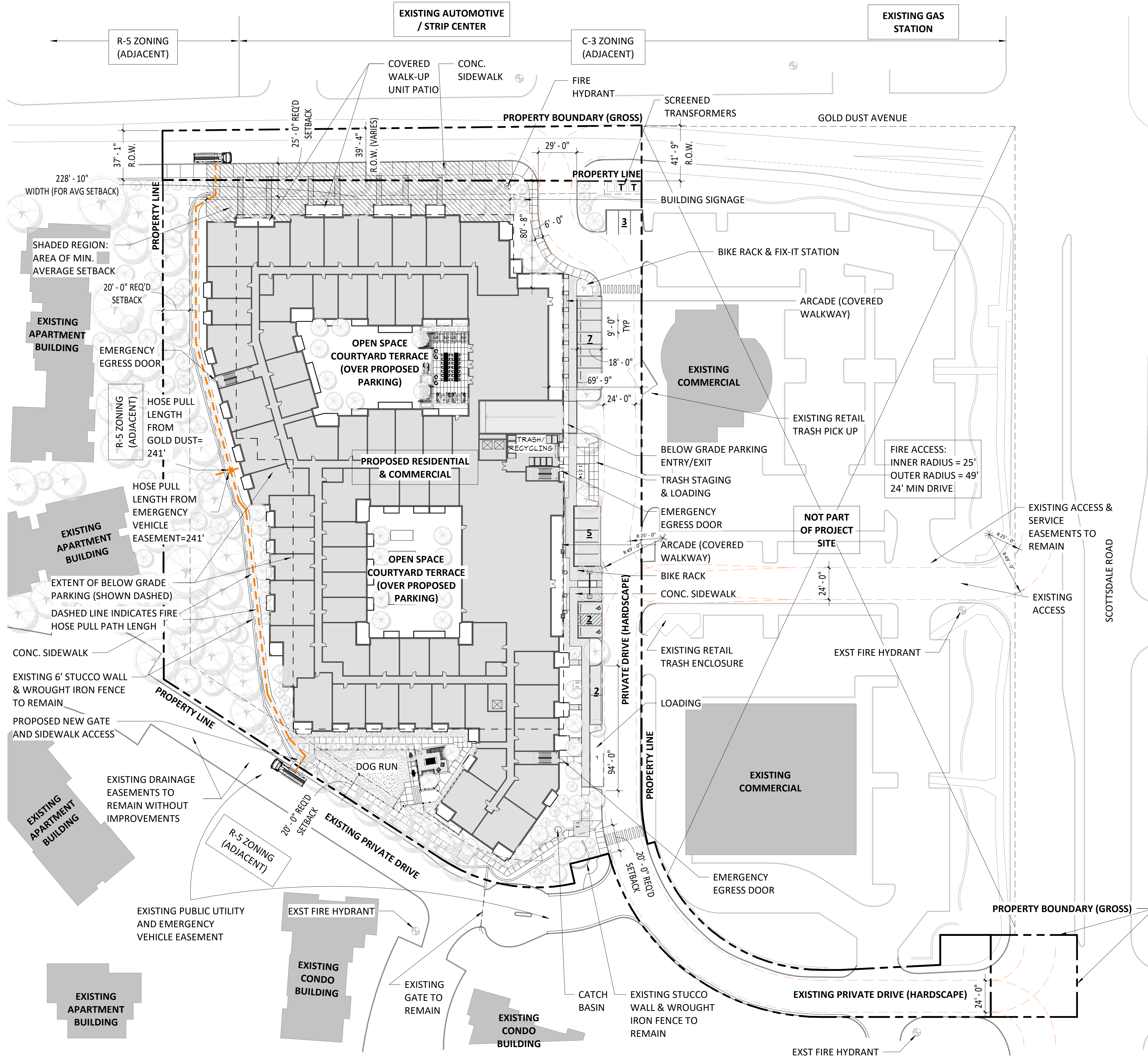






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PROJECT DATA SUMMARY

Case No:	TBD
Project Address:	TBD - 10050 N. Scottsdale Rd (existing per County) Scottsdale, AZ 85253
APN:	175-56-002H
OS:	28-44
General Plan Land Use:	Existing - Commercial Proposed - Mixed-Use Neighborhoods
Zoning Classification:	Existing - C-2 (Central Business) Proposed - PUD (Planned Unit Development)
Site Area (Gross):	202,217 SF (4.642 acres) --- 0.5 min to 15 acres max.
Site Area (Net):	183,996 SF (4.224 acres)
Common Open Space required:	20,222 SF (10% of gross site area)
Common Open Space proposed:	53,084 SF (26% of gross site area) -- Refer to Open Space Exhibit
Outdoor Living Space required:	varies based on unit type --- 0.05 x gross floor area of the dwelling unit
Outdoor Living Space proposed:	varies based on unit type; project meets standard
FAR allowed (Overall Net site area):	Commercial uses: 0.8 FAR max. (0.8 x 183,996 SF (net) = 147,197 SF) Co-Working: 5,000 SF Fitness/Yoga Studio: 2,500 SF Live/Work Units: 3,870 SF Total: 11,370 SF
FAR proposed (Overall Net site area):	0.06 FAR (11,370 SF/183,996 SF (net) = 0.062) -- project will not exceed 0.8 FAR for Commercial (non-residential) uses
Residential density proposed:	54.72 DU/acre (254 DU/4.642 acres)
Total Units proposed:	254 total units 1-bedroom = 186 units 2-bedroom = 63 units 3-bedroom = 5 units
Total Bedrooms proposed:	327 bedrooms
Live/Work Housing proposed:	7 units
Workforce Housing proposed:	25 units (10% of units)
Ground Level proposed:	Current Non-Res SF total at Level 1: 11,370 (15% of total Level 1 SF -- 11,370/77,347 = .147)
Stepbacks required:	At Gold Dust Avenue (north) - a 1:1 Vertical Rise beginning 36' to 48' above Setback Line, then 2:1 Vertical Rise. At Private Drive (east) - N/A At Scottsdale Rd (east, Arterial Street) - a 1:1 Vertical Rise beginning 36' to 48' above Setback Line, then 2:1 Vertical Rise. At R-5 Zoning (southwest) - a 1:2 Vertical Rise from Property Line/District Boundary. At R-5 Zoning (west) - a 1:2 Vertical Rise from Property Line/District Boundary.
Stepbacks proposed:	No encroachments, except as shown in building sections -- adjacent to R-5 Zoning at west and adjacent to R-5 Zoning at south
Setbacks required:	At Gold Dust Avenue (north, Unclassified Street) - 25' Min. (Residential), 23' Min. (Ret./Comm.) and 30' Min. Avg. (Residential), 28' Min. Avg. (Ret./Comm.) -- from back of curb At Private Drive (east) -- N/A At Scottsdale Road (east, Arterial Street) - 34' Min. (Residential), 28' Min. (Ret./Comm.) and 40' Min. Avg. (Residential), 32' Min. Avg. (Ret./Comm.) -- from back of curb At R-5 Zoning (west, southwest and southeast) - 20' Min. -- from District Boundary
Setbacks proposed:	Gold Dust min. avg. setback 38"-11" (8914 SF setback area / 228.83 FT width front facade = 38.95 FT) No encroachments except as shown in floor plans -- adjacent to R-5 Zoning at south
Building Height allowed:	48'-0" maximum with 10'-0" overage allowed for certain roof elements covering no more than 30% of rooftop area
Building Height proposed:	57' max., no more than 30% of building area; otherwise 48'-0" + mechanical/rooftop screening features per ordinance

PARKING METRICS:

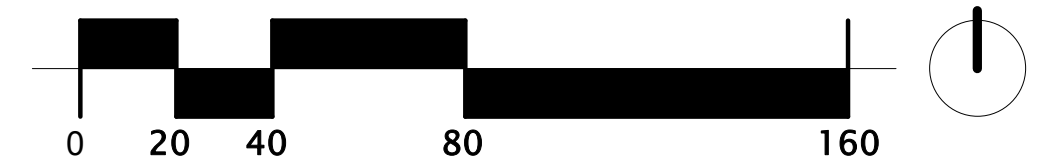
VEHICLE PARKING QUANTITY		
Yoga, Gym (Fitness Studio) = 1:250 SF of GFA = 2,500 GFA nonres / 250 = 10	10 spaces req.	-
Co-Working (Office) = 1:300 SF of GFA = 5,000 GFA / 300 = 16.7 = 17	17 spaces req.	-
Live/Work Units (Office area) = 1:300 SF of GFA = 3,870 GFA of Office area / 300 = 12.9 = 13	13 spaces req.	-
Guest: 1 per 6 units (= 254 / 6 = 42.33 = 43)	43 spaces req.	-
1BR: 1.3 spaces/unit (= 1.3 x 186 = 241.8 = 242)	242 spaces req.	-
2BR: 1.7 spaces/unit (= 1.7 x 63 = 107.1 = 108)	108 spaces req.	-
3BR: 1.9 spaces/unit (= 1.9 x 5 = 9.5 = 10)	10 spaces req.	-
	Total Residential: 403 spaces req.	-
Accessible parking = 4% of the provided	415 provided (within structure)	415 provided (within structure)
Within Structure: 415 x .04 = 16.6 = 17 spaces	17 spaces req. (within structure)	18 accessible provided (within structure)
		(415+18=433 provided (within structure, incl. accessible))
Surface: 16 x .04 = 0.64 = 1 space	1 space req. (surface)	16 provided (surface)
		3 accessible provided (surface)
		(16+3=19 provided (surface, incl. accessible))
	Total Parking: 443 spaces req.	452 Total provided (incl. accessible stalls)
BICYCLE PARKING QUANTITY		
2 spaces for every 40 vehicular pkg spcs (max. 100 req'd)		
Within Structure: (415+18 = 433 / 40 = 10.825 x 2 = 21.65 spcs req. = 22)	22 spaces req.	22 (within structure)
Surface: (16+3 = 19 / 40 = 0.475 x 2 = 0.95 spc req. = 1)	1 space req.	4 (surface)
		26 Total provided

PROJECT TEAM

Owner/Developer:	High Street Residential 2575 East Camelback, Suite 400 Phoenix, AZ 85016 Ph: 602-222-4000 Fx: 602-285-3141	Civil Engineer:	Dibble 7878 N 16th Street, Suite 300 Phoenix, AZ 85020 Ph: 623-935-2258
Legal:	Berry Riddell LLC 6750 East Camelback, Suite 100 Scottsdale, AZ 85251 Ph: 480-385-2727 Fx: 480-385-2757	Landscape Architect:	Collectiv 1426 N 2nd Street, Suite 200 Phoenix, AZ 85004 Ph: 602-358-7711 Ext. 101
Architect:	ESG Architecture & Design 500 Washington Ave. South, Suite 1080 Minneapolis, MN 55415 Ph: 612-339-5508 Fx: 612-339-5382	Electrical Engineer:	TBD TBD TBD Ph:
Traffic Engineer:	Lokahi Group LLC 10555 N 114th Street, Suite 105 Phoenix, AZ 85259 / Ph: 480-536-7150		

1 SITE PLAN
A.f.1 1" = 40'-0"

NOTES:
 • SITE AREA, OPEN SPACE AND SETBACKS SUBJECT TO CHANGE DUE TO PENDING REVIEW/APPROVAL OF THE PROJECT'S SUBDIVISION PLAT THROUGH CITY OF SCOTTSDALE.
 • EXTENTS OF EXISTING EASEMENTS TO BE RELOCATED ARE SHOWN IN PINK DASHED LINES. EXTENTS OF EXISTING EASEMENTS TO REMAIN WITHOUT IMPROVEMENT(S) ARE SHOWN IN ORANGE DASHED LINES.



3/30/2022 2:11:55 PM

High Street Residential Scottsdale Road & Gold Dust Avenue

Minor General Plan Amendment & Rezoning Project Narrative 76-PA-2022



PREPARED FOR

High Street Residential
Paul Tuchin

PREPARED BY

Berry Riddell, LLC
John Berry, Esq.
Michele Hammond, Principal Planner

TABLE OF CONTENTS

	Page
Development Team	3
Site Information & Project Overview	4
2035 General Plan	8
PUD Criteria	35
Scottsdale Sensitive Design Principles	37

DEVELOPMENT TEAM

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SITE INFORMATION & PROJECT OVERVIEW

Proposed Use: Residential Mix-Use Development

Location:

- 10050 N. Scottsdale Road
- West of southwest corner of Scottsdale Road & Gold Dust Avenue
- APN: 175-56-002H

Property Size:

- Total Site Area:
 - 4.64+/- gross acres
 - 4.22+/- net acres

Current Zoning

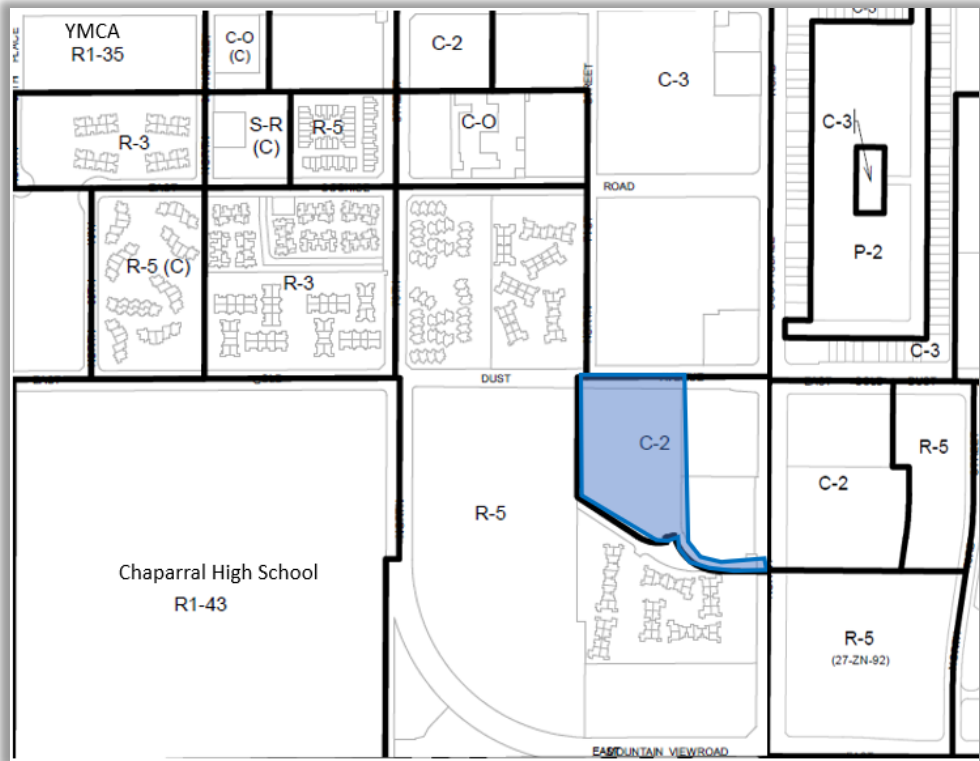
- C-2

Proposed Zoning

- PUD



Current Zoning Map



Context Aerial – Existing Site



Existing Streetscape – Gold Dust



Proposed Streetscape – Gold Dust



Proposed Site Plan



Development Request

The request is for a Minor General Plan Amendment (“GPA”) and rezoning on a 4.64+/- gross acre site located west of the southwest corner of Scottsdale Road and Gold Dust Avenue (the “Property”). The GPA request from Commercial to Mixed-Use Neighborhoods and rezoning request from C-2 to PUD will allow for an integrated mixed-use residential development including live/work units and workforce housing. The development plan includes 254+/- luxury residences and amenities which include, but are not limited to, live/work units, underground parking, landscaped community space, pool/spa area, yoga/fitness space, and indoor/outdoor co-workspace that extends seamlessly with the outdoor community space. The building massing will be stepped from 3 to 4 stories with a maximum height of 48-feet exclusive of mechanical appurtenances.

2035 GENERAL PLAN

“Our future begins today. 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—over the next 20 years.”

The General Plan is a tool for guiding future development and contains community goals and policies on a variety of components that play a role in creating the community in which we live, work, and enjoy. These goals and policies are broken down into 24 elements. The 2035 General Plan organizes the 24 elements under the following chapters with a series of goals and policies. A summary of the development’s conformance to these goals and policies is provided below.

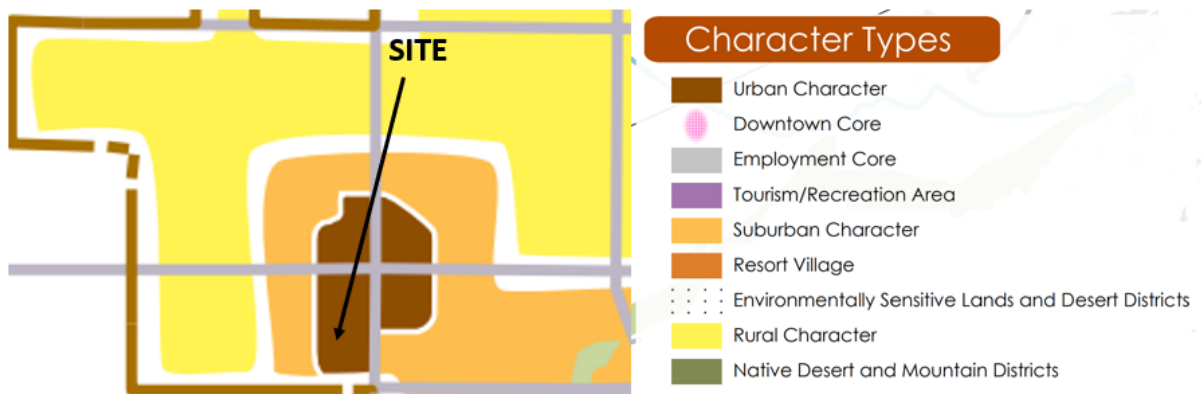
- 1. Character & Culture**
- 2. Sustainability & Environment**
- 3. Collaboration & Engagement**
- 4. Community Well-Being**
- 5. Connectivity**
- 6. Revitalization**
- 7. Innovation & Prosperity**

❖ CHACTER & CULTURE

Character Types

- *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 urbandistricts; 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.*

Character Type Map



Source: 2035 General Plan

Character & Design Element

CD 1

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

CD 1.1 New and revitalized development should respond to the regional, citywide, and neighborhood contexts in terms of:

- *Scottsdale's southwestern, Sonoran Desert characteristics, such as climate, native plants, topography, and history/culture.*
- *Scottsdale as a part of a larger metropolitan area with a unique image, character, and identity within the regional setting.*
- *Relationships and sensitivity to surrounding land forms, land uses, and transportation corridors.*
- *Compatibility with and sensitive integration into established neighborhood character, including historical preservation policies.*
- *Contributions to citywide linkages of open space, Growth Areas, and Activity Areas.*
- *Creation of new or reinvention of the existing character of an area, when necessary.*
- *Physical scale relating to human experience.*
- *Visual impacts on and accessibility to public settings, significant natural features, and neighboring properties.*
- *Impacts on and sensitivity to the natural environment.*
- *Public buildings and facilities that demonstrate the above principles.*

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

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

CD 1.4 Encourage transitions and blending of character between Character Types, including, open space areas, building height, massing, and orientation

Response: The request for PUD zoning for mixed-use residential development encourages a synergistic lifestyle and appropriate balance of land uses with an enhanced pedestrian environment. The proposal for 254+/- residences on the Property promotes revitalization of nearly vacant commercial center (that will be vacant by summer 2022) within the Urban Character Type. As noted above Urban Character Type areas “*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.*”

The Property is surrounded by a variety of retail/support services and multifamily residential. Adjacent to the site along Scottsdale Road is California Pizza Kitchen and CVS Drug Store. To the north is Circle K gas and convenience store, O’Reilly Auto Parts, Ace Hardware, and Total Wine amongst other retailers. Further, on the east side of Scottsdale Road is Life Storage and Hampton Inn. The Mosaic Apartments and Chaparral High School are located to the west of the site and the Verona Condominiums are located to the south. Large employers are located nearby, such as HonorHealth’s Shea Campus (approximately 2.5 miles to the east) and the Scottsdale Airpark (approximately 2 miles to the north). Further, there is a wide range of existing commercial uses in the Scottsdale and Shea vicinity, which currently has approximately 1,800,000+/- s.f. of commercial space of which approximately 155,000 s.f. is vacant, underutilized space.

The key development consideration and design themes are summarized below and will be reaffirmed throughout the goals and policies discussion.

Key development considerations include, but are not limited to the following:

- Implement architectural character and elements consistent with the surrounding context that respond to the Southwestern climate and focus on sustainability through design, massing, material selection, and landscaping
- Offer new, vibrant housing options to Scottsdale residents
- Revitalize and redevelop an underutilized nearly vacant retail center with synergistic land uses
- Increase open space and improve the pedestrian environment by incorporating underground parking and large community outdoor spaces, thereby reducing the heat island effect
- Enhance pedestrian connectivity through new and/or improved sidewalk connections further promoting walkability
- Provide live/work units and indoor/outdoor co-workspace for residents to embrace modern work lifestyles
- Designate 10% of residences for workforce (below market rate) housing
- Strengthen the economic success of the area through new residential while preserving and bolstering area business

Outdoor Co-workspace



CD 3

Foster quality design that enhances Scottsdale as a unique southwestern desert and tourism community through development review processes.

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

CD 3.2 Use existing, and adopt new comprehensive polices, guidelines, and design standards for use in the design and development review process, to ensure public and private development responds to and enhances the diverse character and contexts within our Sonoran Desert community.

Response: As noted above with the key development considerations, the proposed architectural character, site layout, and landscaping design will respect the unique climate and vegetation of the Southwest. The building will utilize a combination of stone, stucco, metal, and tile elements among other durable natural materials. In addition to the stepped building form, building massing will be mitigated with varied fenestration patterns and a combination of numerous recessed and cantilevered/overhang elements through roof lines and balcony design. The color palette invokes Sonoran Desert inspired earth-tone finishes, and tile and metal accents bring additional visual interest to the design.

CD 4

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

CD 4.1 Promote contextually compatible streetscapes that correspond with the following classifications:

- *Urban Streetscapes encourage pedestrian comfort, safety, and accessibility using decorative elements, such as arcade-covered walkways, shade, pedestrian lighting, decorative paving and street crossings, transit shelters, seating, waste receptacles, and landscaping. Urban Streetscapes strive for equality among pedestrians, bicyclists, and automobiles in the design of the public realm.*

Response: Streetscapes have been improved to encourage pedestrian comfort, safety, and accessibility with the proposal. The sidewalk will be upgraded along Gold Dust Avenue to include a new 10-ft sidewalk in addition to new shade trees. Additionally, one of the existing driveway access points/curb cuts along Gold Dust Avenue will be removed further improving the pedestrian realm and enhancing safety. Sidewalks around the building will be 6-ft wide, lined with shade trees to provide pedestrian comfort. The proposed landscape palette consists of Palo Verde, Fruitless Olive, and Chinese Elm, as well as other desert varieties, coordinating with the existing surrounding retail and multifamily development. The entire frontage along Gold Dust Avenue is treated as a green space with planting areas and pedestrian activation elements including direct live/work unit access. Additionally, to encourage multimodal transportation a bicycle station will be located along Gold Dust for use by residents, adjacent Chaparral students and the greater community.

CD 5

Promote the value and visual significance landscaping has on the character of the community.

CD 5.1 Employ appropriate heat island reduction techniques to reduce the effects of reflective heat and glare on buildings and paved surfaces.

CD 5.2 To the greatest extent possible, replace dead and dying landscaping with drought resistant plants to maintain or improve density pattern, shade, and area character.

Response: The landscape character will include predominately desert-lush design with a variety of Southwestern plants that will provide year-round color, shade, and texture for the Property and demonstrated with the landscape plan. Vegetation will include plants proven to thrive in our desert climate while creating a shaded vegetative pedestrian experience greatly improving the existing condition of the site and vastly increasing the amount of open space as compared to the existing commercial center which consist of predominately hard surfaces: building and asphalt surface parking. Thoughtful planting design will allow the development to use water efficiently throughout the site. Landscaping will allow residents and pedestrians to enjoy and benefit from shaded open spaces, resulting in passive cooling and a reduced heat island effect.

CD 6

Minimize light and noise pollution.

CD 6.1 Support Scottsdale's dark sky areas and designation as an Outdoor Light Control City by reducing light pollution, glare, and trespass where possible, while still attending to public safety needs.

CD 6.2 Encourage creative, energy-efficient, and high-quality designs for outdoor lighting that reflect the character of the local context.

Response: Lighting will be designed in a manner that is respectful of the surrounding context while maintaining safety for residents and visitors. Lighting designs will be commensurate with the quality architectural style proposed for the development, low-level with no glare or excessive intrusion for adjacent properties. Lighting will be placed in a thoughtful way to provide safe pedestrian wayfinding at night and highlight paths leading along the street frontage.

Land Use Element

2035 Conceptual Land Use Map



Source: 2035 General Plan

Minor General Plan Amendment: The proposed request from the Commercial land use designation to the Mixed-Use Neighborhoods land use designation qualifies as a Minor General Plan Amendment based on the following criteria.

- 1) **Change in General Plan Land Use Criteria:** The Land Use matrix shown on page 56 of the 2035 General Plan identifies the Commercial designation as “Category G” and Mixed-Use Neighborhoods as “Category G”. Change land use designations within the same category constitute a Minor GPA.
- 2) **Area Change Criteria:** The Property is located within the portion of the City designated as “Area A” and is under the 10-acre threshold at 4.64+/- gross acres. Therefore, the request is a Minor GPA.
- 3) **Character Area Criteria:** The site is not part of a designated Character Area Plan.
- 4) **Water/Sewer:** The proposed change in land use designation does not result in premature increase in the size of master planned water transmission or sewer collection facilities.
- 5) **Change to the Amendment Criteria and/or Land Use Category Definitions Criteria:** There is no change proposed to the amendment criteria or land use category definitions with the proposed request.
- 6) **Growth Area Criteria:** There is no request to introduce a new or expanded Growth Area with the proposed request.

- 7) **General Plan Land Use Overlay Criteria:** There is no request to modify or expand an existing General Plan Land Use Overlay.

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.

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

LU 1.3 Promote development patterns that integrate with and reinforce the character of an area. The city will continually review development patterns to ensure consistency of development in areas with fragmented or evolving patterns.

LU 2

Sensitively transition and integrate land uses with the surrounding natural and built environments.

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

Response: Integrating a mixed-use residential community into the Scottsdale Road and Shea Boulevard area is consistent with the goals and policies of the 2035 General Plan by offering new housing options for residents and encouraging a mix of synergistic land uses further strengthening the economic viability of this area, which is primarily composed of non-residential uses. This proposal will bring an estimated \$100,000,000 reinvestment to a soon to be vacant infill site. The building massing is designed to respectfully integrate with the surrounding three-story building heights by proposing a stepped design including both three- and four-story elements and architectural design influenced by the existing context.

LU 3

Maintain a balance of land uses to support a high quality of life.

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.

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.

LU 3.3 Maintain a citywide balance of land uses and consider modifications to the land use mix to accommodate changes in community vision, demographic needs, and economic sustainability.

LU 3.5 Engage the community in all land use discussions.

Response: The Mixed-Use Neighborhoods General Plan Land Use designation focuses on human-scale development and is generally located in areas with strong access to multimodal transportation and major regional services. Mixed-Use Neighborhoods are most suitable near and within Growth and Activity Areas. This Property is on the edge of the Scottsdale Road and Shea Boulevard Activity Area and is compatible with the existing variety of land uses, is located in close proximity to multimodal/regional access and proposes to improve the pedestrian realm and site interaction with the surrounding built environment. To further maintain a citywide balance of land uses, integrating additional housing options in key locations is essential for the continuing economic growth and sustainability of Scottsdale. This proposal will bring an estimated \$100,000,000 reinvestment to a vacant infill site.

LU 4

Develop context appropriate land use patterns that support a variety of compatible mobility choices and services.

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

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

Response: This Property is located south and west of the Scottsdale Road and Shea Boulevard intersection, both major arterials, and approximately 2+/- miles west of the Loop 101, all of which provide regional access and public transit. By creating a comfortable and inviting pedestrian experience along Gold Dust Avenue, and throughout the site, the design will encourage alternative modes of transportation, such as by foot, bicycle, and public transportation reducing reliance on vehicles. Encouraging these alternative means of transportation is fundamental to mixed-use pedestrian environments with the Property being located near numerous restaurants, retail, support services and employment destinations. The proposed building and site design with ground level supporting uses (yoga/fitness space, and indoor/outdoor co-workspace) encourage residents and visitors to utilize the surrounding businesses for their everyday dining and retail needs.

LU 5

Promote land use patterns that conserve resources, including land, clean air, water, and energy.

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: Integrating mixed-use residential will offer a wider range of housing choices for the residents of Scottsdale. The location of the Property near abundant retail, restaurants, and support services is ideally situated for redevelopment. This synergy of land uses and concentration of

residential in a mixed-use setting inherently allows for the conservation of resources, reduced vehicle trips, and improved air quality.

LU 6

Attract and retain diverse employment, business, and retail land uses to improve the economic well-being of Scottsdale's residents.

LU 6.1 Promote opportunities for the expansion and revitalization of employment and commercial uses within the city.

LU 6.2 Support well-planned, clustered employment centers of related or similar uses such as Healthcare and Research and Development land uses.

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: The rezoning request will allow for the redevelopment of a soon to be vacant retail site, surrounded by a variety of supporting commercial and residential land uses that will offer services to the residents and visitors of the development. The Property's existing strip retail center is setback approximately 400+/- feet west of Scottsdale Road, which makes it less suitable for successful retail yet ideally situated for mixed-use residential. The proposed investment is estimated at \$100,000,000 and the addition of new residences and attainable below market rate offerings will bring additional sales tax dollars to the area, further strengthening Scottsdale's economic stability and promoting the lifestyle qualities Scottsdale is known for.

❖ SUSTAINABILITY & ENVIRONMENT

Open Space Element

OS 5

Provide developed open space and outdoor opportunities in Scottsdale neighborhoods, giving priority to areas that are most lacking open space.

OS 5.3 Capitalize on opportunities to create new, or connect and expand existing, open spaces in established areas when redevelopment occurs.

Response: The common open space and pedestrian pathways will be improved from the Property's current condition and designed to provide a meaningful and inviting public pedestrian connection in and around the Property. This is an important design element given the context of Chaparral High School located approximately 700-feet to the west and abundant existing commercial retail businesses located around the site. The required open space percentage with the PUD district is 10% of the site or 18,400+/- s.f., and the builder is proposing 33% or 60,697+/- s.f. (common and frontal open space combined), which equates 230% over the requirement (see Open Space Plan).

Environmental Planning Element

EP 1

Protect and enhance Scottsdale’s human and Sonoran Desert habitats.

EP 1.3 Require developments to retain and integrate the Sonoran Desert ecosystem.

EP 1.4 Preserve local plants, wildlife, and natural resources to maintain the biodiversity and long-term sustainability of the area’s ecology.

Response:

The builder intends to preserve existing native and mature trees as well as provide new native and arid-adapted plant material which contribute to the broader surrounding environmental context. The design focuses on creating a comfortable and walkable experience for users within existing context. This enhanced experience will be achieved by increasing site shade and providing spaces for respite whether along a public sidewalk or within the outdoor community spaces. These elements respect the local natural resources and wildlife while promoting the long-term sustainability of the area’s ecology.

EP 2

Demonstrate and expand the city’s leadership in environmental stewardship and sustainability.

EP 2.4 Expand Scottsdale’s Green Building Program to maintain regional and national leadership in green and low-impact development.

Response:

The building and site design will focus on the follow key features in response to sustainability:

Overall Design and Methods:

- This building will exceed required standards and meet all IGCC design standards
- Recycle demolition building material and excess construction waste through the use of local material collection programs such as Stardust.

Energy:

- Reduce energy consumption with Energy Star Appliances, high efficiency HVAC equipment, LED lighting, Motion & Occupancy Sensors in Common Areas, and smart building technology
- Building envelope will utilize exterior shading, high quality interior roller shades and building articulation to minimize direct solar heat gain.
- Building envelope walls, roofs, and windows will have enhanced insulated to reduce heat gain at the occupied spaces where feasible

Transportation:

- On site electric vehicle charging stations. Preferred parking for low emission/hybrid vehicles.

- Secured indoor bicycle parking and an exterior bicycle station to encourage alternative transportation methods
- Widen sidewalk along Gold Dust and provide lush landscape and shade to encourage pedestrian traffic and enhance safety for students walking to neighborhood schools

Water:

- Low water use fixtures and irrigation system
- Use of permeable paving and limit use of paving to increase ground water percolation
- Design of open space elements will include sustainable, low water use landscape improvements

Urban Heat Island:

- Reduce urban heat island effect by increasing the amount of green open space
- Use of low albedo paving with Solar Reflectance Index value.
- Design of all open space elements will include shade trees, shade elements and minimal hardscape to reduce heat absorption and contribute to carbon reduction

Materials:

- Indoor environmental quality and use of low VOC finishes and sealants indoors.
- Use of local building material wherever possible
- On site recycling and recycling cans placed in every residence
- Operable windows and doors at all units and common spaces to enhance air quality and resident health

Community:

- Attention to wellness factor for residents and the surrounding community – emphasis on the visual and spatial approach and experience.
- Attention to respite and access to outdoor areas for resident well-being. Common as well as resident areas with access to outdoors with three separate courtyards.
- Natural lighting for resident well-being.
- Communal space for coworking and community use through partnership with neighboring high school

EP 3

Participate in local and regional efforts to improve air quality.

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:

In addition to the mixed-use character of the development, well-situated amongst existing retail, restaurants and support services, the design will provide onsite electric vehicle charging and preferred parking for low emission/hybrid vehicles. Bicycle racks, secured bicycle storage as well as a bicycle repair station will be provided for residents and the public. The site is located within close proximity to Valley Metro transit connections via Scottsdale Road and Shea Boulevard.

These features along with the live/work focus of the community will contribute to reduce vehicle emissions fewer vehicle trips.

EP 5

Encourage environmentally sound green buildings and low-impact site plans that support sustainable desert living.

EP 5.2 Increase the use of green infrastructure, including low-impact development (LID) stormwater management techniques, such as curb openings and permeable pavement.

EP 5.3 Construct durable and sustainable buildings using green building principles.

EP 5.4 Promote passive solar site and building design strategies that recognize and respond to the Sonoran Desert climate.

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

Response:

This proposed building will exceed required sustainability standards and meet all IGCC design standards. The use of green infrastructure, including low-impact development (LID) stormwater management techniques will be emphasized. Building design will utilize passive solar through exterior shading and building articulation to minimize direct solar heat gain.

EP 7

Identify and reduce heat islands.

EP 7.1 Identify areas most impacted by the heat island effect, and prioritize mitigation for these areas to reduce heat impacts.

EP 7.2 Incorporate development strategies such as shared parking models and the use of “cool materials” (e.g., landscaping, green roofs, reflective pavement, heat reduction asphalt coatings, permeable concrete, and treated dirt areas) to help reduce the heat island effect.

EP 7.3 Develop and support programs, such as a Tree Canopy Plan, that identify and increase vegetation and shading in areas of high pedestrian activity.

EP 7.4 Promote the long-term management and maintenance of urban and open area vegetation and protect and expand the provision of private and public open spaces to reduce the heat island effect.

EP 7.5 Minimize asphalt and promote alternative parking surfaces.

Response:

The removal of the existing asphalt parking and replacing it with underground parking and increased onsite landscaped open space contributes to the reduction of the urban heat island. The implementation of a shaded sidewalk network around and through the community increases the amount vegetation onsite and promotes pedestrian activity, outdoor enjoyment, and walkability. Color and material selection of the building finishes will provide reflectivity and reduced heat gain. The design includes a private outdoor living space for each resident to enjoy.

EP 8

Plan, prepare, and adapt for significant climate impacts on city infrastructure and operations.

EP 8.1 Develop, adopt, and implement climate action and resiliency strategies that address areas of climate mitigation planning such as emissions, drought, energy, transportation, and extreme heat.

EP 8.2 Increase energy efficiency in buildings and vehicle fleets.

EP 8.3 Encourage use of clean, renewable energy sources.

EP 8.4 Employ green building and green infrastructure best practices.

EP 8.5 Establish land use and mobility plans that decrease transportation carbon emissions.

EP 8.6 Encourage waste reduction and water conservation.

Response:

The design includes drought tolerant plant material able to withstand extreme heat conditions promoting water conservation. Although not required by the City, International Green Construction Codes (“IGCC”) and sustainable building methods and techniques will be utilized. Additionally, the use of local building materials and/or repurposed materials will be implemented wherever possible through local material collection programs such as Stardust. The mixed-use nature of the building inherently promotes environmental preservation characteristics by offering work from home units and indoor/outdoor co-workspace for its residents. Redeveloping and revitalizing an infill site surrounded by abundant retail and support services encourages walkability and reduced vehicle trips promoting the live, play, work General Plan objective.

Conservation Element

CONSV 1

Achieve a sustainable balance between the conservation of natural resources and development of the built environment.

CONSV 1.4 Encourage landscape designs that promote water conservation, prevent erosion, reduce the heat island effect, and decrease stormwater runoff.

CONSV 1.5 Protect and restore ecosystems that maintain water quality, reduce flooding, and enhance sustainable resource development.

Response:

Plant specifications and accent materials will consist of low-maintenance and drought tolerant species. Trees selection and placement will focus on providing shaded sidewalks and outdoor common space. The proposed 37% open space, a significant increase from the existing condition, will promote water conservation, prevent erosion, reduce the heat island effect, and decrease stormwater runoff. These efforts will help protect the ecosystem and reduce flooding

CONSV 2

Protect and manage Sonoran Desert biodiversity and native ecosystems.

CONSV 2.1 Preserve, salvage, and/or restore native plants, wildlife habitat, and natural resources to maintain the biodiversity and long-term sustainability of the area's desert ecology and character.

CONSV 2.2 Encourage landscaping that limits the amount of grass and makes optimal use of native desert plants.

Response:

The builder intends to preserve existing native and mature trees as well as provide new native and low water use plant material which contribute to the broader surrounding environmental context. Additionally, the existing wash and all its vegetation will be preserved and maintained. The plant selection includes Palo Verde, Fruitless Olive, and Chinese Elm, as well as other desert varieties, which will provide shade and comfort to residents and pedestrians while contributing to the long-term sustainability of the area's Sonoran Desert ecology and character.

CONSV 4

Conserve water and encourage the reuse of wastewater.

CONSV 4.7 Support rainwater harvesting and stormwater capture in site planning and building design.

CONSV 4.8 Explore new and evolving water conservation and reuse technologies and use them as appropriate.

Response:

Water conservation will be achieved through drip irrigation and smart controller systems to conserve water use and manage water efficiency onsite. Rainwater harvesting to include capturing rainwater through sloped landscape planters, strategically placed curb cuts to capture run-off, and permeable hardscape are being explored.

Energy Element

E 3

Promote building and site designs that maximize energy efficiency.

E 3.1 Encourage the use of natural properties and sustainable building systems (e.g., sun, shade, thick walls, insulation) to reduce the demand for and use of mechanical cooling and heating systems.

E 3.2 Encourage the use of drought tolerant landscaping to reduce summer solar heat gain.

E 3.3 Promote solar energy opportunities in building and site design.

E 3.4 Incorporate healthy, resource- and energy-efficient materials and methods in design, construction, and remodeling of buildings.

E 3.5 Orient buildings and lots in ways that minimize summer solar heat gain, maximize roof solar access and natural ventilation, and limit roof solar access obstructions of neighboring structures.

E 3.6 Improve the energy efficiency of the building envelope, heating and cooling systems, lighting, and appliances.

Response:

Building orientation and design allows for abundant shaded outdoor community space/courtyards and natural ventilation for all residential units. Building envelope walls, roofs and windows will include enhanced insulation to reduce heat gain. Drought tolerant landscape will be installed throughout in response to the Southwestern climate while still providing abundant shade and solar relief. Energy efficient building systems, HVAC, interior/exterior lighting, and appliances will be implemented.

❖ COLLABORATION & ENGAGEMENT

Community Involvement Element

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.

CI 1.2 Use public involvement plans to identify and engage interested parties and provide opportunities for information exchange.

Response: Public participation and community outreach is a critical part of the rezoning process. Technical Solutions began neighborhood outreach early in the process and maintains on-going dialogue with the community and stakeholders. Feedback from one-on-one meetings, phone calls, and the required open house meeting is shared with City Staff and memorialized in the Public Participation plan submitted with this General Plan Amendment and zoning application.

❖ **COMMUNITY WELL-BEING**

Healthy Community Element

HC 3

Build on Scottsdale’s leadership role in wellness and healthful living.

HC 3.1 Provide quality recreation, community events, and neighborhood services that foster physical activity and encourage healthful living.

HC 3.4 Continue to foster and market Scottsdale as a resort, wellness, rejuvenation, and healthcare destination.

Response: The Property offers a healthful lifestyle based on its proximity to retail/support services, state of the art medical care, recreational opportunities, and multimodal transportation alternatives promoting healthful living and maintaining a Scottsdale lifestyle for our residents. Further Chaparral High School is only 700-feet west of the site offering addition residences to those families. The proposed mixed-use community offers amenities such as landscaped outdoor community space, pool/spa area, live/work units, yoga/fitness studio, and co-workspace that extends seamlessly with the outdoor community space. As noted below in the Recreation Element, beyond the immediate area, the Property is only 1.2+/- miles away from a shared public pathway system that offers abundant recreational opportunities.

Housing Element

H 1

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

H 1.1 Maintain Scottsdale’s quality-driven development review standards for new development.

H 1.2 Promote complementary physical design, building structure, landscaping, and lot layout relationships between existing and new construction.

H 1.3 Ensure community dialogue during zoning and the development review processes to encourage context appropriate development designs.

H 1.4 Support the creation of mixed-use projects, primarily in Growth and Activity Areas, to increase housing supply withing 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: Scottsdale is experiencing an increased demand for housing options. This proposal will meet the growing need housing while also providing workforce housing, further contributing to the long-term economic prosperity of the surrounding area. Further, the development will help diversify the local economy and support a sustainable economic future as the City continues to grow, change, and mature. According to a recent analysis by the City, approximately 72% of City of Scottsdale employees do not live in Scottsdale, while 84% of police and 83% of fire employees do not live in Scottsdale. By providing 10% of the residences for workforce housing, we can begin to address this issue as well.

Recreation Element

R 2

Provide and enhance recreational opportunities that meet the diverse needs of Scottsdale’s citizens and visitors.

R 2.5 Develop and maintain a citywide interconnected network of trails to provide valuable recreation and fitness opportunities for residents and visitors. Where possible, trails should connect to neighborhoods and serve major destinations.

R 2.6 Provide multi-generational recreation programming and facilities, that consider the full spectrum of community and special social or physical needs, interests, and financial resources.

Response: In addition to immediate walkability to retail, restaurants, Chaparral High School, and support services the Property is located approximately 1.2+/- miles west of a public shared pathway system which links to Camelback Walk (near HonorHealth Shea and Mustang Library) and further south to the Indian Bend Wash, which can be accessed via Gold Dust Avenue. This pathway system also links northward extending to WestWorld. The greenbelt system provides abundant recreational and fitness opportunity for residents connecting them to multiple destinations.

Gold Dust Avenue Connection to Greenbelt



Safety Element

S 6

Protect the health, safety, and welfare of the public from the impacts of flooding.

S 6.1 Identify drainage system needs, and make improvements where flood control problems exist

Response: A drainage report is provided with the zoning application addressing the public safety and welfare of residents with respect to drainage systems in conformance with City requirements.

❖ CONNECTIVITY

Circulation Element

C 1

Design and improve transportation corridors to safely and efficiently move people and goods.

C 1.1 Support the public transit system to assure adequate and affordable access to and within our community for citizens, employees, visitors, and businesses through the use of future technologies and micro-mobility options.

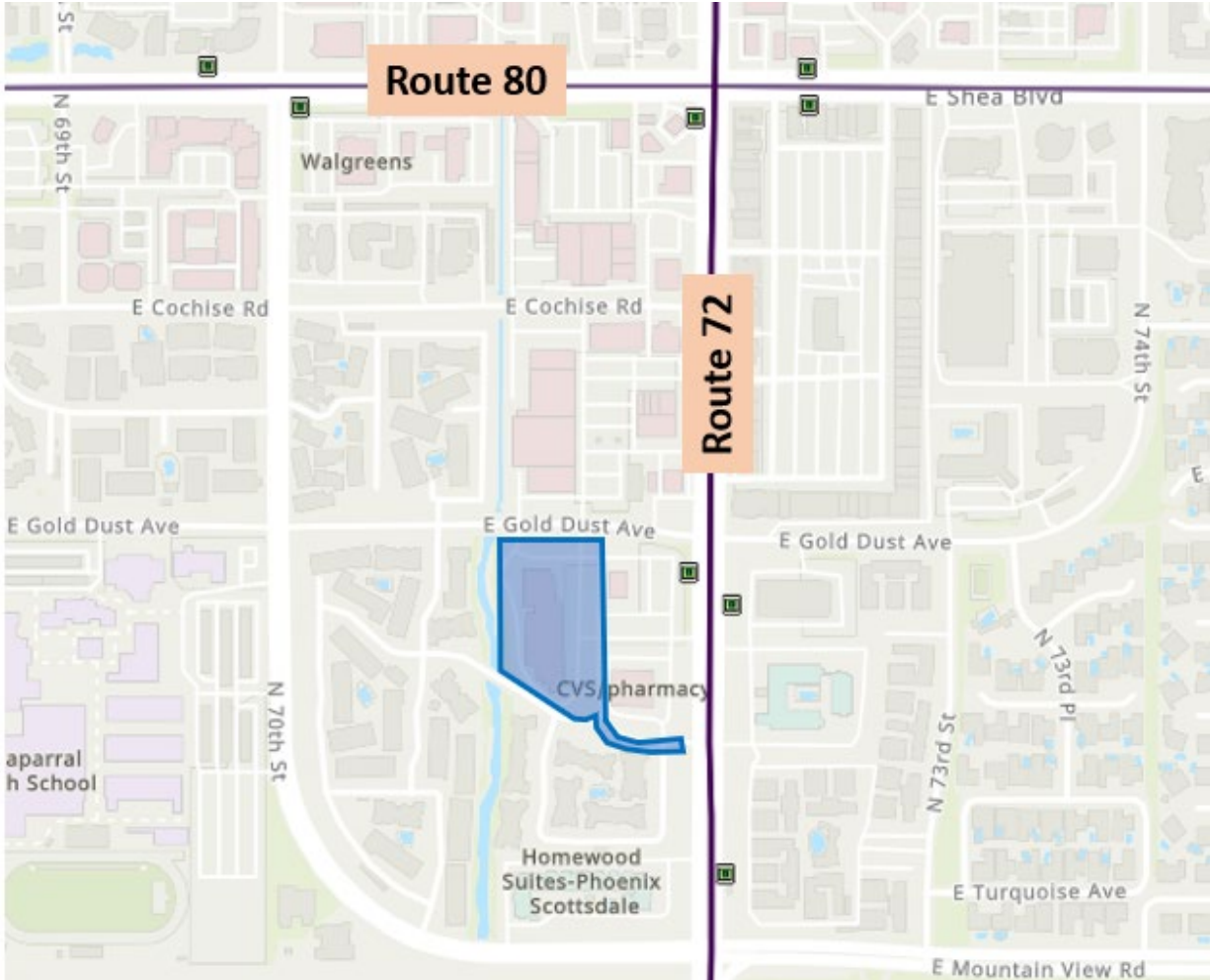
C 1.2 Coordinate transportation and land use planning to enhance an integrated, sustainable transportation system that promotes livable neighborhoods, economic vitality, safety, efficiency, mode choice, and adequate parking.

C 1.5 Incorporate strategies and technologies that efficiently move people, improve transportation system capacity and enhance mobility choices.

C 1.7 Retrofit aging neighborhood infrastructure and streets and create non-motorized neighborhood connections to enhance livability, safety, accessibility, and comfort.

Response: The Property is located near the southwest corner of Scottsdale Road and Shea Boulevard, with immediate access to public transportation, and is approximately two miles away from the Loop 101, which provides regional access. Existing public transportation options include bus service along Scottsdale Road and Shea Boulevard. Valley Metro bus Route 72 runs north-south along Scottsdale Road immediately adjacent to the site, providing connections from Grayhawk to Chandler. Valley Metro transit Route 80 runs east-west along Shea Boulevard providing connections from Mustang Library to Glendale. Beyond the immediately adjacent context, the Property is located within close proximity to numerous employment, medical, and service-related business. The Property is well situated to benefit and further enhance a walkable environment through streetscape sidewalk connectivity and the internal pedestrian pathways connecting to area businesses.

Transit Routes



Source: valleymetro.org

C 2

Reduce the number, length, and frequency of automobile trips to improve air quality, reduce traffic congestion, and enhance quality of life and the environment.

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

C 2.2 Integrate a variety of mobility choices along local and regional transportation corridors.

C 2.3 Reduce demands on transportation networks by using trip reduction strategies and travel demand management techniques, including technology and applications, telecommuting, alternative work schedules, carpooling, and transit/bicycling incentives in order to provide travelers with effective choices to improve travel reliability.

C 2.4 Work with employers to provide incentives and encouragement for trip reduction strategies.

C 2.5 Promote non-motorized travel for short neighborhood trips.

Response: As mentioned above, the Property is well-situated for regional access while also taking advantage of transit opportunities and promoting walkability. The design implements a range of General Plan goals and policies including the integration of new high-quality, vibrant architecture, and context appropriate site planning, creating a pedestrian presence with ground level activity and shaded micro-environment through landscaping. The proposed land use also provides residential housing options within a mixed-use context, thereby reducing trip generation. The mixed-use proposal results in fewer vehicle trips than the current retail center (if it could be leased) as demonstrated in the traffic report provided with the zoning submittal.

C 3

Continue to develop an effective, safe, and connected multimodal transportation system (e.g., streets, trails, bikeways, shared-use paths, transit).

C 3.5 Increase accessibility to transit options through non-motorized and other transit connections, such as, neighborhood circulators; on-demand transportation network companies; improved/enhanced sidewalks, multimodal paths, bicycle lanes; and non-motorized options for the final mile to reach public transit services.

C 3.6 Create, preserve, and enhance multimodal connections between residential areas and neighborhood-supporting land uses.

Response: The proposed mixed-use residential community is integrated within an established area of the city near retail/support services and employment with multimodal transportation options. The design includes bicycle racks, secured bicycle storage, and a bicycle repair station for its residents and the public and promotes walkability through the integration of new shaded sidewalks and ground level synergy.

C 8

Provide a comfortable and accessible transportation system to increase ability to reach goods, services, and activities. Many factors affect accessibility, including mobility (physical movement), the quality and affordability of transportation options, transportation system connectivity, and land use patterns.

C 8.1 Provide pedestrian safety, comfort, and amenities that reflect streetscape design and character of an area.

Response: The streetscape design and ground level activity will enhance comfort and ease of walkability for residents and visitors. Hardscape, landscape, lighting, and wayfinding will respect the user and provide unified connectivity to the established pedestrian network in and around the Property. Streetscapes have been improved to encourage pedestrian comfort, safety, and accessibility with the proposal. The sidewalk along Gold Dust Avenue has been updated to a width of 10-ft with new shade streets. Internal sidewalks will be 6-ft wide. With respect to the Scottsdale Road Streetscape Design Guidelines, the Property is located within Scottsdale Road-Segment 4,

although with limited frontage on Scottsdale Road, the development has taken the preferred plant list into consideration with the proposed assortment of trees and shrubs.

Bicycling Element

B 1

Develop continuous, accessible, and interconnected bicycle networks.

B 1.1 Continue to participate in regional bikeway system planning.

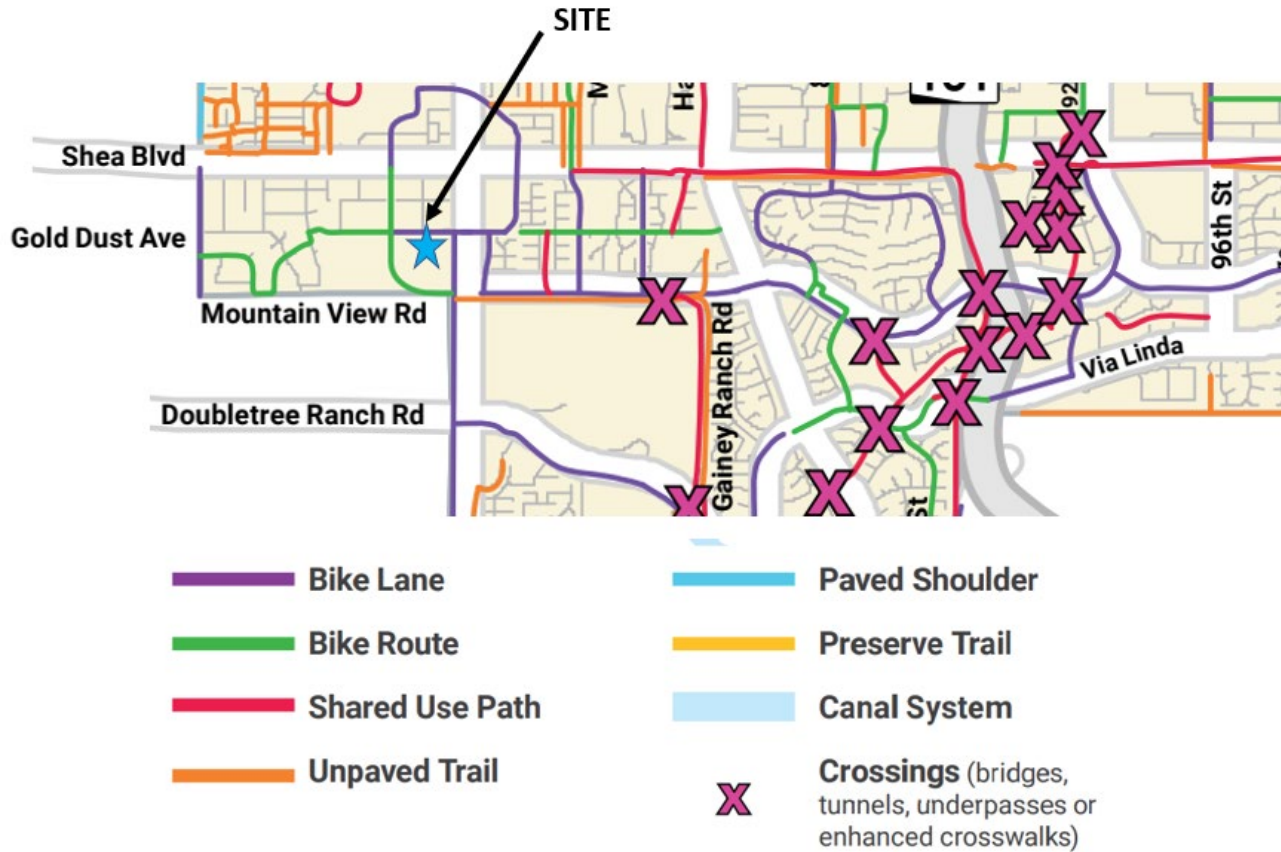
B 1.2 Promote convenient connections between on-street and off-street bicycling networks throughout the city and with neighboring jurisdictions.

B 1.3 Continue to integrate bicycle lanes and buffered bicycle lanes through street restriping and other techniques.

B 1.4 Continue to expand and enhance off-street bicycling networks, and connect them to existing and planned on-street bicycle networks.

Response: The existing bike lanes along Gold Dust Avenue will be maintained, which provide connectivity to the to a greater open space recreation element within the Camelback Walk and Indian Bend Wash areas which are accessible via Gold Dust Avenue approximately 1.2+/- miles east of the Property. Bicycle racks and bicycle storage will be provided onsite in conformance with City standards. Additionally, a bicycle station will be provided onsite for the residents and the public offering bicycle repair and maintenance.

Bicycle & Trails Map



Source: scottsdaleaz.gov/transportation/paths-trails

❖ **REVITALIZATION**

Neighborhood Preservation & Revitalization Element

NPR 1

Preserve and enhance the character, identity, and quality of Scottsdale’s diverse neighborhoods.

NPR 1.1 Support innovative, well-designed, sustainable building construction and rehabilitation to enhance neighborhood character and identity.

NPR 1.2 New construction and exterior remodels or renovations should sensitively address neighborhood character and transition areas.

Response: Redevelopment and revitalization of the site for a new mixed-use residential community brings a wide range of amenities including, but not limited to, ground level non-residential uses (yoga/fitness, live/work and indoor/outdoor co-workspace), enhanced landscape and hardscape, shade, improved pedestrian connectivity, sensitive edge buffering, vibrant architecture, placemaking and underground parking. Due to unique site constraints, and given its infill nature of the site, the builder is requesting amended development standards as outlined under the PUD section below. However, the requested amendments to stepback plane strives to maintain sensitive edge conditions and transitions to the adjacent built environment including existing two and three-story multifamily buildings.

NPR 5

Promote neighborhood interaction to help create and maintain strong communities.

NPR 5.1 Preserve existing and create new public gathering spaces within walking distance of residential areas.

NPR 5.3 Encourage physical and social links between non-residential and residential land uses.

Response: The proposed mixed-use residential development contributes towards a pedestrian oriented atmosphere by improving the pedestrian realm with activation of the adjacent street frontage through widened sidewalks, increased open space, new shade trees, and direct live/work unit access along Gold Dust Avenue. Improving the pedestrian character and safety of redevelopment sites is a key component to maintaining a thriving mixed-use community that minimizes focus on the automobile and encourages multimodal transportation. The Property is within close proximity to retail/support services and provides a greater balance of land uses to better serve the changing needs of Scottsdale.

Conservation, Rehabilitation, & Redevelopment Element

CRR 1

Support high-quality, context-appropriate redevelopment, rehabilitation, and conservation to promote long-term neighborhood stability.

CRR 1.1 Support redevelopment that is sensitive to the identity and character of Scottsdale's maturing neighborhoods.

CRR 1.2 Continue strategic and proactive intervention efforts for property redevelopment, rehabilitation, and maintenance on properties beginning to show signs of decline, so as to prevent further progression of blight, distress, underutilization, or deterioration.

CRR 1.3 Support the proactive participation of affected residents and business owners during the planning and implementation of redevelopment and neighborhood conservation projects.

CRR 1.5 Protect established areas/neighborhoods by promoting context-appropriate infill development; sensitive neighborhood and property assemblage; and innovative adaptive reuse of existing community resources and historic properties.

CRR 1.6 Upgrade substandard infrastructure during redevelopment and rehabilitation projects.

Response: The redevelopment of this Property with a mixed-use residential community will bring new vibrant architecture and site design to an aging and vacating suburban-style strip retail site with asphalt surface parking that was developed under the exiting C-2 zoning. Infrastructure and pedestrian connectivity will be improved. The design of this infill site took inspiration from surrounding architectural character through building massing, materials, color and detailing while respecting the Southwestern climate. As demonstrated in the Public Participation plan submitted with the zoning application, neighborhood outreach is ongoing throughout the process to ensure dialogue with the community and surrounding property owners regarding the request.

CRR 2

Sustain long-term economic well-being through redevelopment, rehabilitation, and conservation.

CRR 2.1 Support and encourage public and private economic reinvestment in declining areas.

CRR 2.2 Encourage reinvestment that positively impacts the visual impressions and experiences of residents, businesses, and visitors.

CRR 2.3 Promote redevelopment and rehabilitation of older commercial areas to maintain Scottsdale's standing as one of the major retail, restaurant, and entertainment destinations within the metropolitan area.

CRR 2.4 Foster redevelopment and rehabilitation of mature employment centers to enhance Scottsdale's commercial property inventory and provide new job opportunities.

CRR 2.5 Encourage healthy, resource- and energy-efficient building materials and methods during conservation, rehabilitation, and redevelopment efforts.

Response: Revitalizing and redeveloping properties is a critical part of the economic vitality of the community as it grows and changes. Integrating new land use options on underutilized and/or vacant sites is essential for the continuing economic growth and sustainability of Scottsdale. This proposal will bring an estimated \$100,000,000 reinvestment to vacant infill site. This proposal implements this General Plan goal by integrating a residential community in a mixed-use setting with convenient access to retail, educational, employment, medical, and major transportation corridors. The proposal will reinvigorate the Property, stimulate additional taxpayer dollars, provide additional jobs, and encourage more infill development of aging vacant properties. Use of efficient sustainable building materials will be implemented as discussed above under the Environmental Planning Element.

Growth Areas Element

GA 1

Direct growth in areas of the city that can support a concentration of development density and intensity, as well as a broad mix of uses.

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.

Response: The Property is located on the edge of the Scottsdale Road and Shea Boulevard Activity Area. Integrating new residences, workforce housing, live/work units and supporting amenities such as yoga/fitness and indoor/outdoor co-workspace brings a physical and economic synergy that will continue to enliven and enhance the area consistent with the goals and policies of the General Plan by offering new housing options and unique amenities for its residents. The building is proposing 10% workforce residences to further encourage the live, play, work philosophy promoted by the General Plan. Redevelopment and revitalization of the Property brings a wide range of amenities including, but not limited to, ground level activation, enhanced landscape and hardscape, shade, improved pedestrian connectivity, sensitive edge buffering, vibrant architecture, placemaking and underground parking. According to a recent analysis by the City, approximately 72% of City of Scottsdale employees do not live in Scottsdale, while 84% of police and 83% of fire employees do not live in Scottsdale. By providing 10% of the residences for workforce housing, we can begin to address this issue as well.

GA 5

Recognize and build on the character and diversity of Scottsdale’s various Growth and Activity Areas.

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

GA 5.2 Protect key economic and historic assets from incompatible land uses in designated Growth and Activity Areas.

GA 5.4 Promote new development, revitalization, and redevelopment within Growth and Activity Areas that maintains fiscal sustainability, promotes long-term economic development goals, and enhances quality of life.

Response: The Property is located on the edge of the Scottsdale Road and Shea Boulevard Activity Area as delineated in the 2035 General Plan. The proposed development is contextually appropriate with respect to land use and physical improvements including massing, architecture, materials, landscape, hardscape, and lighting. The synergy of uses between the proposed mixed-use residential community and existing adjacent commercial retail and employment uses will bolster the economic vitality of the area. Redeveloping and revitalizing underutilized and/or vacant infill sites is key to promoting land use and economic sustainability; allowing reinvestment to strengthen the long-term success of Scottsdale.

Cost of Development Element

COD 1

As permitted by State Law, require development to pay its fair share of the cost of public

service needs it generates.

COD 1.6 Continue to use water, water resources, and sewer development fees to ensure that new growth pays for itself without adversely impacting existing customers.

Response: The development will comply with all City requirement with respect to water and sewer development fees to ensure that development pays for growth.

COD 2

Promote development timing guided by the adequacy of existing and/or expandable infrastructure, services, and facilities.

COD 2.2 Ensure proposed development commits to construction of primary water, wastewater, and circulation systems, as necessary, before approval.

Response: Consistent with City requirements, the builder has submitted water and sewer basis of design reports, as well as a traffic report, with the zoning application to ensure adequate infrastructure and transportation systems are in place to serve the proposed use. The proposed land use provides residential housing options within a mixed-use context, thereby reducing trip generation. Also, the mixed-use proposal results in fewer vehicle trips than the current retail center as demonstrated in the traffic report provided with the zoning submittal.

❖ **INNOVATION & PROSPERITY**

Economic Vitality Element

EV 1

Foster Scottsdale’s resiliency to economic change through support of our core industries (e.g., tourism, healthcare, bio/life sciences, advanced business services), assets, regional competitiveness, and economic diversity.

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

EV 1.3 Diversify Scottsdale’s businesses, focusing on industries that add value to the existing economic environment.

Response: Providing a variety of housing options that address the needs of multiple demographics contributes to a strong economic base. This proposal will meet the growing need for housing options and contribute to the long-term economic prosperity of the surrounding area by providing residents the opportunity to live near employment areas such as the Scottsdale/Shea area, Scottsdale Airpark and HonorHealth Shea Medical Campus. Further, the development will help diversify the local economy and support a sustainable economic future as the City continues to grow, change, and mature.

PUD CRITERIA

Section 5.5003 of the City’s Zoning Code sets forth the criteria that must be satisfied when considering an application for a PUD District:

A. PUD Zoning District approval criteria.

1. As part of the approval or modified approval of an application for a PUD District, the Planning Commission shall recommend, and the City Council shall find that the following criteria have been met:

a. The proposed development promotes revitalization, the goals, policies, and guidelines of the General Plan, area plans, and design guidelines.

Response: As demonstrated in the General Plan section above, the proposed development promotes revitalization and upholds the goals and policies set forth in these documents.

b. The proposed development’s uses, densities, or development standards would not otherwise be permitted by the property’s existing zoning.

Response: The development standards proposed with the application align best with the PUD zoning district.

c. The proposed development will be compatible with adjacent land uses and promotes the stability and integrity of abutting or adjacent residential neighborhoods.

Response: As an infill redevelopment project, the proposed design is respectful of the existing edge conditions in terms of setbacks, building placement, building height transitioning, human-scale and landscaping buffers. The architectural character of the proposed residential community is complementary of the surrounding commercial and residential context.

d. There is adequate infrastructure and city services to serve the development.

Response: Water and Sewer reports are included with the application and demonstrate that there is adequate infrastructure and city services to serve the development.

e. The proposal meets the following criteria:

i. The proposed development is not located within any area zoned Environmentally Sensitive Lands Ordinance (ESL) nor within the boundaries of the Downtown Area.

Response: Not applicable.

ii. The proposed development fronts onto a major or minor arterial and/or major collector street as designated in the Transportation Master Plan.

Response: The site has frontage on Scottsdale Road, a major arterial.

B. Amended development standards.

- 1. To encourage sensitivity to site conditions and provide flexibility in planning, development standards outlined in Section 5.5005., excluding C. Allowable building height and D. Exception to building height, may be amended upon recommendation by the Planning Commission and a finding by the City Council that the amended development standards achieve the purposes of the planned unit development district better than the existing standards.*

Response: With this application, the follow amendments are being requested to the property development standards given the unique configuration of this infill site.

- **Average Setback:** Addition of the word “**MINIMUM**” with respect to the average setback requirement to clarify that average setbacks can be greater than the minimum as dictated by the development plan.
- **Stepbacks:** The setback plane is being adhered to on the street frontages. PUD Developments abutting or adjacent to a residential zoning district shall have a building envelope inclined setback plane of 1:2 (ratio of the vertical rise to the horizontal run) starting **THIRTY (30) FEET ABOVE THE RESIDENTIAL ZONING DISTRICT BOUNDARY FOR THREE (3) STORY BUILDING ELEMENTS AND STARTING THIRTY-FOUR (34) FEET ABOVE** ~~on~~ the residential zoning district boundary **FOR FOUR (4) STORY BUILDING ELEMENTS**, except as specified Section 5.5005.F.3.
- **Patio/Balcony Locations:** A setback of twenty (20) feet shall be provided along the property line abutting a residential zoning district(s). The setback area shall be landscaped and may include space reserved for services such as refuse, recycling, utility boxes, and amenities such as playground equipment, picnic tables, **PATIOS/BALCONIES**, and screen walls.

SCOTTSDALE SENSITIVE DESIGN PRINCIPLES

The Character and Design Element of the General Plan states that “Development should respect and enhance the unique climate, topography, vegetation and historical context of Scottsdale's Sonoran Desert environment, all of which are considered amenities that help sustain our community and its quality of life.” The City has established a set of design principles, known as the Scottsdale's Sensitive Design Principles, to reinforce the quality of design in our community. The following Sensitive Design Principles are fundamental to the design and development of the Property. In addition to the response below, please refer to Goal CD 1 above for a specific description of the design elements.

1. ***The design character of any area should be enhanced and strengthened by new development.***

Response: The Southwestern contemporary building character and stepped building mass are complementary to the surrounding development pattern. The proposed building will utilize a variety of desert appropriate textures and building finishes, incorporate architectural elements that provide solar relief, shading and deep overhangs, and celebrate the Sonoran Desert climate by creating outdoor spaces and common amenities for its residents while also tying to the existing pedestrian network along Gold Dust Avenue and Scottsdale Road.

2. ***Development, through appropriate siting and orientation of buildings, should recognize and preserve established major vistas, as well as protect natural features.***

Response: Although the setting of this site is more urban in character and does not have natural features such as natural washes and natural area open space, the development team has taken special consideration in providing appropriate interaction with the streetscape through building design and attention to the ground-level experience including additional open space and shade trees.

3. ***Development should be sensitive to existing topography and landscaping.***

Response: The Property is redevelopment site located on a relatively flat improved parcel of land that is predominately an asphalt parking lot. Landscaping will consist of low-water use desert appropriate landscaping materials in conformance with established guidelines.

4. ***Development should protect the character of the Sonoran Desert by preserving and restoring natural habitats and ecological processes.***

Response: The proposed redevelopment will include desert appropriate landscaping (as well as integration of native plants). Additional landscaping and increased open space areas will contribute to the area's habitat and improve air quality. Also, desert appropriate plants will be able to withstand the variations of the local climate and as they mature, they will become self-sustaining relative to water demand.

5. *The design of the public realm, including streetscapes, parks, plazas and civic amenities, is an opportunity to provide identity to the community and to convey its design expectations.*

Response: Pedestrian circulation along the streetscape is an important feature of the design, as numerous retail/support services, educational, residential, employment and recreational uses are within walking distance of the Property.

6. *Developments should integrate alternative modes of transportation, including bicycles and bus access, within the pedestrian network that encourage social contact and interaction within the community.*

Response: The Property is well situated for mixed-use residential because it is located within walking distance to a range of supporting land uses including retail, restaurants, Chaparral High School, and support services. The development has been designed with an emphasis on the ground level pedestrian experience enhancing the land use goals for this area. Developing residential mixed-use with established transportation options (transit, foot, bicycle) reduces the number and distance of automobile trips and improves air quality, thereby enhancing the quality of life for the entire community.

7. *Development should show consideration for the pedestrian by providing landscaping and shading elements as well as inviting access connections to adjacent developments.*

Response: The proposed building will incorporate design elements that respect human-scale, providing shade and shelter through building form, site, and landscape design.

8. *Buildings should be designed with a logical hierarchy of masses.*

Response: Variation in massing (stepped façade), proportion, material contrast, and architectural detailing will be provided establishing a natural hierarchy. The proposed development also provides continuity between the newly proposed and existing architecture in the surrounding area, providing contextually appropriate redevelopment and visual fluidity along the street frontages. Additionally, no amendments are requested for building setbacks and stepbacks along the street edge. The amendments proposed are internal to the site.

9. *The design of the built environment should respond to the desert environment.*

Response: The proposed building will utilize a variety of Sonoran Desert inspired textures and building finishes, incorporate architectural elements that provide solar relief and deep overhangs, and celebrate the Southwestern climate by creating outdoor spaces, respites, and shade.

10. *Developments should strive to incorporate sustainable and healthy building practices and products.*

Response: Sustainable strategies and building techniques, which minimize environmental impact and reduce energy consumption, will be emphasized. The specific sustainable elements are being evaluated with the design and development of residential building in accordance with IGCC and will include, but are not limited to, well insulated building envelope, recycled/repurposed materials, energy efficient windows, energy efficient light fixtures, low use water fixtures, and appliances. See 2035 General Plan Sustainability & Environment section above.

11. *Landscape design should respond to the desert environment by utilizing a variety of mature landscape materials indigenous to the arid region.*

Response: Context appropriate, mature arid-region plant materials will be utilized with the redevelopment and revitalization of the Property. The desert-lush character will be upheld through the careful selection of plant materials in terms of scale, density, and arrangement.

12. *Site design should incorporate techniques for efficient water use by providing desert adapted landscaping and preserving native plants.*

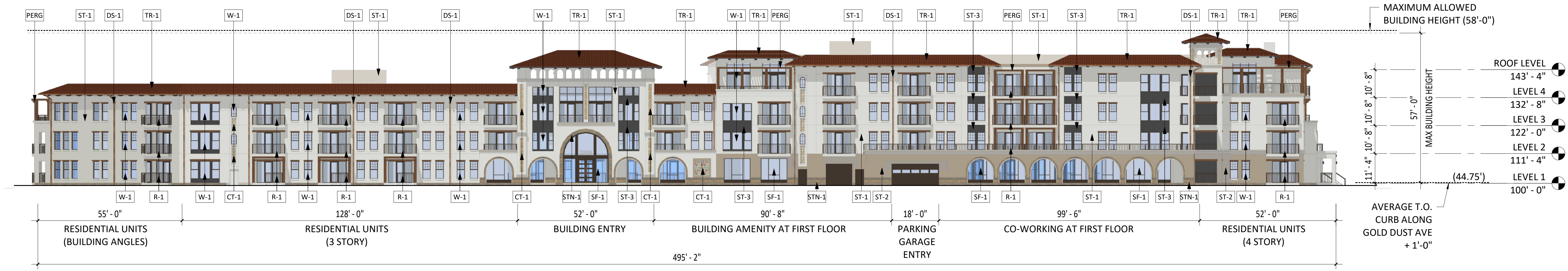
Response: The site design will maintain a low-water use plant palette. Context appropriate desert plant materials will be utilized consistent with the established vegetative pattern found throughout the area.

13. *The extent and quality of lighting should be integrally designed as part of the built environment.*

Response: Lighting will be designed in a manner that is respectful of the surrounding context while maintaining safety and wayfinding for residents, visitors and passing pedestrians.

14. *Signage should consider the distinctive qualities and character of the surrounding context in terms of size, color, location and illumination.*

Response: Project identification will be contextually appropriate and processed under a separate approval and permit process.



EAST ELEVATION
1" = 20'-0"



NORTH ELEVATION
1" = 20'-0"



WEST ELEVATION
1" = 20'-0"



SOUTH ELEVATION
1" = 20'-0"

ELEVATION MATERIAL KEY

ST-1	STUCCO - COLOR 'A'
ST-2	STUCCO - COLOR 'B'
ST-3	STUCCO - COLOR 'C'
STN-1	STONE
TR-1	TILE ROOFING
R-1	STEEL RAILING
CT-1	DECORATIVE TILE
DS-1	COPPER DOWNSPOUT
W-1	WINDOW/DOORS
SF-1	ALUMINUM STOREFRONT
PERG	PERGOLA SHADING ELEMENT

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CO-WORKING COURTYARD



CO-WORKING COURTYARD



Gold Dust

Transportation Impact & Mitigation Analysis



Prepared for:



High Street Residential
2575 East Camelback Road, Suite 400
Phoenix, AZ 85016



Prepared by:



Lokahi, LLC
10555 N. 114th Street,
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Project Number: 21.5257
March 25, 2022



TABLE OF CONTENTS:

- 1. Introduction and Executive Summary1**
 - 1.1. Purpose of Report and Study Objectives1
 - 1.2. Executive Summary.....1
- 2. Proposed Development4**
- 3. Area Conditions8**
 - 3.1. Study Roadway Segments.....8
 - 3.2. Study Intersections9
 - 3.3. Surrounding Area Land Use.....9
 - 3.4. Site Accessibility 10
 - 3.5. Collision Rates 11
 - 3.6. Collision History..... 11
- 4. Existing Conditions.....13**
 - 4.1. Existing Land Use13
 - 4.2. Existing Traffic Counts13
 - 4.3. Existing Capacity Analysis.....15
- 5. Projected Traffic..... 18**
 - 5.1. Trip Generation..... 18
 - 5.2. Trip Generation Comparison 19
 - 5.3. Trip Distribution and Assignment 19
- 6. Future Conditions (Year 2025)..... 22**
 - 6.1. Year 2025 No Build Traffic Volumes 22
 - 6.2. Year 2025 Build Traffic Volumes 22
 - 6.3. Year 2025 No Build Capacity Analysis..... 23
 - 6.4. Year 2025 Build Capacity Analysis 24
- 7. Recommendations & Conclusions.....30**



FIGURES:

Figure 1 – Vicinity Map 5

Figure 2 – Site Plan..... 6

Figure 3 – Study Area 7

Figure 4 – Existing Traffic Volumes 14

Figure 5 – Existing Capacity Analysis 17

Figure 6 – Trip Distribution..... 20

Figure 7 – Site Traffic Volumes 21

Figure 8 – Year 2025 No Build Traffic Volumes..... 26

Figure 9 – Year 2025 Build Traffic Volumes 27

Figure 10 – Year 2025 No Build Capacity Analysis..... 28

Figure 11 – Year 2025 Build Capacity Analysis 29

TABLES:

Table 1 – Collision Rates - Study Roadway Segment..... 11

Table 2 – Level of Service Criteria 15

Table 3 – Existing Level of Service and Delay 16

Table 4 – Trip Generation – Proposed Development..... 18

Table 5 – Trip Generation (Existing Land Use)..... 18

Table 6 – Trip Generation Comparison 19

Table 7 – Trip Generation (Adjacent Land Uses)..... 23

Table 8 – Year 2025 Level of Service and Delay 25

APPENDICES:

Appendix A – Proposed Site Plan..... A

Appendix B – Collision History B

Appendix C – Parcel Information C

Appendix D – Traffic Count Data D

Appendix E – Signal Timing E

Appendix F – Existing Capacity Analysis..... F

Appendix G – Trip Generation G

Appendix H – MAG Socioeconomic Projections H

Appendix I – Year 2025 No Build Capacity Analysis I

Appendix J – Year 2025 Build Capacity Analysis..... J





1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

Lōkahi, LLC (Lōkahi) was retained by High Street Residential to complete a Transportation Impact & Mitigation Analysis for the proposed Gold Dust development located on the southwest corner of Gold Dust Avenue and Scottsdale Road, in Scottsdale, Arizona. The objective of this Transportation Impact & Mitigation Analysis is to analyze the traffic related impacts of the proposed development to the adjacent roadway network. See **Figure 1** for the vicinity map.

1.2. EXECUTIVE SUMMARY

The proposed Gold Dust development will be located on the southwest corner of Gold Dust Avenue and Scottsdale Road in Scottsdale, Arizona. The proposed Gold Dust development will be comprised of a total of 254 multifamily residential units, of which, there will be 168 one-bedroom, 81 two-bedroom, and 5 three-bedrooms units. Additionally, an approximate 2,500 square foot fitness/yoga studio will be located on-site that will be open to the general public.

This Transportation Impact and Mitigation Analysis includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Trip Generation for the existing development
- Trip Generation for the proposed development
- Trip Generation Comparison
- Level of service analysis for the opening year (2025) weekday AM and PM peak hours
 - 2025 No Build
 - 2025 Build

The following are the intersections included in this study:

- Gold Dust Avenue and Driveway A (1)
- Gold Dust Avenue and Scottsdale Road (2)
- Scottsdale Road and Driveway B (3)
- Scottsdale Road and Acacia Driveway (4)

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analysis were completed for the existing study intersections. The results of the capacity analysis reveal the following location with an existing level of service (LOS) E or F:

Gold Dust Avenue and Scottsdale Road (2)

- Southbound shared through-right AM and PM peak hours operate at LOS E





Trip Generation

The proposed development is anticipated to generate 1,225 weekday trips with 97 occurring during the AM peak hour and 108 trips during the PM peak hour.

Trip Generation – Proposed Development

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	1,153	94	22	72	99	60	39
Health/Fitness Club	492	2.5	1000 SF GFA	72	3	2	1	9	5	4
Total				1,225	97	24	73	108	65	43

Trip Generation Comparison

The build-out of the proposed Gold Dust development is anticipated to generate 277 (18%) fewer weekday trips, with 32 (49%) more trips during the AM peak hour, and 74 (41%) fewer trips during the PM peak hour than the existing 27,581 square-foot commercial building.

Trip Generation Comparison

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	1,153	94	22	72	99	60	39
Health/Fitness Club	492	3	1000 SF GFA	72	3	2	1	9	5	4
Proposed Development Total				1,225	97	24	73	108	65	43
Strip Retail Plaza (<40k)	822	27,581	1000 SF GLA	1,502	65	40	25	182	91	91
Existing Land Use Total				1,502	65	40	25	182	91	91
Difference				-277	32	-16	48	-74	-26	-48
Percent Difference				-18%	49%	-40%	191%	-41%	-29%	-53%



Future Conditions - Year 2025

The Gold Dust development is anticipated to be constructed and ready to open in the year 2025. Therefore, year 2025 analyses was completed with and without the build out of the proposed development. An annual growth rate of 2.0% was applied to the existing traffic volumes.

A capacity analysis was completed for both the AM and PM peak hours for year 2025, with and without the build out of the proposed development. All movements operate at a LOS D or better or are maintained at the year 2025 no build level of service.

Recommendations

The existing Driveway A located approximately 400 feet west of Scottsdale Road will be slightly modified to align with the driveway on the north side of Gold Dust Avenue. Aligned driveways are ideal as they minimize confusion and overlapping of vehicular paths, specifically left turn movements. This driveway will continue to operate as it does today as a full access driveway.

Additionally, an existing full access driveway located along Gold Dust Avenue, approximately 600 feet west of Scottsdale Road will be removed. This will reduce the number of conflict points along this stretch of roadway.

It is anticipated that the proposed Gold Dust development will operate at acceptable levels of service and the access modifications described above will improve the overall operation of Gold Dust Avenue in this area.



2. PROPOSED DEVELOPMENT

The proposed development is located on the southwest corner of Gold Dust Avenue and Scottsdale Road in the City of Scottsdale, Arizona. The proposed Gold Dust development will be comprised of a total of 254 multifamily residential units, of which, there will be 168 one-bedroom, 81 two-bedroom, and 5 three-bedrooms units. Additionally, an approximate 2,500 square foot fitness/yoga studio will be located on-site that is anticipated to be open to the general public.

See **Figure 2** and **Appendix A** for the proposed site plan.

There are three (3) access points to the proposed site. All three (3) access points are existing driveways that provide shared access to adjacent developments.

Gold Dust Avenue and Driveway A (1) is an existing driveway located approximately 400 feet west of Scottsdale Road (centerline to centerline) and will be a full access driveway. This will remain a shared-access driveway.

Scottsdale Road and Driveway B (3) is an existing driveway located approximately 330 feet south of Gold Dust Avenue (centerline to centerline) and will be a right-in and right-out only driveway. This will remain a shared-access driveway.

Scottsdale Road and Acacia Driveway (4) is an existing driveway located approximately 650 feet south of Gold Dust Avenue (centerline to centerline) and will be a full access driveway. This will remain a shared-access driveway.

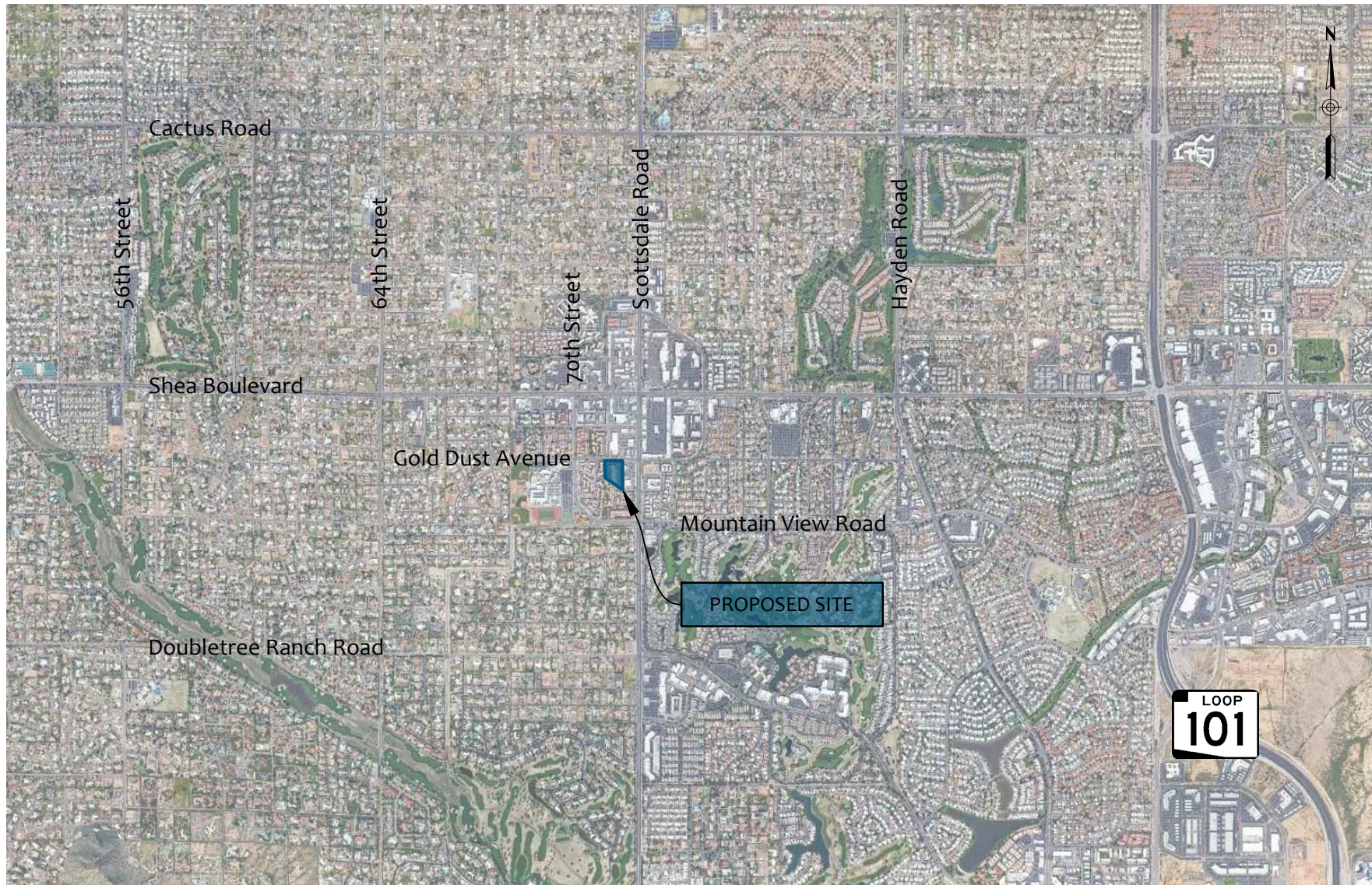


FIGURE 1 | VICINITY MAP

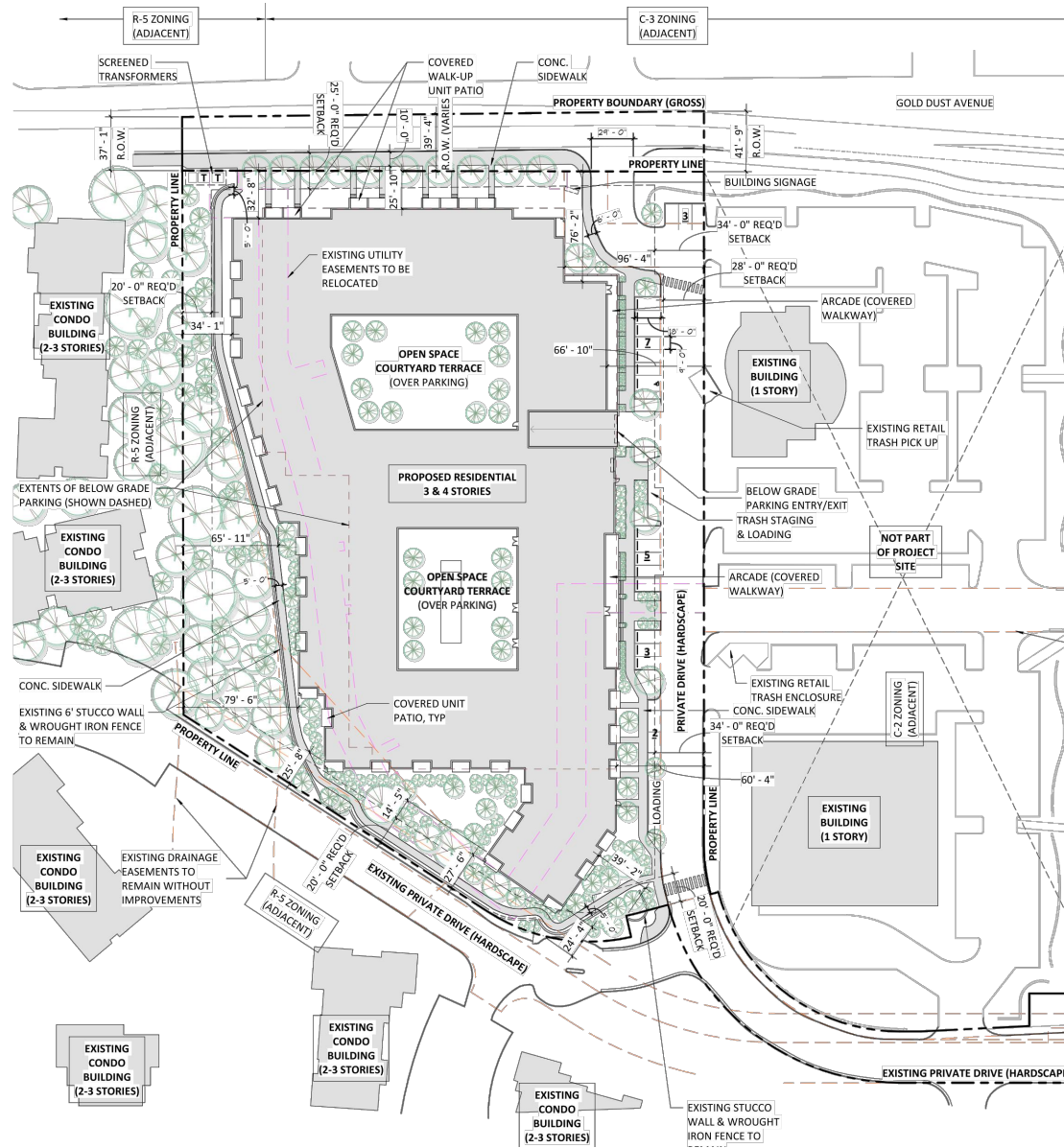


FIGURE 2 | SITE PLAN



LEGEND

- ◆ Intersection

FIGURE 3 | STUDY AREA



3. AREA CONDITIONS

The study area is located in the City of Scottsdale, Arizona. **Sections 3.1** and **3.2** provide detailed descriptions of the study roadway segments and intersections. See **Figure 3** for study area.

3.1. STUDY ROADWAY SEGMENTS

Scottsdale Road is a north-south roadway that provides three (3) travel lanes in each direction of travel, with a center raised median. The City of Scottsdale classifies Scottsdale Road as a major arterial, according to the *City of Scottsdale Transportation Master Plan*, dated July 5, 2016. The City of Scottsdale's 2018 *Average Daily Segment Traffic (ADT) Volumes* map reports an ADT of 38,800 and 40,500 vehicles per day (vpd) along Scottsdale Road, south and north of Shea Boulevard, respectively. There is a posted speed limit of 40 miles per hour (mph).

Gold Dust Avenue is an east-west roadway that generally provides one (1) travel lanes for each direction of travel, center two-way left turn lane, west of Scottsdale Road. East of Scottsdale Road, Gold Dust Avenue provides two (2) travel lanes for each direction of travel, with intermittent center two-way left turn lane and raised median. Approximately one-quarter of a mile east of Scottsdale Road, Gold Dust Avenue becomes 74th Street, which generally runs north-south. Similarly, approximately six-tenths of a mile to the west of Scottsdale Road, Gold Dust Avenue terminates at 68th Street. The City of Scottsdale classifies Gold Dust Avenue as a major collector, east of Scottsdale Road, according to the *City of Scottsdale Transportation Master Plan*, dated July 5, 2016. There is a posted speed limit of 30 mph and 35 mph, west and east of Scottsdale Road, respectively.



3.2. STUDY INTERSECTIONS

Gold Dust Avenue and Driveway A (1) currently operates as a two-way stop-controlled intersection, with the stop control on the northbound and southbound approaches. The northbound and southbound approaches each provide one (1) shared left-through-right turn lane. The eastbound and westbound approaches each provide one (1) dedicated left turn lane (via a center two-way left turn lane) and one (1) shared through-right turn lane.

Gold Dust Avenue and Scottsdale Road (2) currently operates a signalized intersection. The northbound approach provides one (1) dedicated left turn lane, three (3) through lanes, and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) shared through-right turn lane. The eastbound approach provides one (1) dedicated left turn lane, one (1) through lane, 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.

Scottsdale Road and Driveway B (3) currently operates as a two-way stop-controlled intersection, with the stop control on the eastbound and westbound approaches. The northbound approach provides two (2) through lanes and one (1) shared through-right turn lane. The southbound approach provides two (2) through lanes and one (1) shared through-right turn lane. The eastbound and westbound approaches each provide one (1) dedicated right turn lane.

Scottsdale Road and Acacia Driveway (4) currently operates as a two-way stop-controlled intersection, with the stop control on the eastbound and westbound approaches. The northbound approach provides one (1) dedicated left turn lane, three (3) through lanes, and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) shared through-right turn lane. The eastbound and westbound approaches each provide one (1) shared left-through-right turn lane.

3.3. SURROUNDING AREA LAND USE

The proposed development is located in Scottsdale, Arizona. The proposed development is bordered by Gold Dust Avenue to the north, the Mosaic Apartments to the west, the Verona Condominium Homes to the south, and CVS Pharmacy and California Pizza Kitchen to the east. Chaparral High School is located approximately 700 feet west of the proposed site, at the southwest corner of Gold Dust Avenue and 70th Street. The remaining vicinity area is generally occupied by residential and commercial land uses.



3.4. SITE ACCESSIBILITY

Roadway System

The study area is located in the City of Scottsdale, Arizona approximately two (2) miles west of State Route 101 (SR 101). This route provides regional access to the Phoenix metropolitan area. Within the vicinity of the proposed site there is a well-developed roadway network.

Pedestrian Facilities

Continuous sidewalks are generally provided along the study roadway segments within the study area.

Marked crosswalks are provided along each crossing at the intersection of Gold Dust Avenue and Scottsdale Road (2).

Bicycle Facilities

Marked on-street bike lanes are provided in each direction of travel along Scottsdale Road and Gold Dust Avenue, within the study area. However, west of 70th Street, Gold Dust Avenue does not provide marked bike lanes.

Transit Facilities

Within the study area, Valley Metro Route 72 operates along Scottsdale Road. There are two (2) bus stops for Route 72 in the immediate area. There is one (1) bus stop provided on the southwest corner of Gold Dust Avenue and Scottsdale Road (2). An additional bus stop is located along the east side of Scottsdale Road approximately 200-feet south of Gold Dust Avenue.

Additionally, Valley Metro Route 80 operates along Shea Boulevard.



3.5. COLLISION RATES

The City of Scottsdale’s 2020 Traffic Volume & Collision Report provides collision rate and traffic volume information on major roadway segments and at major intersections within the City. Segment collisions are collisions that occur on a major street more than 100 feet from the major intersections that define the segment, including at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of a major intersection. The collision rate and city-wide ranking for study roadway segments are shown in **Table 1**.

Table 1 – Collision Rates - Study Roadway Segment

Segment	From	To	Collision Rate	Rank
Scottsdale Road	Mountain View Road	Shea Boulevard	3.87	21
2020 City of Scottsdale Average Segment Collision Rate			1.36	

Collision rates for the study intersections are not provided in the City of Scottsdale’s 2020 Traffic Volume & Collision Report.

3.6. COLLISION HISTORY

The most recent 3-year collision history, from January 2019 to December 2021, was obtained from the City of Scottsdale. See **Appendix B** for collision data. The data included the following intersections and segments:

- Gold Dust Avenue and Scottsdale Road (2)
- Gold Dust Avenue, 70th Street to Scottsdale Road
- Scottsdale Road, Gold Dust Avenue to Mountain View Road

Gold Dust Avenue and Scottsdale Road (2)

During the three-year period, there were a total of 27 reported collisions at the intersection of Gold Dust Avenue and Scottsdale Road (2). Of the 27 collisions, there were 8 angle, 8 left turn, 5 rear end, 4 sideswipe same direction, 1 head on, and 1 unknown collision(s). There was a total of 11 failed to yield the right-of-way, 4 disregarded traffic signal, 3 unknown, 3 no improper action, 2 unsafe lane change, 2 other, 1 speed too fast for conditions, and 1 followed too closely collisions(s).

Gold Dust Avenue, 70th Street to Scottsdale Road

During the three-year period, there were a total of 4 reported collisions along the segment of Gold Dust Avenue, between 70th Street and Scottsdale Road. Of the 4 collisions, there were 3 angle and 1 single vehicle collision(s). Of which, 2 were speed too fast for conditions, 1 made improper turn, and 1 unknown.





Scottsdale Road, Gold Dust Avenue to Mountain View Road

During the three-year period, there were a total of 14 reported collisions along the segment of Scottsdale Road, between Gold Dust Avenue and Mountain View Road. Of the 14 collisions, there were 6 rear end, 5 sideswipe same direction, 1 angle, 1 single vehicle, and 1 other collision(s). Of which, 5 were speed too fast for conditions, 3 failed to yield the right-of-way, 1 unsafe lane change, 1 exceed lawful speed, 1 made improper turn, 1 failed to keep in proper lane, 1 other, and 1 unknown.



4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

According to the Maricopa County Assessor, the approximate 4.76-acre site is a currently occupied by an approximate 27,581 square-foot commercial building. The site is currently zoned for Central Business (C-2) land uses. This zoning is intended to accommodate shopping and service needs for nearby neighborhoods. See [Appendix C](#) for detailed parcel information.

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, All Traffic Data, was utilized to collect traffic counts. On Tuesday, March 1, 2022, turning movement counts were obtained from 7:00 to 9:00 am and from 4:00 to 6:00 pm at the following locations:

- Gold Dust Avenue and Driveway A (1)
- Gold Dust Avenue and Scottsdale Road (2)
- Scottsdale Road and Driveway B (3)
- Scottsdale Road and Acacia Driveway (4)

Additionally, on Tuesday, March 1, 2022, bi-directional tube counts for 24-hours in 15-minute intervals were collected along the following roadway segments:

- Scottsdale Road, south of Gold Dust Avenue
- Gold Dust Avenue, west of Scottsdale Road

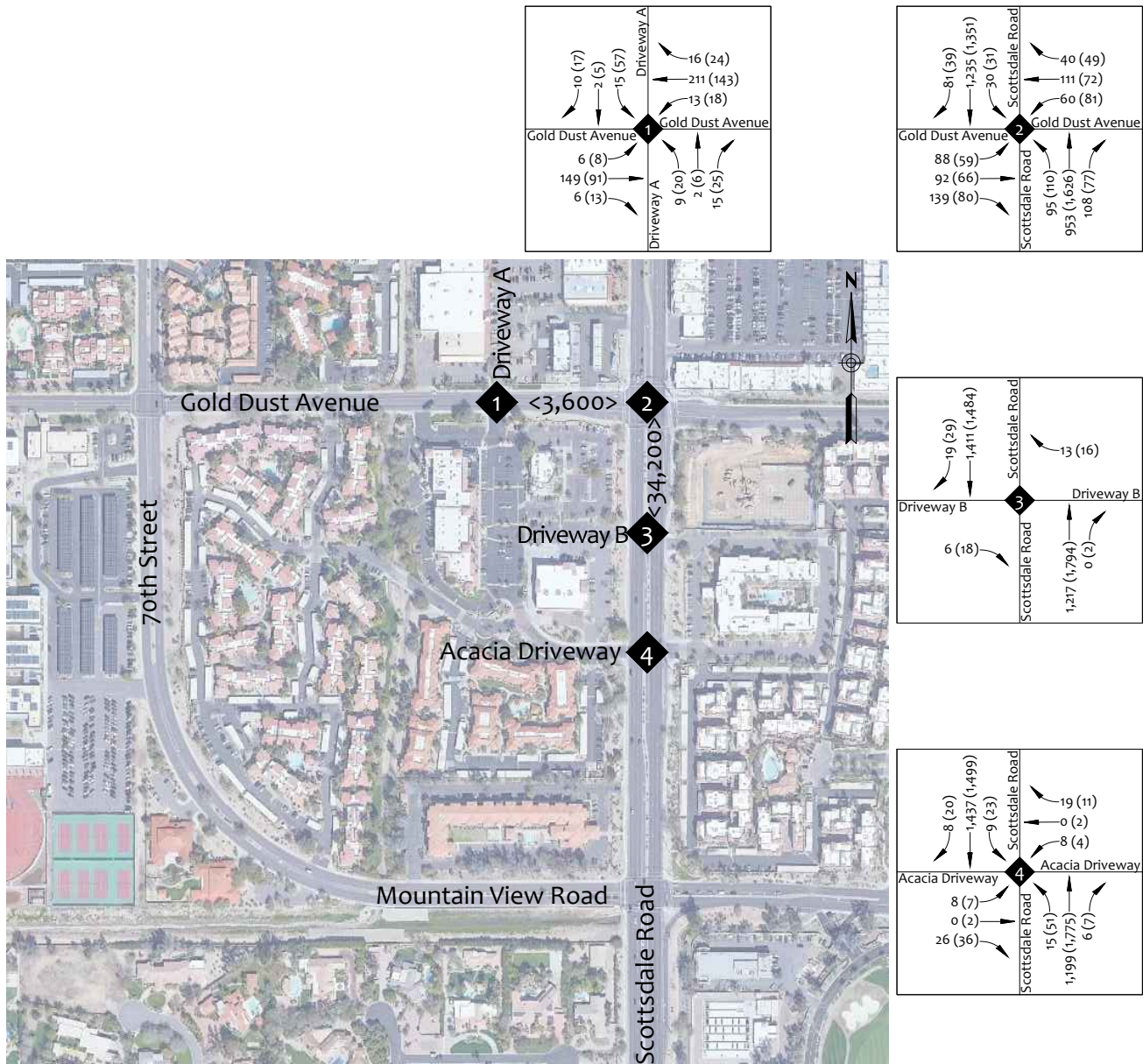
The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

AM Peak Hour	7:30 am – 8:30 am
PM Peak Hour	4:45 pm – 5:45 pm

The City of Scottsdale’s citywide seasonal adjustment factors were used to adjust the traffic counts. The traffic volumes were adjusted based on the month the counts were taken.

The recorded turning movement counts indicate that some u-turns movements were performed at study intersections. These u-turn volumes were added to the respective left turn movement volumes for the purposes of this study.

See [Appendix D](#) for detailed count data. See [Figure 4](#) for the existing adjusted AM and PM peak hour weekday traffic volumes.



LEGEND

AM (PM) Peak Hour Traffic Volumes

◆ Intersection

<ADT> Average Daily Traffic

FIGURE 4 | EXISTING TRAFFIC VOLUMES



4.3. EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the existing study intersections. The capacity and level of service for the study area intersections were evaluated using the methodology presented in the 6th Edition of the Highway Capacity Manual (HCM). Traffic analysis software, Synchro Version 11, was used to perform the analyses using the signal timing provided by the City of Scottsdale. The existing peak hour factor (PHF) was used. However, if the existing PHF was greater than 0.92, the PHF was defaulted to 0.92. See **Appendix E** for the existing signal timing.

Table 2 is from the 6th Edition of the Highway Capacity Manual Exhibit 20-2, which lists the Level of Service (LOS) thresholds for signalized and unsignalized intersections.

Table 2 – Level of Service Criteria

Level of Service (LOS)	Control Delay per Vehicle (s/veh)	
	Signalized Intersection	Unsignalized Intersection
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

The results of the capacity analysis reveal the following locations with an existing level of service (LOS) E or F:

Gold Dust Avenue and Scottsdale Road (2)

- Southbound shared through-right AM and PM peak hours operate at LOS E

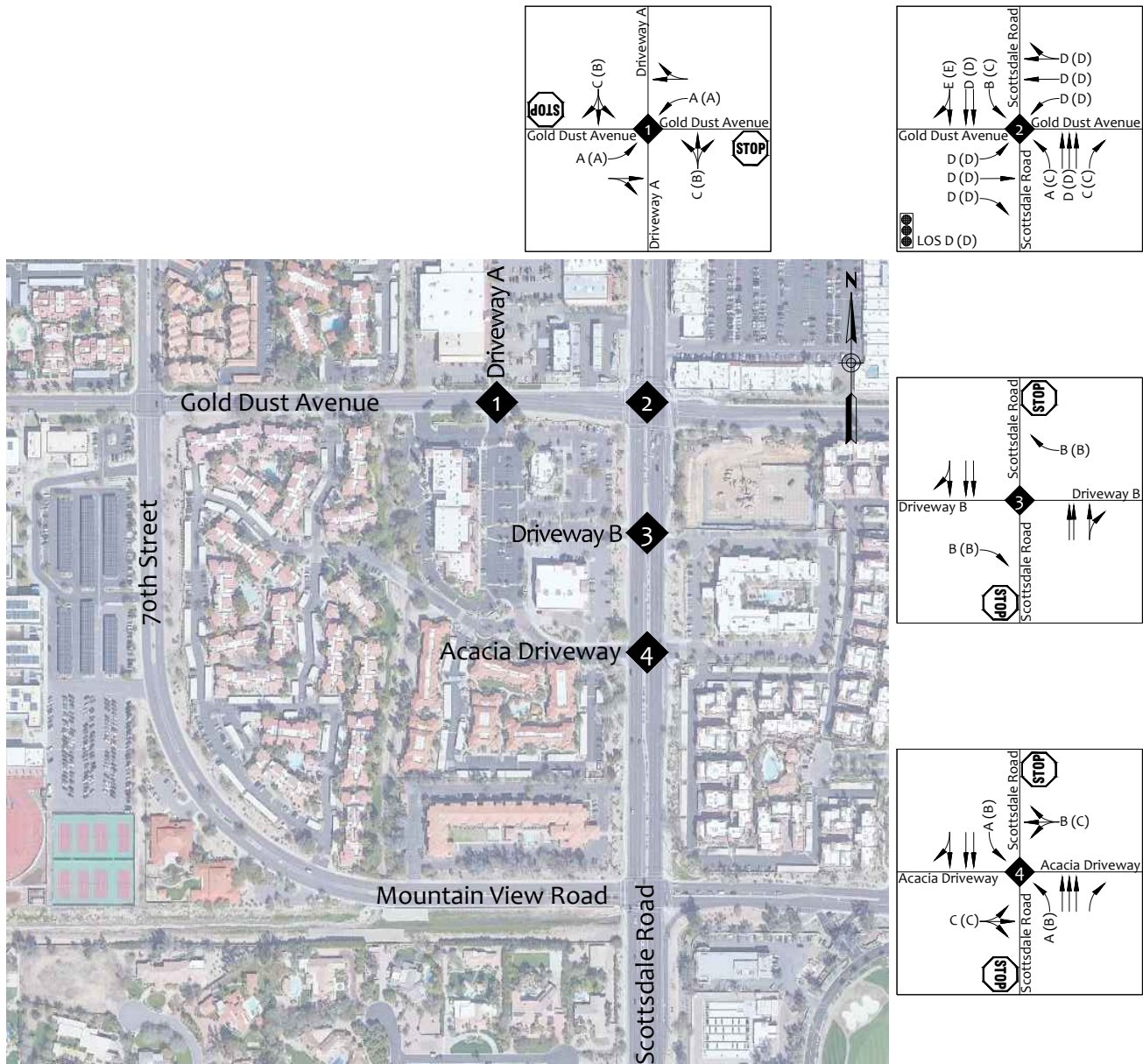
The existing AM and PM peak hour level of service and delay for the study intersections are shown in **Table 3**.

See **Figure 5** for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix F**.



Table 3 – Existing Level of Service and Delay

Intersection	Existing Conditions			
	AM PEAK		PM PEAK	
Study Intersections	LOS	DELAY	LOS	DELAY
Gold Dust Avenue and Driveway A (1)				
Eastbound Left	A	8.4	A	7.7
Westbound Left	A	8.0	A	7.5
Northbound Shared Left-Through-Right	C	15.7	B	10.8
Southbound Shared Left-Through-Right	C	19.5	B	12.5
Gold Dust Avenue and Scottsdale Road (2)				
Overall Intersection	D	45.1	D	45.5
Eastbound Left	D	53.5	D	53.0
Eastbound Through	D	46.0	D	48.2
Eastbound Right	D	49.4	D	49.3
Westbound Left	D	52.4	D	54.5
Westbound Through	D	45.6	D	48.1
Westbound Shared Through-Right	D	45.8	D	48.3
Northbound Left	A	9.6	C	20.4
Northbound Through	D	40.3	D	41.2
Northbound Right	C	27.1	C	24.5
Southbound Left	B	16.9	C	25.4
Southbound Through	D	49.1	D	50.1
Southbound Shared Through-Right	E	56.4	E	57.3
Scottsdale Road and Driveway B (3)				
Eastbound Right	B	11.2	B	11.6
Westbound Right	B	10.8	B	12.4
Scottsdale Road and Acacia Driveway (4)				
Eastbound Shared Left-Through-Right	C	15.5	C	17.0
Westbound Shared Left-Through-Right	B	13.8	C	20.5
Northbound Left	A	10.0	B	10.5
Southbound Left	A	9.7	B	10.9



LEGEND

AM (PM) Peak Hour Capacity Analysis

- ◆ Intersection
- ↔ Lane Configuration

FIGURE 5 | EXISTING CAPACITY ANALYSIS



5. PROJECTED TRAFFIC

5.1. 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.

Proposed Development

The trip generation for the proposed Gold Dust development was calculated utilizing ITE Land Use 221 – Multifamily Housing (Mid-Rise) and ITE Land Use 492 – Health Club. However, ITE Land Use 492 does not currently provide weekday data, therefore, ITE Land Use 495 Recreation Community Center weekday data was utilized for the fitness/yoga studio calculations. Trip generation calculations are shown in **Table 4** below. Detailed trip generation calculations are provided in **Appendix G**.

Table 4 – Trip Generation – Proposed Development

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	1,153	94	22	72	99	60	39
Health/Fitness Club	492	2.5	1000 SF GFA	72	3	2	1	9	5	4
Total				1,225	97	24	73	108	65	43

The proposed development is anticipated to generate 1,225 weekday trips with 97 occurring during the AM peak hour and 108 trips during the PM peak hour.

Existing Land Use

According to Maricopa County Assessor, the existing parcel is occupied by 27,581 square-foot commercial building. Utilizing ITE Land Use 822 – Strip Retail Plaza (<40K), the trip generation for the existing land use was calculated as shown in **Table 5** below.

Table 5 – Trip Generation (Existing Land Use)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Strip Retail Plaza (<40k)	822	27,581	1000 SF GLA	1,502	65	40	25	182	91	91



5.2. TRIP GENERATION COMPARISON

Proposed Development versus Existing Land Use

A trip generation comparison between the proposed Gold Dust development and the existing 27,581 square-foot commercial building was calculated. See **Table 6** below.

Table 6 – Trip Generation Comparison

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	1,153	94	22	72	99	60	39
Health/Fitness Club	492	3	1000 SF GFA	72	3	2	1	9	5	4
Proposed Development Total				1,225	97	24	73	108	65	43
Strip Retail Plaza (<40k)	822	27,581	1000 SF GLA	1,502	65	40	25	182	91	91
Existing Land Use Total				1,502	65	40	25	182	91	91
Difference				-277	32	-16	48	-74	-26	-48
Percent Difference				-18%	49%	-40%	191%	-41%	-29%	-53%

The build-out of the proposed Gold Dust development is anticipated to generate 277 (18%) fewer weekday trips, with 32 (49%) more trips during the AM peak hour, and 74 (41%) fewer trips during the PM peak hour than the existing 27,581 square-foot commercial building.

5.3. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution procedure determines the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution for Gold Dust development is based on the distribution of the existing traffic. This project is being developed in a primarily developed area, so it can be assumed that the existing trip distribution will remain. The trip distribution is shown in **Figure 6**.

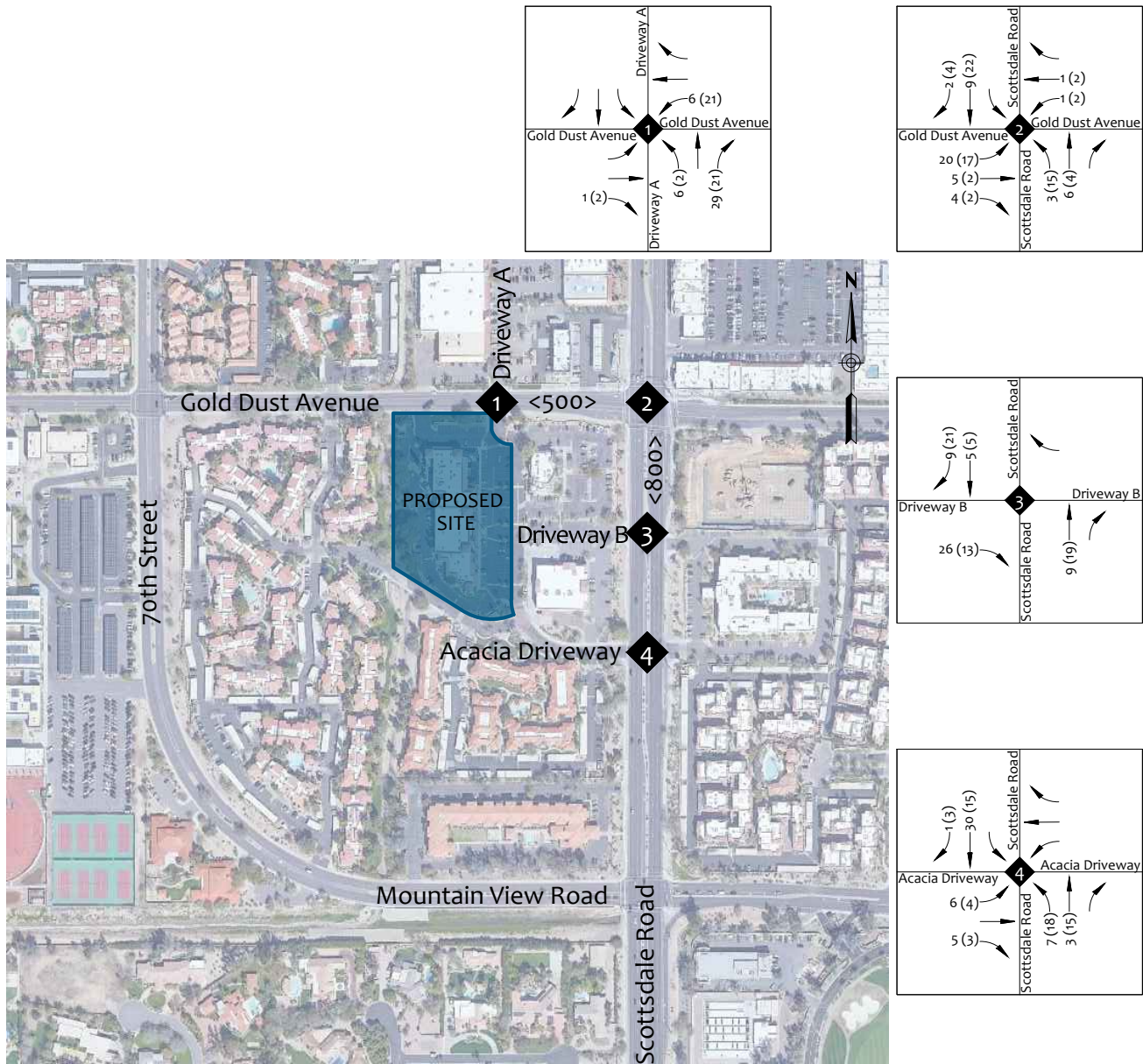
The trip assignment was generally based on proximity of the driveways, permitted turn movements, as well as ease and probability of use. The site generated traffic volumes are shown in **Figure 7**.



LEGEND

- AM (PM) Inbound Trip Distribution Percentages
- AM (PM) Outbound Trip Distribution Percentages
- ◆ Intersection

FIGURE 6 | TRIP DISTRIBUTION



LEGEND

AM (PM) Peak Hour Traffic Volumes

◆ Intersection

<ADT> Average Daily Traffic

FIGURE 7 | SITE TRAFFIC VOLUMES



6. FUTURE CONDITIONS (YEAR 2025)

The proposed Gold Dust development is anticipated to be constructed and ready to open in the year 2025. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year of 2025.

6.1. YEAR 2025 NO BUILD TRAFFIC VOLUMES

According to the 2019 Maricopa Associations of Governments (MAG) socioeconomic projections in the City of Scottsdale within the study area (RAZ 247), it is estimated that in the year 2018 the population was approximately 13,549. MAG estimates that the 2030 population of the surrounding area to be 15,420. This results in an approximate annual growth rate of 1.08%.

As a conservative approach, a 2.0% annual growth rate was utilized. See **Appendix H** for the MAG socioeconomic projections. See **Figure 8** for the year 2025 no build traffic volumes.

6.2. YEAR 2025 BUILD TRAFFIC VOLUMES

As previously discussed, the existing 27,581 square foot commercial building will be replaced by the proposed Gold Dust development. Therefore, the trip generation for the land uses that have access to the study driveways (Driveway A, Driveway B, and Acacia Driveway) was calculated.

In addition to the 27,581 square foot commercial building, the following developments currently have access to the site driveways:

- California Pizza Kitchen 5,160 square feet
- CVS Pharmacy 14,391 square feet
- Mosaic Apartments 304 multi-family units
- Verona Condominiums 108 multi-family units



Table 7 – Trip Generation (Adjacent Land Uses)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Low-Rise)	220	304	Dwelling Units	2,024	117	28	89	151	95	56
Multifamily Housing (Low-Rise)	220	108.0	Dwelling Units	768	56	13	43	67	42	25
High-Turnover (Sit-Down) Restaurant	932	5.2	1000 SF GFA	553	49	27	22	47	29	18
Pharmacy/Drugstore with Drive-Thru	881	14.4	1000 SF GFA	1,560	54	28	26	148	74	74
Adjacent Land Use Total Trips				4,905	276	96	180	413	240	173
Strip Retail Plaza (<40k)	822	28	1000 SF GLA	1,502	65	40	25	182	91	91
Commercial Total Trips (To Be Removed)				1,502	65	40	25	182	91	91
Total Trips				6,407	341	136	205	595	331	264
Percent Removed				23%	19%	29%	12%	31%	27%	34%

As shown in **Table 7**, of the parcels with access to the site driveways, the 27,581 square foot commercial building represents 19% and 31% of the total AM and PM peak hour volumes, respectively. Therefore, the 2025 no build traffic volumes entering and exiting the site driveways (Driveway A, Driveway B, and Acacia Driveway) were reduced by the appropriate peak hour percentages. Detailed trip generation calculations are provided in **Appendix G**.

When the site traffic (**Figure 7**) are added to the year 2025 no build traffic (**Figure 8**), the result is the 2025 build traffic volumes. This represents the traffic volumes with the build out of the proposed development. The year 2025 build traffic volumes are shown in **Figure 9**.

6.3. YEAR 2025 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the 2025 no build scenario. The PHF was assumed to be 0.92.

The year 2025 no build AM and PM peak hour level of service and delay for the study intersections are shown in **Table 8**. The detailed capacity analysis sheets can be found in **Appendix I**.

The results of the year 2025 no build capacity analysis are shown in **Figure 10**. The results of the capacity analysis reveal the following locations with a level of service (LOS) E or F:

Gold Dust Avenue and Scottsdale Road (2)

- Southbound shared through-right AM and PM peak hours operate at LOS E



6.4. YEAR 2025 BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2025 build traffic volumes. See **Figure 9**. The PHF was assumed to be 0.92.

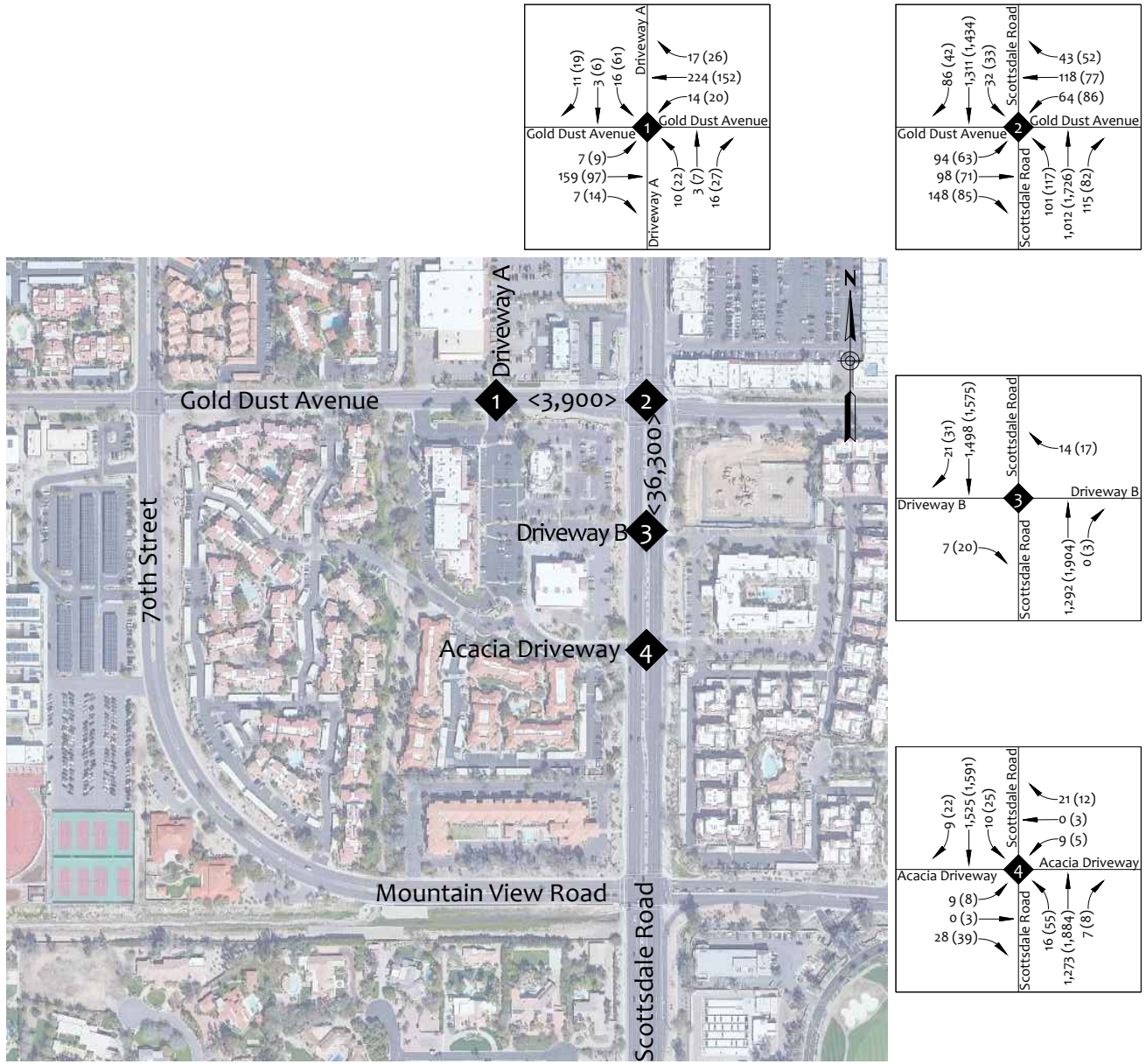
The year 2025 build AM and PM peak hour level of service and delay for the study intersections are shown in **Table 8**. The detailed capacity analysis sheets can be found in **Appendix J**.

The results of the year 2025 build capacity analysis are shown in **Figure 11**. All movements operate at a LOS D or better or are maintained at the year 2025 no build level of service.



Table 8 – Year 2025 Level of Service and Delay

Intersection	2025 No Build Conditions				2025 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Study Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Gold Dust Avenue and Driveway A (1)								
Eastbound Left	A	7.8	A	7.6	A	7.8	A	7.6
Westbound Left	A	7.6	A	7.5	A	7.6	A	7.5
Northbound Shared Left-Through-Right	B	11.0	B	10.7	B	10.6	B	10.4
Southbound Shared Left-Through-Right	B	11.9	B	12.1	B	12.2	B	12.7
Gold Dust Avenue and Scottsdale Road (2)								
Overall Intersection	D	45.4	D	43.9	D	45.1	D	43.7
Eastbound Left	D	53.6	D	52.8	D	52.7	D	53.5
Eastbound Through	D	46.3	D	47.4	D	44.6	D	47.1
Eastbound Right	D	49.5	D	48.6	D	47.5	D	48.3
Westbound Left	D	52.6	D	54.2	D	50.8	D	54.1
Westbound Through	D	45.8	D	47.4	D	44.0	D	47.0
Westbound Shared Through-Right	D	46.0	D	47.6	D	44.2	D	47.2
Northbound Left	A	8.8	C	22.6	B	10.6	C	23.4
Northbound Through	D	40.8	D	39.3	D	40.7	D	39.2
Northbound Right	C	27.7	C	22.5	C	27.5	C	22.4
Southbound Left	B	16.5	C	28.2	B	17.7	C	28.5
Southbound Through	D	49.6	D	48.3	D	49.4	D	47.9
Southbound Shared Through-Right	E	57.0	E	55.3	E	56.8	D	54.8
Scottsdale Road and Driveway B (3)								
Eastbound Right	B	11.4	B	11.9	B	11.8	B	12.0
Westbound Right	B	10.8	B	12.8	B	10.8	B	12.8
Scottsdale Road and Acacia Driveway (4)								
Eastbound Shared Left-Through-Right	C	16.1	C	22.9	C	18.7	D	26.5
Westbound Shared Left-Through-Right	B	14.2	D	30.5	B	14.5	D	30.8
Northbound Left	B	10.2	B	10.7	B	10.2	B	10.8
Southbound Left	A	9.6	B	11.2	A	9.6	B	11.2



LEGEND

AM (PM) Peak Hour Traffic Volumes

◆ Intersection

<ADT> Average Daily Traffic

FIGURE 8 | YEAR 2025 NO BUILD TRAFFIC VOLUMES

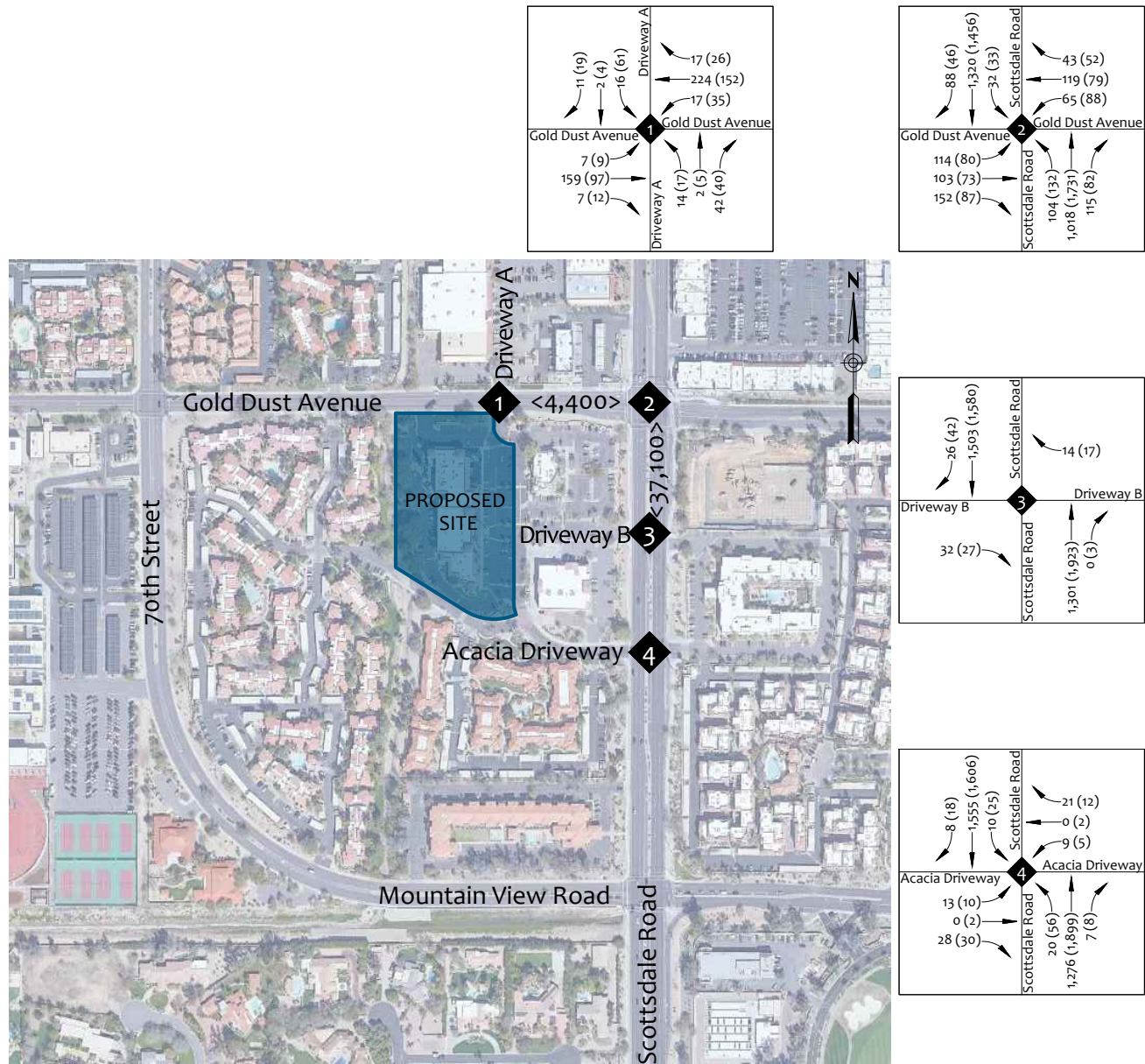
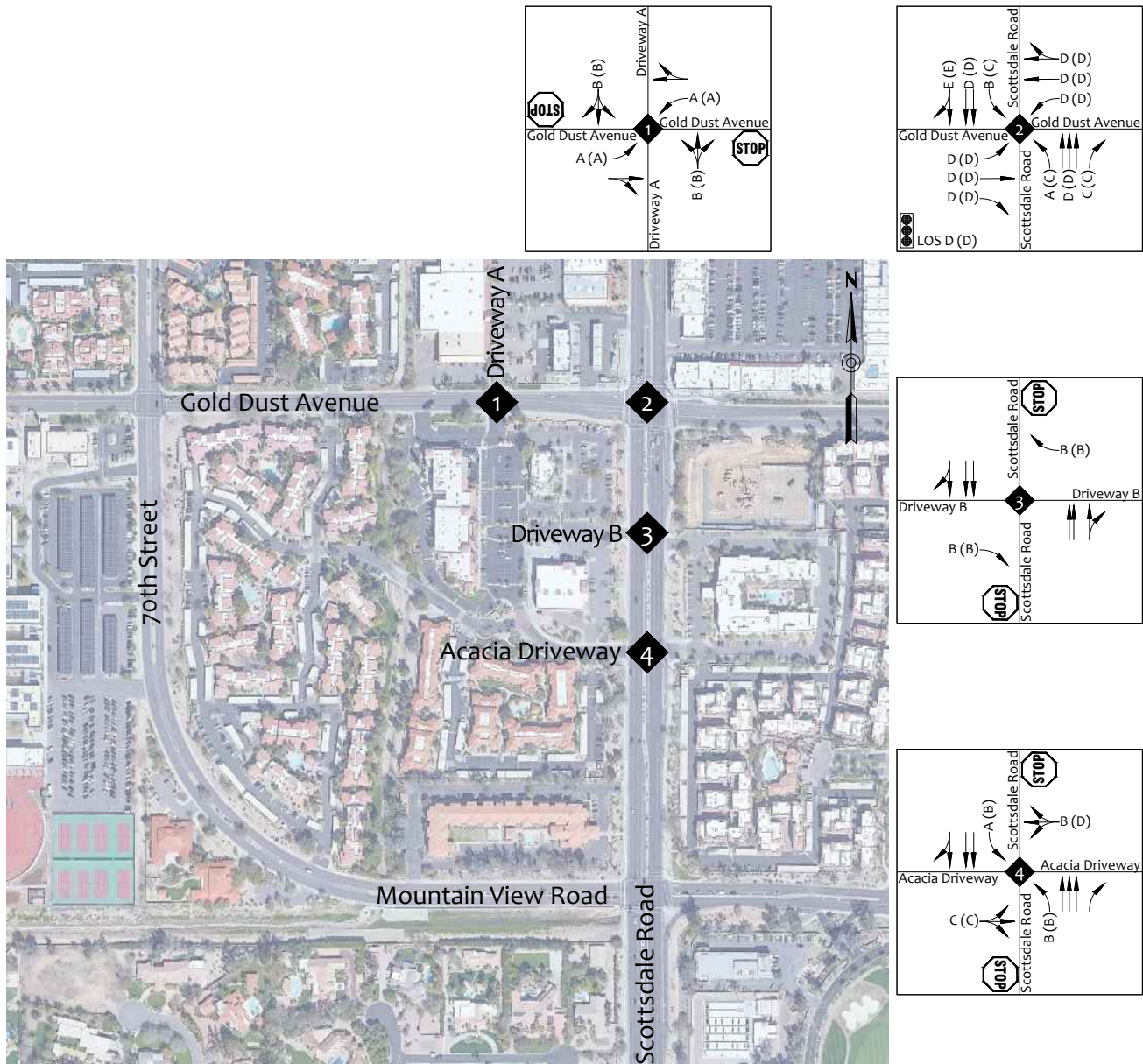


FIGURE 9 | YEAR 2025 BUILD TRAFFIC VOLUMES

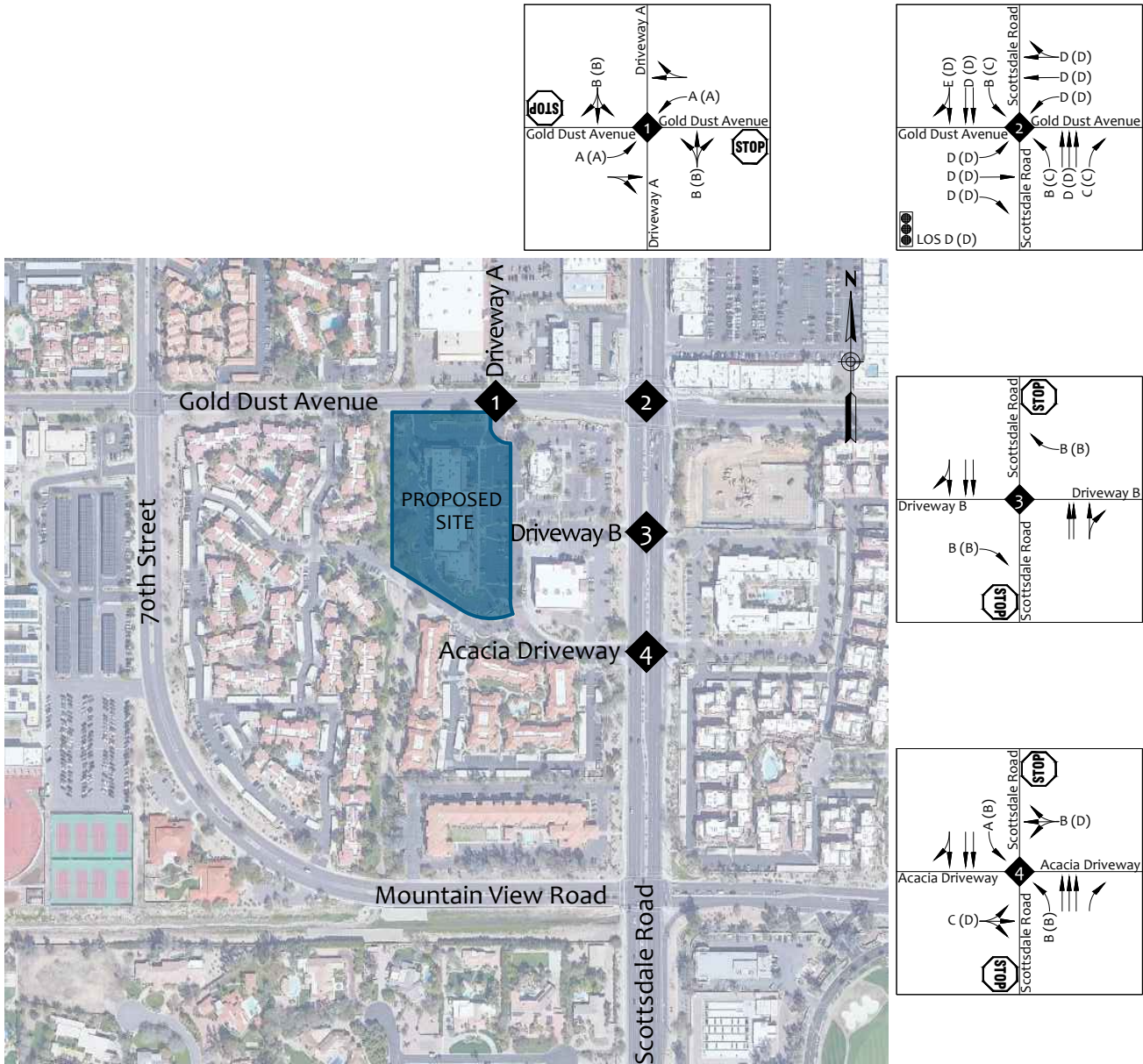


LEGEND

AM (PM) Peak Hour Capacity Analysis

- ◆ Intersection
- ↔ Lane Configuration

FIGURE 10 | YEAR 2025 NO BUILD CAPACITY ANALYSIS



- LEGEND**
- AM (PM) Peak Hour Capacity Analysis
 - ◆ Intersection
 - ↔ Lane Configuration

FIGURE 11 | YEAR 2025 BUILD CAPACITY ANALYSIS



7. RECOMMENDATIONS & CONCLUSIONS

The proposed Gold Dust development will be located on the southwest corner of Gold Dust Avenue and Scottsdale Road in the City of Scottsdale, Arizona. The proposed Gold Dust development will be comprised of a total of 254 multifamily residential units, of which, there will be 168 one-bedroom, 81 two-bedroom, and 5 three-bedrooms units. Additionally, an approximate 2,500 square foot fitness/yoga studio will be located on-site that will be open to the general public.

Trip Generation

The proposed development is anticipated to generate 1,225 weekday trips with 97 occurring during the AM peak hour and 108 trips during the PM peak hour.

Trip Generation Comparison

The build-out of the proposed Gold Dust development is anticipated to generate 277 (18%) fewer weekday trips, with 32 (49%) more trips during the AM peak hour, and 74 (41%) fewer trips during the PM peak hour than the existing 27,581 square-foot commercial building.

Recommendations

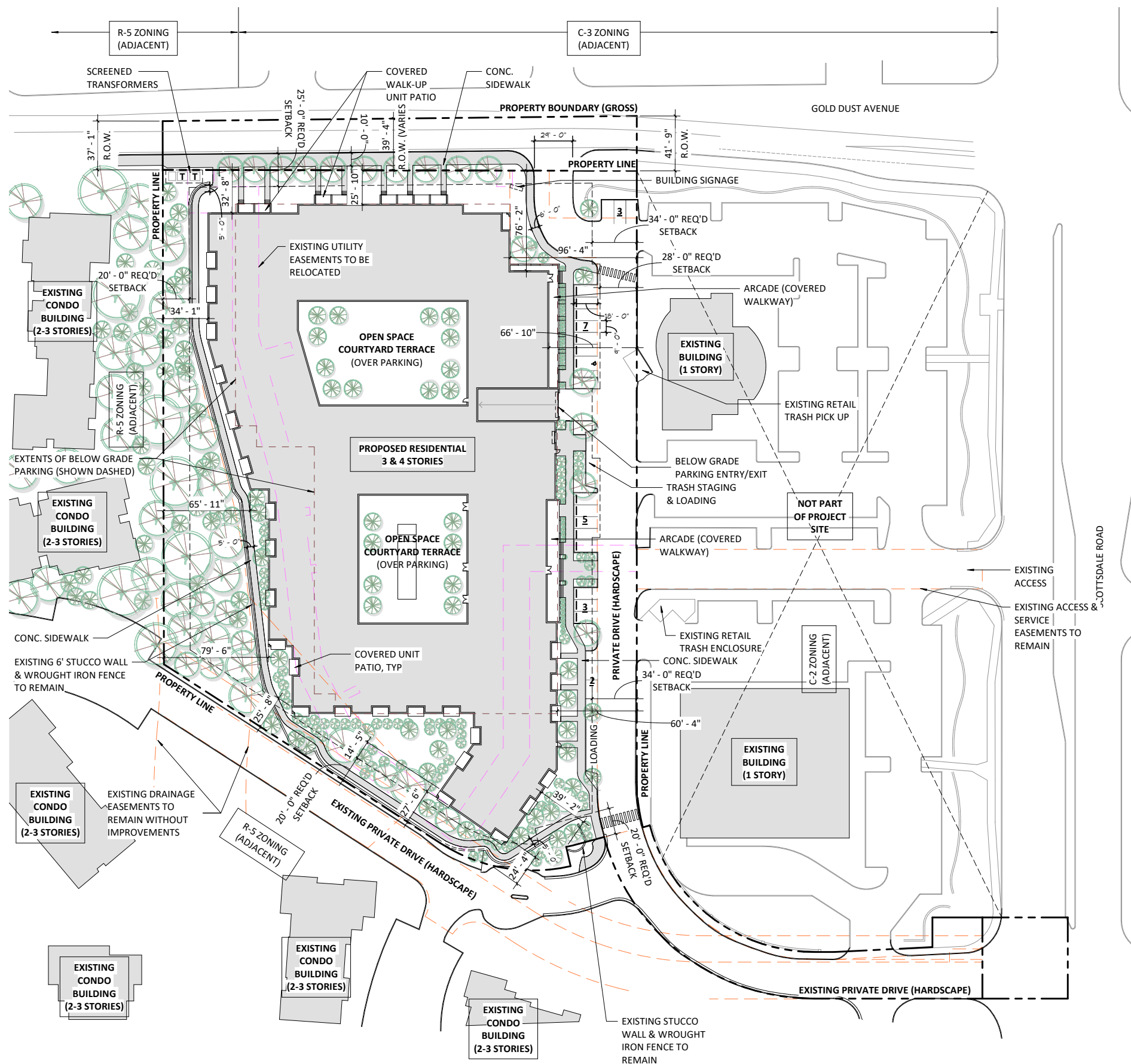
The existing Driveway A located approximately 400 feet west of Scottsdale Road will be slightly modified to align with the driveway on the north side of Gold Dust Avenue. Aligned driveways are ideal as they minimize confusion and overlapping of vehicular paths, specifically left turn movements. This driveway will continue to operate as it does today as a full access driveway.

Additionally, an existing full access driveway located along Gold Dust Avenue, approximately 600 feet west of Scottsdale Road will be removed. This will reduce the number of conflict points along this stretch of roadway.

It is anticipated that the proposed Gold Dust development will operate at acceptable levels of service and the access modifications described above will improve the overall operation of Gold Dust Avenue in this area.



Appendix A – Proposed Site Plan



1 OVERALL SITE PLAN
A0.0 1" = 40'-0"



NOTE: EXTENTS OF EXISTING EASEMENTS TO BE RELOCATED ARE SHOWN IN PINK DASHED LINES. EXTENTS OF EXISTING EASEMENTS TO REMAIN WITHOUT IMPROVEMENT(S) ARE SHOWN IN ORANGE DASHED LINES.

PROJECT DATA SUMMARY

Case No:	TBD
Project Address:	TBD - 10050 N. Scottsdale Rd (existing per County) Scottsdale, AZ 85253
APN:	175-56-002H
Zoning Classification:	Existing - C-2 (Central Business) Proposed - PUD (Planned Unit Development)
Site Area proposed (Gross):	202,238 SF (4.643 acres)
Site Area proposed (Net):	183,996 SF (4.224 acres)
Open Space required:	20,224 SF (10% of gross site area)
Open Space proposed:	75,672 SF (37% of gross site area)
Total Building Area proposed:	441,900 GSF (includes two levels of below-grade parking)
FAR allowed (Overall Net site area):	Commercial uses: 0.8 FAR max. (0.8 x 183,996 SF (net) = 147,197 SF)
FAR proposed (Overall Net site area):	0.06 FAR (10,870 SF/183,996 SF (net) = 0.059) --project will not exceed 0.8 FAR for Commercial (non-residential) uses
Total Units proposed:	254 total units 1-bedroom = 168 units 2-bedroom = 81 units 3-bedroom = 5 units Total bedrooms = 345 bedrooms
Live/Work Housing:	7 units
Workforce Housing Proposed:	25 units
Building Height allowed:	48'-0" maximum with 10'-0" overage allowed for certain roof elements covering no more than 30% of building area
Building Height proposed:	48 FT + mechanical per ordinance
Vehicle Parking required:	445 total stalls
Vehicle Parking proposed:	445 total stalls

Gold Dust Ave & Scottsdale Rd
Scottsdale, AZ



500 Washington Avenue South, Suite 1080
Minneapolis, MN 55415
p 612.339.5508 f 612.339.5382
www.esgarch.com

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed architect under the laws of the State of Arizona

Signature _____
Typed or Printed Name _____
License # _____ Date _____

NOT FOR CONSTRUCTION

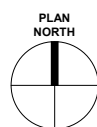
PRE APPLICATION
2022-01-27

ORIGINAL ISSUE:	
REVISIONS	
No.	Description Date

221564
PROJECT NUMBER

ESG DRAWN BY ESG CHECKED BY

KEY PLAN



Gold Dust Ave & Scottsdale Rd

OVERALL SITE PLAN

A0.0

PROJECT TEAM

Owner/Developer:	High Street Residential 2575 East Camelback, Suite 400 Phoenix, AZ 85016 Ph: 602-222-4000 Fx: 602-285-3141	Traffic Engineer:	Lokahi Group LLC 4657 E. Cotton Gin Loop, Suite 102 Phoenix, AZ 85040 Ph: 480-536-7150
Legal:	Berry Riddell LLC 6750 East Camelback, Suite 100 Scottsdale, AZ 85251 Ph: 480-385-2727 Fx: 480-385-2757	Civil Engineer:	Dibble
Architect:	Elness Swenson Graham Architects, Inc. 500 Washington Ave. South, Suite 1080 Minneapolis, MN 55415 Ph: 612-339-5508 Fx: 612-339-5382	Landscape Architect:	collectiv
		Electrical Engineer:	TBD



Appendix B – Collision History

CITY OF SCOTTSDALE

COLLISION SUMMARY

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
2004098	200224	1326	70	ST	GOLD DUST	AV	S			0 0	20 1	4 1	NE SB	2	
2100364	210106	1343	70	ST	GOLD DUST	AV	AT			0 0	6 1	1 1	WB NB	2	
2103655	210222	1503	70	ST	GOLD DUST	AV	AT			5 1	6 1	1 1	WB SB	2	
2107198	210414	1145	70	ST	GOLD DUST	AV	S	726		0 0	20 1	4 1	NB NB	7	
2115335	210806	0735	70	ST	GOLD DUST	AV	S	148		0 0	20 1	4 1	SB SB	2	
2112793	210630	2040	SCOTTSDALE	RD	ACACIA	DR	S	44		0 0	12 1	8 1	NB NB	6	
1900172	190103	1725	SCOTTSDALE	RD	GOLD DUST	AV	AT		1 1	0 0		1 3	NB NB	4	MULTI VEH 3
1900250	190104	2231	SCOTTSDALE	RD	GOLD DUST	AV	W	346	1 1	97 0	20 1	4 1	NB EB	2	
1902451	190201	1433	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 3	NB EB	3	
1902913	190206	1149	SCOTTSDALE	RD	GOLD DUST	AV	S	25		0 0	4 1	1 3	NB NB	4	
1903511	190214	1622	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	1 1	1 1	NB NB	4	
1912857	190616	1504	SCOTTSDALE	RD	GOLD DUST	AV	S	200		99 0	2 1	1 1	SB SB	4	
1913770	190628	1500	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	97 1	1 3	EB EB	4	
1914574	190710	1319	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	WB SB	3	
1916291	190803	1803	SCOTTSDALE	RD	GOLD DUST	AV	N	250		99 0	13 1	1 1	SB SB	6	
1919823	190921	1435	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	6 1	1 1	NB WB	2	
1920175	190926	0316	SCOTTSDALE	RD	GOLD DUST	AV	S	500		0 0	20 1	4 1	SB SB	6	
1920362	190928	1139	SCOTTSDALE	RD	GOLD DUST	AV	N	115		99 0	99 1	8 1	SB SB	6	
1921138	191009	1856	SCOTTSDALE	RD	GOLD DUST	AV	AT			4 0	2 1	5 3	EB WB	5	
1923485	191109	1804	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	12 1	8 1	NB NB	6	
1925155	191204	1218	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	EB EB	6	
1925570	191209	1453	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	1 1	4 1	WB SB	2	
2001066	200115	1240	SCOTTSDALE	RD	GOLD DUST	AV	W	150		0 0	7 1	6 1	WB WB	2	
2004960	200306	1743	SCOTTSDALE	RD	GOLD DUST	AV	AT			1 0	1 1	1 3	NB NB	4	
2009548	200602	1200	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	NW SB	3	
2009827	200608	0558	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	NW SB	3	
2010483	200618	1414	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	6 1	1 1	NB WB	2	
2012488	200724	1223	SCOTTSDALE	RD	GOLD DUST	AV	S	570		0 0	20 1	4 1	SB SB	4	
2014410	200826	1736	SCOTTSDALE	RD	GOLD DUST		AT			99 99	99 99	14 99	EB 99	99	
2015360	200910	2235	SCOTTSDALE	RD	GOLD DUST		W	400		0 0	2 1	1 1	NB WB	2	
2016146	200924	0007	SCOTTSDALE	RD	GOLD DUST	AV	W	550		99	2 0	1	EB	1	
2021166	201209	0835	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	6 1	1 1	NB EB	2	
2021471	201213	0943	SCOTTSDALE	RD	GOLD DUST	AV	S	570		99 0	2 1	1 2	SB SB	4	
2021991	201220	1301	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	99 99	4 1	NB SB	3	
2102668	210208	1405	SCOTTSDALE	RD	GOLD DUST	AV	AT			99 0	99 20	1 4	WB EB	3	
2104564	210307	1655	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	6 1	1 1	SB WB	2	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
2106185	210330	1507	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	WB SB	3	
2106234	210331	1241	SCOTTSDALE	RD	GOLD DUST	AV	AT			0 0	20 1	4 1	NW SB	2	
2108802	210505	1616	SCOTTSDALE	RD	GOLD DUST	AV				0 0	12 1	8 1	SB SB	6	
2114335	210722	1709	SCOTTSDALE	RD	GOLD DUST	AV				0 0	97 1	1 3	NB NB	6	
2116247	210819	1707	SCOTTSDALE	RD	GOLD DUST	AV	S	315		0 0	20 1	97 1	EB SB	2	
2120524	211020	2042	SCOTTSDALE	RD	GOLD DUST					0 0	20 1	4 1	WB SB	3	
2121788	211107	0000	SCOTTSDALE	RD	GOLD DUST	AV				0 0	20 1	1 1	SB EB	2	
2123040	211124	1942	SCOTTSDALE	RD	GOLD DUST	AV	W	95		0 0	20 1	4 1	EB EB	2	
1900744	190111	0652	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	W	552		0 0	4 1	2 5	WB WB	4	
1901008	190114	1517	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	13 1	1 1	NB NB	6	
1902553	190202	1223	SCOTTSDALE	RD	MOUNTAIN VIEW	DR	N	100		0 0	2 1	1 3	SB SB	4	
1902555	190202	1235	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	150		0 0	97 1	1 3	SB SB	4	
1903773	190217	1751	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	20 1	4 1	SB NB	3	
1903979	190220	1139	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	6 1	1 1	NB WB	2	
1905688	190314	1908	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	W	141		0 0	14 1	17 1	NB WB	5	
1908400	190418	1747	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	S	300		0 0	7 1	4 1	NB NB	2	
1908949	190425	1245	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	S	40		99 0	4 1	1 3	NB NB	4	
1909048	190426	1656	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	20 1	4 1	EB NB	3	
1910713	190518	1927	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0	7 0	6	SB	1	
1911216	190525	1150	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	20 1	4 1	SB NB	2	
1913513	190625	1202	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	W	100		0 0	2 1	3 3	EB EB	4	
1917704	190823	2030	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	W	549		0 0	2 1	1 5	WB NB	4	
1924177	191119	1403	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	1 1	1 3	SB SB	6	
1926220	191218	1400	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	3 1	5 5	NB NB	4	
1926376	191220	1203	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	20 1	4 1	EB NB	2	
1926445	191221	1233	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	6 1	1 1	WB NB	2	
200032	200105	1349	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	12 12	8 8	NB NB	6	
2001435	200120	0841	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	3 1	5 3	NB NB	4	
2003384	200214	2056	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	7 1	5 1	SB SB	2	
2004711	200303	1334	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	310		0 0	12 1	8 1	NB NB	6	
2005676	200316	1206	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	748		0 0	13 1	8 1	NB NB	6	
2009926	200609	1244	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	S	50		0 0	2 1	2 3	SB SB	4	
2011738	200710	1815	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	20 1	4 1	SB NB	3	
2011909	200714	0610	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	15		0	3 0	1	NB	1	
2012436	200723	1405	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	40		0 0	2 1	2 3	NB NB	4	
2012731	200729	0747	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	6 1	1 1	SB EB	3	
2016566	200930	0730	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	30		0 0	4 1	1 1	SB SB	4	
2016590	200930	1338	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	2 1	1 3	SB SB	4	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV. #1 #2	PHYS. COND. #1 #2	VIOLATION #1 #2	ACTION #1 #2	TRAV. DIR. #1 #2	MANNER OF COLLISION	COMMENTS
2018926	201104	1827	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	99 1	4 4	WB WB	4	
2021152	201208	2227	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	1 1	1 4	NB SE	3	
2100546	210108	1929	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	320		0 0	2 1	1 1	SB NB	97	
2101624	210125	0544	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	2 97	1 4	NB SB	5	
2103585	210221	1732	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			0 0	2 1	1 3	NB NB	4	
2105777	210324	1854	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	AT			99 0	20 1	6 1	SB EB	2	
2107617	210420	0728	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N			0 0	7 1	5 1	SW SB	6	BIKE
2111254	210608	1045	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	W	87		0 0	12 1	8 1	EB EB	2	
2112741	210630	0905	SCOTTSDALE	RD	MOUNTAIN VIEW	RD				0 0	7 1	6 1	SW EB	97	
2113118	210706	0818	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	S	0		99	97	1	NB	1	
2120508	211020	1625	SCOTTSDALE	RD	MOUNTAIN VIEW	DR				0 0	20 1	5 1	SB SB	2	
2120573	211021	1557	SCOTTSDALE	RD	MOUNTAIN VIEW					0 0	20 1	4 1	WB SB	3	
2122530	211117	0928	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	E	50		3 0	4 1	2 3	WB WB	4	
2123385	211130	1116	SCOTTSDALE	RD	MOUNTAIN VIEW	RD				0 0	2 1	4 3	NW NW	4	
2124767	211218	1351	SCOTTSDALE	RD	MOUNTAIN VIEW	RD	N	100		0 0	2 1	1 1	SB SB	4	

KEY

INJURY SEVERITY:

1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

PHYSICAL CONDITION:

0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

VIOLATION:

1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGARDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

ACTION:

1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UNKNOWN

MANNER OF COLLISION:

1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL 89



Appendix C – Parcel Information

175-56-002H

Commercial Parcel

This is a Commercial parcel located at [10050 N SCOTTSDALE RD PARADISE VALLEY 85253](#). The current owner is ACACIA CREEK PARTNERS LLC. Its current year full cash value is \$7,970,400.

MAPS	PICTOMETRY	VIEW/PAY TAX BILL	DEED
OWNER	VALUATIONS	ADDITIONAL INFO	SKETCHES
MAP FERRET	SIMILAR PARCELS	REGISTER RENTAL	

PROPERTY INFORMATION



[10050 N SCOTTSDALE RD PARADISE VALLEY 85253](#)

MCR #

Description

PT NE4 SEC 27 DAF COM SE COR SD NE4 TH N 646.85F W 65F TO POB TH CONT W 128F TO BEG OF 165F RAD CUR TO RT TH NWLY ALG SD CUR 216.76F TH S 75D 16M W 20F TO BEG OF NON-TAN CUR TH WLY ALG ARC SD CUR TO R T 10F TH S 12D 40M E 15F TO BEG OF NON-TAN CUR TH WLY ALG ARC SD CUR TO RT 103.07F TH N 57D 08M W 250.76F N 376.03F TO A PT ON SLY R/W LN OF GOLD DUST RD TH E ALG SD R/W LN 360.68F S 464.70F TO BEG OF 135F RAD CUR TO LFT TH SLY ALG SD CUR 34.71F TH N 75D 16M E 5.50F TO BEG OF NON-TAN CUR TH SELY ALG ARC OF SD CUR TO LFT 170.12F TH E 14.87F TH N 87D 08M E 75.23F N 22.53F E 38F S 61.78F TO POB

Lat/Long

[33.577693 | -111.92763](#)

Lot Size

205,952 sq ft.

Zoning

C-2

Lot #

High School District

SCOTTSDALE UNIFIED #48

Elementary School District

SCOTTSDALE UNIFIED SCHOOL DISTRICT

Local Jurisdiction

SCOTTSDALE

S/T/R

27 3N 4E

Market

00/

Area/Neighborhood

Subdivision (0 Parcels)

OWNER INFORMATION



[ACACIA CREEK PARTNERS LLC](#)

Mailing Address 34975 W TWELVE MILE RD, FARMINGTON HILLS, MI 48331
Deed Number [121060742](#)
Last Deed Date 11/21/2012
Sale Date n/a
Sale Price n/a

VALUATION INFORMATION



We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our [data sales](#).

The Valuation Information displayed below may not reflect the taxable value used on the tax bill due to any special valuation relief program. [CLICK HERE TO PAY YOUR TAXES OR VIEW YOUR TAX BILL](#)

Tax Year	2022	2021	2020	2019	2018
Full Cash Value [?]	\$7,970,400	\$7,969,800	\$7,444,400	\$7,146,400	\$6,604,200
Limited Value [?]	\$5,234,773	\$4,985,498	\$4,748,093	\$4,521,993	\$4,306,660
Legal Class	1.12	1.12	1.12	1.12	1.12
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P
Assessment Ratio	17.5%	18.0%	18.0%	18.0%	18.0%
Assessed LPV	\$916,085	\$897,390	\$854,657	\$813,959	\$775,199
Property Use Code	1130	1130	1130	1130	1130
PU Description	Retail	Retail	Retail	Retail	Retail
Tax Area Code	481400	481400	481400	481400	481400
Valuation Source	Notice	Notice	Notice	Notice	Notice

ADDITIONAL PROPERTY INFORMATION



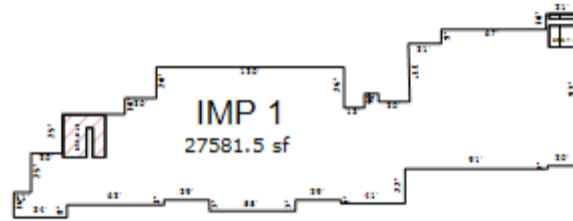
Additional property data.

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Neighborhood Shopping Ctr	000101	412	2	C	26	27,581
Site Improvements	000201	163	2	D	26	1

BUILDING SKETCHES



Sketches that illustrate the external dimensions of a property.



MAP FERRET MAPS



Mapferret maps, also known as Mapld maps, pdf maps, or output maps are now available here without having to search.

▶ [Parcel Maps \(1\)](#)

▶ [Book/Map Maps \(3\)](#)

CAUTION! USERS SHOULD INDEPENDENTLY RESEARCH AND VERIFY INFORMATION ON THIS WEBSITE BEFORE RELYING ON IT.

The Assessor's Office has compiled information on this website that it uses to identify, classify, and value real and personal property. Please contact the Maricopa County S.T.A.R. Center at (602) 506-3406 if you believe any information is incomplete, out of date, or incorrect so that appropriate corrections can be addressed. Please note that a statutory process is also available to correct errors pursuant to Arizona Revised Statutes 42-16254.

The Assessor does not guarantee that any information provided on this website is accurate, complete, or current. In many instances, the Assessor has gathered information from independent sources and made it available on this site, and the original information may have contained errors and omissions. Errors and omissions may also have occurred in the process of gathering, interpreting, and reporting the information. Information on the website is not updated in "real time". In addition, users are cautioned that the process used on this site to illustrate the boundaries of the adjacent parcels is not always consistent with the recorded documents for such parcels. The parcel boundaries depicted on this site are for illustrative purposes only, and the exact relationship of adjacent parcels should be independently researched and verified. The information provided on this site is not the equivalent of a title report or a real estate survey. Users should independently research, investigate and verify all information before relying on it or in the preparation of legal documents.

By using this website, you acknowledge having read the above and waive any right you may have to claim against Maricopa County, its officers, employees, and contractors arising out of my reliance on or the use of the information provided on this website.



Appendix D – Traffic Count Data



(303) 216-2439
www.alltrafficdata.net

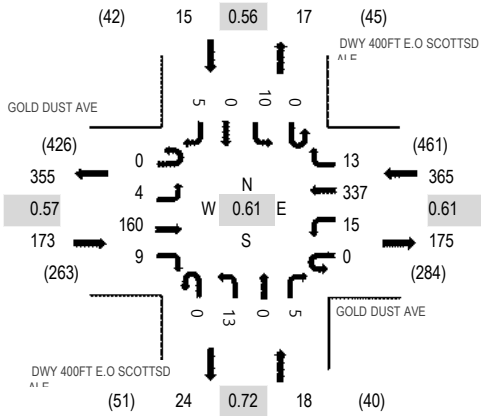
Location: 3 DWY 400FT E.O SCOTTSDALE & GOLD DUST AVE AM

Date: Tuesday, March 1, 2022

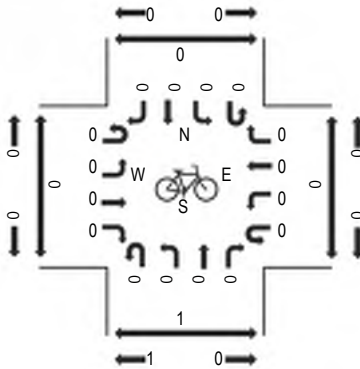
Peak Hour: 07:00 AM - 08:00 AM

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

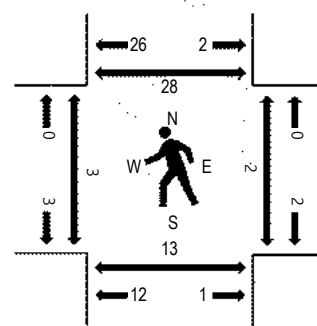
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	GOLD DUST AVE Eastbound				GOLD DUST AVE Westbound				DWY 400FT E.O SCOTTSDALE Northbound				DWY 400FT E.O SCOTTSDALE 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	1	15	0	0	2	37	2	0	1	0	0	0	3	0	1	62	571	0	0	0	1
7:15 AM	0	1	32	5	0	8	124	6	0	6	0	3	0	1	0	0	186	555	0	2	6	12
7:30 AM	0	2	72	2	0	5	143	2	0	3	0	0	0	3	0	3	235	429	3	0	6	14
7:45 AM	0	0	41	2	0	0	33	3	0	3	0	2	0	3	0	1	88	260	0	0	1	1
8:00 AM	0	1	15	1	0	3	10	5	0	1	0	8	0	1	0	1	46	235	0	1	2	2
8:15 AM	0	2	15	0	0	4	16	5	0	1	1	4	0	7	1	4	60		0	0	0	0
8:30 AM	0	2	26	2	0	2	23	5	0	0	0	0	0	5	0	1	66		0	0	0	0
8:45 AM	0	2	18	6	0	8	11	4	0	2	1	4	0	6	0	1	63		0	0	3	2
Count Total	0	11	234	18	0	32	397	32	0	17	2	21	0	29	1	12	806		3	3	18	32
Peak Hour	0	4	160	9	0	15	337	13	0	13	0	5	0	10	0	5	571		3	2	13	28



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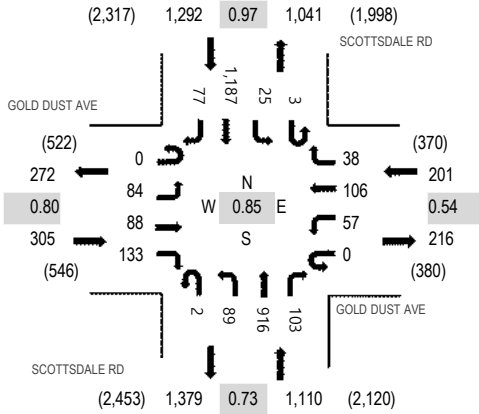
Location: 4 SCOTTSDALE RD & GOLD DUST AVE AM

Date: Tuesday, March 1, 2022

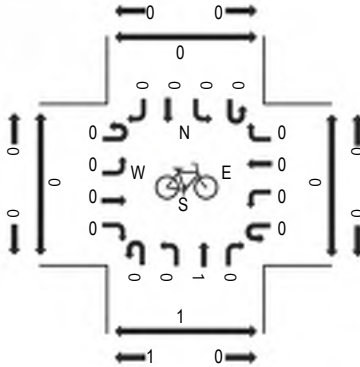
Peak Hour: 07:30 AM - 08:30 AM

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

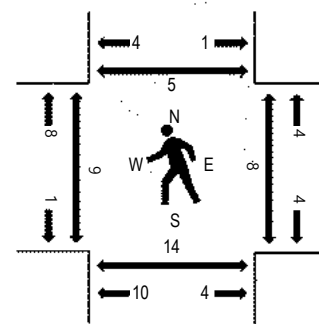
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	GOLD DUST AVE Eastbound				GOLD DUST AVE 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	14	17	16	0	9	10	8	0	12	94	11	2	4	156	19	372	2,588	0	1	0	2
7:15 AM	0	12	24	23	0	11	51	7	0	42	181	14	0	4	203	45	617	2,868	0	1	1	1
7:30 AM	0	29	36	31	0	16	80	14	1	39	251	25	1	6	273	52	854	2,908	4	4	3	3
7:45 AM	0	23	24	40	0	12	9	8	1	15	257	26	0	6	312	12	745	2,702	1	0	0	0
8:00 AM	0	21	13	31	0	12	9	9	0	22	201	26	1	5	297	5	652	2,765	0	2	5	1
8:15 AM	0	11	15	31	0	17	8	7	0	13	207	26	1	8	305	8	657		4	2	6	1
8:30 AM	0	22	22	28	0	13	9	7	0	13	232	16	1	6	275	4	648		1	1	3	2
8:45 AM	0	15	16	32	0	21	12	11	1	22	350	22	1	8	286	11	808		0	0	0	2
Count Total	0	147	167	232	0	111	188	71	3	178	1,773	166	7	47	2,107	156	5,353		10	11	18	12
Peak Hour	0	84	88	133	0	57	106	38	2	89	916	103	3	25	1,187	77	2,908		9	8	14	5



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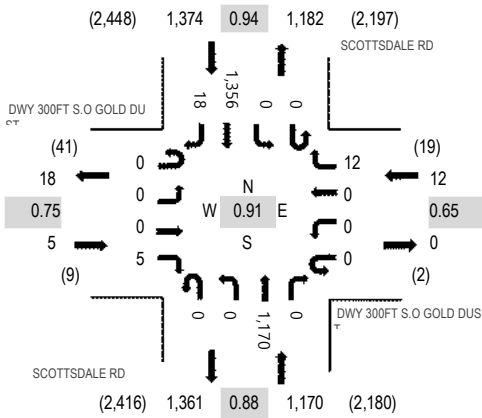
Location: 5 SCOTTSDALE RD & DWY 300FT S.O GOLD DUST AM

Date: Tuesday, March 1, 2022

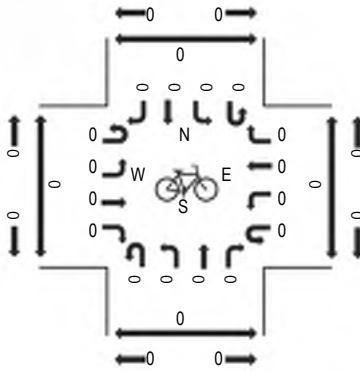
Peak Hour: 07:30 AM - 08:30 AM

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

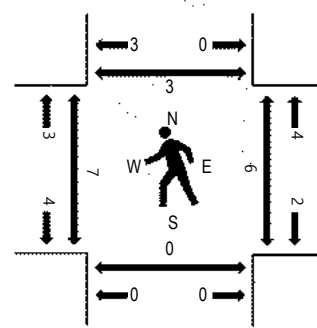
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 300FT S.O GOLD DUST Eastbound				DWY 300FT S.O GOLD DUST 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	1	0	0	172	0	0	0	166	10	349	2,184	1	1	0	0
7:15 AM	0	0	0	1	0	0	0	0	1	0	0	259	1	0	0	229	10	501	2,422	2	2	0	0
7:30 AM	0	0	0	1	0	0	0	0	5	0	0	306	0	0	0	308	11	631	2,561	3	0	0	2
7:45 AM	0	0	0	2	0	0	0	0	2	0	0	334	0	0	0	364	1	703	2,525	2	2	0	0
8:00 AM	0	0	0	0	0	0	0	0	5	0	0	242	0	0	0	338	2	587	2,472	1	2	0	0
8:15 AM	0	0	0	2	0	0	0	0	0	0	0	288	0	0	0	346	4	640		1	2	0	1
8:30 AM	0	0	0	2	0	0	0	0	2	0	0	274	0	0	0	316	1	595		1	1	0	0
8:45 AM	0	0	0	1	0	0	0	0	3	0	0	303	1	0	0	340	2	650		0	3	0	0
Count Total	0	0	0	9	0	0	0	0	19	0	0	2,178	2	0	0	2,407	41	4,656		11	13	0	3
Peak Hour	0	0	0	5	0	0	0	0	12	0	0	1,170	0	0	0	1,356	18	2,561		7	6	0	3



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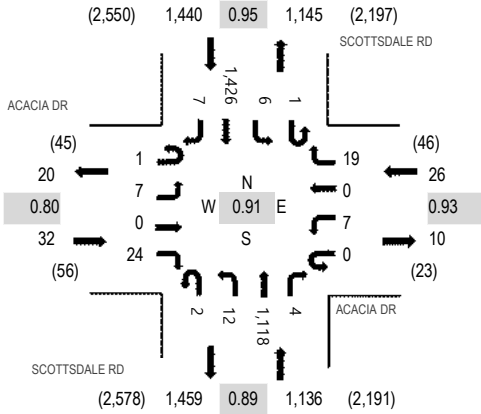
Location: 6 SCOTTSDALE RD & ACACIA DR AM

Date: Tuesday, March 1, 2022

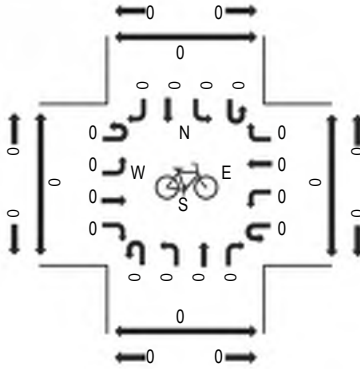
Peak Hour: 07:45 AM - 08:45 AM

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

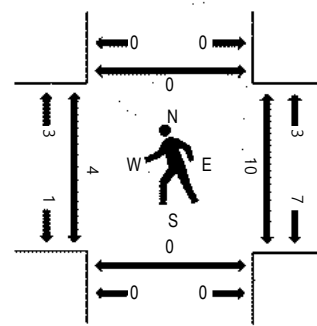
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ACACIA DR Eastbound				ACACIA DR 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	2	0	3	0	1	0	6	0	4	167	1	0	1	200	0	385	2,268	0	1	0	0
7:15 AM	0	3	0	4	0	0	0	7	1	8	250	1	0	1	246	1	522	2,477	1	2	0	0
7:30 AM	0	1	0	5	0	1	0	4	0	4	303	1	0	3	311	2	635	2,624	5	0	0	0
7:45 AM	0	3	0	7	0	2	0	5	0	4	324	1	0	4	373	3	726	2,634	2	2	0	0
8:00 AM	0	3	0	5	0	2	0	4	1	2	240	1	0	0	334	2	594	2,575	1	2	0	0
8:15 AM	0	0	0	8	0	2	0	5	0	3	285	2	0	1	363	0	669		0	2	0	0
8:30 AM	1	1	0	4	0	1	0	5	1	3	269	0	1	1	356	2	645		1	4	0	0
8:45 AM	0	1	0	5	0	0	0	1	1	6	305	3	2	2	341	0	667		0	1	0	0
Count Total	1	14	0	41	0	9	0	37	4	34	2,143	10	3	13	2,524	10	4,843		10	14	0	0
Peak Hour	1	7	0	24	0	7	0	19	2	12	1,118	4	1	6	1,426	7	2,634		4	10	0	0



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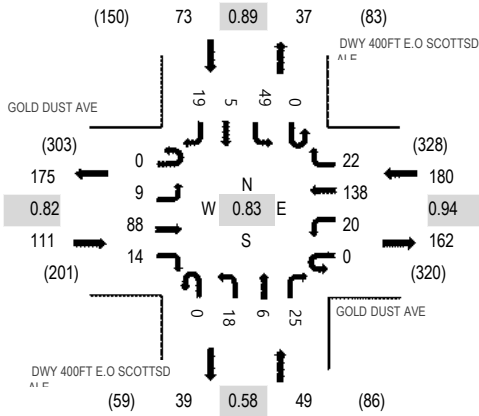
Location: 3 DWY 400FT E.O SCOTTSDALE & GOLD DUST AVE PM

Date: Tuesday, March 1, 2022

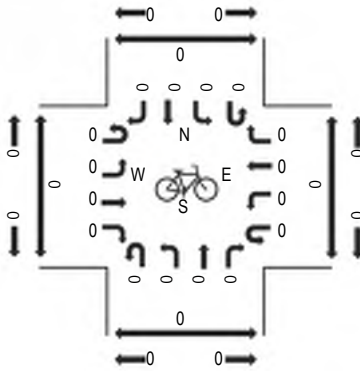
Peak Hour: 05:00 PM - 06:00 PM

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

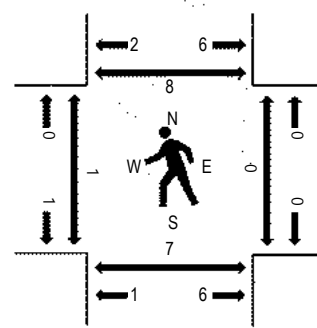
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	GOLD DUST AVE Eastbound				GOLD DUST AVE Westbound				DWY 400FT E.O SCOTTSDALE Northbound				DWY 400FT E.O SCOTTSDALE 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	2	25	2	0	1	23	7	0	3	3	1	0	10	1	3	81	352	0	1	5	5
4:15 PM	0	2	14	3	0	3	25	11	0	3	3	10	0	17	2	4	97	384	0	0	0	2
4:30 PM	0	1	19	1	0	2	27	8	0	0	1	5	0	21	0	3	88	412	1	0	0	5
4:45 PM	0	2	18	1	0	4	31	6	0	4	0	4	0	14	0	2	86	405	0	0	1	2
5:00 PM	0	2	26	4	0	2	40	4	0	5	1	7	0	18	2	2	113	413	0	0	1	0
5:15 PM	0	1	29	4	0	9	32	7	0	8	3	10	0	15	1	6	125		0	0	0	5
5:30 PM	0	2	14	3	0	2	34	6	0	2	1	3	0	7	1	6	81		1	0	6	3
5:45 PM	0	4	19	3	0	7	32	5	0	3	1	5	0	9	1	5	94		0	0	0	0
Count Total	0	16	164	21	0	30	244	54	0	28	13	45	0	111	8	31	765		2	1	13	22
Peak Hour	0	9	88	14	0	20	138	22	0	18	6	25	0	49	5	19	413		1	0	7	8



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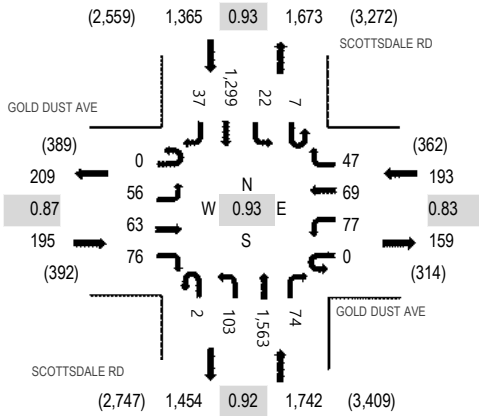
Location: 4 SCOTTSDALE RD & GOLD DUST AVE PM

Date: Tuesday, March 1, 2022

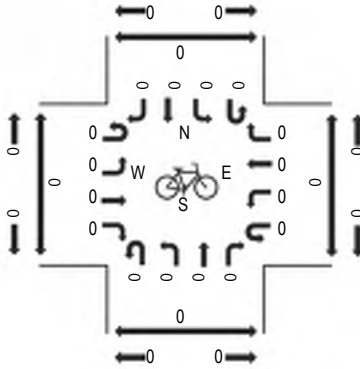
Peak Hour: 04:45 PM - 05:45 PM

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

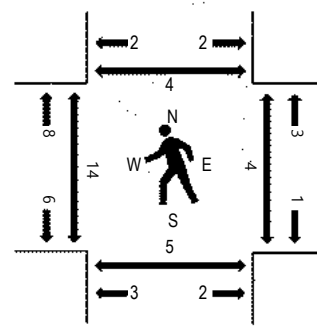
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	GOLD DUST AVE Eastbound				GOLD DUST AVE 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	13	14	20	0	15	9	11	0	30	451	26	0	6	292	9	896	3,349	0	0	0	0
4:15 PM	0	22	12	23	0	23	12	16	1	26	368	15	3	14	283	5	823	3,389	5	0	0	2
4:30 PM	0	17	14	23	0	20	15	8	1	22	383	17	1	2	274	8	805	3,451	1	0	0	0
4:45 PM	0	18	19	13	0	23	21	14	0	28	352	19	0	3	309	6	825	3,495	5	0	2	1
5:00 PM	0	16	14	24	0	19	17	5	0	23	431	21	3	10	343	10	936	3,373	4	1	0	0
5:15 PM	0	14	24	26	0	20	19	12	2	26	381	16	1	6	330	8	885		1	1	2	3
5:30 PM	0	8	6	13	0	15	12	16	0	26	399	18	3	3	317	13	849		4	2	1	0
5:45 PM	0	9	16	14	0	22	12	6	1	22	288	16	3	3	281	10	703		4	4	0	1
Count Total	0	117	119	156	0	157	117	88	5	203	3,053	148	14	47	2,429	69	6,722		24	8	5	7
Peak Hour	0	56	63	76	0	77	69	47	2	103	1,563	74	7	22	1,299	37	3,495		14	4	5	4



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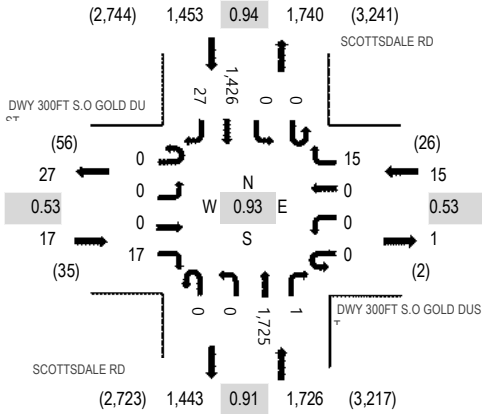
Location: 5 SCOTTSDALE RD & DWY 300FT S.O GOLD DUST PM

Date: Tuesday, March 1, 2022

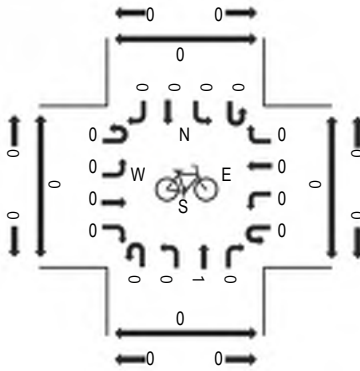
Peak Hour: 04:45 PM - 05:45 PM

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

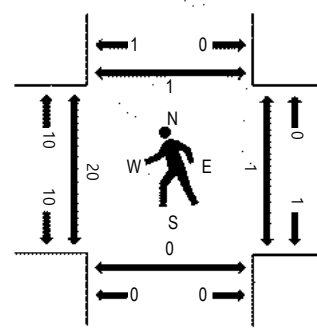
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY 300FT S.O GOLD DUST Eastbound				DWY 300FT S.O GOLD DUST 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	5	0	0	0	2	0	0	339	0	0	0	316	11	673	2,908	3	0	0	0
4:15 PM	0	0	0	9	0	0	0	4	0	0	400	0	0	0	324	5	742	3,102	4	1	0	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	425	1	0	0	310	7	745	3,161	1	0	0	0
4:45 PM	0	0	0	5	0	0	0	5	0	0	393	0	0	0	341	4	748	3,211	4	0	0	0
5:00 PM	0	0	0	3	0	0	0	2	0	0	476	0	0	0	381	5	867	3,114	6	1	0	1
5:15 PM	0	0	0	5	0	0	0	8	0	0	412	0	0	0	368	8	801		2	0	0	0
5:30 PM	0	0	0	4	0	0	0	0	0	0	444	1	0	0	336	10	795		8	0	0	0
5:45 PM	0	0	0	4	0	0	0	3	0	0	326	0	0	0	312	6	651		5	0	0	0
Count Total	0	0	0	35	0	0	0	26	0	0	3,215	2	0	0	2,688	56	6,022		33	2	0	1
Peak Hour	0	0	0	17	0	0	0	15	0	0	1,725	1	0	0	1,426	27	3,211		20	1	0	1



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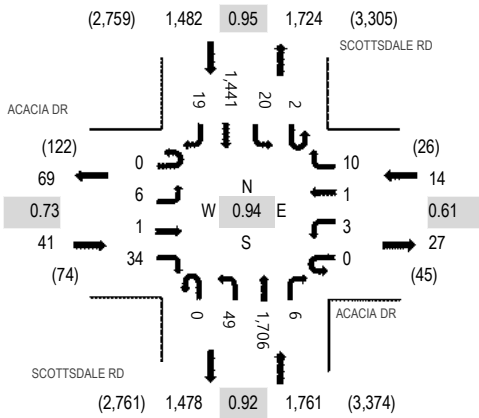
Location: 6 SCOTTSDALE RD & ACACIA DR PM

Date: Tuesday, March 1, 2022

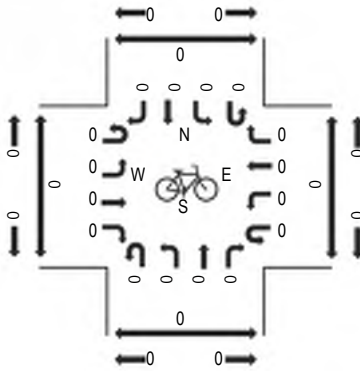
Peak Hour: 04:45 PM - 05:45 PM

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

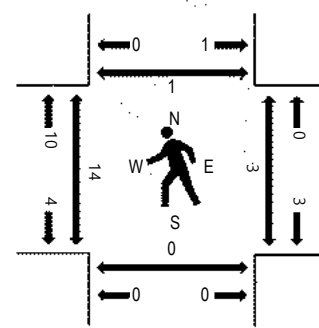
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ACACIA DR Eastbound				ACACIA DR 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	1	0	5	0	0	0	3	0	12	427	1	0	5	321	4	779	3,047	0	0	0	0
4:15 PM	0	1	0	8	0	2	0	1	0	12	403	2	2	2	316	3	752	3,147	6	1	0	0
4:30 PM	0	0	0	8	0	0	0	2	1	9	417	3	0	4	307	2	753	3,214	3	0	0	0
4:45 PM	0	1	0	9	0	0	0	1	0	9	393	0	1	3	344	2	763	3,298	3	0	0	0
5:00 PM	0	1	0	7	0	1	0	6	0	11	461	4	0	5	377	6	879	3,186	6	1	0	0
5:15 PM	0	3	1	10	0	0	1	3	0	19	407	2	0	8	360	5	819		2	0	0	0
5:30 PM	0	1	0	8	0	2	0	0	0	10	445	0	1	4	360	6	837		3	2	0	1
5:45 PM	0	2	0	8	0	0	0	4	0	8	317	1	1	0	307	3	651		12	0	0	2
Count Total	0	10	1	63	0	5	1	20	1	90	3,270	13	5	31	2,692	31	6,233		35	4	0	3
Peak Hour	0	6	1	34	0	3	1	10	0	49	1,706	6	2	20	1,441	19	3,298		14	3	0	1

Start Time	01-Mar-22 Tue	EB	WB							Total
12:00 AM		2	7							9
01:00		2	5							7
02:00		1	3							4
03:00		0	4							4
04:00		8	0							8
05:00		25	9							34
06:00		55	71							126
07:00		171	355							526
08:00		87	73							160
09:00		68	99							167
10:00		71	103							174
11:00		115	97							212
12:00 PM		64	103							167
01:00		91	128							219
02:00		194	200							394
03:00		120	129							249
04:00		92	127							219
05:00		109	177							286
06:00		69	130							199
07:00		42	75							117
08:00		36	68							104
09:00		15	39							54
10:00		19	22							41
11:00		6	20							26
Total		1462	2044							3506
Percent		41.7%	58.3%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	171	355	-	-	-	-	-	-	526
PM Peak	-	14:00	14:00	-	-	-	-	-	-	14:00
Vol.	-	194	200	-	-	-	-	-	-	394
Grand Total		1462	2044							3506
Percent		41.7%	58.3%							
ADT		ADT 3,506	AADT 3,506							

Site Code: 7
SCOTTSDALE RD S.O GOLD DUST AVE

Start Time	01-Mar-22 Tue	NB	SB							Total
12:00 AM		90	76							166
01:00		47	32							79
02:00		46	29							75
03:00		34	35							69
04:00		63	73							136
05:00		142	196							338
06:00		381	444							825
07:00		889	1005							1894
08:00		941	1213							2154
09:00		1007	1036							2043
10:00		1112	995							2107
11:00		1191	1116							2307
12:00 PM		1150	1201							2351
01:00		1274	1093							2367
02:00		1283	1114							2397
03:00		1248	1207							2455
04:00		1283	1143							2426
05:00		1311	1262							2573
06:00		1009	923							1932
07:00		763	683							1446
08:00		573	486							1059
09:00		499	382							881
10:00		290	217							507
11:00		158	114							272
Total		16784	16075							32859
Percent		51.1%	48.9%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	1191	1213	-	-	-	-	-	-	2307
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	1311	1262	-	-	-	-	-	-	2573
Grand Total		16784	16075							32859
Percent		51.1%	48.9%							
ADT		ADT 32,859	AADT 32,859							

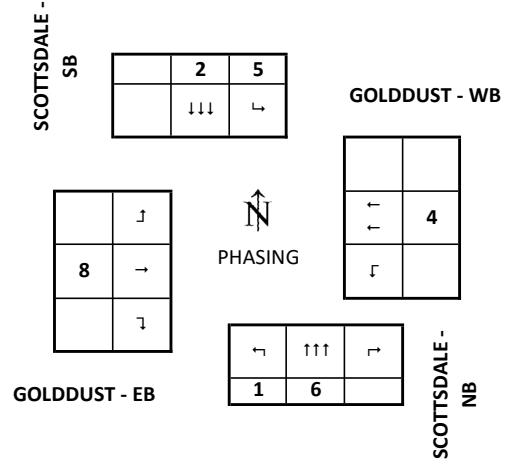


Appendix E – Signal Timing

SCOTTSDALE & GOLDDUST			System # 102
BASIC TIMING PLAN	Section #	I.P. Address MM1-5-1	Date Designed
		172.27.11.02	6/28/2021

TIMING PLAN - MM-2-1	Phase	1	2		4	5	6		8
	Movement	NBL	SBT		WBT	SBL	NBT		EBT
	NOTES	p&P	COORD			p&P	COORD		
	MIN GRN	5	10		7	5	10		7
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		4		4		4		4
	WALK2		7		7		7		7
	WLK MAX								
	PED CLR/FDW		22		23		19		28
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT	2	1		2	2	1		2
	VH EXT2								
	MAX 1	15	65		45	15	65		45
	MAX 2	25	75		50	25	75		50
	MAX 3								
	DYM MAX								
DYM STP									
YELLOW	4	4.7		4	4	4.7		4	
RED CLR	2	1.0		1.4	2	1.0		1.4	
RED MAX									
RED RVT	2	2		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>1</td><td>4</td><td></td></tr> <tr><td>6</td><td>5</td><td>8</td><td></td></tr> </table>	2	1	4		6	5	8	
2	1	4							
6	5	8							
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>1</td><td>4</td><td></td></tr> <tr><td>6</td><td>5</td><td>8</td><td></td></tr> </table>	2	1	4		6	5	8	
2	1	4							
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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>1</td><td>4</td><td></td></tr> <tr><td>6</td><td>5</td><td>8</td><td></td></tr> </table>	2	1	4		6	5	8	
2	1	4							
6	5	8							
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>1</td><td>4</td><td></td></tr> <tr><td>6</td><td>5</td><td>8</td><td></td></tr> </table>	2	1	4		6	5	8	
2	1	4							
6	5	8							
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>1</td><td>4</td><td></td></tr> <tr><td>6</td><td>5</td><td>8</td><td></td></tr> </table>	2	1	4		6	5	8	
2	1	4							
6	5	8							
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									

Approved By
Effective Date 6/21/2021

SCOTTSDALE & GOLDDUST

System #

102

COORDINATOR

Section #

0

Date Updated

6/28/2021

PHASE	1	2	3	4	5	6	7	8
FDW		22		23		19		28
YELLOW	4	4.7		4	4	4.7		4
ALL RED	2	1		1.4	2	1		1.4
WALK		22		23		19		28

PLAN 1 AM PLAN OPERATIVE TIMES 6:00	R1	2	↓	1	↶	4	←			COORD PATTERN	OFFSET
	R2	6	↑	5	↷	8	→			Balanced	110
		RING 1				RING 2					
	PHASE	1	2		4	5	6		8		
	SPLIT	13	77		30	13	77		30	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	7.0	71.3		24.6	7.0	71.3		24.6	120	

PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00	R1	2	↓	1	↶	4	←			COORD PATTERN	OFFSET
	R2	6	↑	5	↷	8	→			Balanced	46
		RING 1				RING 2					
	PHASE	1	2		4	5	6		8		
	SPLIT	14	67		27	14	67		27	Target Cycle Length	
	COORD		X				X			108	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	8.0	61.3		21.6	8.0	61.3		21.6	108	

PLAN 3 PM PLAN OPERATIVE TIMES 15:00	R1	2	↓	1	↶	4	←			COORD PATTERN	OFFSET
	R2	6	↑	5	↷	8	→			Balanced	55
		RING 1				RING 2					
	PHASE	1	2		4	5	6		8		
	SPLIT	13	80		27	13	80		27	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	7.0	74.3		21.6	7.0	74.3		21.6	120	

PLAN 10 MIDNIGHT PLAN OPERATIVE TIMES	R1	2	↓	1	↶	4	←			COORD PATTERN	OFFSET
	R2	6	↑	5	↷	8	→			Balanced	75
		RING 1				RING 2					
	PHASE	1	2		4	5	6		8		
	SPLIT	11	53		26	11	53		26	Target Cycle Length	
	COORD		X				X			90	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	5.0	47.3		20.6	5.0	47.3		20.6	90	



Appendix F – Existing Capacity Analysis

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	6	149	6	13	211	16	9	2	15	15	2	10
Future Vol, veh/h	6	149	6	13	211	16	9	2	15	15	2	10
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	46	46	46	46	46	46	46	46	46	46	46	46
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	324	13	28	459	35	20	4	33	33	4	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	494	0	0	337	0	0	903	907	331	908	896	477
Stage 1	-	-	-	-	-	-	357	357	-	533	533	-
Stage 2	-	-	-	-	-	-	546	550	-	375	363	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1070	-	-	1222	-	-	258	276	711	256	280	588
Stage 1	-	-	-	-	-	-	661	628	-	531	525	-
Stage 2	-	-	-	-	-	-	522	516	-	646	625	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1070	-	-	1222	-	-	239	266	711	235	270	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	266	-	235	270	-
Stage 1	-	-	-	-	-	-	653	620	-	525	513	-
Stage 2	-	-	-	-	-	-	487	504	-	605	618	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.4			15.7			19.5		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	392	1070	-	-	1222	-	-	306
HCM Lane V/C Ratio	0.144	0.012	-	-	0.023	-	-	0.192
HCM Control Delay (s)	15.7	8.4	-	-	8	-	-	19.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.7

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↕		↘	↕	↗	↘	↕	↗
Traffic Volume (veh/h)	88	92	139	60	111	40	95	953	108	30	1235	81
Future Volume (veh/h)	88	92	139	60	111	40	95	953	108	30	1235	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	108	164	71	131	47	112	1121	127	35	1453	95
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	187	285	242	171	396	136	725	1242	385	894	1624	106
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.75	0.49	0.49	0.46	0.33	0.33
Sat Flow, veh/h	1206	1870	1585	1107	2593	894	1781	5106	1585	1781	4897	320
Grp Volume(v), veh/h	104	108	164	71	88	90	112	1121	127	35	1010	538
Grp Sat Flow(s),veh/h/ln	1206	1870	1585	1107	1777	1710	1781	1702	1585	1781	1702	1813
Q Serve(g_s), s	10.1	6.2	11.7	7.4	5.3	5.6	0.0	24.1	5.9	0.0	33.8	33.8
Cycle Q Clear(g_c), s	15.8	6.2	11.7	13.6	5.3	5.6	0.0	24.1	5.9	0.0	33.8	33.8
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	187	285	242	171	271	261	725	1242	385	894	1129	601
V/C Ratio(X)	0.56	0.38	0.68	0.41	0.32	0.34	0.15	0.90	0.33	0.04	0.89	0.89
Avail Cap(c_a), veh/h	251	383	325	229	364	350	725	3034	942	894	2023	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	45.7	48.1	51.9	45.3	45.5	9.5	29.5	24.8	16.9	38.1	38.1
Incr Delay (d2), s/veh	1.0	0.3	1.4	0.6	0.3	0.3	0.0	10.8	2.3	0.0	11.0	18.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.9	4.7	2.1	2.3	2.4	0.8	8.2	2.2	0.5	15.3	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	46.0	49.4	52.4	45.6	45.8	9.6	40.3	27.1	16.9	49.1	56.4
LnGrp LOS	D	D	D	D	D	D	A	D	C	B	D	E
Approach Vol, veh/h		376			249			1360			1583	
Approach Delay, s/veh		49.6			47.6			36.6			50.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	50.8	45.5		23.7	61.4	34.9		23.7				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	71.3		* 25	7.0	71.3		* 25				
Max Q Clear Time (g_c+I1), s	2.0	35.8		15.6	2.0	26.1		17.8				
Green Ext Time (p_c), s	0.1	4.0		0.5	0.0	3.1		0.5				

Intersection Summary

HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑				↑↑↑	
Traffic Vol, veh/h	0	0	6	0	0	13	0	1217	0	0	1411	19
Future Vol, veh/h	0	0	6	0	0	13	0	1217	0	0	1411	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	0	0	14	0	1337	0	0	1551	21

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	786	-	-	669	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-
Pot Cap-1 Maneuver	0	0	*588	0	0	*632	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %			1			1		
Mov Cap-1 Maneuver	-	-	*588	-	-	*632	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.2		10.8		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	588	632	-	-
HCM Lane V/C Ratio	-	-	0.011	0.023	-	-
HCM Control Delay (s)	-	-	11.2	10.8	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-	-

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

4: Scottsdale Road & Acacia Driveway

03/24/2022

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕ ↑↑↑	↑↑↑	↕	↕ ↑↑↑		
Traffic Vol, veh/h	8	0	26	8	0	19	15	1199	6	9	1437	8
Future Vol, veh/h	8	0	26	8	0	19	15	1199	6	9	1437	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	29	9	0	21	17	1332	7	10	1597	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2189	2995	803	2025	2992	666	1606	0	0	1339	0	0
Stage 1	1622	1622	-	1366	1366	-	-	-	-	-	-	-
Stage 2	567	1373	-	659	1626	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*190	31	*588	*266	31	*653	*740	-	-	770	-	-
Stage 1	*592	567	-	*577	578	-	-	-	-	-	-	-
Stage 2	*670	572	-	*604	563	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*178	30	*588	*246	30	*653	*740	-	-	770	-	-
Mov Cap-2 Maneuver	*178	30	-	*246	30	-	-	-	-	-	-	-
Stage 1	*578	559	-	*564	564	-	-	-	-	-	-	-
Stage 2	*634	559	-	*567	555	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.5		13.8		0.1		0.1	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	*740	-	-	381	438	770	-	-
HCM Lane V/C Ratio	0.023	-	-	0.099	0.068	0.013	-	-
HCM Control Delay (s)	10	-	-	15.5	13.8	9.7	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.2	0	-	-

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

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	8	91	13	18	143	24	20	6	25	57	5	17
Future Vol, veh/h	8	91	13	18	143	24	20	6	25	57	5	17
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	112	16	22	177	30	25	7	31	70	6	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	128	0	0	390	391	120	395	384	192
Stage 1	-	-	-	-	-	-	140	140	-	236	236	-
Stage 2	-	-	-	-	-	-	250	251	-	159	148	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1364	-	-	1458	-	-	569	545	931	565	550	850
Stage 1	-	-	-	-	-	-	863	781	-	767	710	-
Stage 2	-	-	-	-	-	-	754	699	-	843	775	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1364	-	-	1458	-	-	541	533	931	531	538	850
Mov Cap-2 Maneuver	-	-	-	-	-	-	541	533	-	531	538	-
Stage 1	-	-	-	-	-	-	857	776	-	762	699	-
Stage 2	-	-	-	-	-	-	718	689	-	801	770	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.7			10.8			12.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	679	1364	-	-	1458	-	-	578
HCM Lane V/C Ratio	0.093	0.007	-	-	0.015	-	-	0.169
HCM Control Delay (s)	10.8	7.7	-	-	7.5	-	-	12.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.6

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↕		↘	↕	↗	↘	↕	↗
Traffic Volume (veh/h)	59	66	80	81	72	49	110	1626	77	31	1351	39
Future Volume (veh/h)	59	66	80	81	72	49	110	1626	77	31	1351	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	71	86	87	77	49	118	1748	83	33	1453	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	1.00	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	231	195	169	266	156	810	1962	609	683	1627	47
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.42	0.38	0.38	0.35	0.32	0.32
Sat Flow, veh/h	1265	1870	1585	1230	2153	1266	1781	5106	1585	1781	5100	147
Grp Volume(v), veh/h	63	71	86	87	62	64	118	1748	83	33	970	525
Grp Sat Flow(s),veh/h/ln	1265	1870	1585	1230	1777	1642	1781	1702	1585	1781	1702	1844
Q Serve(g_s), s	5.7	4.2	6.0	8.3	3.8	4.2	0.0	38.5	4.1	0.0	32.6	32.6
Cycle Q Clear(g_c), s	10.0	4.2	6.0	12.5	3.8	4.2	0.0	38.5	4.1	0.0	32.6	32.6
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	171	231	195	169	219	203	810	1962	609	683	1086	588
V/C Ratio(X)	0.37	0.31	0.44	0.51	0.28	0.31	0.15	0.89	0.14	0.05	0.89	0.89
Avail Cap(c_a), veh/h	243	337	285	239	320	296	810	3162	981	683	2108	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	47.9	48.8	53.6	47.8	48.0	20.4	34.6	24.0	25.3	38.9	38.9
Incr Delay (d2), s/veh	0.5	0.3	0.6	0.9	0.3	0.3	0.0	6.6	0.5	0.0	11.2	18.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.0	2.4	2.6	1.7	1.7	1.9	16.4	1.6	0.6	14.8	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	48.2	49.3	54.5	48.1	48.3	20.4	41.2	24.5	25.4	50.1	57.3
LnGrp LOS	D	D	D	D	D	D	C	D	C	C	D	E
Approach Vol, veh/h		220			213			1949			1528	
Approach Delay, s/veh		50.0			50.8			39.2			52.1	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	55.8	44.0		20.2	48.0	51.8		20.2				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	74.3		* 22	7.0	74.3		* 22				
Max Q Clear Time (g_c+I1), s	2.0	34.6		14.5	2.0	40.5		12.0				
Green Ext Time (p_c), s	0.1	3.7		0.3	0.0	5.6		0.3				

Intersection Summary

HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑			↑↑↑		
Traffic Vol, veh/h	0	0	18	0	0	16	0	1794	2	0	1484	29
Future Vol, veh/h	0	0	18	0	0	16	0	1794	2	0	1484	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	0	0	17	0	1929	2	0	1596	31

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	814	-	-	966	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-
Pot Cap-1 Maneuver	0	0	*567	0	0	*502	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %			1			1	-	-
Mov Cap-1 Maneuver	-	-	*567	-	-	*502	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.6		12.4		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	567	502	-	-
HCM Lane V/C Ratio	-	-	0.034	0.034	-	-
HCM Control Delay (s)	-	-	11.6	12.4	-	-
HCM Lane LOS	-	-	B	B	-	-
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 & Acacia Driveway

03/24/2022

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕ ↑↑↑	↑↑↑	↕	↕ ↑↑↑		
Traffic Vol, veh/h	7	2	36	4	2	11	51	1775	7	23	1499	20
Future Vol, veh/h	7	2	36	4	2	11	51	1775	7	23	1499	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	38	4	2	12	54	1888	7	24	1595	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2518	3657	808	2683	3660	944	1616	0	0	1895	0	0
Stage 1	1654	1654	-	1996	1996	-	-	-	-	-	-	-
Stage 2	864	2003	-	687	1664	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*156	*148	*567	*156	*148	*502	*713	-	-	*631	-	-
Stage 1	*582	*553	-	*515	*490	-	-	-	-	-	-	-
Stage 2	*515	*490	-	*582	*553	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*138	*132	*567	*131	*132	*502	*713	-	-	*631	-	-
Mov Cap-2 Maneuver	*138	*132	-	*131	*132	-	-	-	-	-	-	-
Stage 1	*537	*532	-	*476	*453	-	-	-	-	-	-	-
Stage 2	*463	*453	-	*520	*532	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17	20.5	0.3	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 713	-	-	348	251	* 631	-
HCM Lane V/C Ratio	0.076	-	-	0.138	0.072	0.039	-
HCM Control Delay (s)	10.5	-	-	17	20.5	10.9	-
HCM Lane LOS	B	-	-	C	C	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.2	0.1	-

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



Appendix G – Trip Generation



Trip Generation Calculations, 11th Edition

Proposed Development

221 Multifamily Housing (Mid-Rise)																						
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	254	Dwelling Units	4.54	50%	50%	0.37	23%	77%	0.39	61%	39%	1,153	577	576	94	22	72	99	60	39	Average
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	3.76	50%	50%	0.15	23%	77%	0.19	61%	39%	955	478	477	38	9	29	48	29	19	Minimum
Multifamily Housing (Mid-Rise)	221	254	Dwelling Units	5.40	50%	50%	0.53	23%	77%	0.57	61%	39%	1,372	686	686	135	31	104	145	88	57	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	254	Dwelling Units	T=4.77(X)-46.46			T=0.44(X)-11.61			T=0.39(X)+0.34			Total	In	Out	Total	In	Out	Total	In	Out	
				50%	50%		23%	77%		61%	39%	1,165	583	582	100	23	77	99	60	39		

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	

492 Health/Fitness Club																						
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	
Health/Fitness Club	492	2.5	1000 SF GFA	28.82	50%	50%	1.31	51%	49%	3.45	57%	43%	72	36	36	3	2	1	9	5	4	Average
Health/Fitness Club	492	2.5	1000 SF GFA	21.49	50%	50%	0.3	51%	49%	1.48	57%	43%	54	27	27	1	1	0	4	2	2	Minimum
Health/Fitness Club	492	2.5	1000 SF GFA	36.71	50%	50%	2	51%	49%	8.37	57%	43%	92	46	46	5	3	2	21	12	9	Maximum
Land Use	ITE Code	Qty	Unit	Weekday*			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			Equation
Health/Fitness Club	492	2.5	1000 SF GFA	Ln(T)=0.98Ln(X)+3.42			N/A			Ln(T)=0.67Ln(X)+2.44			Total	In	Out	Total	In	Out	Total	In	Out	
				50%	50%		N/A	N/A	N/A	57%	43%	75	38	37	N/A	N/A	N/A	21	12	9		

Health/Fitness Club		Standard Deviation	8.56*	0.64	1.57
	Number of Studies	4*	6	8	
	Average Size	78*	44	37	
	R ²	0.74*	N/A	0.67	

*Land Use 495 Recreational Community Center Data Used for Weekday Calculations



Trip Generation Calculations, 11th Edition

Existing Development

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	
Strip Retail Plaza (<40k)	822	28	1000 SF GLA	54.45	50%	50%	2.36	60%	40%	6.59	50%	50%	1,502	751	751	65	40	25	182	91	91	Average
Strip Retail Plaza (<40k)	822	28	1000 SF GLA	47.86	50%	50%	1.60	60%	40%	2.81	50%	50%	1,320	661	659	44	27	17	78	39	39	Minimum
Strip Retail Plaza (<40k)	822	28	1000 SF GLA	65.07	50%	50%	3.73	60%	40%	15.20	50%	50%	1,795	898	897	103	62	41	419	210	209	Maximum
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	
Strip Retail Plaza (<40k)	822	28	1000 SF GLA	$T=42.20(X)+229.68$	50%	50%	$\ln(T)=0.66\ln(X)+1.84$	60%	40%	$\ln(T)=0.71\ln(X)+2.72$	50%	50%	1,394	697	697	57	35	22	160	80	80	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												



Gold Dust

Completed: GT 3/10/22
Checked: TC 3/10/22

Trip Generation Calculations, 11th Edition

Adjacent Land Uses

220 Multifamily Housing (Low-Rise) (One to Three 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 (Low-Rise)	220	304	Dwelling Units	6.74	50%	50%	0.40	24%	76%	0.51	63%	37%	2,049	1,025	1,024	122	29	93	155	98	57	Average
Multifamily Housing (Low-Rise)	220	304	Dwelling Units	2.46	50%	50%	0.13	24%	76%	0.08	63%	37%	748	374	374	40	10	30	24	15	9	Minimum
Multifamily Housing (Low-Rise)	220	304	Dwelling Units	12.50	50%	50%	0.73	24%	76%	1.04	63%	37%	3,800	1,900	1,900	222	53	169	316	199	117	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			Equation
Multifamily Housing (Low-Rise)	220	304	Dwelling Units	T=6.41(X)+75.31			T=0.31(X)+22.85			T=0.43(X)+20.55			Total	In	Out	Total	In	Out	Total	In	Out	
Multifamily Housing (Low-Rise)			Standard Deviation	1.79			0.12			0.15												
Multifamily Housing (Low-Rise)			Number of Studies	22			49			59												
Multifamily Housing (Low-Rise)			Average Size	229			249			241												
Multifamily Housing (Low-Rise)			R ²	0.86			0.79			0.84												

220 Multifamily Housing (Low-Rise) (One to Three 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 (Low-Rise)	220	108	Dwelling Units	6.74	50%	50%	0.40	24%	76%	0.51	63%	37%	728	364	364	43	10	33	55	35	20	Average
Multifamily Housing (Low-Rise)	220	108	Dwelling Units	2.46	50%	50%	0.13	24%	76%	0.08	63%	37%	266	133	133	14	3	11	9	6	3	Minimum
Multifamily Housing (Low-Rise)	220	108	Dwelling Units	12.50	50%	50%	0.73	24%	76%	1.04	63%	37%	1,350	675	675	79	19	60	112	71	41	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			Equation
Multifamily Housing (Low-Rise)	220	108	Dwelling Units	T=6.41(X)+75.31			T=0.31(X)+22.85			T=0.43(X)+20.55			Total	In	Out	Total	In	Out	Total	In	Out	
Multifamily Housing (Low-Rise)			Standard Deviation	1.79			0.12			0.15												
Multifamily Housing (Low-Rise)			Number of Studies	22			49			59												
Multifamily Housing (Low-Rise)			Average Size	229			249			241												
Multifamily Housing (Low-Rise)			R ²	0.86			0.79			0.84												

932 High-Turnover (Sit-Down) Restaurant																						
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	
High-Turnover (Sit-Down) Restaurant	932	5,160	1000 SF GFA	107.20	50%	50%	9.57	55%	45%	9.05	61%	39%	553	277	276	49	27	22	47	29	18	Average
High-Turnover (Sit-Down) Restaurant	932	5,160	1000 SF GFA	13.04	50%	50%	0.76	55%	45%	0.92	61%	39%	67	34	33	4	2	2	5	3	2	Minimum
High-Turnover (Sit-Down) Restaurant	932	5,160	1000 SF GFA	742.41	50%	50%	102.39	55%	45%	62.00	61%	39%	3,831	1,916	1,915	528	290	238	320	195	125	Maximum
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour			Equation
High-Turnover (Sit-Down) Restaurant	932	5,160	1000 SF GFA	N/A			N/A			N/A			Total	In	Out	Total	In	Out	Total	In	Out	
High-Turnover (Sit-Down) Restaurant			Standard Deviation	66.72			11.61			6.18												
High-Turnover (Sit-Down) Restaurant			Number of Studies	50			37			104												
High-Turnover (Sit-Down) Restaurant			Average Size	5			5			6												
High-Turnover (Sit-Down) Restaurant			R ²	N/A			N/A			N/A												

881 Pharmacy/Drugstore with Drive-Thru																						
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	
Pharmacy/Drugstore with Drive-Thru	881	14,391	1000 SF GFA	108.40	50%	50%	3.74	52%	48%	10.25	50%	50%	1,560	780	780	54	28	26	148	74	74	Average
Pharmacy/Drugstore with Drive-Thru	881	14,391	1000 SF GFA	65.05	50%	50%	1.93	52%	48%	4.86	50%	50%	936	468	468	28	15	13	70	35	35	Minimum



Appendix H – MAG Socioeconomic Projections

Socioeconomic Projections

Population and Employment

by Municipal Planning Area, Jurisdiction, and Regional Analysis Zone

June 2019



302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
(602) 254-6300

Maricopa Association of Governments

**Table 1: Total Population by Municipal Planning Area
July 1, 2018 and Projections July 1, 2020 to July 1, 2055**

Municipal Planning Area	Total Population					
	2018	2020	2030	2040	2050	2055
Apache Junction	59,000	60,800	70,000	92,000	117,100	132,600
Avondale	84,200	86,700	101,800	111,900	119,000	122,100
Buckeye	89,000	97,700	186,600	305,400	409,900	459,300
Carefree	3,700	3,800	4,100	4,200	4,200	4,300
Cave Creek	5,900	6,000	6,500	7,000	7,200	7,300
Chandler	270,300	279,500	309,100	321,100	329,000	332,400
El Mirage	34,300	35,100	36,500	36,900	37,200	37,200
Florence	79,400	85,500	120,300	160,500	209,900	231,400
Fort McDowell Yavapai Native Nation	1,000	1,100	1,100	1,100	1,100	1,100
Fountain Hills	24,000	24,700	26,200	26,600	26,900	27,000
Gila Bend	2,500	2,700	3,700	3,700	3,900	4,200
Gila River Indian Native Nation	12,000	12,200	12,300	12,300	12,300	12,300
Gilbert	256,500	265,900	293,500	308,800	318,100	321,400
Glendale	272,200	279,100	306,400	323,400	333,200	338,800
Goodyear	87,300	92,100	140,300	192,200	228,600	247,900
Guadalupe	6,300	6,400	6,700	6,800	6,800	6,800
Litchfield Park	13,300	14,000	15,400	15,700	16,100	16,400
Maricopa	59,800	67,000	90,800	106,400	121,600	128,900
Mesa	533,400	552,800	607,500	649,400	680,000	690,300
Paradise Valley	14,000	14,100	14,700	15,100	15,200	15,300
Peoria	188,500	196,600	232,400	273,700	312,600	329,900
Phoenix	1,653,500	1,697,700	1,881,900	2,019,300	2,117,400	2,155,300
Queen Creek	58,700	65,000	90,900	109,000	120,900	128,500
Salt River Pima-Maricopa Native Nation	6,800	6,100	5,700	5,800	5,800	5,800
Scottsdale	245,500	253,800	281,900	299,400	311,400	316,700
Surprise	144,000	150,300	216,700	307,500	383,300	417,200
Tempe	185,300	190,000	217,100	247,000	272,400	282,200
Tolleson	7,000	7,100	8,600	10,300	11,400	11,800
Unincorporated Pinal County	66,800	68,600	79,100	93,700	110,800	122,700
Unincorporated Maricopa County	97,900	101,200	110,500	116,800	137,000	152,600
Wickenburg	8,200	8,500	9,400	9,500	9,800	10,000
Youngtown	6,600	6,800	7,300	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.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments
Table 2: Total Employment by Municipal Planning Area
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

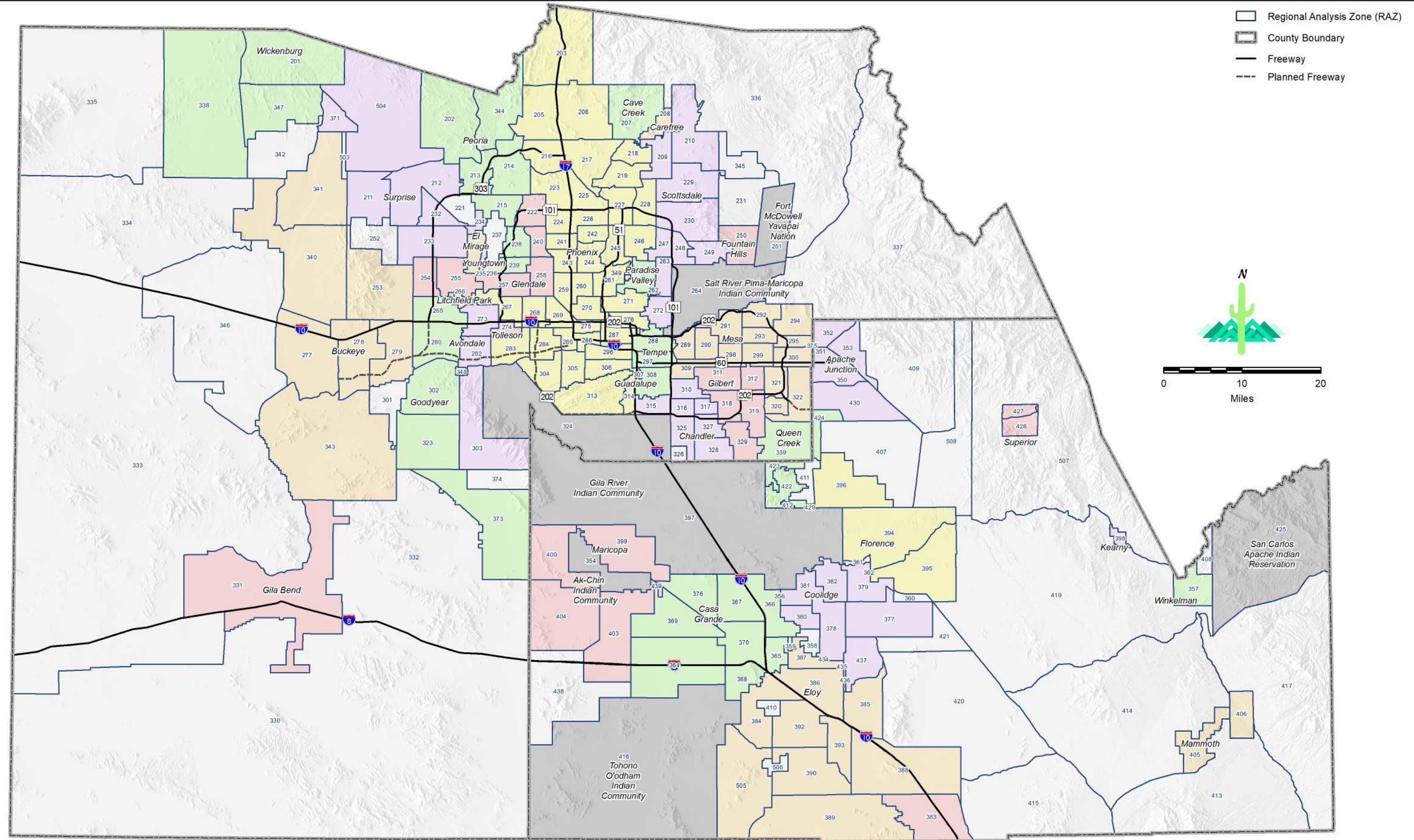
Municipal Planning Area	Total Employment					
	2018	2020	2030	2040	2050	2055
Apache Junction	7,800	8,800	13,100	17,800	26,400	30,500
Avondale	22,400	23,200	30,400	36,200	42,800	45,400
Buckeye	21,600	26,900	42,900	64,500	98,000	128,900
Carefree	1,600	1,600	2,100	2,400	2,500	2,600
Cave Creek	2,200	2,400	2,700	2,900	3,000	3,200
Chandler	145,500	154,700	182,300	202,100	215,200	222,000
El Mirage	5,000	5,100	6,500	7,200	8,000	8,900
Florence	11,000	12,100	17,000	26,400	40,900	51,100
Fort McDowell Yavapai Native Nation	2,200	2,400	2,400	2,500	2,600	2,600
Fountain Hills	7,100	7,700	9,100	9,800	10,200	10,300
Gila Bend	900	900	1,200	1,300	1,500	1,700
Gila River Indian Native Nation	10,500	10,700	11,500	13,100	14,800	15,500
Gilbert	92,800	98,600	120,200	135,900	146,600	152,200
Glendale	103,800	111,400	134,000	153,100	168,900	175,900
Goodyear	35,900	37,200	50,600	69,000	92,600	102,500
Guadalupe	1,300	1,300	1,500	1,600	1,600	1,600
Litchfield Park	3,800	4,400	5,200	5,900	6,400	6,700
Maricopa	6,200	7,100	11,400	18,200	28,200	33,500
Mesa	197,200	205,900	249,000	296,000	333,700	351,000
Paradise Valley	6,300	6,300	6,800	7,100	7,500	7,700
Peoria	58,200	62,400	73,100	84,800	91,900	96,300
Phoenix	897,700	937,600	1,084,000	1,189,200	1,264,900	1,298,900
Queen Creek	15,500	16,400	19,900	24,000	28,900	31,100
Salt River Pima-Maricopa Native Nation	21,200	22,900	28,200	33,900	35,900	36,400
Scottsdale	197,200	207,400	235,500	252,000	261,700	267,000
Surprise	33,600	36,400	59,500	86,400	113,400	130,500
Tempe	190,000	200,500	231,200	257,700	280,000	290,900
Tolleson	17,700	18,300	21,200	23,900	26,000	26,700
Unincorporated Pinal County	3,500	3,900	6,000	8,900	13,500	17,800
Unincorporated Maricopa County	28,600	31,500	35,500	41,100	51,200	58,400
Wickenburg	4,400	4,600	5,200	5,600	6,000	6,200
Youngtown	1,500	1,800	2,200	2,700	2,800	3,100

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.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Regional Analysis Zones (RAZ), 2019
Maricopa and Pinal Counties, Arizona



Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

RAZ	County	Total Population					
		2018	2020	2030	2040	2050	2055
	Total	1,653,469	1,697,722	1,881,876	2,019,269	2,117,427	2,155,333
Queen Creek MPA							
339	Maricopa County	49,781	53,579	72,670	82,172	87,155	89,586
422	Pinal County	13	13	300	437	564	638
423	Pinal County	1,286	1,410	3,714	6,136	7,457	8,686
424	Pinal County	7,642	10,003	14,200	20,287	25,759	29,586
	Total	58,722	65,005	90,884	109,032	120,935	128,496
Salt River Pima-Maricopa Native Nation MPA							
264	Maricopa County	6,798	6,073	5,708	5,820	5,820	5,820
	Total	6,798	6,073	5,708	5,820	5,820	5,820
Scottsdale MPA							
209	Maricopa County	12,188	12,605	13,961	14,512	14,984	15,255
210	Maricopa County	6,013	6,591	10,463	12,339	13,491	13,961
229	Maricopa County	20,542	21,269	25,221	27,864	29,698	30,229
230	Maricopa County	32,232	33,028	38,882	43,580	46,789	48,510
247	Maricopa County	13,549	13,858	15,420	16,342	16,871	17,019
248	Maricopa County	36,178	37,227	38,468	38,807	39,048	39,143
249	Maricopa County	20,903	21,410	22,543	22,768	22,839	22,848
263	Maricopa County	34,908	35,814	37,002	37,252	37,584	37,773
272	Maricopa County	68,987	71,970	79,910	85,942	90,054	91,927
	Total	245,500	253,772	281,870	299,406	311,358	316,665
Surprise MPA							
211	Maricopa County	863	884	4,471	23,112	36,704	40,737
212	Maricopa County	10,265	11,365	37,615	69,296	85,862	93,806
232	Maricopa County	29,296	30,200	34,506	37,144	37,927	38,313
233	Maricopa County	87,834	91,276	111,822	119,384	123,777	126,523
234	Maricopa County	8,969	9,467	10,460	10,878	11,335	11,488
371	Maricopa County	342	344	434	734	2,584	4,316
504	Maricopa County	6,460	6,718	17,425	46,912	85,127	102,004
	Total	144,029	150,254	216,733	307,460	383,316	417,187
Tempe MPA							
288	Maricopa County	73,442	76,444	100,651	129,202	150,094	157,410
297	Maricopa County	53,146	54,092	56,336	57,432	61,780	64,273
308	Maricopa County	58,756	59,473	60,120	60,348	60,476	60,559
	Total	185,344	190,009	217,107	246,982	272,350	282,242

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.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

RAZ	County	Total Employment					
		2018	2020	2030	2040	2050	2055
Total		897,713	937,622	1,083,980	1,189,209	1,264,941	1,298,903
Queen Creek MPA							
339	Maricopa County	13,933	14,696	16,482	18,825	20,733	21,151
422	Pinal County	9	8	18	22	31	39
423	Pinal County	89	109	351	620	1,068	1,639
424	Pinal County	1,435	1,576	3,073	4,571	7,020	8,309
Total		15,466	16,389	19,924	24,038	28,852	31,138
Salt River Pima-Maricopa Native Nation MPA							
264	Maricopa County	21,160	22,869	28,215	33,871	35,903	36,442
Total		21,160	22,869	28,215	33,871	35,903	36,442
Scottsdale MPA							
209	Maricopa County	4,488	4,659	4,851	5,174	5,161	5,344
210	Maricopa County	2,386	3,018	2,759	3,091	3,139	3,191
229	Maricopa County	9,604	10,005	11,231	11,962	12,193	12,896
230	Maricopa County	23,272	24,919	32,112	36,968	40,834	42,136
247	Maricopa County	44,254	47,089	52,652	54,822	55,679	56,105
248	Maricopa County	29,603	30,901	33,285	34,001	34,234	34,548
249	Maricopa County	7,409	7,692	8,179	8,684	8,906	9,045
263	Maricopa County	26,351	26,961	28,903	30,245	30,919	31,381
272	Maricopa County	49,833	52,185	61,540	67,039	70,676	72,330
Total		197,200	207,429	235,512	251,986	261,741	266,976
Surprise MPA							
211	Maricopa County	60	53	1,560	3,172	4,766	7,017
212	Maricopa County	2,008	2,338	5,821	9,965	13,362	15,709
232	Maricopa County	8,349	9,228	11,297	12,187	12,875	13,116
233	Maricopa County	19,943	21,079	32,661	44,032	52,007	57,402
234	Maricopa County	2,588	2,711	3,354	3,922	4,239	4,386
371	Maricopa County	18	20	327	423	2,381	2,937
504	Maricopa County	677	1,020	4,460	12,695	23,763	29,886
Total		33,643	36,449	59,480	86,396	113,393	130,453
Tempe MPA							
288	Maricopa County	88,927	94,229	111,010	128,894	144,714	152,703
297	Maricopa County	44,730	47,069	53,149	57,125	60,725	62,552
308	Maricopa County	56,380	59,208	67,052	71,701	74,542	75,596
Total		190,037	200,506	231,211	257,720	279,981	290,851

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.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.



Appendix I – Year 2025 No Build Capacity Analysis

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	7	159	7	14	224	17	10	3	16	16	3	11
Future Vol, veh/h	7	159	7	14	224	17	10	3	16	16	3	11
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	8	173	8	15	243	18	11	3	17	17	3	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	261	0	0	181	0	0	483	484	177	485	479	252
Stage 1	-	-	-	-	-	-	193	193	-	282	282	-
Stage 2	-	-	-	-	-	-	290	291	-	203	197	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1303	-	-	1394	-	-	494	483	866	492	486	787
Stage 1	-	-	-	-	-	-	809	741	-	725	678	-
Stage 2	-	-	-	-	-	-	718	672	-	799	738	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1303	-	-	1394	-	-	478	475	866	473	478	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	478	475	-	473	478	-
Stage 1	-	-	-	-	-	-	804	737	-	721	671	-
Stage 2	-	-	-	-	-	-	696	665	-	775	734	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.4			11			11.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	634	1303	-	-	1394	-	-	555
HCM Lane V/C Ratio	0.05	0.006	-	-	0.011	-	-	0.059
HCM Control Delay (s)	11	7.8	-	-	7.6	-	-	11.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	94	98	148	64	118	43	101	1012	115	32	1311	86
Future Volume (veh/h)	94	98	148	64	118	43	101	1012	115	32	1311	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	107	161	70	128	47	110	1100	125	35	1425	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	281	238	170	387	136	740	1221	379	906	1594	104
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.76	0.48	0.48	0.47	0.33	0.33
Sat Flow, veh/h	1210	1870	1585	1111	2576	908	1781	5106	1585	1781	4897	320
Grp Volume(v), veh/h	102	107	161	70	87	88	110	1100	125	35	990	528
Grp Sat Flow(s),veh/h/ln	1210	1870	1585	1111	1777	1707	1781	1702	1585	1781	1702	1813
Q Serve(g_s), s	9.9	6.2	11.5	7.3	5.2	5.6	0.0	23.7	5.9	0.0	33.2	33.2
Cycle Q Clear(g_c), s	15.5	6.2	11.5	13.5	5.2	5.6	0.0	23.7	5.9	0.0	33.2	33.2
Prop In Lane	1.00		1.00	1.00		0.53	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	185	281	238	170	267	256	740	1221	379	906	1108	590
V/C Ratio(X)	0.55	0.38	0.68	0.41	0.32	0.34	0.15	0.90	0.33	0.04	0.89	0.89
Avail Cap(c_a), veh/h	252	383	325	231	364	350	740	3034	942	906	2023	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	46.0	48.2	52.0	45.6	45.7	8.8	30.0	25.4	16.5	38.5	38.5
Incr Delay (d2), s/veh	0.9	0.3	1.3	0.6	0.3	0.3	0.0	10.8	2.3	0.0	11.1	18.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.9	4.6	2.0	2.3	2.4	0.7	8.1	2.2	0.5	15.1	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	46.3	49.5	52.6	45.8	46.0	8.8	40.8	27.7	16.5	49.6	57.0
LnGrp LOS	D	D	D	D	D	D	A	D	C	B	D	E
Approach Vol, veh/h		370			245			1335			1553	
Approach Delay, s/veh		49.7			47.8			37.0			51.4	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	51.8	44.8		23.4	62.2	34.4		23.4				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	71.3		* 25	7.0	71.3		* 25				
Max Q Clear Time (g_c+I1), s	2.0	35.2		15.5	2.0	25.7		17.5				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	3.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑			↑↑↑		
Traffic Vol, veh/h	0	0	7	0	0	14	0	1292	0	0	1498	21
Future Vol, veh/h	0	0	7	0	0	14	0	1292	0	0	1498	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	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	0	0	8	0	0	15	0	1404	0	0	1628	23

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	826	-	-	702	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-
Pot Cap-1 Maneuver	0	0	*567	0	0	*632	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %			1			1		
Mov Cap-1 Maneuver	-	-	*567	-	-	*632	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.4		10.8		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	567	632	-	-
HCM Lane V/C Ratio	-	-	0.013	0.024	-	-
HCM Control Delay (s)	-	-	11.4	10.8	-	-
HCM Lane LOS	-	-	B	B	-	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-	-

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

4: Scottsdale Road & Acacia Driveway

03/24/2022

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕ ↑↑↑	↑↑↑	↕	↕ ↑↑↑		
Traffic Vol, veh/h	9	0	28	9	0	21	16	1273	7	10	1525	9
Future Vol, veh/h	9	0	28	9	0	21	16	1273	7	10	1525	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	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	10	0	30	10	0	23	17	1384	8	11	1658	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2273	3111	834	2103	3108	692	1668	0	0	1392	0	0
Stage 1	1685	1685	-	1418	1418	-	-	-	-	-	-	-
Stage 2	588	1426	-	685	1690	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*183	*25	*567	*263	*25	*632	*713	-	-	*794	-	-
Stage 1	*582	*553	-	*625	*602	-	-	-	-	-	-	-
Stage 2	*648	*595	-	*582	*553	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*171	*24	*567	*242	*24	*632	*713	-	-	*794	-	-
Mov Cap-2 Maneuver	*171	*24	-	*242	*24	-	-	-	-	-	-	-
Stage 1	*568	*545	-	*610	*588	-	-	-	-	-	-	-
Stage 2	*610	*581	-	*543	*545	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	16.1		14.2		0.1		0.1	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 713	-	-	363	426	* 794	-
HCM Lane V/C Ratio	0.024	-	-	0.111	0.077	0.014	-
HCM Control Delay (s)	10.2	-	-	16.1	14.2	9.6	-
HCM Lane LOS	B	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0	-

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

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	9	97	14	20	152	26	22	7	27	61	6	19
Future Vol, veh/h	9	97	14	20	152	26	22	7	27	61	6	19
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	10	105	15	22	165	28	24	8	29	66	7	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	120	0	0	370	370	113	374	363	179
Stage 1	-	-	-	-	-	-	133	133	-	223	223	-
Stage 2	-	-	-	-	-	-	237	237	-	151	140	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1380	-	-	1468	-	-	587	560	940	583	565	864
Stage 1	-	-	-	-	-	-	870	786	-	780	719	-
Stage 2	-	-	-	-	-	-	766	709	-	851	781	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1380	-	-	1468	-	-	558	548	940	549	553	864
Mov Cap-2 Maneuver	-	-	-	-	-	-	558	548	-	549	553	-
Stage 1	-	-	-	-	-	-	864	780	-	775	708	-
Stage 2	-	-	-	-	-	-	730	698	-	810	776	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.8			10.7			12.1		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	692	1380	-	-	1468	-	-	597
HCM Lane V/C Ratio	0.088	0.007	-	-	0.015	-	-	0.157
HCM Control Delay (s)	10.7	7.6	-	-	7.5	-	-	12.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.6

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↕		↘	↕	↗	↘	↕	↗
Traffic Volume (veh/h)	63	71	85	86	77	52	117	1726	82	33	1434	42
Future Volume (veh/h)	63	71	85	86	77	52	117	1726	82	33	1434	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	77	92	93	84	57	127	1876	89	36	1559	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	246	209	175	276	173	756	2099	651	621	1740	51
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.38	0.41	0.41	0.31	0.34	0.34
Sat Flow, veh/h	1248	1870	1585	1216	2098	1313	1781	5106	1585	1781	5097	150
Grp Volume(v), veh/h	68	77	92	93	70	71	127	1876	89	36	1041	564
Grp Sat Flow(s),veh/h/ln	1248	1870	1585	1216	1777	1634	1781	1702	1585	1781	1702	1843
Q Serve(g_s), s	6.3	4.5	6.4	9.0	4.3	4.7	0.5	41.0	4.2	0.0	34.8	34.8
Cycle Q Clear(g_c), s	11.0	4.5	6.4	13.5	4.3	4.7	0.5	41.0	4.2	0.0	34.8	34.8
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	175	246	209	175	234	215	756	2099	651	621	1162	629
V/C Ratio(X)	0.39	0.31	0.44	0.53	0.30	0.33	0.17	0.89	0.14	0.06	0.90	0.90
Avail Cap(c_a), veh/h	235	337	285	234	320	294	756	3162	981	621	2108	1141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	47.2	48.0	53.3	47.1	47.3	22.6	32.9	22.1	28.2	37.5	37.5
Incr Delay (d2), s/veh	0.5	0.3	0.5	0.9	0.3	0.3	0.0	6.4	0.4	0.0	10.8	17.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.1	2.6	2.8	1.9	1.9	2.2	17.3	1.6	0.7	15.7	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	47.4	48.6	54.2	47.4	47.6	22.6	39.3	22.5	28.2	48.3	55.3
LnGrp LOS	D	D	D	D	D	D	C	D	C	C	D	E
Approach Vol, veh/h		237			234			2092			1641	
Approach Delay, s/veh		49.4			50.2			37.6			50.3	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	52.1	46.7		21.2	43.8	55.0		21.2				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	74.3		* 22	7.0	74.3		* 22				
Max Q Clear Time (g_c+I1), s	2.5	36.8		15.5	2.0	43.0		13.0				
Green Ext Time (p_c), s	0.1	4.1		0.3	0.0	6.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑			↑↑↑		
Traffic Vol, veh/h	0	0	20	0	0	17	0	1904	3	0	1575	31
Future Vol, veh/h	0	0	20	0	0	17	0	1904	3	0	1575	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	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	0	0	22	0	0	18	0	2070	3	0	1712	34

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	873	-	-	1037	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*545	0	0	*480	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*545	-	-	*480	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.9		12.8		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	545	480	-	-
HCM Lane V/C Ratio	-	-	0.04	0.038	-	-
HCM Control Delay (s)	-	-	11.9	12.8	-	-
HCM Lane LOS	-	-	B	B	-	-
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 & Acacia Driveway

03/24/2022

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	8	3	39	5	3	12	55	1884	8	25	1591	22
Future Vol, veh/h	8	3	39	5	3	12	55	1884	8	25	1591	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	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	9	3	42	5	3	13	60	2048	9	27	1729	24

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2736	3972	877	2915	3975	1024	1753	0	0	2057	0	0
Stage 1	1795	1795	-	2168	2168	-	-	-	-	-	-	-
Stage 2	941	2177	-	747	1807	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*117	*79	*545	*117	*77	*480	*686	-	-	*604	-	-
Stage 1	*560	*532	-	*458	*447	-	-	-	-	-	-	-
Stage 2	*493	*440	-	*560	*532	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*99	*69	*545	*94	*67	*480	*686	-	-	*604	-	-
Mov Cap-2 Maneuver	*99	*69	-	*94	*67	-	-	-	-	-	-	-
Stage 1	*511	*508	-	*419	*408	-	-	-	-	-	-	-
Stage 2	*434	*401	-	*490	*508	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.9		30.5		0.3		0.2	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 686	-	-	255	163	* 604	-	-
HCM Lane V/C Ratio	0.087	-	-	0.213	0.133	0.045	-	-
HCM Control Delay (s)	10.7	-	-	22.9	30.5	11.2	-	-
HCM Lane LOS	B	-	-	C	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.8	0.5	0.1	-	-

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



Appendix J – Year 2025 Build Capacity Analysis

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	7	159	7	17	224	17	14	2	42	16	2	11
Future Vol, veh/h	7	159	7	17	224	17	14	2	42	16	2	11
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	8	173	8	18	243	18	15	2	46	17	2	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	261	0	0	181	0	0	488	490	177	505	485	252
Stage 1	-	-	-	-	-	-	193	193	-	288	288	-
Stage 2	-	-	-	-	-	-	295	297	-	217	197	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1303	-	-	1394	-	-	490	479	866	478	482	787
Stage 1	-	-	-	-	-	-	809	741	-	720	674	-
Stage 2	-	-	-	-	-	-	713	668	-	785	738	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1303	-	-	1394	-	-	474	470	866	445	473	787
Mov Cap-2 Maneuver	-	-	-	-	-	-	474	470	-	445	473	-
Stage 1	-	-	-	-	-	-	804	737	-	716	665	-
Stage 2	-	-	-	-	-	-	691	659	-	737	734	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.5			10.6			12.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	705	1303	-	-	1394	-	-	535
HCM Lane V/C Ratio	0.089	0.006	-	-	0.013	-	-	0.059
HCM Control Delay (s)	10.6	7.8	-	-	7.6	-	-	12.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	114	103	152	65	119	43	104	1018	115	32	1320	88
Future Volume (veh/h)	114	103	152	65	119	43	104	1018	115	32	1320	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	112	165	71	129	47	113	1107	125	35	1435	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	312	265	185	431	151	705	1228	381	873	1605	107
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.72	0.48	0.48	0.45	0.33	0.33
Sat Flow, veh/h	1209	1870	1585	1102	2582	903	1781	5106	1585	1781	4889	327
Grp Volume(v), veh/h	124	112	165	71	87	89	113	1107	125	35	999	532
Grp Sat Flow(s),veh/h/ln	1209	1870	1585	1102	1777	1708	1781	1702	1585	1781	1702	1811
Q Serve(g_s), s	12.1	6.4	11.6	7.3	5.2	5.5	0.0	23.8	5.8	0.0	33.5	33.5
Cycle Q Clear(g_c), s	17.5	6.4	11.6	13.7	5.2	5.5	0.0	23.8	5.8	0.0	33.5	33.5
Prop In Lane	1.00		1.00	1.00		0.53	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	206	312	265	185	297	285	705	1228	381	873	1118	595
V/C Ratio(X)	0.60	0.36	0.62	0.38	0.29	0.31	0.16	0.90	0.33	0.04	0.89	0.89
Avail Cap(c_a), veh/h	252	383	325	227	364	350	705	3034	942	873	2023	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	44.3	46.5	50.4	43.8	43.9	10.5	29.8	25.2	17.7	38.3	38.3
Incr Delay (d2), s/veh	1.0	0.3	1.1	0.5	0.2	0.2	0.0	10.8	2.3	0.0	11.0	18.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.0	4.7	2.0	2.3	2.3	0.9	8.1	2.2	0.5	15.2	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	44.6	47.5	50.8	44.0	44.2	10.6	40.7	27.5	17.7	49.4	56.8
LnGrp LOS	D	D	D	D	D	D	B	D	C	B	D	E
Approach Vol, veh/h		401			247			1345			1566	
Approach Delay, s/veh		48.3			46.0			36.9			51.2	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.5	45.1		25.4	60.0	34.6		25.4				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	71.3		* 25	7.0	71.3		* 25				
Max Q Clear Time (g_c+I1), s	2.0	35.5		15.7	2.0	25.8		19.5				
Green Ext Time (p_c), s	0.1	3.9		0.5	0.0	3.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑				↑↑↑	
Traffic Vol, veh/h	0	0	32	0	0	14	0	1301	0	0	1503	26
Future Vol, veh/h	0	0	32	0	0	14	0	1301	0	0	1503	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	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	0	0	35	0	0	15	0	1414	0	0	1634	28

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	831	-	-	707	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	*567	0	0	*632	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %			1			1		-	-		-	-
Mov Cap-1 Maneuver	-	-	*567	-	-	*632	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.8		10.8		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	567	632	-	-
HCM Lane V/C Ratio	-	-	0.061	0.024	-	-
HCM Control Delay (s)	-	-	11.8	10.8	-	-
HCM Lane LOS	-	-	B	B	-	-
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 & Acacia Driveway

03/24/2022

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕ ↑↑↑	↑↑↑	↕	↕ ↑↑↑		
Traffic Vol, veh/h	13	0	28	9	0	21	20	1276	7	10	1555	8
Future Vol, veh/h	13	0	28	9	0	21	20	1276	7	10	1555	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	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	14	0	30	10	0	23	22	1387	8	11	1690	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2316	3156	850	2129	3152	694	1699	0	0	1395	0	0
Stage 1	1717	1717	-	1431	1431	-	-	-	-	-	-	-
Stage 2	599	1439	-	698	1721	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*167	*23	*567	*249	23	*632	*713	-	-	*794	-	-
Stage 1	*582	*553	-	*607	591	-	-	-	-	-	-	-
Stage 2	*648	*584	-	*582	551	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*155	*22	*567	*228	22	*632	*713	-	-	*794	-	-
Mov Cap-2 Maneuver	*155	*22	-	*228	22	-	-	-	-	-	-	-
Stage 1	*564	*545	-	*589	573	-	-	-	-	-	-	-
Stage 2	*605	*566	-	*543	544	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.7	14.5	0.2	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 713	-	-	308	413	* 794	-
HCM Lane V/C Ratio	0.03	-	-	0.145	0.079	0.014	-
HCM Control Delay (s)	10.2	-	-	18.7	14.5	9.6	-
HCM Lane LOS	B	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-

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

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↕			↕	
Traffic Vol, veh/h	9	97	12	35	152	26	17	5	40	61	4	19
Future Vol, veh/h	9	97	12	35	152	26	17	5	40	61	4	19
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	10	105	13	38	165	28	18	5	43	66	4	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	118	0	0	400	401	112	411	393	179
Stage 1	-	-	-	-	-	-	132	132	-	255	255	-
Stage 2	-	-	-	-	-	-	268	269	-	156	138	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1380	-	-	1470	-	-	560	538	941	551	543	864
Stage 1	-	-	-	-	-	-	871	787	-	749	696	-
Stage 2	-	-	-	-	-	-	738	687	-	846	782	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1380	-	-	1470	-	-	530	520	941	508	525	864
Mov Cap-2 Maneuver	-	-	-	-	-	-	530	520	-	508	525	-
Stage 1	-	-	-	-	-	-	865	781	-	744	678	-
Stage 2	-	-	-	-	-	-	697	669	-	795	777	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			1.2			10.4			12.7		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	736	1380	-	-	1470	-	-	561
HCM Lane V/C Ratio	0.092	0.007	-	-	0.026	-	-	0.163
HCM Control Delay (s)	10.4	7.6	-	-	7.5	-	-	12.7
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.6

2: Scottsdale Road & Gold Dust Avenue

03/24/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↕		↘	↕	↗	↘	↕	↗
Traffic Volume (veh/h)	80	73	87	88	79	52	132	1730	82	33	1456	46
Future Volume (veh/h)	80	73	87	88	79	52	132	1730	82	33	1456	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	79	95	96	86	57	143	1880	89	36	1583	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	253	214	178	286	175	739	2103	653	614	1765	56
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.38	0.41	0.41	0.31	0.35	0.35
Sat Flow, veh/h	1245	1870	1585	1211	2117	1296	1781	5106	1585	1781	5085	161
Grp Volume(v), veh/h	87	79	95	96	71	72	143	1880	89	36	1060	573
Grp Sat Flow(s),veh/h/ln	1245	1870	1585	1211	1777	1637	1781	1702	1585	1781	1702	1841
Q Serve(g_s), s	8.2	4.6	6.6	9.3	4.3	4.8	1.4	41.1	4.2	0.0	35.4	35.4
Cycle Q Clear(g_c), s	12.9	4.6	6.6	13.9	4.3	4.8	1.4	41.1	4.2	0.0	35.4	35.4
Prop In Lane	1.00		1.00	1.00		0.79	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	179	253	214	178	240	221	739	2103	653	614	1182	639
V/C Ratio(X)	0.49	0.31	0.44	0.54	0.30	0.33	0.19	0.89	0.14	0.06	0.90	0.90
Avail Cap(c_a), veh/h	235	337	285	232	320	295	739	3162	981	614	2108	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	46.8	47.7	53.1	46.7	46.9	23.4	32.9	22.0	28.5	37.1	37.1
Incr Delay (d2), s/veh	0.8	0.3	0.5	1.0	0.3	0.3	0.0	6.4	0.4	0.0	10.7	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.2	2.7	2.9	1.9	2.0	2.5	17.4	1.6	0.7	15.9	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	47.1	48.3	54.1	47.0	47.2	23.4	39.2	22.4	28.5	47.9	54.8
LnGrp LOS	D	D	D	D	D	D	C	D	C	C	D	D
Approach Vol, veh/h		261			239			2112			1669	
Approach Delay, s/veh		49.7			49.9			37.4			49.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	51.0	47.4		21.6	43.2	55.1		21.6				
Change Period (Y+Rc), s	6.0	5.7		* 5.4	6.0	5.7		* 5.4				
Max Green Setting (Gmax), s	7.0	74.3		* 22	7.0	74.3		* 22				
Max Q Clear Time (g_c+I1), s	3.4	37.4		15.9	2.0	43.1		14.9				
Green Ext Time (p_c), s	0.1	4.2		0.3	0.0	6.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Scottsdale Road & Driveway B

03/24/2022

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↑↑↑			↑↑↑		
Traffic Vol, veh/h	0	0	27	0	0	17	0	1923	3	0	1580	42
Future Vol, veh/h	0	0	27	0	0	17	0	1923	3	0	1580	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	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	0	0	29	0	0	18	0	2090	3	0	1717	46

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	882	-	-	1047	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	7.14	-	-	7.14	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.92	-	-	3.92	-	-
Pot Cap-1 Maneuver	0	0	*545	0	0	*480	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %			1			1		
Mov Cap-1 Maneuver	-	-	*545	-	-	*480	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.8	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	545 480	-	-
HCM Lane V/C Ratio	-	-	0.054 0.038	-	-
HCM Control Delay (s)	-	-	12 12.8	-	-
HCM Lane LOS	-	-	B B	-	-
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 & Acacia Driveway

03/24/2022

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	10	2	30	5	2	12	56	1899	8	25	1606	18
Future Vol, veh/h	10	2	30	5	2	12	56	1899	8	25	1606	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	100	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	11	2	33	5	2	13	61	2064	9	27	1746	20

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2759	4005	883	2939	4006	1032	1766	0	0	2073	0	0
Stage 1	1810	1810	-	2186	2186	-	-	-	-	-	-	-
Stage 2	949	2195	-	753	1820	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	5.34	-	-
Critical Hdwy Stg 1	7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	3.12	-	-
Pot Cap-1 Maneuver	*117	*56	*545	*117	*56	*480	*686	-	-	*604	-	-
Stage 1	*560	*532	-	*435	*432	-	-	-	-	-	-	-
Stage 2	*493	*425	-	*560	*532	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*99	*49	*545	*96	*48	*480	*686	-	-	*604	-	-
Mov Cap-2 Maneuver	*99	*49	-	*96	*48	-	-	-	-	-	-	-
Stage 1	*510	*508	-	*396	*394	-	-	-	-	-	-	-
Stage 2	*435	*387	-	*500	*508	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.5	30.8	0.3	0.2
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 686	-	-	213	160	* 604	-
HCM Lane V/C Ratio	0.089	-	-	0.214	0.129	0.045	-
HCM Control Delay (s)	10.8	-	-	26.5	30.8	11.2	-
HCM Lane LOS	B	-	-	D	D	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.8	0.4	0.1	-

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