 49.3 | 88 | 49.3 | 35.3 |
| Yield/Force Off (s) | 42 | 81.3 | 42.9 | 28 |
| Yield/Force Off 170(s) | 42 | 57.3 | 42.9 | 111 |
| Local Start Time (s) | 0 | 81.3 | 67.3 | 0 |
| Local Yield (s) | 74 | 113.3 | 74.9 | 60 |
| Local Yield 170(s) | 74 | 89.3 | 74.9 | 23 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 100 |
| Offset: 88 (73%), Referenced to phase 2:SBT and 6:NBT, Start of Green | |

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↑↑↑ | ↗ | | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 4 | 2383 | 4 | 0 | 1915 |
| Future Vol, veh/h | 0 | 4 | 2383 | 4 | 0 | 1915 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 4 | 2590 | 4 | 0 | 2082 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 1295 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *546 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 0 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *546 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v11.64 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 546 |
| HCM Lane V/C Ratio | - | - | 0.008 |
| HCM Control Delay (s/veh) | - | - | 11.6 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|-------|-------|------|-------|-------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ ↑↑↑ | ↗ ↑↑↑ | ↗ ↑ | ↘ ↑↑↑ | ↘ ↑↑↑ |
| Traffic Vol, veh/h | 0 | 19 | 2369 | 23 | 5 | 1913 |
| Future Vol, veh/h | 0 | 19 | 2369 | 23 | 5 | 1913 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 100 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 21 | 2575 | 25 | 5 | 2079 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 1288 | 0 | 0 | 2600 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | 5.34 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | 3.12 |
| Pot Cap-1 Maneuver | 0 | *546 | - | - | 165 |
| Stage 1 | 0 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - |
| Platoon blocked, % | | 0 | - | - | 0 |
| Mov Cap-1 Maneuver | - | *546 | - | - | 165 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 11.85 | 0 | 0.07 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 546 | 165 |
| HCM Lane V/C Ratio | - | - | 0.038 | 0.033 |
| HCM Control Delay (s/veh) | - | - | 11.8 | 27.5 |
| HCM Lane LOS | - | - | B | D |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↑↑↑ | ↗ | | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 0 | 2391 | 4 | 0 | 1916 |
| Future Vol, veh/h | 0 | 0 | 2391 | 4 | 0 | 1916 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2599 | 4 | 0 | 2083 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1299 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *607 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *607 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-----|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|-------|-------|
| Lane Configurations | ↔↔ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (veh/h) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Future Volume (veh/h) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 76 | 42 | 2563 | 110 | 4 | 2078 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 198 | 91 | 3391 | 1053 | 305 | 4265 |
| Arrive On Green | 0.06 | 0.06 | 0.66 | 0.66 | 0.24 | 1.00 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 76 | 42 | 2563 | 110 | 4 | 2078 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 2.5 | 3.1 | 40.6 | 3.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.5 | 3.1 | 40.6 | 3.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 198 | 91 | 3391 | 1053 | 305 | 4265 |
| V/C Ratio(X) | 0.38 | 0.46 | 0.76 | 0.10 | 0.01 | 0.49 |
| Avail Cap(c_a), veh/h | 472 | 217 | 3391 | 1053 | 305 | 4265 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 54.8 | 13.6 | 7.3 | 17.6 | 0.0 |
| Incr Delay (d2), s/veh | 0.5 | 1.4 | 1.6 | 0.2 | 0.0 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.8 | 13.6 | 1.0 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.0 | 56.2 | 15.2 | 7.5 | 17.6 | 0.4 |
| LnGrp LOS | D | E | B | A | B | A |
| Approach Vol, veh/h | 118 | | 2673 | | | 2082 |
| Approach Delay, s/veh | 55.4 | | 14.9 | | | 0.4 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 106.5 | | 13.5 | 20.5 | 86.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 91 | | 16.4 | * 5 | * 80 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 5.1 | 2.0 | 42.6 |
| Green Ext Time (p_c), s | | 7.1 | | 0.1 | 0.0 | 10.5 |

| Intersection Summary | | | | | | |
|------------------------------|--|--|-----|--|--|--|
| HCM 7th Control Delay, s/veh | | | 9.7 | | | |
| HCM 7th LOS | | | A | | | |

Notes
 * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 97 | 23 | 11 | 86 |
| Maximum Split (%) | 80.8% | 19.2% | 9.2% | 71.7% |
| Minimum Split (s) | 22.5 | 22.5 | 11 | 39.3 |
| Yellow Time (s) | 4.7 | 3.6 | 4 | 4.7 |
| All-Red Time (s) | 1.6 | 3 | 2 | 1.6 |
| Minimum Initial (s) | 10 | 7 | 5 | 5 |
| Vehicle Extension (s) | 1 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 7 |
| Flash Dont Walk (s) | | | | 26 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 75 | 52 | 41 | 75 |
| End Time (s) | 52 | 75 | 52 | 41 |
| Yield/Force Off (s) | 45.7 | 68.4 | 46 | 34.7 |
| Yield/Force Off 170(s) | 45.7 | 68.4 | 46 | 8.7 |
| Local Start Time (s) | 0 | 97 | 86 | 0 |
| Local Yield (s) | 90.7 | 113.4 | 91 | 79.7 |
| Local Yield 170(s) | 90.7 | 113.4 | 91 | 53.7 |

Intersection Summary

| | |
|--|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 80 |
| Offset: 75 (63%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



6: Scottsdale Road & Henkel Way

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (veh/h) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Future Volume (veh/h) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 29 | 9 | 2664 | 9 | 13 | 2154 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 139 | 64 | 4230 | 1313 | 152 | 4481 |
| Arrive On Green | 0.04 | 0.04 | 0.83 | 0.83 | 0.01 | 0.88 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 29 | 9 | 2664 | 9 | 13 | 2154 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 1.1 | 0.7 | 24.3 | 0.1 | 0.1 | 11.6 |
| Cycle Q Clear(g_c), s | 1.1 | 0.7 | 24.3 | 0.1 | 0.1 | 11.6 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 139 | 64 | 4230 | 1313 | 152 | 4481 |
| V/C Ratio(X) | 0.21 | 0.14 | 0.63 | 0.01 | 0.09 | 0.48 |
| Avail Cap(c_a), veh/h | 478 | 219 | 4230 | 1313 | 202 | 4481 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.69 | 0.69 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 60.4 | 60.2 | 4.0 | 1.9 | 4.3 | 1.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.4 | 0.5 | 0.0 | 0.2 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.6 | 5.1 | 0.0 | 0.1 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 60.7 | 60.6 | 4.5 | 1.9 | 4.6 | 2.1 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 38 | | 2673 | | | 2167 |
| Approach Delay, s/veh | 60.6 | | 4.5 | | | 2.1 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 119.8 | | 10.2 | 6.4 | 113.4 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | 4.5 | 5.7 |
| Max Green Setting (Gmax), s | | 100.8 | | 18.0 | 5.5 | 90.8 |
| Max Q Clear Time (g_c+I1), s | | 13.6 | | 3.1 | 2.1 | 26.3 |
| Green Ext Time (p_c), s | | 17.5 | | 0.0 | 0.0 | 27.8 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 3.9 | | | |
| HCM 7th LOS | | | A | | | |

6: Scottsdale Road & Henkel Way

12/08/2023

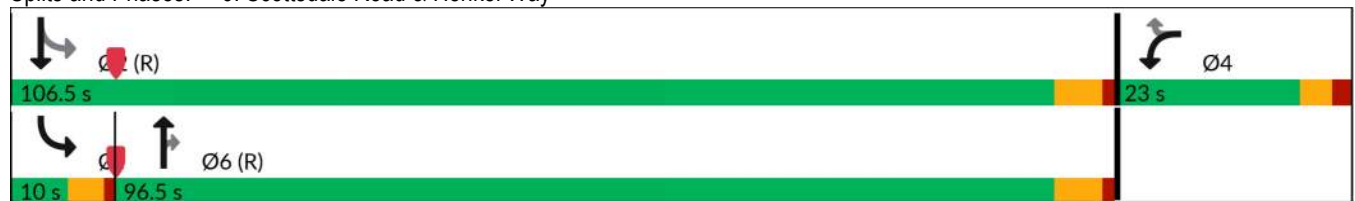


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lead | Lag |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 106.5 | 23 | 10 | 96.5 |
| Maximum Split (%) | 82.2% | 17.8% | 7.7% | 74.5% |
| Minimum Split (s) | 22.5 | 22.5 | 9.5 | 31.7 |
| Yellow Time (s) | 4.7 | 3 | 3.5 | 4.7 |
| All-Red Time (s) | 1 | 2 | 1 | 1 |
| Minimum Initial (s) | 10 | 7 | 5 | 10 |
| Vehicle Extension (s) | 2 | 2 | 3 | 2 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 4 |
| Flash Dont Walk (s) | | | | 22 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 18 | 124.5 | 18 | 28 |
| End Time (s) | 124.5 | 18 | 28 | 124.5 |
| Yield/Force Off (s) | 118.8 | 13 | 23.5 | 118.8 |
| Yield/Force Off 170(s) | 118.8 | 13 | 23.5 | 96.8 |
| Local Start Time (s) | 119.5 | 96.5 | 119.5 | 0 |
| Local Yield (s) | 90.8 | 114.5 | 125 | 90.8 |
| Local Yield 170(s) | 90.8 | 114.5 | 125 | 68.8 |

Intersection Summary

| | |
|--|----------------------|
| Cycle Length | 129.5 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 80 |
| Offset: 28 (22%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 6: Scottsdale Road & Henkel Way



6: Scottsdale Road & Henkel Way

12/08/2023

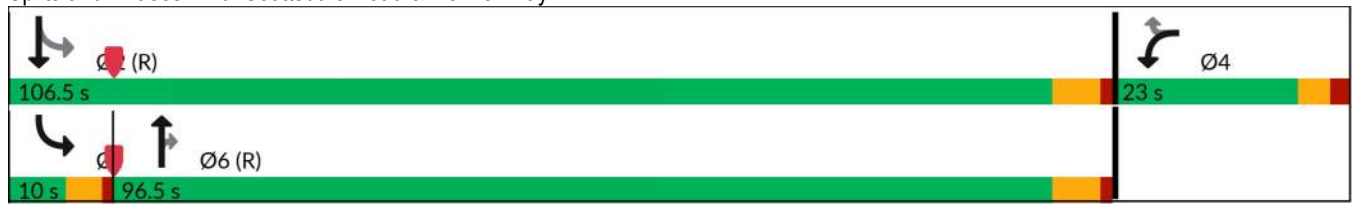


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|-------|-------|-------|-------|
| Lane Configurations | ↰↰ | ↰ | ↑↑↑ | ↷ | ↷ | ↑↑↑ |
| Traffic Volume (vph) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Future Volume (vph) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 5085 |
| Flt Permitted | 0.950 | | | | 0.036 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 67 | 5085 |
| Satd. Flow (RTOR) | | 9 | | 6 | | |
| Lane Group Flow (vph) | 29 | 9 | 2664 | 9 | 13 | 2154 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | 2 | |
| Total Split (s) | 23.0 | 23.0 | 96.5 | 96.5 | 10.0 | 106.5 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.7 | 5.7 | 4.5 | 5.7 |
| Act Effct Green (s) | 7.0 | 7.0 | 114.8 | 114.8 | 117.8 | 118.9 |
| Actuated g/C Ratio | 0.05 | 0.05 | 0.89 | 0.89 | 0.91 | 0.92 |
| v/c Ratio | 0.16 | 0.10 | 0.59 | 0.01 | 0.10 | 0.46 |
| Control Delay (s/veh) | 60.5 | 31.3 | 4.2 | 1.9 | 2.4 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 60.5 | 31.3 | 4.5 | 1.9 | 2.4 | 1.8 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 53.6 | | 4.5 | | | 1.8 |
| Approach LOS | D | | A | | | A |
| Queue Length 50th (ft) | 12 | 0 | 167 | 0 | 1 | 111 |
| Queue Length 95th (ft) | 28 | 19 | 349 | 4 | 3 | 125 |
| Internal Link Dist (ft) | 358 | | 611 | | | 258 |
| Turn Bay Length (ft) | 150 | | | 150 | 198 | |
| Base Capacity (vph) | 477 | 227 | 4507 | 1404 | 135 | 4667 |
| Starvation Cap Reductn | 0 | 0 | 1027 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.04 | 0.77 | 0.01 | 0.10 | 0.46 |

Intersection Summary

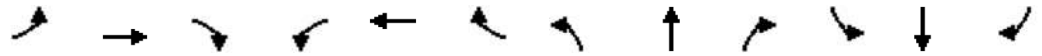
Cycle Length: 129.5
 Actuated Cycle Length: 129.5
 Offset: 28 (22%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay (s/veh): 3.7
 Intersection LOS: A
 Intersection Capacity Utilization 62.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 6: Scottsdale Road & Henkel Way



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-----|-----|-----|-------|------|------|-------|-------|-----|-----|-------|------|
| Lane Configurations | | | | ↔↔ | ↔ | ↔ | ↔↔ | ↑↑↑ | | | ↑↑↑↑ | ↔ |
| Traffic Volume (vph) | 0 | 0 | 0 | 669 | 51 | 770 | 716 | 1690 | 0 | 0 | 1454 | 555 |
| Future Volume (vph) | 0 | 0 | 0 | 669 | 51 | 770 | 716 | 1690 | 0 | 0 | 1454 | 555 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 7 | 139 | | | | | | 558 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 727 | 448 | 444 | 778 | 1837 | 0 | 0 | 1580 | 603 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3 | | 4 6 | 1 2 4 | | | | 5 |
| Permitted Phases | | | | 3 | | 3 | | | | | | 5 |
| Total Split (s) | | | | 54.7 | 54.7 | 54.7 | | | | | 27.7 | 27.7 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effct Green (s) | | | | 42.7 | 42.7 | 42.7 | 39.9 | 67.9 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | | | | 0.35 | 0.35 | 0.35 | 0.32 | 0.55 | | | 0.18 | 0.18 |
| v/c Ratio | | | | 0.61 | 0.83 | 0.73 | 0.70 | 0.65 | | | 1.17 | 0.81 |
| Control Delay (s/veh) | | | | 35.1 | 50.1 | 30.2 | 49.6 | 10.2 | | | 129.6 | 15.7 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.7 | 1.3 | | | 0.0 | 0.0 |
| Total Delay (s/veh) | | | | 35.1 | 50.1 | 30.2 | 50.3 | 11.6 | | | 129.6 | 15.7 |
| LOS | | | | D | D | C | D | B | | | F | B |
| Approach Delay (s/veh) | | | | | 37.9 | | | 23.1 | | | 98.1 | |
| Approach LOS | | | | | D | | | C | | | F | |
| Queue Length 50th (ft) | | | | 236 | 325 | 217 | 242 | 180 | | | ~369 | 31 |
| Queue Length 95th (ft) | | | | 288 | 453 | 338 | m175 | m82 | | | #435 | 182 |
| Internal Link Dist (ft) | | 996 | | | 1228 | | | 340 | | | 611 | |
| Turn Bay Length (ft) | | | | 320 | | 320 | | | | | | 400 |
| Base Capacity (vph) | | | | 1339 | 603 | 671 | 1113 | 2806 | | | 1349 | 741 |
| Starvation Cap Reductn | | | | 0 | 0 | 0 | 108 | 699 | | | 0 | 0 |
| Spillback Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Storage Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Reduced v/c Ratio | | | | 0.54 | 0.74 | 0.66 | 0.77 | 0.87 | | | 1.17 | 0.81 |

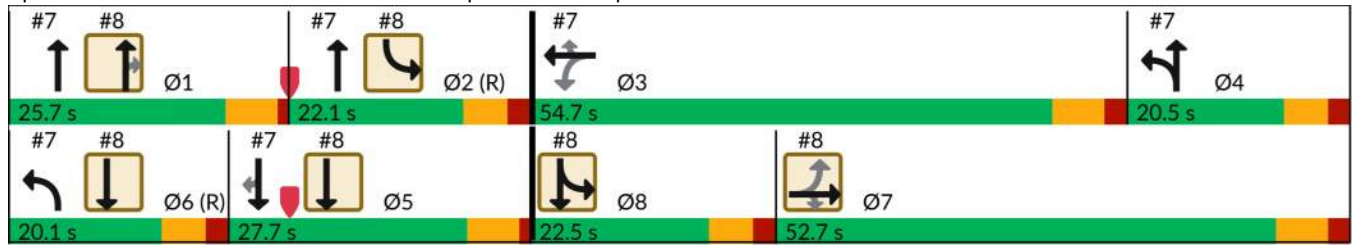
Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.63
 Intersection Signal Delay (s/veh): 52.3 Intersection LOS: D
 Intersection Capacity Utilization 89.2% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 25.7 | 22.1 | 20.5 | 20.1 | 52.7 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

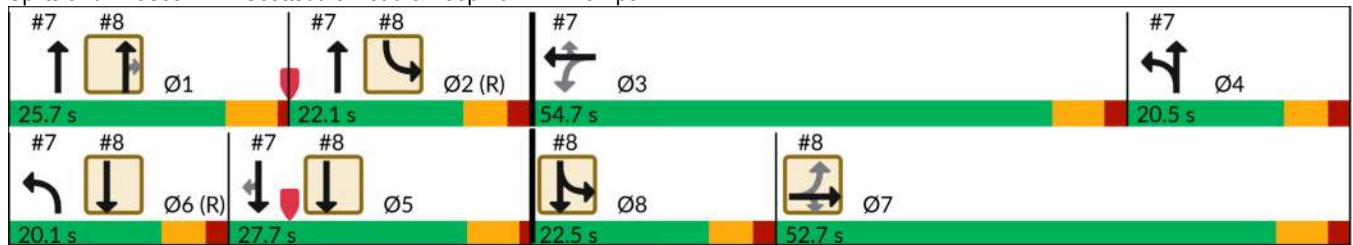


| Phase Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Node Number | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| Movement | NBT | NBT | WBTL | NBTL | SBT | NBL | EBTL | SBTL |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | C-Min | None | None | Max | C-Min | None | None |
| Maximum Split (s) | 25.7 | 22.1 | 54.7 | 20.5 | 27.7 | 20.1 | 52.7 | 22.5 |
| Maximum Split (%) | 20.9% | 18.0% | 44.5% | 16.7% | 22.5% | 16.3% | 42.8% | 18.3% |
| Minimum Split (s) | 27.7 | 22.5 | 56.7 | 22.5 | 29.7 | 22.5 | 54.7 | 22.5 |
| Yellow Time (s) | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 |
| All-Red Time (s) | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| Minimum Initial (s) | 10 | 5 | 7 | 2 | 10 | 5 | 7 | 2 |
| Vehicle Extension (s) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Minimum Gap (s) | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Walk Time (s) | 4 | | 4 | | 4 | | 4 | |
| Flash Dont Walk (s) | 18 | | 46 | | 20 | | 44 | |
| Dual Entry | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Start Time (s) | 106.3 | 9 | 31.1 | 85.8 | 3.4 | 106.3 | 53.6 | 31.1 |
| End Time (s) | 9 | 31.1 | 85.8 | 106.3 | 31.1 | 3.4 | 106.3 | 53.6 |
| Yield/Force Off (s) | 3.3 | 25.1 | 79.1 | 100.3 | 25.4 | 120.4 | 99.6 | 47.6 |
| Yield/Force Off 170(s) | 108.3 | 25.1 | 33.1 | 100.3 | 5.4 | 120.4 | 55.6 | 47.6 |
| Local Start Time (s) | 97.3 | 0 | 22.1 | 76.8 | 117.4 | 97.3 | 44.6 | 22.1 |
| Local Yield (s) | 117.3 | 16.1 | 70.1 | 91.3 | 16.4 | 111.4 | 90.6 | 38.6 |
| Local Yield 170(s) | 99.3 | 16.1 | 24.1 | 91.3 | 119.4 | 111.4 | 46.6 | 38.6 |

Intersection Summary

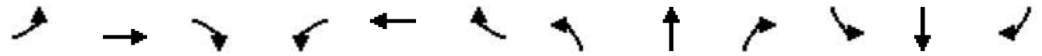
| | |
|---|----------------------|
| Cycle Length | 123 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 145 |
| Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green | |

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|------|-----|------|-----|-----|-------|------|-------|-------|-----|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 568 | 1 | 852 | 0 | 0 | 0 | 0 | 1839 | 593 | 469 | 1655 | 0 |
| Future Volume (vph) | 568 | 1 | 852 | 0 | 0 | 0 | 0 | 1839 | 593 | 469 | 1655 | 0 |
| Satd. Flow (prot) | 3433 | 1504 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 3433 | 1504 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Satd. Flow (RTOR) | | 10 | 133 | | | | | | 645 | | | |
| Lane Group Flow (vph) | 617 | 464 | 463 | 0 | 0 | 0 | 0 | 1999 | 645 | 510 | 1799 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | | 7 | | | | | | 1 | | 2 8 | 5 6 8 | |
| Permitted Phases | 7 | | 7 | | | | | | 1 | | | |
| Total Split (s) | 52.7 | 52.7 | 52.7 | | | | | 25.7 | 25.7 | | | |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 | | | |
| Act Effct Green (s) | 46.6 | 46.6 | 46.6 | | | | | 20.0 | 20.0 | 38.0 | 64.0 | |
| Actuated g/C Ratio | 0.38 | 0.38 | 0.38 | | | | | 0.16 | 0.16 | 0.31 | 0.52 | |
| v/c Ratio | 0.47 | 0.81 | 0.71 | | | | | 1.63 | 0.81 | 0.48 | 0.68 | |
| Control Delay (s/veh) | 30.6 | 46.1 | 29.8 | | | | | 321.1 | 12.6 | 16.1 | 14.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.6 | |
| Total Delay (s/veh) | 30.6 | 46.1 | 29.8 | | | | | 321.1 | 12.6 | 16.1 | 14.8 | |
| LOS | C | D | C | | | | | F | B | B | B | |
| Approach Delay (s/veh) | | 35.0 | | | | | | 245.8 | | | 15.1 | |
| Approach LOS | | D | | | | | | F | | | B | |
| Queue Length 50th (ft) | 191 | 340 | 238 | | | | | ~565 | 0 | 43 | 106 | |
| Queue Length 95th (ft) | 245 | #527 | 378 | | | | | #630 | 133 | m47 | m112 | |
| Internal Link Dist (ft) | | 1060 | | | 1321 | | | 938 | | | 340 | |
| Turn Bay Length (ft) | 200 | | 200 | | | | | | 350 | | | |
| Base Capacity (vph) | 1299 | 575 | 651 | | | | | 1226 | 797 | 1077 | 2670 | |
| Starvation Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 444 | |
| Spillback Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.47 | 0.81 | 0.71 | | | | | 1.63 | 0.81 | 0.47 | 0.81 | |

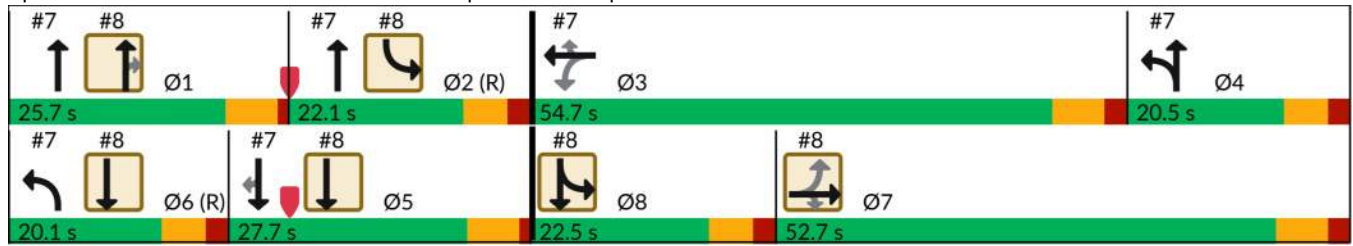
Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.63
 Intersection Signal Delay (s/veh): 113.7 Intersection LOS: F
 Intersection Capacity Utilization 89.2% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

Splits and Phases: 8: Scottsdale Road & Loop 101 EB Ramps



| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 22.1 | 54.7 | 20.5 | 27.7 | 20.1 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 31 | 378 | 16 | 0 | 413 | 26 | 0 | 0 | 24 | 0 | 0 | 204 |
| Future Vol, veh/h | 31 | 378 | 16 | 0 | 413 | 26 | 0 | 0 | 24 | 0 | 0 | 204 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 34 | 411 | 17 | 0 | 449 | 28 | 0 | 0 | 26 | 0 | 0 | 222 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 477 | 0 | 0 | - | - | 0 | - | - | 205 | - | - | 224 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1081 | - | - | 0 | - | - | 0 | 0 | 801 | 0 | 0 | 779 |
| Stage 1 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1081 | - | - | - | - | - | - | - | 801 | - | - | 779 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|------------------------|------|--|--|----|--|--|------|--|--|-------|--|--|
| HCM Control Delay, s/v | 0.62 | | | 0 | | | 9.65 | | | 11.45 | | |
| HCM LOS | | | | | | | A | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 801 | 1081 | - | - | - | - | 779 |
| HCM Lane V/C Ratio | 0.033 | 0.031 | - | - | - | - | 0.285 |
| HCM Control Delay (s/veh) | 9.6 | 8.4 | - | - | - | - | 11.5 |
| HCM Lane LOS | A | A | - | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | - | - | 1.2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↔ | ↑↑ | ↗ | ↖ | ↑↑ | | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 88 | 14 | 0 | 0 | 38 | 31 | 0 | 0 | 0 | 13 | 0 | 71 |
| Future Vol, veh/h | 88 | 14 | 0 | 0 | 38 | 31 | 0 | 0 | 0 | 13 | 0 | 71 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 110 | - | 160 | 200 | - | - | 100 | - | 100 | 150 | - | 150 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 96 | 15 | 0 | 0 | 41 | 34 | 0 | 0 | 0 | 14 | 0 | 77 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 75 | 0 | 0 | 15 | 0 | 0 | 227 | 282 | 8 | 257 | 265 | 38 |
| Stage 1 | - | - | - | - | - | - | 207 | 207 | - | 58 | 58 | - |
| Stage 2 | - | - | - | - | - | - | 21 | 75 | - | 199 | 207 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1522 | - | - | 1601 | - | - | 709 | 626 | 1072 | 675 | 640 | 1026 |
| Stage 1 | - | - | - | - | - | - | 776 | 730 | - | 947 | 846 | - |
| Stage 2 | - | - | - | - | - | - | 995 | 832 | - | 784 | 730 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1522 | - | - | 1601 | - | - | 614 | 586 | 1072 | 633 | 599 | 1026 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 614 | 586 | - | 633 | 599 | - |
| Stage 1 | - | - | - | - | - | - | 727 | 684 | - | 947 | 846 | - |
| Stage 2 | - | - | - | - | - | - | 920 | 832 | - | 735 | 684 | - |

| Approach | EB | WB | NB | SB |
|------------------------|------|----|----|------|
| HCM Control Delay, s/v | 6.49 | 0 | 0 | 9.11 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---------------------------|-------|-------|-------|-------|-----|-----|------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | - | - | - | 1522 | - | - | 1601 | - | - | 633 | - | 1026 |
| HCM Lane V/C Ratio | - | - | - | 0.063 | - | - | - | - | - | 0.022 | - | 0.075 |
| HCM Control Delay (s/veh) | 0 | 0 | 0 | 7.5 | - | - | 0 | - | - | 10.8 | 0 | 8.8 |
| HCM Lane LOS | A | A | A | A | - | - | A | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.2 | - | - | 0 | - | - | 0.1 | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | ↓ | ↑↑ | ↓ | ↑ |
| Traffic Vol, veh/h | 22 | 0 | 0 | 58 | 0 | 0 |
| Future Vol, veh/h | 22 | 0 | 0 | 58 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 0 | 0 | 63 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | | | |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0 | 0 | 24 | 0 | 55 | 12 |
| Stage 1 | - | - | - | - | 24 | - |
| Stage 2 | - | - | - | - | 32 | - |
| Critical Hdwy | - | - | 4.14 | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 | - |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver | - | - | 1589 | - | 946 | 1065 |
| Stage 1 | - | - | - | - | 995 | - |
| Stage 2 | - | - | - | - | 987 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1589 | - | 946 | 1065 |
| Mov Cap-2 Maneuver | - | - | - | - | 946 | - |
| Stage 1 | - | - | - | - | 995 | - |
| Stage 2 | - | - | - | - | 987 | - |

| Approach | EB | WB | NB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | - | - | - | - | 1589 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | - | - | 0 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 164 | 3 | 0 | 5 |
| Future Vol, veh/h | 0 | 0 | 164 | 3 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 178 | 3 | 0 | 5 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | 0 |
| Stage 1 | - | 0 |
| Stage 2 | - | 0 |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 9.19 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 865 |
| HCM Lane V/C Ratio | - | - | 0.006 |
| HCM Control Delay (s/veh) | - | - | 9.2 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0 |



Appendix I – Year 2028 No Build Capacity Analysis



1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑↑ | ↔ | ↔ | ↑↑ |
| Traffic Volume (veh/h) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Future Volume (veh/h) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 673 | 309 | 2553 | 793 | 227 | 2447 |
| Arrive On Green | 0.19 | 0.19 | 1.00 | 1.00 | 0.13 | 0.69 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 20.3 | 6.2 | 0.0 | 0.0 | 3.5 | 26.9 |
| Cycle Q Clear(g_c), s | 20.3 | 6.2 | 0.0 | 0.0 | 3.5 | 26.9 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 673 | 309 | 2553 | 793 | 227 | 2447 |
| V/C Ratio(X) | 0.89 | 0.31 | 0.87 | 0.48 | 0.26 | 0.61 |
| Avail Cap(c_a), veh/h | 922 | 423 | 2553 | 793 | 227 | 2447 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.1 | 41.4 | 0.0 | 0.0 | 47.2 | 10.0 |
| Incr Delay (d2), s/veh | 7.0 | 0.2 | 4.3 | 2.1 | 0.2 | 1.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.1 | 5.7 | 1.0 | 0.5 | 1.5 | 9.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 54.1 | 41.6 | 4.3 | 2.1 | 47.4 | 11.1 |
| LnGrp LOS | D | D | A | A | D | B |
| Approach Vol, veh/h | 696 | | 2595 | | | 1545 |
| Approach Delay, s/veh | 52.4 | | 4.0 | | | 12.5 |
| Approach LOS | D | | A | | | B |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 89.9 | | 30.1 | 22.6 | 67.3 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 74.0 | | 32.0 | 7.6 | * 60 |
| Max Q Clear Time (g_c+I1), s | | 28.9 | | 22.3 | 5.5 | 2.0 |
| Green Ext Time (p_c), s | | 1.9 | | 1.0 | 0.0 | 8.3 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 13.7 | | | |
| HCM 7th LOS | | | B | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

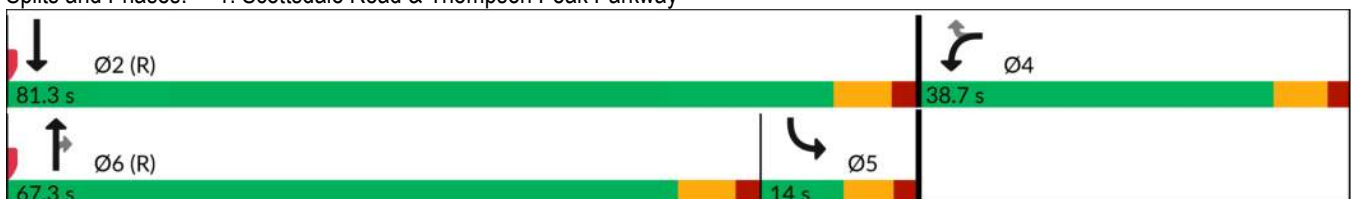


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑ |
| Traffic Volume (vph) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Future Volume (vph) | 553 | 87 | 2038 | 350 | 53 | 1368 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Satd. Flow (RTOR) | | 95 | | 337 | | |
| Lane Group Flow (vph) | 601 | 95 | 2215 | 380 | 58 | 1487 |
| Turn Type | Prot | Perm | NA | Perm | Prot | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | | |
| Total Split (s) | 38.7 | 38.7 | 67.3 | 67.3 | 14.0 | 81.3 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.3 | 7.3 | 6.4 | 7.3 |
| Act Effct Green (s) | 25.4 | 25.4 | 69.4 | 69.4 | 7.1 | 80.6 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.58 | 0.58 | 0.06 | 0.67 |
| v/c Ratio | 0.83 | 0.23 | 0.75 | 0.36 | 0.56 | 0.63 |
| Control Delay (s/veh) | 55.4 | 8.4 | 17.8 | 2.6 | 74.9 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 55.4 | 8.4 | 17.8 | 2.6 | 74.9 | 13.2 |
| LOS | E | A | B | A | E | B |
| Approach Delay (s/veh) | 49.0 | | 15.6 | | | 15.5 |
| Approach LOS | D | | B | | | B |
| Queue Length 50th (ft) | 231 | 0 | 284 | 14 | 44 | 313 |
| Queue Length 95th (ft) | 279 | 42 | 244 | 41 | #92 | 442 |
| Internal Link Dist (ft) | 572 | | 390 | | | 2341 |
| Turn Bay Length (ft) | 120 | | | 275 | 200 | |
| Base Capacity (vph) | 915 | 491 | 2942 | 1058 | 112 | 2378 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.66 | 0.19 | 0.75 | 0.36 | 0.52 | 0.63 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 88 (73%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay (s/veh): 20.4 Intersection LOS: C
 Intersection Capacity Utilization 71.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



Lokahi, LLC

Queues

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

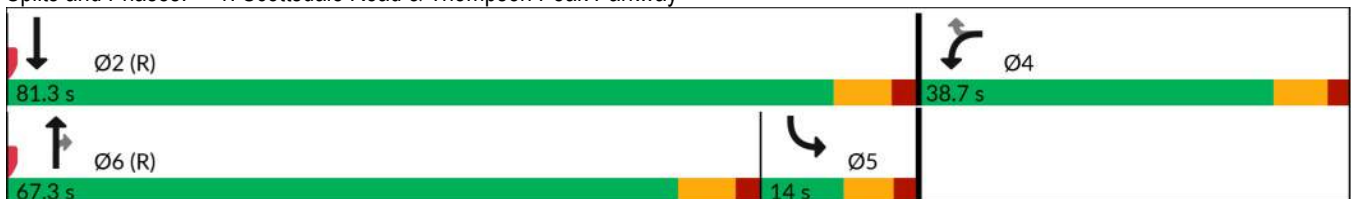


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBT | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 81.3 | 38.7 | 14 | 67.3 |
| Maximum Split (%) | 67.8% | 32.3% | 11.7% | 56.1% |
| Minimum Split (s) | 22.5 | 38.7 | 11.4 | 48.3 |
| Yellow Time (s) | 5.1 | 4.7 | 4.4 | 5.1 |
| All-Red Time (s) | 2.2 | 2 | 2 | 2.2 |
| Minimum Initial (s) | 10 | 15 | 5 | 10 |
| Vehicle Extension (s) | 0.2 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | 8 | | 4 |
| Flash Dont Walk (s) | | 24 | | 37 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 88 | 49.3 | 35.3 | 88 |
| End Time (s) | 49.3 | 88 | 49.3 | 35.3 |
| Yield/Force Off (s) | 42 | 81.3 | 42.9 | 28 |
| Yield/Force Off 170(s) | 42 | 57.3 | 42.9 | 111 |
| Local Start Time (s) | 0 | 81.3 | 67.3 | 0 |
| Local Yield (s) | 74 | 113.3 | 74.9 | 60 |
| Local Yield 170(s) | 74 | 89.3 | 74.9 | 23 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 100 |
| Offset: 88 (73%), Referenced to phase 2:SBT and 6:NBT, Start of Green | |

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 4 | 2383 | 4 | 0 | 1915 |
| Future Vol, veh/h | 0 | 4 | 2383 | 4 | 0 | 1915 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 4 | 2590 | 4 | 0 | 2082 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1295 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *546 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *546 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v11.64 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 546 |
| HCM Lane V/C Ratio | - | - | 0.008 |
| HCM Control Delay (s/veh) | - | - | 11.6 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|-------|-------|------|-------|-------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ ↑↑↑ | ↗ ↑↑↑ | ↗ ↑ | ↘ ↑↑↑ | ↘ ↑↑↑ |
| Traffic Vol, veh/h | 0 | 19 | 2369 | 23 | 5 | 1913 |
| Future Vol, veh/h | 0 | 19 | 2369 | 23 | 5 | 1913 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 100 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 21 | 2575 | 25 | 5 | 2079 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | - | 1288 | 0 | 0 | 2600 |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | 5.34 |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | 3.12 |
| Pot Cap-1 Maneuver | 0 | *546 | - | - | 165 |
| Stage 1 | 0 | - | - | - | - |
| Stage 2 | 0 | - | - | - | - |
| Platoon blocked, % | | 0 | - | - | 0 |
| Mov Cap-1 Maneuver | - | *546 | - | - | 165 |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|-------|----|------|
| HCM Control Delay, s/v | 11.85 | 0 | 0.07 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 546 | 165 |
| HCM Lane V/C Ratio | - | - | 0.038 | 0.033 |
| HCM Control Delay (s/veh) | - | - | 11.8 | 27.5 |
| HCM Lane LOS | - | - | B | D |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 0 | 2391 | 4 | 0 | 1916 |
| Future Vol, veh/h | 0 | 0 | 2391 | 4 | 0 | 1916 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2599 | 4 | 0 | 2083 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1299 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *607 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *607 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-----|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|-------|-------|
| Lane Configurations | ↔↔ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (veh/h) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Future Volume (veh/h) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 76 | 42 | 2563 | 110 | 4 | 2078 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 198 | 91 | 3391 | 1053 | 305 | 4265 |
| Arrive On Green | 0.06 | 0.06 | 0.66 | 0.66 | 0.24 | 1.00 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 76 | 42 | 2563 | 110 | 4 | 2078 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 2.5 | 3.1 | 40.6 | 3.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.5 | 3.1 | 40.6 | 3.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 198 | 91 | 3391 | 1053 | 305 | 4265 |
| V/C Ratio(X) | 0.38 | 0.46 | 0.76 | 0.10 | 0.01 | 0.49 |
| Avail Cap(c_a), veh/h | 472 | 217 | 3391 | 1053 | 305 | 4265 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 54.8 | 13.6 | 7.3 | 17.6 | 0.0 |
| Incr Delay (d2), s/veh | 0.5 | 1.4 | 1.6 | 0.2 | 0.0 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.8 | 13.6 | 1.0 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.0 | 56.2 | 15.2 | 7.5 | 17.6 | 0.4 |
| LnGrp LOS | D | E | B | A | B | A |
| Approach Vol, veh/h | 118 | | 2673 | | | 2082 |
| Approach Delay, s/veh | 55.4 | | 14.9 | | | 0.4 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 106.5 | | 13.5 | 20.5 | 86.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 91 | | 16.4 | * 5 | * 80 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 5.1 | 2.0 | 42.6 |
| Green Ext Time (p_c), s | | 7.1 | | 0.1 | 0.0 | 10.5 |

| Intersection Summary | | | | | | |
|------------------------------|--|--|-----|--|--|--|
| HCM 7th Control Delay, s/veh | | | 9.7 | | | |
| HCM 7th LOS | | | A | | | |

Notes
 * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lag | Lead |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 97 | 23 | 11 | 86 |
| Maximum Split (%) | 80.8% | 19.2% | 9.2% | 71.7% |
| Minimum Split (s) | 22.5 | 22.5 | 11 | 39.3 |
| Yellow Time (s) | 4.7 | 3.6 | 4 | 4.7 |
| All-Red Time (s) | 1.6 | 3 | 2 | 1.6 |
| Minimum Initial (s) | 10 | 7 | 5 | 5 |
| Vehicle Extension (s) | 1 | 2 | 2 | 1 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 7 |
| Flash Dont Walk (s) | | | | 26 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 75 | 52 | 41 | 75 |
| End Time (s) | 52 | 75 | 52 | 41 |
| Yield/Force Off (s) | 45.7 | 68.4 | 46 | 34.7 |
| Yield/Force Off 170(s) | 45.7 | 68.4 | 46 | 8.7 |
| Local Start Time (s) | 0 | 97 | 86 | 0 |
| Local Yield (s) | 90.7 | 113.4 | 91 | 79.7 |
| Local Yield 170(s) | 90.7 | 113.4 | 91 | 53.7 |

Intersection Summary

| | |
|--|----------------------|
| Cycle Length | 120 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 80 |
| Offset: 75 (63%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



5: Scottsdale Road & Legacy Boulevard

12/08/2023



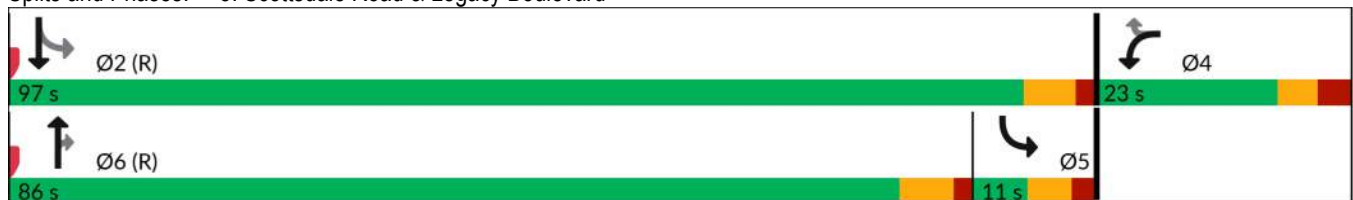
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|-------|-------|-------|-------|
| Lane Configurations | ↙↘ | ↗ | ↑↑↑ | ↗ | ↘ | ↑↑↑ |
| Traffic Volume (vph) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Future Volume (vph) | 70 | 39 | 2358 | 101 | 4 | 1912 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 5085 |
| Flt Permitted | 0.950 | | | | 0.040 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 75 | 5085 |
| Satd. Flow (RTOR) | | 42 | | 69 | | |
| Lane Group Flow (vph) | 76 | 42 | 2563 | 110 | 4 | 2078 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | 2 | |
| Total Split (s) | 23.0 | 23.0 | 86.0 | 86.0 | 11.0 | 97.0 |
| Total Lost Time (s) | 6.6 | 6.6 | 6.3 | 6.3 | 6.0 | 6.3 |
| Act Effect Green (s) | 7.6 | 7.6 | 101.2 | 101.2 | 102.5 | 103.4 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.84 | 0.84 | 0.85 | 0.86 |
| v/c Ratio | 0.35 | 0.30 | 0.60 | 0.08 | 0.03 | 0.47 |
| Control Delay (s/veh) | 58.1 | 21.5 | 5.1 | 1.6 | 2.0 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 58.1 | 21.5 | 5.1 | 1.6 | 2.0 | 1.8 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 45.1 | | 5.0 | | | 1.8 |
| Approach LOS | D | | A | | | A |
| Queue Length 50th (ft) | 29 | 0 | 184 | 4 | 0 | 74 |
| Queue Length 95th (ft) | 54 | 36 | 402 | 23 | m1 | 95 |
| Internal Link Dist (ft) | 296 | | 311 | | | 320 |
| Turn Bay Length (ft) | 240 | | | 140 | 190 | |
| Base Capacity (vph) | 469 | 252 | 4290 | 1346 | 134 | 4383 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.17 | 0.60 | 0.08 | 0.03 | 0.47 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay (s/veh): 4.6 Intersection LOS: A
 Intersection Capacity Utilization 62.1% ICU Level of Service B
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard




















Year 2028 PM No Build Peak Hour - Baseline
 Lokahi, LLC

Synchro 12 Report
 Queues

6: Scottsdale Road & Henkel Way

12/08/2023

| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|--|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |   |  |    |  |  |    |
| Traffic Volume (veh/h) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Future Volume (veh/h) | 27 | 8 | 2451 | 8 | 12 | 1982 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 29 | 9 | 2664 | 9 | 13 | 2154 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 139 | 64 | 4230 | 1313 | 152 | 4481 |
| Arrive On Green | 0.04 | 0.04 | 0.83 | 0.83 | 0.01 | 0.88 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 29 | 9 | 2664 | 9 | 13 | 2154 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 1.1 | 0.7 | 24.3 | 0.1 | 0.1 | 11.6 |
| Cycle Q Clear(g_c), s | 1.1 | 0.7 | 24.3 | 0.1 | 0.1 | 11.6 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 139 | 64 | 4230 | 1313 | 152 | 4481 |
| V/C Ratio(X) | 0.21 | 0.14 | 0.63 | 0.01 | 0.09 | 0.48 |
| Avail Cap(c_a), veh/h | 478 | 219 | 4230 | 1313 | 202 | 4481 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.69 | 0.69 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 60.4 | 60.2 | 4.0 | 1.9 | 4.3 | 1.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.4 | 0.5 | 0.0 | 0.2 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.6 | 5.1 | 0.0 | 0.1 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 60.7 | 60.6 | 4.5 | 1.9 | 4.6 | 2.1 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 38 | | 2673 | | | 2167 |
| Approach Delay, s/veh | 60.6 | | 4.5 | | | 2.1 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 119.8 | | 10.2 | 6.4 | 113.4 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | 4.5 | 5.7 |
| Max Green Setting (Gmax), s | | 100.8 | | 18.0 | 5.5 | 90.8 |
| Max Q Clear Time (g_c+I1), s | | 13.6 | | 3.1 | 2.1 | 26.3 |
| Green Ext Time (p_c), s | | 17.5 | | 0.0 | 0.0 | 27.8 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 3.9 | | | |
| HCM 7th LOS | | | A | | | |

6: Scottsdale Road & Henkel Way

12/08/2023

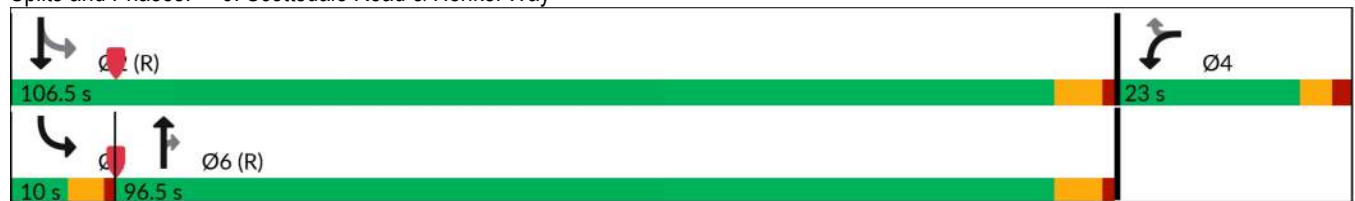


| Phase Number | 2 | 4 | 5 | 6 |
|------------------------|-------|-------|-------|-------|
| Movement | SBTL | WBL | SBL | NBT |
| Lead/Lag | | | Lead | Lag |
| Lead-Lag Optimize | | | Yes | Yes |
| Recall Mode | C-Max | None | None | C-Max |
| Maximum Split (s) | 106.5 | 23 | 10 | 96.5 |
| Maximum Split (%) | 82.2% | 17.8% | 7.7% | 74.5% |
| Minimum Split (s) | 22.5 | 22.5 | 9.5 | 31.7 |
| Yellow Time (s) | 4.7 | 3 | 3.5 | 4.7 |
| All-Red Time (s) | 1 | 2 | 1 | 1 |
| Minimum Initial (s) | 10 | 7 | 5 | 10 |
| Vehicle Extension (s) | 2 | 2 | 3 | 2 |
| Minimum Gap (s) | 3 | 3 | 3 | 3 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 |
| Walk Time (s) | | | | 4 |
| Flash Dont Walk (s) | | | | 22 |
| Dual Entry | Yes | Yes | No | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes |
| Start Time (s) | 18 | 124.5 | 18 | 28 |
| End Time (s) | 124.5 | 18 | 28 | 124.5 |
| Yield/Force Off (s) | 118.8 | 13 | 23.5 | 118.8 |
| Yield/Force Off 170(s) | 118.8 | 13 | 23.5 | 96.8 |
| Local Start Time (s) | 119.5 | 96.5 | 119.5 | 0 |
| Local Yield (s) | 90.8 | 114.5 | 125 | 90.8 |
| Local Yield 170(s) | 90.8 | 114.5 | 125 | 68.8 |

Intersection Summary

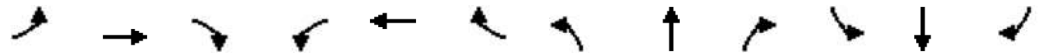
| | |
|--|----------------------|
| Cycle Length | 129.5 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 80 |
| Offset: 28 (22%), Referenced to phase 2:SBTL and 6:NBT, Start of Green | |

Splits and Phases: 6: Scottsdale Road & Henkel Way



7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-----|-----|-----|-------|------|------|-------|-------|-----|-----|-------|------|
| Lane Configurations | | | | ↔↔ | ↔ | ↔ | ↔↔ | ↑↑↑ | | | ↑↑↑↑ | ↔ |
| Traffic Volume (vph) | 0 | 0 | 0 | 669 | 51 | 770 | 716 | 1690 | 0 | 0 | 1454 | 555 |
| Future Volume (vph) | 0 | 0 | 0 | 669 | 51 | 770 | 716 | 1690 | 0 | 0 | 1454 | 555 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1536 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 7 | 139 | | | | | | 558 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 727 | 448 | 444 | 778 | 1837 | 0 | 0 | 1580 | 603 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3 | | 4 6 | 1 2 4 | | | | 5 |
| Permitted Phases | | | | 3 | | 3 | | | | | | 5 |
| Total Split (s) | | | | 54.7 | 54.7 | 54.7 | | | | | 27.7 | 27.7 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effct Green (s) | | | | 42.7 | 42.7 | 42.7 | 39.9 | 67.9 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | | | | 0.35 | 0.35 | 0.35 | 0.32 | 0.55 | | | 0.18 | 0.18 |
| v/c Ratio | | | | 0.61 | 0.83 | 0.73 | 0.70 | 0.65 | | | 1.17 | 0.81 |
| Control Delay (s/veh) | | | | 35.1 | 50.1 | 30.2 | 49.6 | 10.2 | | | 129.6 | 15.7 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.7 | 1.3 | | | 0.0 | 0.0 |
| Total Delay (s/veh) | | | | 35.1 | 50.1 | 30.2 | 50.3 | 11.6 | | | 129.6 | 15.7 |
| LOS | | | | D | D | C | D | B | | | F | B |
| Approach Delay (s/veh) | | | | | 37.9 | | | 23.1 | | | 98.1 | |
| Approach LOS | | | | | D | | | C | | | F | |
| Queue Length 50th (ft) | | | | 236 | 325 | 217 | 242 | 180 | | | ~369 | 31 |
| Queue Length 95th (ft) | | | | 288 | 453 | 338 | m175 | m82 | | | #435 | 182 |
| Internal Link Dist (ft) | | 996 | | | 1228 | | | 340 | | | 611 | |
| Turn Bay Length (ft) | | | | 320 | | 320 | | | | | | 400 |
| Base Capacity (vph) | | | | 1339 | 603 | 671 | 1113 | 2806 | | | 1349 | 741 |
| Starvation Cap Reductn | | | | 0 | 0 | 0 | 108 | 699 | | | 0 | 0 |
| Spillback Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Storage Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Reduced v/c Ratio | | | | 0.54 | 0.74 | 0.66 | 0.77 | 0.87 | | | 1.17 | 0.81 |

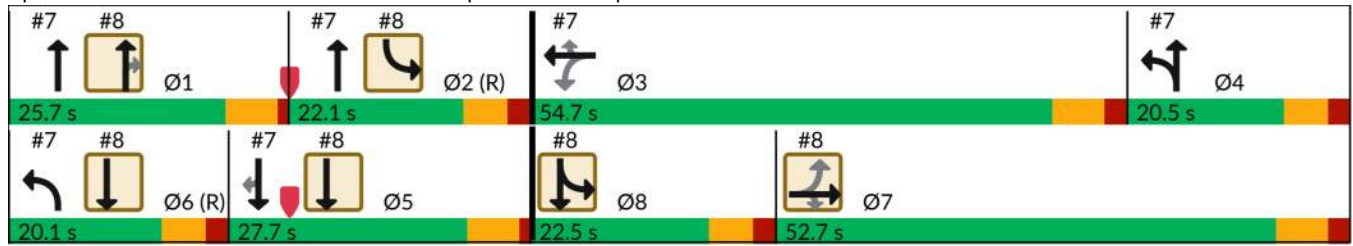
Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.63
 Intersection Signal Delay (s/veh): 52.3 Intersection LOS: D
 Intersection Capacity Utilization 89.2% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 25.7 | 22.1 | 20.5 | 20.1 | 52.7 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

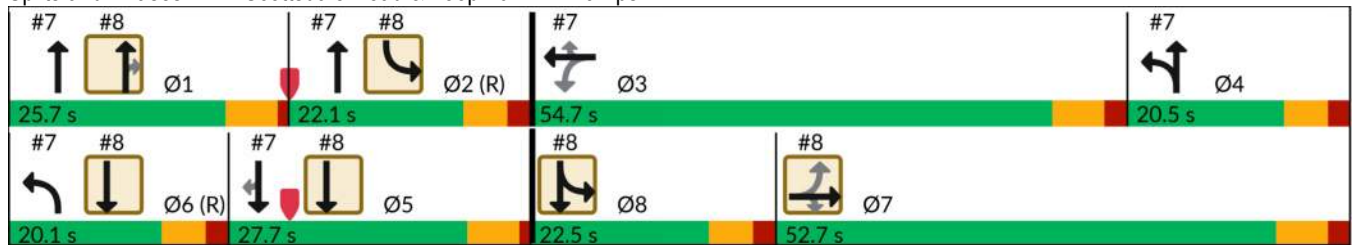


| Phase Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Node Number | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| Movement | NBT | NBT | WBTL | NBTL | SBT | NBL | EBTL | SBTL |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | C-Min | None | None | Max | C-Min | None | None |
| Maximum Split (s) | 25.7 | 22.1 | 54.7 | 20.5 | 27.7 | 20.1 | 52.7 | 22.5 |
| Maximum Split (%) | 20.9% | 18.0% | 44.5% | 16.7% | 22.5% | 16.3% | 42.8% | 18.3% |
| Minimum Split (s) | 27.7 | 22.5 | 56.7 | 22.5 | 29.7 | 22.5 | 54.7 | 22.5 |
| Yellow Time (s) | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 |
| All-Red Time (s) | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| Minimum Initial (s) | 10 | 5 | 7 | 2 | 10 | 5 | 7 | 2 |
| Vehicle Extension (s) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Minimum Gap (s) | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Walk Time (s) | 4 | | 4 | | 4 | | 4 | |
| Flash Dont Walk (s) | 18 | | 46 | | 20 | | 44 | |
| Dual Entry | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Start Time (s) | 106.3 | 9 | 31.1 | 85.8 | 3.4 | 106.3 | 53.6 | 31.1 |
| End Time (s) | 9 | 31.1 | 85.8 | 106.3 | 31.1 | 3.4 | 106.3 | 53.6 |
| Yield/Force Off (s) | 3.3 | 25.1 | 79.1 | 100.3 | 25.4 | 120.4 | 99.6 | 47.6 |
| Yield/Force Off 170(s) | 108.3 | 25.1 | 33.1 | 100.3 | 5.4 | 120.4 | 55.6 | 47.6 |
| Local Start Time (s) | 97.3 | 0 | 22.1 | 76.8 | 117.4 | 97.3 | 44.6 | 22.1 |
| Local Yield (s) | 117.3 | 16.1 | 70.1 | 91.3 | 16.4 | 111.4 | 90.6 | 38.6 |
| Local Yield 170(s) | 99.3 | 16.1 | 24.1 | 91.3 | 119.4 | 111.4 | 46.6 | 38.6 |

Intersection Summary

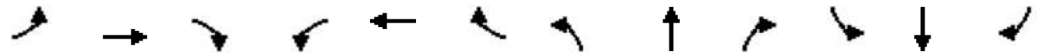
| | |
|---|----------------------|
| Cycle Length | 123 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 145 |
| Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green | |

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|------|-----|------|-----|-----|-------|------|-------|-------|-----|
| Lane Configurations | ↖↗ | ↖ | ↗ | | | | | ↑↑↑↑ | ↖ | ↖↗ | ↑↑↑ | |
| Traffic Volume (vph) | 568 | 1 | 852 | 0 | 0 | 0 | 0 | 1839 | 593 | 469 | 1655 | 0 |
| Future Volume (vph) | 568 | 1 | 852 | 0 | 0 | 0 | 0 | 1839 | 593 | 469 | 1655 | 0 |
| Satd. Flow (prot) | 3433 | 1504 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 3433 | 1504 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Satd. Flow (RTOR) | | 10 | 133 | | | | | | 645 | | | |
| Lane Group Flow (vph) | 617 | 464 | 463 | 0 | 0 | 0 | 0 | 1999 | 645 | 510 | 1799 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | | 7 | | | | | | 1 | | 2 8 | 5 6 8 | |
| Permitted Phases | 7 | | 7 | | | | | | 1 | | | |
| Total Split (s) | 52.7 | 52.7 | 52.7 | | | | | 25.7 | 25.7 | | | |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 | | | |
| Act Effct Green (s) | 46.6 | 46.6 | 46.6 | | | | | 20.0 | 20.0 | 38.0 | 64.0 | |
| Actuated g/C Ratio | 0.38 | 0.38 | 0.38 | | | | | 0.16 | 0.16 | 0.31 | 0.52 | |
| v/c Ratio | 0.47 | 0.81 | 0.71 | | | | | 1.63 | 0.81 | 0.48 | 0.68 | |
| Control Delay (s/veh) | 30.6 | 46.1 | 29.8 | | | | | 321.1 | 12.6 | 16.1 | 14.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.6 | |
| Total Delay (s/veh) | 30.6 | 46.1 | 29.8 | | | | | 321.1 | 12.6 | 16.1 | 14.8 | |
| LOS | C | D | C | | | | | F | B | B | B | |
| Approach Delay (s/veh) | | 35.0 | | | | | | 245.8 | | | 15.1 | |
| Approach LOS | | D | | | | | | F | | | B | |
| Queue Length 50th (ft) | 191 | 340 | 238 | | | | | ~565 | 0 | 43 | 106 | |
| Queue Length 95th (ft) | 245 | #527 | 378 | | | | | #630 | 133 | m47 | m112 | |
| Internal Link Dist (ft) | | 1060 | | | 1321 | | | 938 | | | 340 | |
| Turn Bay Length (ft) | 200 | | 200 | | | | | | 350 | | | |
| Base Capacity (vph) | 1299 | 575 | 651 | | | | | 1226 | 797 | 1077 | 2670 | |
| Starvation Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 444 | |
| Spillback Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.47 | 0.81 | 0.71 | | | | | 1.63 | 0.81 | 0.47 | 0.81 | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 9 (7%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.63
 Intersection Signal Delay (s/veh): 113.7 Intersection LOS: F
 Intersection Capacity Utilization 89.2% ICU Level of Service E
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

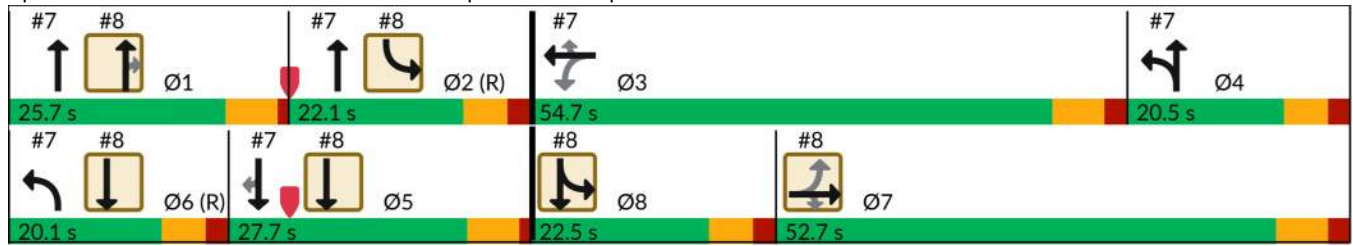
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

Splits and Phases: 8: Scottsdale Road & Loop 101 EB Ramps



| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 22.1 | 54.7 | 20.5 | 27.7 | 20.1 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 31 | 378 | 16 | 0 | 413 | 26 | 0 | 0 | 24 | 0 | 0 | 204 |
| Future Vol, veh/h | 31 | 378 | 16 | 0 | 413 | 26 | 0 | 0 | 24 | 0 | 0 | 204 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 34 | 411 | 17 | 0 | 449 | 28 | 0 | 0 | 26 | 0 | 0 | 222 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|------|--------|---|------|
| Conflicting Flow All | 477 | 0 | 0 | - | - | 0 | - | - | 205 | - | - | 224 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1081 | - | - | 0 | - | - | 0 | 0 | 801 | 0 | 0 | 779 |
| Stage 1 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Stage 2 | - | - | - | 0 | - | - | 0 | 0 | - | 0 | 0 | - |
| Platoon blocked, % | | - | - | - | - | - | - | - | | - | - | |
| Mov Cap-1 Maneuver | 1081 | - | - | - | - | - | - | - | 801 | - | - | 779 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|------------------------|------|----|------|-------|
| HCM Control Delay, s/v | 0.62 | 0 | 9.65 | 11.45 |
| HCM LOS | | | A | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 801 | 1081 | - | - | - | - | 779 |
| HCM Lane V/C Ratio | 0.033 | 0.031 | - | - | - | - | 0.285 |
| HCM Control Delay (s/veh) | 9.6 | 8.4 | - | - | - | - | 11.5 |
| HCM Lane LOS | A | A | - | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | - | - | 1.2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↔ | ↑↑ | ↗ | ↖ | ↑↑ | | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 88 | 14 | 0 | 0 | 38 | 31 | 0 | 0 | 0 | 13 | 0 | 71 |
| Future Vol, veh/h | 88 | 14 | 0 | 0 | 38 | 31 | 0 | 0 | 0 | 13 | 0 | 71 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 110 | - | 160 | 200 | - | - | 100 | - | 100 | 150 | - | 150 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 96 | 15 | 0 | 0 | 41 | 34 | 0 | 0 | 0 | 14 | 0 | 77 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 75 | 0 | 0 | 15 | 0 | 0 | 227 | 282 | 8 | 257 | 265 | 38 |
| Stage 1 | - | - | - | - | - | - | 207 | 207 | - | 58 | 58 | - |
| Stage 2 | - | - | - | - | - | - | 21 | 75 | - | 199 | 207 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1522 | - | - | 1601 | - | - | 709 | 626 | 1072 | 675 | 640 | 1026 |
| Stage 1 | - | - | - | - | - | - | 776 | 730 | - | 947 | 846 | - |
| Stage 2 | - | - | - | - | - | - | 995 | 832 | - | 784 | 730 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1522 | - | - | 1601 | - | - | 614 | 586 | 1072 | 633 | 599 | 1026 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 614 | 586 | - | 633 | 599 | - |
| Stage 1 | - | - | - | - | - | - | 727 | 684 | - | 947 | 846 | - |
| Stage 2 | - | - | - | - | - | - | 920 | 832 | - | 735 | 684 | - |

| Approach | EB | WB | NB | SB |
|------------------------|------|----|----|------|
| HCM Control Delay, s/v | 6.49 | 0 | 0 | 9.11 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---------------------------|-------|-------|-------|-------|-----|-----|------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | - | - | - | 1522 | - | - | 1601 | - | - | 633 | - | 1026 |
| HCM Lane V/C Ratio | - | - | - | 0.063 | - | - | - | - | - | 0.022 | - | 0.075 |
| HCM Control Delay (s/veh) | 0 | 0 | 0 | 7.5 | - | - | 0 | - | - | 10.8 | 0 | 8.8 |
| HCM Lane LOS | A | A | A | A | - | - | A | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | - | 0.2 | - | - | 0 | - | - | 0.1 | - | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↗ | ↘ | ↑↑ | ↘ | ↗ |
| Traffic Vol, veh/h | 22 | 0 | 0 | 58 | 0 | 0 |
| Future Vol, veh/h | 22 | 0 | 0 | 58 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 24 | 0 | 0 | 63 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 24 | 0 | 55 |
| Stage 1 | - | - | - | - | 24 |
| Stage 2 | - | - | - | - | 32 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1589 | - | 946 |
| Stage 1 | - | - | - | - | 995 |
| Stage 2 | - | - | - | - | 987 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1589 | - | 946 |
| Mov Cap-2 Maneuver | - | - | - | - | 946 |
| Stage 1 | - | - | - | - | 995 |
| Stage 2 | - | - | - | - | 987 |

| Approach | EB | WB | NB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | - | - | - | - | 1589 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | - | - | 0 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 164 | 3 | 0 | 5 |
| Future Vol, veh/h | 0 | 0 | 164 | 3 | 0 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 178 | 3 | 0 | 5 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 9.19 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 865 |
| HCM Lane V/C Ratio | - | - | 0.006 |
| HCM Control Delay (s/veh) | - | - | 9.2 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0 |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|------|------|------|------|-------|
| Lane Configurations | ↔↔ | ↔ | ↑↑↑ | ↔ | ↔ | ↑↑ |
| Traffic Volume (veh/h) | 287 | 72 | 1502 | 494 | 57 | 1810 |
| Future Volume (veh/h) | 287 | 72 | 1502 | 494 | 57 | 1810 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 312 | 78 | 1633 | 537 | 62 | 1967 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 432 | 198 | 2464 | 765 | 383 | 2695 |
| Arrive On Green | 0.12 | 0.12 | 0.16 | 0.16 | 0.22 | 0.76 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 312 | 78 | 1633 | 537 | 62 | 1967 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 10.4 | 5.4 | 36.1 | 38.5 | 3.4 | 36.0 |
| Cycle Q Clear(g_c), s | 10.4 | 5.4 | 36.1 | 38.5 | 3.4 | 36.0 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 432 | 198 | 2464 | 765 | 383 | 2695 |
| V/C Ratio(X) | 0.72 | 0.39 | 0.66 | 0.70 | 0.16 | 0.73 |
| Avail Cap(c_a), veh/h | 922 | 423 | 2464 | 765 | 383 | 2695 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.5 | 48.3 | 41.3 | 42.3 | 38.3 | 7.8 |
| Incr Delay (d2), s/veh | 0.9 | 0.5 | 1.4 | 5.3 | 0.1 | 1.8 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.4 | 4.9 | 16.6 | 17.4 | 1.5 | 10.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 51.4 | 48.8 | 42.7 | 47.6 | 38.4 | 9.6 |
| LnGrp LOS | D | D | D | D | D | A |
| Approach Vol, veh/h | 390 | | 2170 | | | 2029 |
| Approach Delay, s/veh | 50.8 | | 43.9 | | | 10.5 |
| Approach LOS | D | | D | | | B |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 98.3 | | 21.7 | 33.1 | 65.2 |
| Change Period (Y+Rc), s | | 7.3 | | 6.7 | 7.3 | * 7.3 |
| Max Green Setting (Gmax), s | | 74.0 | | 32.0 | 9.7 | * 58 |
| Max Q Clear Time (g_c+I1), s | | 38.0 | | 12.4 | 5.4 | 40.5 |
| Green Ext Time (p_c), s | | 2.9 | | 0.6 | 0.0 | 4.5 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 29.7 | | | |
| HCM 7th LOS | | | C | | | |
| Notes | | | | | | |
| User approved pedestrian interval to be less than phase max green. | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

1: Scottsdale Road & Thompson Peak Parkway

12/08/2023

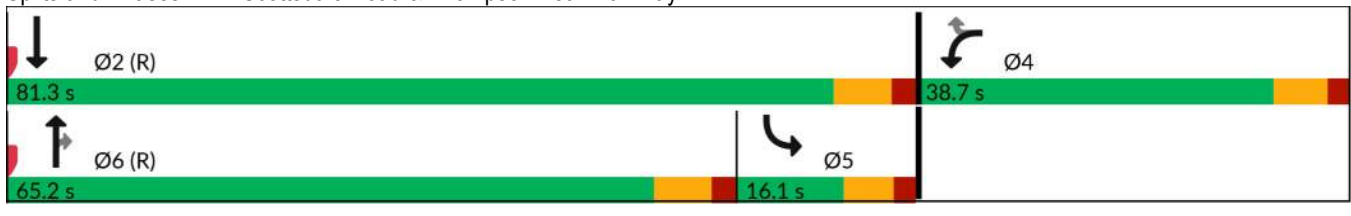


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ↖↗ | ↖ | ↑↑↑ | ↖ | ↖ | ↑↑ |
| Traffic Volume (vph) | 287 | 72 | 1502 | 494 | 57 | 1810 |
| Future Volume (vph) | 287 | 72 | 1502 | 494 | 57 | 1810 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Flt Permitted | 0.950 | | | | 0.950 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 1770 | 3539 |
| Satd. Flow (RTOR) | | 78 | | 537 | | |
| Lane Group Flow (vph) | 312 | 78 | 1633 | 537 | 62 | 1967 |
| Turn Type | Prot | Perm | NA | Perm | Prot | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | | |
| Total Split (s) | 38.7 | 38.7 | 65.2 | 65.2 | 16.1 | 81.3 |
| Total Lost Time (s) | 6.7 | 6.7 | 7.3 | 7.3 | 6.4 | 7.3 |
| Act Effct Green (s) | 16.4 | 16.4 | 76.7 | 76.7 | 8.8 | 89.6 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.64 | 0.64 | 0.07 | 0.75 |
| v/c Ratio | 0.67 | 0.28 | 0.50 | 0.45 | 0.48 | 0.74 |
| Control Delay (s/veh) | 56.4 | 12.2 | 7.1 | 2.7 | 65.6 | 11.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 56.4 | 12.2 | 7.1 | 2.7 | 65.6 | 11.2 |
| LOS | E | B | A | A | E | B |
| Approach Delay (s/veh) | 47.6 | | 6.0 | | | 12.9 |
| Approach LOS | D | | A | | | B |
| Queue Length 50th (ft) | 121 | 0 | 240 | 30 | 47 | 375 |
| Queue Length 95th (ft) | 163 | 44 | 237 | 63 | 93 | 542 |
| Internal Link Dist (ft) | 572 | | 390 | | | 2341 |
| Turn Bay Length (ft) | 120 | | | 275 | 200 | |
| Base Capacity (vph) | 915 | 479 | 3250 | 1205 | 143 | 2642 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.16 | 0.50 | 0.45 | 0.43 | 0.74 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 44 (37%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay (s/veh): 12.6 Intersection LOS: B
 Intersection Capacity Utilization 74.2% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Scottsdale Road & Thompson Peak Parkway



2: Scottsdale Road & Driveway A

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↑↑↑ | ↗ | | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 1 | 1995 | 2 | 0 | 2096 |
| Future Vol, veh/h | 0 | 1 | 1995 | 2 | 0 | 2096 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 150 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 1 | 2168 | 2 | 0 | 2278 |

| Major/Minor | Minor1 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | - | 1084 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | *605 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | 0 | - | - | - | - |
| Mov Cap-1 Maneuver | - | *605 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|----|
| HCM Control Delay, s/v10.96 | | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-------|
| Capacity (veh/h) | - | - | 605 |
| HCM Lane V/C Ratio | - | - | 0.002 |
| HCM Control Delay (s/veh) | - | - | 11 |
| HCM Lane LOS | - | - | B |
| HCM 95th %tile Q(veh) | - | - | 0 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Scottsdale Road & Driveway B

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|-------|------|------|-------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ ↑↑↑ | ↑↑↑ | ↗ | ↘ ↑↑↑ | ↑↑↑ |
| Traffic Vol, veh/h | 0 | 27 | 1970 | 8 | 5 | 2094 |
| Future Vol, veh/h | 0 | 27 | 1970 | 8 | 5 | 2094 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 100 | 150 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 29 | 2141 | 9 | 5 | 2276 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | - | 1071 | 0 0 2150 0 |
| Stage 1 | - | - | - - - - |
| Stage 2 | - | - | - - - - |
| Critical Hdwy | - | 7.14 | - - 5.34 - |
| Critical Hdwy Stg 1 | - | - | - - - - |
| Critical Hdwy Stg 2 | - | - | - - - - |
| Follow-up Hdwy | - | 3.92 | - - 3.12 - |
| Pot Cap-1 Maneuver | 0 | *605 | - - 277 - |
| Stage 1 | 0 | - | - - - - |
| Stage 2 | 0 | - | - - - - |
| Platoon blocked, % | | 0 | - - 0 - |
| Mov Cap-1 Maneuver | - | *605 | - - 277 - |
| Mov Cap-2 Maneuver | - | - | - - - - |
| Stage 1 | - | - | - - - - |
| Stage 2 | - | - | - - - - |

| Approach | WB | NB | SB |
|-----------------------------|----|----|------|
| HCM Control Delay, s/v11.25 | | 0 | 0.04 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|---------------------------|-----|----------|-------|------|
| Capacity (veh/h) | - | - | 605 | 277 |
| HCM Lane V/C Ratio | - | - | 0.048 | 0.02 |
| HCM Control Delay (s/veh) | - | - | 11.2 | 18.2 |
| HCM Lane LOS | - | - | B | C |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.1 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Scottsdale Road & Driveway C

12/08/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | ↗ | ↗↗↗ | ↗ | | ↗↗↗ |
| Traffic Vol, veh/h | 0 | 0 | 1977 | 4 | 0 | 2097 |
| Future Vol, veh/h | 0 | 0 | 1977 | 4 | 0 | 2097 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | 90 | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2149 | 4 | 0 | 2279 |

| Major/Minor | Minor1 | Major1 | Major2 | | |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | - | 1074 | 0 | 0 | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |
| Critical Hdwy | - | 7.14 | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |
| Follow-up Hdwy | - | 3.92 | - | - | - |
| Pot Cap-1 Maneuver | 0 | *666 | - | - | 0 |
| Stage 1 | 0 | - | - | - | 0 |
| Stage 2 | 0 | - | - | - | 0 |
| Platoon blocked, % | | 0 | - | - | - |
| Mov Cap-1 Maneuver | - | *666 | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - |
| Stage 1 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - |

| Approach | WB | NB | SB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT |
|---------------------------|-----|----------|-----|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s/veh) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--|------|-------|------|------|-------|-------|
| Lane Configurations | ↙↙ | ↙ | ↑↑↑ | ↘ | ↘ | ↑↑↑ |
| Traffic Volume (veh/h) | 96 | 12 | 1970 | 44 | 12 | 2085 |
| Future Volume (veh/h) | 96 | 12 | 1970 | 44 | 12 | 2085 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 104 | 13 | 2141 | 48 | 13 | 2266 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 198 | 91 | 3306 | 1026 | 368 | 4265 |
| Arrive On Green | 0.06 | 0.06 | 0.65 | 0.65 | 0.14 | 0.84 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 1781 | 5274 |
| Grp Volume(v), veh/h | 104 | 13 | 2141 | 48 | 13 | 2266 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 1781 | 1702 |
| Q Serve(g_s), s | 3.5 | 0.9 | 30.5 | 1.3 | 0.0 | 15.8 |
| Cycle Q Clear(g_c), s | 3.5 | 0.9 | 30.5 | 1.3 | 0.0 | 15.8 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 198 | 91 | 3306 | 1026 | 368 | 4265 |
| V/C Ratio(X) | 0.53 | 0.14 | 0.65 | 0.05 | 0.04 | 0.53 |
| Avail Cap(c_a), veh/h | 501 | 230 | 3306 | 1026 | 368 | 4265 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.0 | 53.8 | 12.8 | 7.7 | 15.4 | 2.9 |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 1.0 | 0.1 | 0.0 | 0.5 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.8 | 10.4 | 0.4 | 0.2 | 2.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 55.8 | 54.0 | 13.8 | 7.8 | 15.4 | 3.4 |
| LnGrp LOS | E | D | B | A | B | A |
| Approach Vol, veh/h | 117 | | 2189 | | | 2279 |
| Approach Delay, s/veh | 55.6 | | 13.7 | | | 3.5 |
| Approach LOS | E | | B | | | A |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 106.5 | | 13.5 | 22.5 | 84.0 |
| Change Period (Y+Rc), s | | * 6.3 | | 6.6 | * 6.3 | * 6.3 |
| Max Green Setting (Gmax), s | | * 90 | | 17.4 | * 6 | * 78 |
| Max Q Clear Time (g_c+I1), s | | 17.8 | | 5.5 | 2.0 | 32.5 |
| Green Ext Time (p_c), s | | 8.4 | | 0.1 | 0.0 | 7.4 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 9.7 | | | |
| HCM 7th LOS | | | A | | | |
| Notes | | | | | | |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. | | | | | | |

5: Scottsdale Road & Legacy Boulevard

12/08/2023



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|-------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ↖↗ | ↖ | ↑↑↑ | ↖ | ↖ | ↑↑↑ |
| Traffic Volume (vph) | 96 | 12 | 1970 | 44 | 12 | 2085 |
| Future Volume (vph) | 96 | 12 | 1970 | 44 | 12 | 2085 |
| Satd. Flow (prot) | 3433 | 1583 | 5085 | 1583 | 1770 | 5085 |
| Flt Permitted | 0.950 | | | | 0.067 | |
| Satd. Flow (perm) | 3433 | 1583 | 5085 | 1583 | 125 | 5085 |
| Satd. Flow (RTOR) | | 13 | | 34 | | |
| Lane Group Flow (vph) | 104 | 13 | 2141 | 48 | 13 | 2266 |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 4 | | 6 | | 5 | 2 |
| Permitted Phases | | 4 | | 6 | 2 | |
| Total Split (s) | 24.0 | 24.0 | 84.0 | 84.0 | 12.0 | 96.0 |
| Total Lost Time (s) | 6.6 | 6.6 | 6.3 | 6.3 | 6.0 | 6.3 |
| Act Effect Green (s) | 8.3 | 8.3 | 94.0 | 94.0 | 99.1 | 98.8 |
| Actuated g/C Ratio | 0.07 | 0.07 | 0.78 | 0.78 | 0.83 | 0.82 |
| v/c Ratio | 0.44 | 0.11 | 0.54 | 0.04 | 0.07 | 0.54 |
| Control Delay (s/veh) | 59.2 | 25.0 | 6.1 | 2.3 | 4.8 | 5.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay (s/veh) | 59.2 | 25.0 | 6.1 | 2.3 | 4.8 | 5.5 |
| LOS | E | C | A | A | A | A |
| Approach Delay (s/veh) | 55.4 | | 6.0 | | | 5.5 |
| Approach LOS | E | | A | | | A |
| Queue Length 50th (ft) | 40 | 0 | 140 | 2 | 2 | 190 |
| Queue Length 95th (ft) | 68 | 21 | 300 | 14 | m3 | 356 |
| Internal Link Dist (ft) | 296 | | 311 | | | 320 |
| Turn Bay Length (ft) | 240 | | | 140 | 190 | |
| Base Capacity (vph) | 497 | 240 | 3983 | 1247 | 185 | 4186 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.05 | 0.54 | 0.04 | 0.07 | 0.54 |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 115 (96%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay (s/veh): 7.0
 Intersection LOS: A
 Intersection Capacity Utilization 56.9%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Scottsdale Road & Legacy Boulevard



Year 2028 AM No Build Peak Hour - Baseline
 Lokahi, LLC

Synchro 12 Report
 Queues

6: Scottsdale Road & Henkel Way

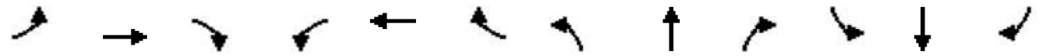
12/08/2023



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|------------------------------|------|-------|------|------|------|-------|
| Lane Configurations | ↙↘ | ↙ | ↑↑↑ | ↘ | ↙ | ↑↑↑ |
| Traffic Volume (veh/h) | 3 | 3 | 2010 | 28 | 12 | 2169 |
| Future Volume (veh/h) | 3 | 3 | 2010 | 28 | 12 | 2169 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Width Adj. | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 3 | 2185 | 30 | 13 | 2358 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 37 | 17 | 4597 | 1427 | 204 | 4597 |
| Arrive On Green | 0.01 | 0.01 | 0.90 | 0.90 | 0.90 | 0.90 |
| Sat Flow, veh/h | 3456 | 1585 | 5274 | 1585 | 174 | 5274 |
| Grp Volume(v), veh/h | 3 | 3 | 2185 | 30 | 13 | 2358 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1702 | 1585 | 174 | 1702 |
| Q Serve(g_s), s | 0.1 | 0.2 | 9.0 | 0.2 | 1.7 | 10.3 |
| Cycle Q Clear(g_c), s | 0.1 | 0.2 | 9.0 | 0.2 | 10.6 | 10.3 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 37 | 17 | 4597 | 1427 | 204 | 4597 |
| V/C Ratio(X) | 0.08 | 0.18 | 0.48 | 0.02 | 0.06 | 0.51 |
| Avail Cap(c_a), veh/h | 518 | 238 | 4597 | 1427 | 204 | 4597 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.85 | 0.85 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 58.8 | 58.8 | 1.0 | 0.6 | 2.0 | 1.1 |
| Incr Delay (d2), s/veh | 0.4 | 1.9 | 0.3 | 0.0 | 0.6 | 0.4 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d), s/veh | 59.1 | 60.7 | 1.3 | 0.6 | 2.6 | 1.5 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 6 | | 2215 | | | 2371 |
| Approach Delay, s/veh | 59.9 | | 1.3 | | | 1.5 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+Rc), s | | 113.7 | | 6.3 | | 113.7 |
| Change Period (Y+Rc), s | | 5.7 | | 5.0 | | 5.7 |
| Max Green Setting (Gmax), s | | 91.3 | | 18.0 | | 91.3 |
| Max Q Clear Time (g_c+I1), s | | 12.6 | | 2.2 | | 11.0 |
| Green Ext Time (p_c), s | | 23.0 | | 0.0 | | 18.1 |
| Intersection Summary | | | | | | |
| HCM 7th Control Delay, s/veh | | | 1.5 | | | |
| HCM 7th LOS | | | A | | | |

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-----|-----|-----|-------|------|------|-------|-------|-----|-----|-------|------|
| Lane Configurations | | | | ↔↔ | ↔ | ↔ | ↔↔ | ↑↑↑ | | | ↑↑↑↑ | ↔ |
| Traffic Volume (vph) | 0 | 0 | 0 | 436 | 5 | 550 | 409 | 1488 | 0 | 0 | 1603 | 570 |
| Future Volume (vph) | 0 | 0 | 0 | 436 | 5 | 550 | 409 | 1488 | 0 | 0 | 1603 | 570 |
| Satd. Flow (prot) | 0 | 0 | 0 | 3433 | 1508 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Flt Permitted | | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3433 | 1508 | 1504 | 3433 | 5085 | 0 | 0 | 7544 | 1583 |
| Satd. Flow (RTOR) | | | | | 14 | 190 | | | | | | 620 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 474 | 304 | 299 | 445 | 1617 | 0 | 0 | 1742 | 620 |
| Turn Type | | | | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | | | 3 | | 4 6 | 1 2 4 | | | | 5 |
| Permitted Phases | | | | 3 | | 3 | | | | | | 5 |
| Total Split (s) | | | | 54.7 | 54.7 | 54.7 | | | | | 27.7 | 27.7 |
| Total Lost Time (s) | | | | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 |
| Act Effect Green (s) | | | | 31.4 | 31.4 | 31.4 | 51.2 | 79.2 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | | | | 0.26 | 0.26 | 0.26 | 0.42 | 0.64 | | | 0.18 | 0.18 |
| v/c Ratio | | | | 0.54 | 0.77 | 0.57 | 0.31 | 0.49 | | | 1.29 | 0.78 |
| Control Delay (s/veh) | | | | 40.8 | 52.6 | 17.2 | 24.9 | 3.3 | | | 177.5 | 11.4 |
| Queue Delay | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | | | 0.0 | 0.0 |
| Total Delay (s/veh) | | | | 40.8 | 52.6 | 17.2 | 24.9 | 3.7 | | | 177.6 | 11.4 |
| LOS | | | | D | D | B | C | A | | | F | B |
| Approach Delay (s/veh) | | | | | 37.6 | | | 8.3 | | | 134.0 | |
| Approach LOS | | | | | D | | | A | | | F | |
| Queue Length 50th (ft) | | | | 168 | 226 | 74 | 93 | 46 | | | ~435 | 0 |
| Queue Length 95th (ft) | | | | 191 | 293 | 149 | m155 | 179 | | | #500 | 125 |
| Internal Link Dist (ft) | | 996 | | | 1228 | | | 340 | | | 611 | |
| Turn Bay Length (ft) | | | | 320 | | 320 | | | | | | 400 |
| Base Capacity (vph) | | | | 1339 | 597 | 702 | 1428 | 3273 | | | 1349 | 792 |
| Starvation Cap Reductn | | | | 0 | 0 | 0 | 0 | 983 | | | 0 | 0 |
| Spillback Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 17 | 0 |
| Storage Cap Reductn | | | | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 |
| Reduced v/c Ratio | | | | 0.35 | 0.51 | 0.43 | 0.31 | 0.71 | | | 1.31 | 0.78 |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.29
 Intersection Signal Delay (s/veh): 68.0 Intersection LOS: E
 Intersection Capacity Utilization 79.3% ICU Level of Service D
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

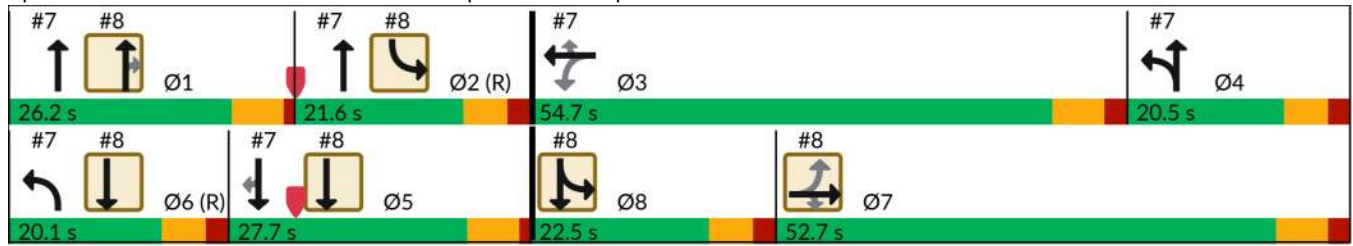
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



| Lane Group | Ø1 | Ø2 | Ø4 | Ø6 | Ø7 | Ø8 |
|-----------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 1 | 2 | 4 | 6 | 7 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 26.2 | 21.6 | 20.5 | 20.1 | 52.7 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

7: Scottsdale Road & Loop 101 WB Ramps

12/08/2023

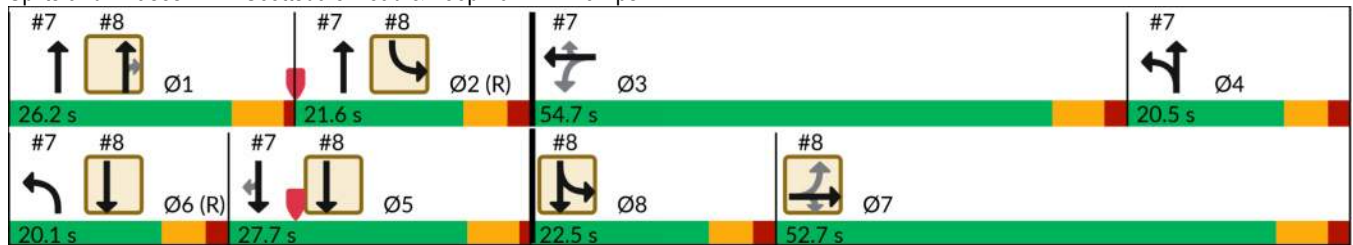


| Phase Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Node Number | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 |
| Movement | NBT | NBT | WBTL | NBTL | SBT | NBL | EBTL | SBTL |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | C-Min | None | None | Max | C-Min | None | None |
| Maximum Split (s) | 26.2 | 21.6 | 54.7 | 20.5 | 27.7 | 20.1 | 52.7 | 22.5 |
| Maximum Split (%) | 21.3% | 17.6% | 44.5% | 16.7% | 22.5% | 16.3% | 42.8% | 18.3% |
| Minimum Split (s) | 27.7 | 22.5 | 56.7 | 22.5 | 29.7 | 22.5 | 54.7 | 22.5 |
| Yellow Time (s) | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 | 4.7 | 4 |
| All-Red Time (s) | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| Minimum Initial (s) | 10 | 5 | 7 | 2 | 10 | 5 | 7 | 2 |
| Vehicle Extension (s) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Minimum Gap (s) | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| Time Before Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Time To Reduce (s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Walk Time (s) | 4 | | 4 | | 4 | | 4 | |
| Flash Dont Walk (s) | 18 | | 46 | | 20 | | 44 | |
| Dual Entry | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Inhibit Max | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Start Time (s) | 58.8 | 85 | 106.6 | 38.3 | 78.9 | 58.8 | 6.1 | 106.6 |
| End Time (s) | 85 | 106.6 | 38.3 | 58.8 | 106.6 | 78.9 | 58.8 | 6.1 |
| Yield/Force Off (s) | 79.3 | 100.6 | 31.6 | 52.8 | 100.9 | 72.9 | 52.1 | 0.1 |
| Yield/Force Off 170(s) | 61.3 | 100.6 | 108.6 | 52.8 | 80.9 | 72.9 | 8.1 | 0.1 |
| Local Start Time (s) | 96.8 | 0 | 21.6 | 76.3 | 116.9 | 96.8 | 44.1 | 21.6 |
| Local Yield (s) | 117.3 | 15.6 | 69.6 | 90.8 | 15.9 | 110.9 | 90.1 | 38.1 |
| Local Yield 170(s) | 99.3 | 15.6 | 23.6 | 90.8 | 118.9 | 110.9 | 46.1 | 38.1 |

Intersection Summary

| | |
|---|----------------------|
| Cycle Length | 123 |
| Control Type | Actuated-Coordinated |
| Natural Cycle | 135 |
| Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green | |

Splits and Phases: 7: Scottsdale Road & Loop 101 WB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

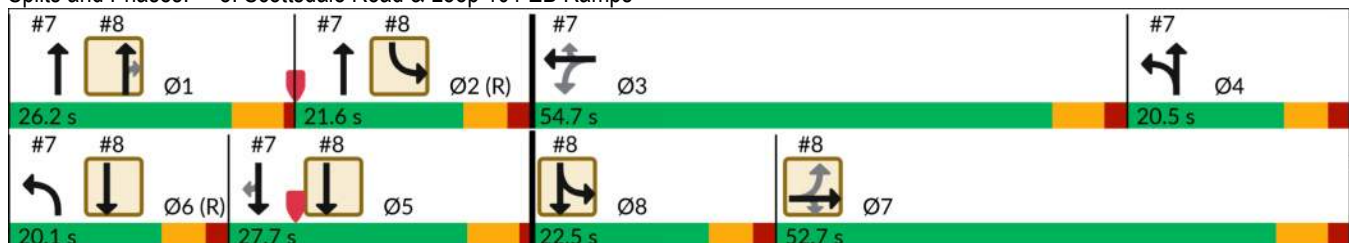


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|------|------|-----|------|-----|-----|------|------|-------|-------|-----|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 835 | 3 | 990 | 0 | 0 | 0 | 0 | 1062 | 338 | 675 | 1364 | 0 |
| Future Volume (vph) | 835 | 3 | 990 | 0 | 0 | 0 | 0 | 1062 | 338 | 675 | 1364 | 0 |
| Satd. Flow (prot) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Flt Permitted | 0.950 | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 3433 | 1506 | 1504 | 0 | 0 | 0 | 0 | 7544 | 1583 | 3433 | 5085 | 0 |
| Satd. Flow (RTOR) | | 24 | 184 | | | | | | 367 | | | |
| Lane Group Flow (vph) | 908 | 541 | 538 | 0 | 0 | 0 | 0 | 1154 | 367 | 734 | 1483 | 0 |
| Turn Type | Perm | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | | 7 | | | | | | 1 | | 2 8 | 5 6 8 | |
| Permitted Phases | 7 | | 7 | | | | | | 1 | | | |
| Total Split (s) | 52.7 | 52.7 | 52.7 | | | | | 26.2 | 26.2 | | | |
| Total Lost Time (s) | 6.7 | 6.7 | 6.7 | | | | | 5.7 | 5.7 | | | |
| Act Effct Green (s) | 45.4 | 45.4 | 45.4 | | | | | 21.7 | 21.7 | 37.5 | 65.2 | |
| Actuated g/C Ratio | 0.37 | 0.37 | 0.37 | | | | | 0.18 | 0.18 | 0.30 | 0.53 | |
| v/c Ratio | 0.72 | 0.95 | 0.80 | | | | | 0.87 | 0.63 | 0.70 | 0.55 | |
| Control Delay (s/veh) | 37.0 | 63.1 | 32.6 | | | | | 57.5 | 9.9 | 9.8 | 7.5 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 2.8 | 0.2 | |
| Total Delay (s/veh) | 37.0 | 63.1 | 32.6 | | | | | 57.5 | 9.9 | 12.5 | 7.7 | |
| LOS | D | E | C | | | | | E | A | B | A | |
| Approach Delay (s/veh) | | 42.9 | | | | | | 46.0 | | | 9.3 | |
| Approach LOS | | D | | | | | | D | | | A | |
| Queue Length 50th (ft) | 313 | 416 | 273 | | | | | 225 | 0 | 27 | 81 | |
| Queue Length 95th (ft) | 389 | #657 | 440 | | | | | #278 | 90 | m32 | m45 | |
| Internal Link Dist (ft) | | 1060 | | | 1321 | | | 938 | | | 340 | |
| Turn Bay Length (ft) | 200 | | 200 | | | | | | 350 | | | |
| Base Capacity (vph) | 1283 | 578 | 677 | | | | | 1331 | 581 | 1063 | 2720 | |
| Starvation Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 216 | 495 | |
| Spillback Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | | | | | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.71 | 0.94 | 0.79 | | | | | 0.87 | 0.63 | 0.87 | 0.67 | |

Intersection Summary

Cycle Length: 123
 Actuated Cycle Length: 123
 Offset: 85 (69%), Referenced to phase 2:NBT and 6:NBL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.29
 Intersection Signal Delay (s/veh): 30.7 Intersection LOS: C
 Intersection Capacity Utilization 79.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Scottsdale Road & Loop 101 EB Ramps



8: Scottsdale Road & Loop 101 EB Ramps

12/08/2023

| Lane Group | Ø2 | Ø3 | Ø4 | Ø5 | Ø6 | Ø8 |
|-------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | | | | | | |
| Future Volume (vph) | | | | | | |
| Satd. Flow (prot) | | | | | | |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | | | | | | |
| Satd. Flow (RTOR) | | | | | | |
| Lane Group Flow (vph) | | | | | | |
| Turn Type | | | | | | |
| Protected Phases | 2 | 3 | 4 | 5 | 6 | 8 |
| Permitted Phases | | | | | | |
| Total Split (s) | 21.6 | 54.7 | 20.5 | 27.7 | 20.1 | 22.5 |
| Total Lost Time (s) | | | | | | |
| Act Effct Green (s) | | | | | | |
| Actuated g/C Ratio | | | | | | |
| v/c Ratio | | | | | | |
| Control Delay (s/veh) | | | | | | |
| Queue Delay | | | | | | |
| Total Delay (s/veh) | | | | | | |
| LOS | | | | | | |
| Approach Delay (s/veh) | | | | | | |
| Approach LOS | | | | | | |
| Queue Length 50th (ft) | | | | | | |
| Queue Length 95th (ft) | | | | | | |
| Internal Link Dist (ft) | | | | | | |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | | | | | | |
| Starvation Cap Reductn | | | | | | |
| Spillback Cap Reductn | | | | | | |
| Storage Cap Reductn | | | | | | |
| Reduced v/c Ratio | | | | | | |
| Intersection Summary | | | | | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↑↑ | ↗ | | ↑↑ | ↗ | | | ↗ | | | ↗ |
| Traffic Vol, veh/h | 172 | 379 | 10 | 0 | 286 | 51 | 0 | 0 | 22 | 0 | 0 | 88 |
| Future Vol, veh/h | 172 | 379 | 10 | 0 | 286 | 51 | 0 | 0 | 22 | 0 | 0 | 88 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 280 | - | 150 | - | - | 150 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 187 | 412 | 11 | 0 | 311 | 55 | 0 | 0 | 24 | 0 | 0 | 96 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-----|------|--------|-----|------|
| Conflicting Flow All | 366 | 0 | 0 | - | - | 0 | - | - | 206 | - | - | 155 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 4.14 | - | - | - | - | - | - | - | 6.94 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 2.22 | - | - | - | - | - | - | - | 3.32 | - | - | 3.32 |
| Pot Cap-1 Maneuver | 1189 | - | - | 0 | - | 0 | 0 | 800 | 0 | 0 | 863 | |
| Stage 1 | - | - | - | 0 | - | 0 | 0 | - | 0 | 0 | - | |
| Stage 2 | - | - | - | 0 | - | 0 | 0 | - | 0 | 0 | - | |
| Platoon blocked, % | | - | - | | - | | | | | | | |
| Mov Cap-1 Maneuver | 1189 | - | - | - | - | - | - | 800 | - | - | 863 | |
| Mov Cap-2 Maneuver | | - | - | - | - | - | - | | - | - | | |
| Stage 1 | | - | - | - | - | - | - | | - | - | | |
| Stage 2 | | - | - | - | - | - | - | | - | - | | |

| Approach | EB | WB | NB | SB |
|------------------------|------|----|------|------|
| HCM Control Delay, s/v | 2.63 | 0 | 9.64 | 9.69 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBT | WBR | SBLn1 |
|---------------------------|-------|-------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 800 | 1189 | - | - | - | - | 863 |
| HCM Lane V/C Ratio | 0.03 | 0.157 | - | - | - | - | 0.111 |
| HCM Control Delay (s/veh) | 9.6 | 8.6 | - | - | - | - | 9.7 |
| HCM Lane LOS | A | A | - | - | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0.6 | - | - | - | - | 0.4 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↔ | ↑↑ | ↗ | ↖ | ↑↑ | | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 0 | 32 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 32 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 110 | - | 160 | 200 | - | - | 100 | - | 100 | 150 | - | 150 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 35 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 13 | 0 | 0 | 35 | 0 | 0 | 41 | 48 | 17 | 30 | 48 | 7 |
| Stage 1 | - | - | - | - | - | - | 35 | 35 | - | 13 | 13 | - |
| Stage 2 | - | - | - | - | - | - | 7 | 13 | - | 17 | 35 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1604 | - | - | 1575 | - | - | 957 | 843 | 1057 | 974 | 843 | 1074 |
| Stage 1 | - | - | - | - | - | - | 977 | 865 | - | 1005 | 884 | - |
| Stage 2 | - | - | - | - | - | - | 1014 | 884 | - | 999 | 865 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1604 | - | - | 1575 | - | - | 957 | 843 | 1057 | 974 | 843 | 1074 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 957 | 843 | - | 974 | 843 | - |
| Stage 1 | - | - | - | - | - | - | 977 | 865 | - | 1005 | 884 | - |
| Stage 2 | - | - | - | - | - | - | 1014 | 884 | - | 999 | 865 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|------------------------|----|--|--|----|--|--|----|--|--|----|--|--|
| HCM Control Delay, s/v | 0 | | | 0 | | | 0 | | | 0 | | |
| HCM LOS | | | | | | | A | | | A | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | NBLn3 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---------------------------|-------|-------|-------|------|-----|-----|------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | - | - | - | 1604 | - | - | 1575 | - | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | 0 | 0 | - | - | 0 | - | - | 0 | 0 | 0 |
| HCM Lane LOS | A | A | A | A | - | - | A | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | - | 0 | - | - | 0 | - | - | - | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | ↓ | ↑↑ | ↓ | ↑ |
| Traffic Vol, veh/h | 52 | 0 | 0 | 13 | 0 | 0 |
| Future Vol, veh/h | 52 | 0 | 0 | 13 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 140 | 250 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 0 | 0 | 14 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 57 | 0 | 64 |
| Stage 1 | - | - | - | - | 57 |
| Stage 2 | - | - | - | - | 7 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1546 | - | 935 |
| Stage 1 | - | - | - | - | 959 |
| Stage 2 | - | - | - | - | 1015 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1546 | - | 935 |
| Mov Cap-2 Maneuver | - | - | - | - | 935 |
| Stage 1 | - | - | - | - | 959 |
| Stage 2 | - | - | - | - | 1015 |

| Approach | EB | WB | NB |
|------------------------|----|----|----|
| HCM Control Delay, s/v | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|---------------------------|-------|-------|-----|-----|------|-----|
| Capacity (veh/h) | - | - | - | - | 1546 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s/veh) | 0 | 0 | - | - | 0 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | - | - | 0 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 0 | 0 | 47 | 3 | 0 | 2 |
| Future Vol, veh/h | 0 | 0 | 47 | 3 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 250 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 51 | 3 | 0 | 2 |

| Major/Minor | Major2 | Minor2 |
|----------------------|--------|--------|
| Conflicting Flow All | - | 0 |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Critical Hdwy | - | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | - | - |
| Follow-up Hdwy | - | - |
| Pot Cap-1 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |
| Platoon blocked, % | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |

| Approach | WB | SB |
|------------------------|----|------|
| HCM Control Delay, s/v | 0 | 8.55 |
| HCM LOS | | A |

| Minor Lane/Major Mvmt | WBT | WBR | SBLn1 |
|---------------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | 1017 |
| HCM Lane V/C Ratio | - | - | 0.002 |
| HCM Control Delay (s/veh) | - | - | 8.5 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | 0 |



Appendix J – Signal Warrant Analysis – Legacy Boulevard and 73rd Street

J

Warrants Summary Report

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

| | Major Street | Minor Street |
|-----------------|------------------|--------------|
| Street Name | Legacy Boulevard | 73rd Street |
| Direction | EB/WB | NB/SB |
| Number of Lanes | 2 | 1 |
| Approach Speed | 45 | 40 |

| Warrant | Met? | Notes |
|---|------|---------------------------|
| Warrant 1, Eight-Hour Vehicular Volume | | |
| | Yes | |
| Condition A or B Met? | Yes | 11 Hours met (8 required) |
| Condition A and B Met? | Yes | 8 Hours met (8 required) |
| Warrant 2, Four-Hour Vehicular Volume | | |
| | Yes | 12 Hours met (4 required) |
| Warrant 3, Peak Hour | | |
| | Yes | |
| Condition A Met? | No | 0 Hours met (1 required) |
| Condition B Met? | Yes | 12 Hours met (1 required) |
| Warrant 4, Pedestrian Volume | | |
| | No | |
| Condition A Met? | No | 0 Hours met (4 required) |
| Condition B Met? | No | 0 Hours met (1 required) |
| Warrant 5, School Crossing | | |
| | No | |

Warrant 6, Coordinated Signal System

No

Warrant 7, Crash Experience

No

Traffic Volume Cond.? Yes 12 Hours met (8 required)

Ped Condition? No 0 Hours met (8 required)

Warrant 8, Roadway Network

Yes

Warrant 9, Intersection Near a Grade Crossing

No

AWSC Warrant, Multiway Stop Application

Yes

Condition A Met? Yes

Condition B Met? No

Condition C Met? No

Warrant 1: Eight-hour Vehicular Volume

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

Major Street Name: Legacy Boulevard
 Major Street Direction: EB/WB
 Minor Street Direction: NB/SB

WARRANT 1 MET? Yes

Details:

Condition A Met? **Yes** 11 Hours met (8 required) at 70%
 Condition B Met? **No** 0 Hours met (8 required) at 70%

| Hour | Major Street Vehicles (Total of Both Approaches) | High Volume Minor Approach Vehicles | 70% Standard Met? Cond. A OR Cond. B | | 56% Standard Met? Cond. A AND Cond. B | |
|-----------------------|---|--|---|------------------------------|--|------------------------------|
| | | | Condition A 70% Column | Condition B 70% Column | Condition A 56% Column | Condition B 56% Column |
| 00:00 to 01:00 | 28 | 25 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | No | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | No | | |
| 01:00 to 02:00 | 15 | 17 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | No | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | No | | |
| 02:00 to 03:00 | 16 | 11 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | No | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | No | | |
| 03:00 to 04:00 | 20 | 21 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | No | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | No | | |

| | | | | | | | | |
|-----------------------|-----------------------------|-----------|-----------------------------|------------|-----------|-----------|-----------|-----------|
| 04:00 to 05:00 | | 71 | | 53 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-----------|-----------|-----------|-----------|
| 05:00 to 06:00 | | 156 | | 82 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-----------|-----------|-----------|-----------|
| 06:00 to 07:00 | | 301 | | 178 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | Yes | | | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | Yes | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-------------|-----------|------------|-----------|
| 07:00 to 08:00 | | 485 | | 307 | Yes* | No | Yes | No |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-------------|-----------|-------------|-------------|
| 08:00 to 09:00 | | 534 | | 401 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-------------|-----------|------------|-----------|
| 09:00 to 10:00 | | 470 | | 453 | Yes* | No | Yes | No |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|------------|-----------|
| 10:00 to 11:00 | 467 | | 482 | Yes* | No | Yes | No |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|-------------|-------------|
| 11:00 to 12:00 | 508 | | 518 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|-------------|-------------|
| 12:00 to 13:00 | 568 | | 494 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|-------------|-------------|
| 13:00 to 14:00 | 541 | | 447 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|-------------|-------------|
| 14:00 to 15:00 | 571 | | 511 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|-------------|-----------|-------------|-------------|
| 15:00 to 16:00 | 522 | | 507 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-------------|-------------|
| 16:00 to 17:00 | 535 | 530 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-------------|-------------|
| 17:00 to 18:00 | 584 | 524 | Yes* | No | Yes* | Yes* |
| Condition A | Volume >= 70% column (420)? | Yes | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | Yes | Volume >= 56% column (42)? | Yes | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|------------|-----------|
| 18:00 to 19:00 | 410 | 351 | No | No | Yes | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | Yes | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-----------|-----------|
| 19:00 to 20:00 | 322 | 238 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-----------|-----------|
| 20:00 to 21:00 | 236 | 175 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | |

| | | | | | | |
|-----------------------|-----------------------------|------------|-----------------------------|------------|-----------|-----------|
| 21:00 to 22:00 | 180 | 127 | No | No | No | No |
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | Yes | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | Yes | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | |

| 22:00 to 23:00 | | 127 | 71 | No | No | No | No |
|----------------|-----------------------------|-----|-----------------------------|-----|----|----|----|
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | Yes | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | |

| 23:00 to 00:00 | | 69 | 50 | No | No | No | No |
|----------------|-----------------------------|----|-----------------------------|-----|----|----|----|
| Condition A | Volume >= 70% column (420)? | No | Volume >= 70% column (105)? | No | | | |
| | Volume >= 56% column (336)? | No | Volume >= 56% column (84)? | No | | | |
| Condition B | Volume >= 70% column (630)? | No | Volume >= 70% column (53)? | No | | | |
| | Volume >= 56% column (504)? | No | Volume >= 56% column (42)? | Yes | | | |

Warrant 2: Four-hour Vehicular Volume

1: Year 2033 Build - Legacy Boulevard and 73rd Street

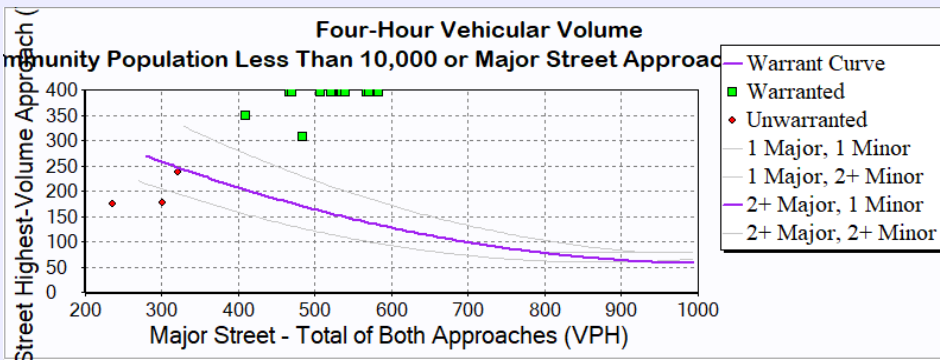
Intersection Information:

| | Major Street | Minor Street |
|-----------------|------------------|--------------|
| Street Name | Legacy Boulevard | 73rd Street |
| Direction | EB/WB | NB/SB |
| Number of Lanes | 2 | 1 |
| Approach Speed | 45 | 40 |

Warrant 2 Met? **Yes**

Details:

| | |
|-----------------|---------------------------|
| Notes | 12 Hours met (4 required) |
| Low population? | No |



Hourly Volumes

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|---------------------|---|--|
| 00:00:00 - 01:00:00 | 28.00 | 25.00 |
| 01:00:00 - 02:00:00 | 15.00 | 17.00 |
| 02:00:00 - 03:00:00 | 16.00 | 11.00 |
| 03:00:00 - 04:00:00 | 20.00 | 21.00 |
| 04:00:00 - 05:00:00 | 71.00 | 53.00 |
| 05:00:00 - 06:00:00 | 156.00 | 82.00 |
| 06:00:00 - 07:00:00 | 301.00 | 178.00 |
| 07:00:00 - 08:00:00 | 485.00 | 307.00 |
| 08:00:00 - 09:00:00 | 534.00 | 401.00 |
| 09:00:00 - 10:00:00 | 470.00 | 453.00 |
| 10:00:00 - 11:00:00 | 467.00 | 482.00 |
| 11:00:00 - 12:00:00 | 508.00 | 518.00 |
| 12:00:00 - 13:00:00 | 568.00 | 494.00 |
| 13:00:00 - 14:00:00 | 541.00 | 447.00 |
| 14:00:00 - 15:00:00 | 571.00 | 511.00 |
| 15:00:00 - 16:00:00 | 522.00 | 507.00 |
| 16:00:00 - 17:00:00 | 535.00 | 530.00 |
| 17:00:00 - 18:00:00 | 584.00 | 524.00 |
| 18:00:00 - 19:00:00 | 410.00 | 351.00 |
| 19:00:00 - 20:00:00 | 322.00 | 238.00 |
| 20:00:00 - 21:00:00 | 236.00 | 175.00 |
| 21:00:00 - 22:00:00 | 180.00 | 127.00 |
| 22:00:00 - 23:00:00 | 127.00 | 71.00 |
| 23:00:00 - 00:00:00 | 69.00 | 50.00 |

Warranted Volumes

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|---------------------|--|---|
| 07:00:00 - 08:00:00 | 485.00 | 307.00 |
| 08:00:00 - 09:00:00 | 534.00 | 401.00 |
| 09:00:00 - 10:00:00 | 470.00 | 453.00 |
| 10:00:00 - 11:00:00 | 467.00 | 482.00 |
| 11:00:00 - 12:00:00 | 508.00 | 518.00 |
| 12:00:00 - 13:00:00 | 568.00 | 494.00 |
| 13:00:00 - 14:00:00 | 541.00 | 447.00 |
| 14:00:00 - 15:00:00 | 571.00 | 511.00 |
| 15:00:00 - 16:00:00 | 522.00 | 507.00 |
| 16:00:00 - 17:00:00 | 535.00 | 530.00 |
| 17:00:00 - 18:00:00 | 584.00 | 524.00 |
| 18:00:00 - 19:00:00 | 410.00 | 351.00 |

Warrant 3: Peak Hour

1: Year 2033 Build - Legacy Boulevard and 73rd Street

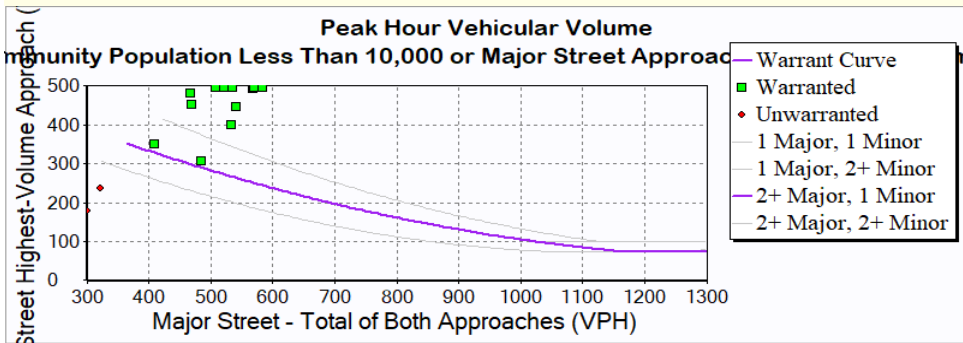
Intersection Information:

| | Major Street | Minor Street |
|-----------------|------------------|--------------|
| Street Name | Legacy Boulevard | 73rd Street |
| Direction | EB/WB | NB/SB |
| Number of Lanes | 2 | 1 |
| Approach Speed | 45 | 40 |

Warrant 3 Met? Yes

Details

| | | | |
|---|---|------------------|---|
| Low Population? | No | | |
| Condition A Met? | No | Condition B Met? | Yes |
| Notes | 0 Hours met (1 required) | Notes | 12 Hours met (1 required) |
| Minor Approach Time Delay Condition Met? | Not Met | | |
| Minor Approach Volume Condition Met? | Met | | |
| Total Entering Intersection Volume Condition Met? | Not Met | | |



| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------------|--|---|
| 0:00 | 28 | 25 |
| 1:00 | 15 | 17 |
| 2:00 | 16 | 11 |
| 3:00 | 20 | 21 |
| 4:00 | 71 | 53 |
| 5:00 | 156 | 82 |
| 6:00 | 301 | 178 |
| 7:00 | 485 | 307 |
| 8:00 | 534 | 401 |
| 9:00 | 470 | 453 |
| 10:00 | 467 | 482 |
| 11:00 | 508 | 518 |
| 12:00 | 568 | 494 |
| 13:00 | 541 | 447 |
| 14:00 | 571 | 511 |
| 15:00 | 522 | 507 |
| 16:00 | 535 | 530 |
| 17:00 | 584 | 524 |
| 18:00 | 410 | 351 |
| 19:00 | 322 | 238 |
| 20:00 | 236 | 175 |
| 21:00 | 180 | 127 |
| 22:00 | 127 | 71 |
| 23:00 | 69 | 50 |

Warrant 4: Pedestrian Volume

1: Year 2033 Build - Legacy Boulevard and 73rd Street

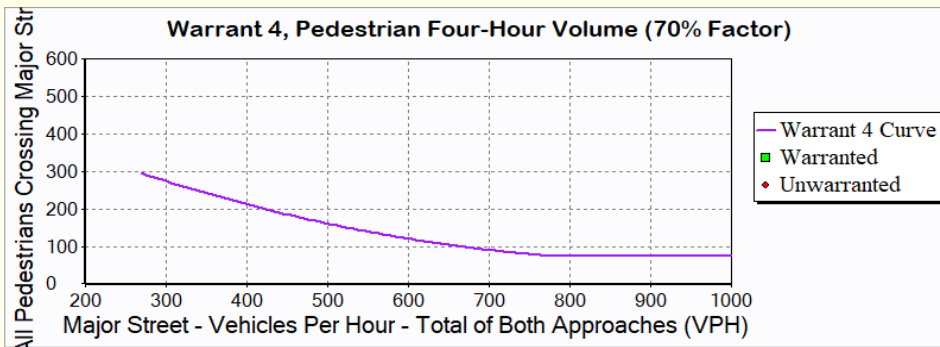
Intersection Information:

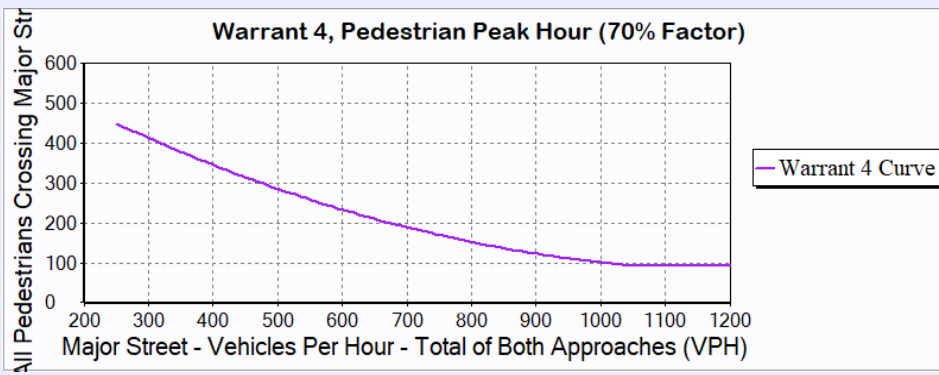
| | Major Street | Minor Street |
|-----------------|------------------|--------------|
| Street Name | Legacy Boulevard | 73rd Street |
| Direction | EB/WB | NB/SB |
| Number of Lanes | 2 | 1 |
| Approach Speed | 45 | 40 |

WARRANT 4 MET ? No

Details

| | | | |
|---|----|-------|--------------------------|
| Pedestrian Four Hour Volume Warrant Met? | No | | |
| Pedestrian Peak Hour Warrant Met? | No | Notes | 0 Hours met (4 required) |
| Speed Limit or 85th Percentile Speed on Major Street > 35mph, or Intersection lies within an Isolated Community with Population < 10,000? | | | Yes |





Warrant 5: School Crossing

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

| | |
|------------------------|------------------|
| Major Street Name | Legacy Boulevard |
| Major Street Direction | EB/WB |

WARRANT 5 MET? **No**

Details:

| | |
|--|-----------|
| Time Period Interval for Students Crossing (min) | 0 |
| Number of Students Crossing in Time Period | 0 |
| Number of Adequate Gaps in Time Period | 0 |
| Other Remedial Measures Attempted? | No |
| Adjacent Signal on EB approach? | No |
| Distance to signal on EB Approach (ft) | - |
| Adjacent Signal on WB approach? | No |
| Distance to signal on WB Approach (ft) | - |
| Will New Signal Restrict Progressive Traffic? | No |

Warrant 6: Coordinated Signal System

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

Major Street Name Legacy Boulevard
Major Street Direction EB/WB

WARRANT 6 MET? **No**

Details:

| Approach Direction & Name | Acceptable Platooning? | Adjacent Coordinating Signal? | Adjacent Intersection Distance |
|--------------------------------|------------------------|-------------------------------|--------------------------------|
| SB Approach (73rd Street) | Yes | No | N/A |
| NB Approach (73rd Street) | Yes | No | N/A |
| WB Approach (Legacy Boulevard) | Yes | No | N/A |
| EB Approach (Legacy Boulevard) | Yes | No | N/A |

Unacceptable Platooning?
(At least one approach)

No

Distance to Closest Signal
(Must be N/A or > 1000)

N/A

Warrant 7: Crash Experience

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

Major Street Name Legacy Boulevard
 Major Street Direction EB/WB
 Minor Street Direction NB/SB

WARRANT 7 MET? No

Details:

| | | | |
|--------------------------------|--|--|--|
| Low Population? | No | Traffic Volume Condition Met? | Yes |
| Major Street Speed Limit | 45 | | 12 Hours Met (8 Required) |
| Major Street 85th-% tile Speed | 0.00 | Ped Volume Condition Met? | No |
| | | | 0 Hours Met (8 Required) |
| Qualifying Crashes | | 0 | |
| Adequate Alternative Trials? | | No | |

| Hour | Traffic Volumes | | | | Pedestrian Volumes | | | |
|----------------|-----------------------|-----------------------|-----------------------------|-------------|------------------------|--|------------------------|-------|
| | Major Street Vehicles | Minor Street Vehicles | 80% Standard Met? A or B | | Northbound Ped Volumes | | Southbound Ped Volumes | |
| | | | Condition A | Condition B | Peds | > 80? | Peds | > 80? |
| 00:00 to 01:00 | 28 | 25 | No | No | 0 | No | 0 | No |
| 01:00 to 02:00 | 15 | 17 | No | No | 0 | No | 0 | No |
| 02:00 to 03:00 | 16 | 11 | No | No | 0 | No | 0 | No |
| 03:00 to 04:00 | 20 | 21 | No | No | 0 | No | 0 | No |
| 04:00 to 05:00 | 71 | 53 | No | No | 0 | No | 0 | No |
| 05:00 to 06:00 | 156 | 82 | No | No | 0 | No | 0 | No |
| 06:00 to 07:00 | 301 | 178 | No | No | 0 | No | 0 | No |

| | | | | | | | | |
|----------------|-----|-----|------|------|---|----|---|----|
| 07:00 to 08:00 | 485 | 307 | Yes* | No* | 0 | No | 0 | No |
| 08:00 to 09:00 | 534 | 401 | Yes* | Yes* | 0 | No | 0 | No |
| 09:00 to 10:00 | 470 | 453 | Yes* | No* | 0 | No | 0 | No |
| 10:00 to 11:00 | 467 | 482 | Yes* | No* | 0 | No | 0 | No |
| 11:00 to 12:00 | 508 | 518 | Yes* | Yes* | 0 | No | 0 | No |
| 12:00 to 13:00 | 568 | 494 | Yes* | Yes* | 0 | No | 0 | No |
| 13:00 to 14:00 | 541 | 447 | Yes* | Yes* | 0 | No | 0 | No |
| 14:00 to 15:00 | 571 | 511 | Yes* | Yes* | 0 | No | 0 | No |
| 15:00 to 16:00 | 522 | 507 | Yes* | Yes* | 0 | No | 0 | No |
| 16:00 to 17:00 | 535 | 530 | Yes* | Yes* | 0 | No | 0 | No |
| 17:00 to 18:00 | 584 | 524 | Yes* | Yes* | 0 | No | 0 | No |
| 18:00 to 19:00 | 410 | 351 | Yes* | No* | 0 | No | 0 | No |
| 19:00 to 20:00 | 322 | 238 | No | No | 0 | No | 0 | No |
| 20:00 to 21:00 | 236 | 175 | No | No | 0 | No | 0 | No |
| 21:00 to 22:00 | 180 | 127 | No | No | 0 | No | 0 | No |
| 22:00 to 23:00 | 127 | 71 | No | No | 0 | No | 0 | No |
| 23:00 to 00:00 | 69 | 50 | No | No | 0 | No | 0 | No |

Warrant 8: Roadway Network

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

Major Street Name Legacy Boulevard
 Major Street Direction EB/WB
 Minor Street Direction NB/SB

WARRANT 8 MET? (A or B) Yes

Details:

| | Growth Rates % (per year) | | | |
|---|---------------------------|------|------|------|
| | NB | SB | EB | WB |
| L | 0.00 | 0.00 | 0.00 | 0.00 |
| T | 0.00 | 0.00 | 0.00 | 0.00 |
| R | 0.00 | 0.00 | 0.00 | 0.00 |

| <u>Condition A, Total Entering Volume</u> | | <u>Condition B, Non-normal Business Day</u> | |
|---|---|---|---------------|
| | | <u>Existing</u> | <u>Future</u> |
| Existing Peak Hour | 1,344 | Highest Hour | 0 |
| Years | 0.00 | Second Highest Hour | 0 |
| Future Peak Hour | 1,344 | Third Highest Hour | 0 |
| Warrant 1 in 5 Years? | No | Fourth Highest Hour | 0 |
| Warrant 2 in 5 Years? | Yes | Fifth Highest Hour | 0 |
| Warrant 3 in 5 Years? | Yes | Yearly Growth Rate (%) | 0.00 |
| | | Years | 0.00 |

Condition A Met? Yes

Condition B Met? No

Warrant 9: Intersection Near a Grade Crossing

1: Year 2033 Build - Legacy Boulevard and 73rd Street

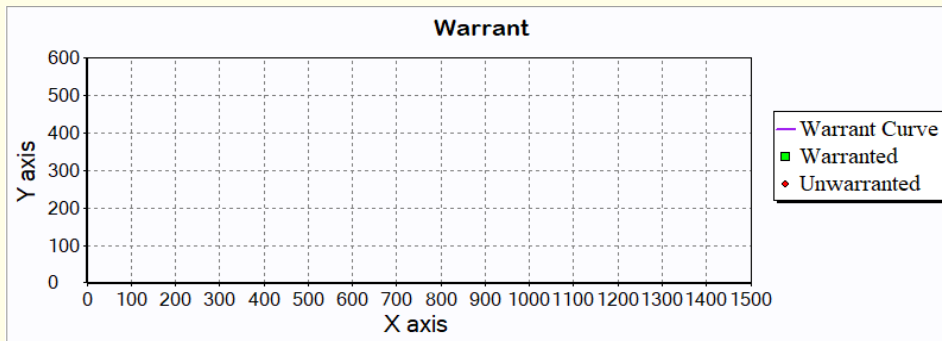
Intersection Information:

| | Major Street | Minor Street |
|-----------------|------------------|--------------|
| Street Name | Legacy Boulevard | 73rd Street |
| Direction | EB/WB | NB/SB |
| Number of Lanes | 2 | 1 |
| Approach Speed | 45 | 40 |

WARRANT 9 MET ? No

Details

| | | |
|--|--------------|-------------------|
| Note No approach with a railroad grade crossing | | |
| Minor street approach having a grade crossing | | |
| Distance from the center of the track to the stop or yield line | Interpolated | |
| Number of occurrences of rail traffic per day | | Adjustment Factor |
| Percentage of high-occupancy buses crossing the track (%) | | Adjustment Factor |
| Percentage of tractor-trailer trucks crossing the track (%) | | Adjustment Factor |
| The rail traffic arrival times are unknown, the highest traffic volume hour of the day is used | | |



| Hour | Major Street Total of Both Approaches (vph) | Minor Street Adjusted Volume Crossing Tracks (vph) |
|------|--|---|
| | | |

All-Way Stop Control Warrant: Multiway Stop Applications

1: Year 2033 Build - Legacy Boulevard and 73rd Street

Intersection Information:

Major Street Name: Legacy Boulevard

Major Street Direction: EB/WB

Minor Street Direction: NB/SB

AWSC WARRANT MET? Yes

Details:

| | | | |
|------------------|-----|--------------------------------|------|
| Condition A Met? | Yes | Qualifying Crashes | 0 |
| Condition B Met? | No | Major Street 85th %-tile Speed | 0.00 |
| Condition C Met? | No | Major Street Speed Limit | 45 |

Notes: Delay for highest hour < 30 sec/veh

| Hour | Traffic Volumes | | Bicycle Volumes | | Ped Volumes | | Condition C | | |
|----------------|-----------------|--------------|----------------------------|-----------------------------|------------------------|-------------------------|-------------------------------|---|------------|
| | Major Street | Minor Street | East Bound Bicycle Volumes | North Bound Bicycle Volumes | East Bound Ped Volumes | North Bound Ped Volumes | Major Street Veh Volume > 300 | Minor Street Avg(Veh + Ped + Bicycle) > 200 | Delay > 30 |
| 06:00 to 07:00 | 301 | 266 | 0 | 0 | 0 | 0 | False | No | No |
| 07:00 to 08:00 | 485 | 467 | 0 | 0 | 0 | 0 | False | No | No |
| 08:00 to 09:00 | 534 | 564 | 0 | 0 | 0 | 0 | False | No | No |
| 09:00 to 10:00 | 470 | 581 | 0 | 0 | 0 | 0 | False | No | No |
| 10:00 to 11:00 | 467 | 612 | 0 | 0 | 0 | 0 | False | No | No |
| 11:00 to 12:00 | 508 | 694 | 0 | 0 | 0 | 0 | False | No | No |
| 12:00 to 13:00 | 568 | 718 | 0 | 0 | 0 | 0 | False | No | No |
| 13:00 to 14:00 | 541 | 631 | 0 | 0 | 0 | 0 | False | No | No |
| 14:00 to 15:00 | 571 | 650 | 0 | 0 | 0 | 0 | False | No | No |
| 15:00 to 16:00 | 522 | 651 | 0 | 0 | 0 | 0 | False | No | No |
| 16:00 to 17:00 | 535 | 736 | 0 | 0 | 0 | 0 | False | No | No |
| 17:00 to 18:00 | 584 | 760 | 0 | 0 | 0 | 0 | False | No | No |
| 18:00 to 19:00 | 410 | 500 | 0 | 0 | 0 | 0 | False | No | No |
| 19:00 to 20:00 | 322 | 384 | 0 | 0 | 0 | 0 | False | No | No |