



APPENDIX 1

TECHNICAL MEMORANDUM 1 – EXISTING AND FUTURE CORRIDOR FEATURES



Yuma Parkway Corridor Feasibility Study – Salome Highway to Palo Verde Road

Contract No.: 2010-055
Project No.: TT005

FINAL Technical Memorandum 1 Existing and Future Corridor Features

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1. INTRODUCTION

Technical Memorandum 1 (TM 1), entitled *Existing and Future Corridor Features*, documents existing and future corridor features for the *Yuma Parkway Corridor Feasibility Study – Salome Highway to Palo Verde Road* (hereafter referred to as “the study”). The purpose of TM 1 is to identify opportunities and constraints in order to develop feasible corridor alignments. Additional detailed information about the study is included in the following companion documents: *Environmental Overview* (TM 2), *Conceptual Drainage Report* (TM 3), *Candidate Alternative Alignments and Evaluation* (TM 4), and *Detailed Preferred Alignment* (TM 5).

1.1 Background and Study Need

In July 2008, the Maricopa Association of Governments (MAG) completed the *Interstate 10/Hassayampa Valley Transportation Framework Study* (known as the Hassayampa Framework Study), that recommended a comprehensive roadway network to meet the future traffic demands that result when the area west of the White Tank Mountains is completely developed (hereafter referred to as buildout travel demand). This long-range regional transportation network includes the “Arizona Parkway” as a new facility type to supplement more traditional roadway classifications in meeting projected travel demand.

The Arizona Parkway utilizes a distinct intersection treatment that prohibits left turns at major cross-street intersections and controls intersection traffic movements with two-phased traffic signal control. Left-turn movements are made indirectly using directional left-turn crossovers in the median immediately downstream of cross-street intersections. The typical right-of-way width for an Arizona Parkway is 200 feet.

The Hassayampa Framework Study recommended Yuma Parkway as an Arizona Parkway to meet buildout travel demands and provide a continuous parkway network. Although today’s land development and travel demands in the study area do not warrant a major new high capacity roadway in the short-term, the buildout forecast for future land development and travel demands does warrant a major new high capacity roadway in the long-term future. Plans are already underway to convert some of the vacant lands within the study area to land uses that will generate future traffic.

The scope of work for this study includes the preparation of a corridor feasibility report that will provide Maricopa County, the Town of Buckeye, area property owners, developers, and other stakeholders with guidelines to preserve a 200-foot-wide right-of-way corridor to accommodate the typical Arizona Parkway design. This will require significant coordination with various governing bodies, other public agencies, development interests, and the general public.

1.2 Study Area

The Yuma Parkway study area is approximately 13 miles long and two miles wide and is generally centered on the Buckeye Road/Yuma Road section line, from one-half mile west of Salome Highway to one-half mile east of Palo Verde Road. The study area boundary is shown in **Figure 1**.

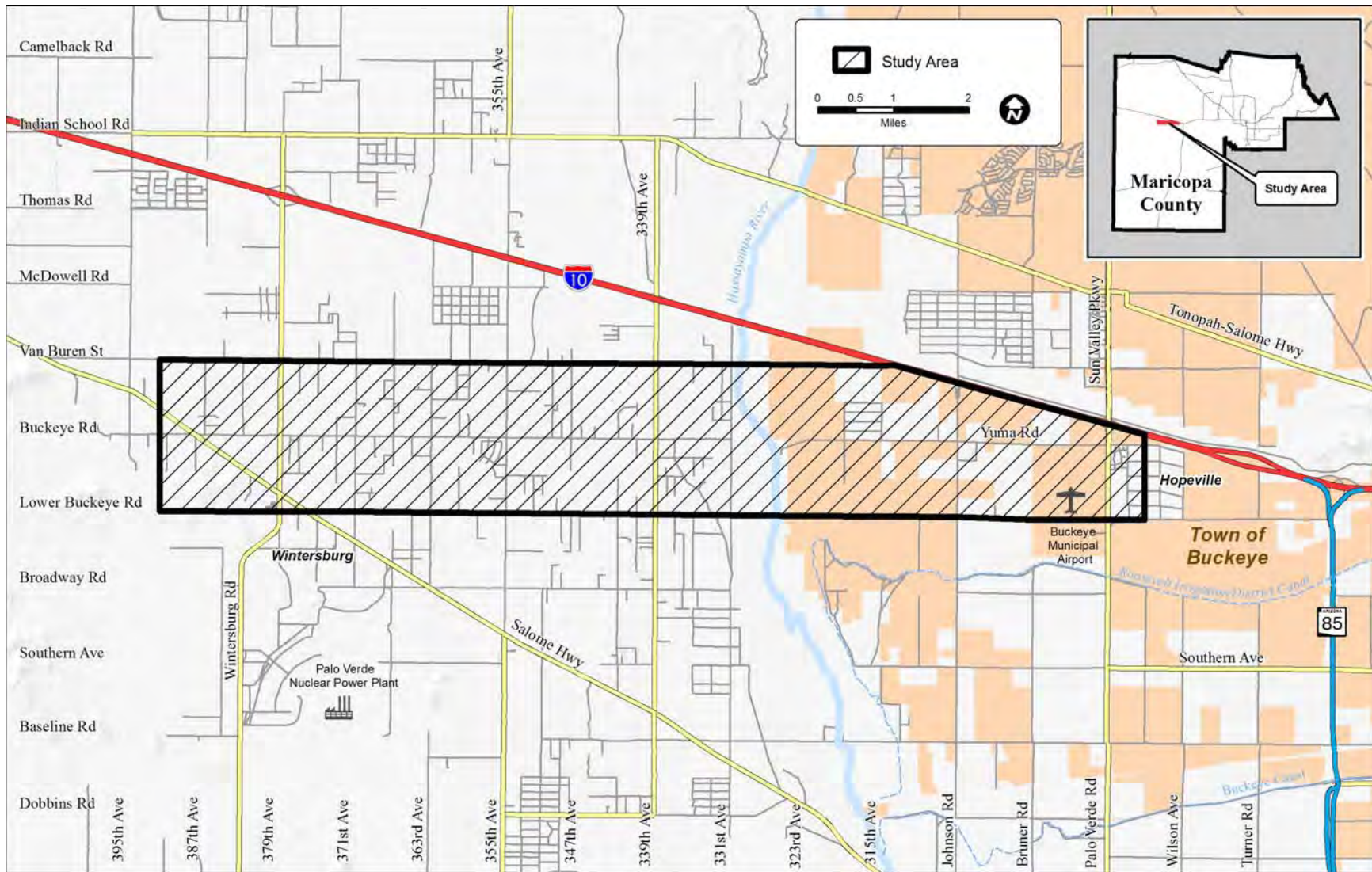


Figure 1 - Study Area

1.3 Study Purpose, Goals, and Objectives

The primary purposes of the *Yuma Parkway Corridor Feasibility Study* are to:

- Define and assess the study area for potential opportunities and constraints for alternative corridor alignments;
- Develop and evaluate alternative corridor alignments within the study area;
- Recommend a preferred corridor alignment; and
- Define the characteristics of the preferred alignment in sufficient detail for right-of-way preservation.

The study goals for the *Yuma Parkway Corridor Feasibility Study* relate specifically to the proposed Yuma Parkway in the context of the existing and future transportation network in the study area. Specific objectives are listed below for each study goal.

Goal #1: Achieve roadway network continuity and connectivity

- Determine the preferred corridor alignment from a regional transportation corridor perspective;
- Protect and preserve right-of-way for the preferred corridor alignment to maintain its long-term viability;
- Provide future connectivity with primary and regional roadway facilities; and
- Provide crossings of drainage washes and the Hassayampa River.

Goal #2: Enhance traffic flow (capacity) and safety

- Preserve functional integrity of the Arizona Parkway by recommending unique segment-specific solutions to address identified opportunities or constraints;
- Identify areas that may require additional right-of-way or easements, such as crossings of other parkways, drainage washes, and utility corridors; and
- Enhance traffic operations while maintaining reasonable access for developments.

Goal #3: Minimize adverse environmental impacts

- Comply with governing environmental regulations for new roadway development;
- Minimize adverse impacts to the study area environment, including wildlife corridors and archeological sites;
- Enhance important environmental features (e.g., habitat areas); and
- Minimize adverse impacts to disadvantaged population groups as provided in Title VI regarding environmental justice.

Goal #4: Develop consensus-driven improvement alternatives

- Work with the Technical Advisory Committee and key stakeholders in developing feasible alternatives;
- Develop cost-effective roadway improvement alternatives;
- Conduct public outreach to obtain input on alternatives and build consensus; and
- Ensure consistency between the study's transportation actions and regional/local plans.

2. SUMMARY OF IDENTIFIED OPPORTUNITIES AND CONSTRAINTS

2.1 Review of Available Documents

Relevant information on existing and future corridor features was obtained from available studies, reports, and other documents. The reports and studies that were obtained and reviewed are listed in **Appendix TM1-01**.

Findings and recommendations from existing studies and reports that are pertinent to the general existing and future corridor features of the study area are described below. The general order of presentation and discussion is chronological, starting with the most recent documents. Detailed documents discussing environmental and drainage issues and features are addressed in TM 2 and TM 3, respectively.

2.1.1 *MCDOT Maricopa County Major Streets and Routes Plan: Street Classification Atlas (Draft May 2011)*

This draft document designates the future functional classifications for arterial and collector roadway facilities in the County Road Inventory System. The *Atlas* is in the process of being updated to incorporate the roadway classification information from the Hassayampa Framework Study, Maricopa County Department of Transportation (MCDOT) corridor feasibility studies, and local general plans that have been completed since the previous version of the *Atlas*. Pertinent information from the document includes:

- Roadway classifications and alignments generally match those from the Hassayampa Framework Study and *Buckeye General Plan*;
- Yuma Parkway is shown originating at Salome Highway and continuing east through the study area before curving to the north at Johnson Road and terminating near Bruner Road;
- Other proposed parkways in the study area are Wintersburg Parkway, Hidden Waters Parkway, Sun Valley Parkway, and Salome Parkway;
- A new freeway is shown traversing the study area at about the 363rd Avenue alignment; and
- The alignment of Hidden Waters Parkway matches the *Hidden Waters Parkway Corridor Feasibility Study* preferred alignment along 339th Avenue rather than the Hassayampa Framework Study preliminary alignment, which had Hidden Waters Parkway transitioning from the 339th Avenue alignment to the 331st Avenue alignment south of Buckeye Road.

2.1.2 *MAG Unofficial Buildout Travel Demand Volumes (April 2011)*

In April 2011, MAG developed updated unofficial buildout traffic projections associated with the network of facilities from the Hassayampa Framework Study. Pertinent information from this document includes:

- Projected daily traffic volumes for Yuma Parkway range from approximately 7,000 vehicles per day (vpd) to approximately 74,000 vpd. The buildout traffic

projections are unofficial and have not been adopted by the MAG Regional Council;

- The updated roadway network does not include the I-10 frontage roads that had been in the original Hassayampa Framework Study roadway network; and
- The updated roadway network shows Yuma Parkway terminating on the east at Sun Valley Parkway rather than bending up to the I-10 frontage road as had been shown in the original Hassayampa Framework Study roadway network.

2.1.3 *MCDOT State of the Systems Report (Fiscal Year 2011)*

This report documents the physical and operational condition of MCDOT roadways. Pertinent information from the document includes:

- All roadways within the study area had truck percentages of less than five percent in 2010; and
- Traffic counts conducted in 2010 indicate all study area roadways carry less than 1,000 vpd except for 339th Avenue, which carries between 1,000 vpd and 5,000 vpd, and Wintersburg Road, which carries between 5,000 vpd and 10,000 vpd.

2.1.4 *MCDOT Roadway Management System (Fiscal Year 2010)*

This report documents the pavement condition of MCDOT roadways. Pertinent information from the document includes:

- All paved County roadways within the study area have sufficiency and pavement condition ratings of Excellent or Very Good; and
- International Roughness Index (IRI) ratings are as follows for study area roadways:
 - Van Buren Street: Average between Wintersburg Road and 339th Avenue,
 - Yuma Road: Smooth west of Palo Verde Road and Very Rough east of Palo Verde Road,
 - Lower Buckeye Road: Average except between 355th Avenue and 347th Avenue, which is Rough, and between 339th Avenue and 335th Avenue, which is Very Rough,
 - Salome Highway: Rough west of Wintersburg Road and Average east of Wintersburg Road,
 - Palo Verde Road: Rough,
 - Wintersburg Road: Average,
 - 355th Avenue: Very Rough,
 - 339th Avenue: Rough, and
 - Johnson Road: Average south of Yuma Road and Very Rough north of Yuma Road.

2.1.5 *Buckeye Airport Strategic Plan (October 2010)*

The Town of Buckeye held a Buckeye Airport strategic planning workshop in October 2010. This document summarizes the information presented and discussed at the workshop

regarding the mission, vision, and strategies for the airport. Pertinent information from this document includes:

- The main runway at the airport currently is 5,500 feet long; and
- An Environmental Assessment is underway for acquiring the property to the north of the airport to allow for the runway extension to 7,300 feet.

2.1.6 *ADOT Freeway-to-Parkway Interchange Templates (October 2010)*

This document developed by the Arizona Department of Transportation (ADOT) contains guidelines and ten potential design templates for grade-separated freeway-to-parkway interchanges. For purposes of this study, the four templates that support the Arizona Parkway concept and its two-phase signal cycle are considered appropriate potential solutions for the two anticipated freeway-to-parkway interchanges within the study area at Sun Valley Parkway/I-10 (existing freeway) and at Yuma Parkway/Hassayampa Freeway (planned freeway). Pertinent information from this document includes:

- The four applicable design templates are: Diamond Interchange – no left turn from Arizona Parkway, Single Point Urban Interchange (SPUI) – no left turn from Arizona Parkway, Diverging Diamond Interchange, and Three-level Diamond Interchange.

2.1.7 *MAG Regional Transportation Plan 2010 Update (July 2010)*

The *Regional Transportation Plan* is MAG's guiding regional transportation planning document for all major modes of transportation through fiscal year 2031. The Plan identifies future transportation facilities including planned roadway, freight, and transit system improvements. Pertinent information from this plan includes:

- The 2030 Arterial Street System Total Through Lanes plan shows Buckeye Road (Yuma Road) as being anticipated to have four through lanes between Sun Valley Parkway and Johnson Road and six through lanes between Johnson Road and 323rd Avenue by 2030;
- The intersection of Lower Buckeye Road and Johnson Road in the 2030 No Build Network is expected to have a PM Peak Period level of service E/F; and
- The Hassayampa Illustrative Corridors plan shows the following within the study area:
 - Service traffic interchange at I-10/Johnson Road,
 - Freeway-to-parkway traffic interchanges at I-10/Sun Valley Parkway and Yuma Parkway/Hassayampa Freeway,
 - Bus rapid transit along I-10 east of the Hassayampa Freeway,
 - Freight rail connector west of Wintersburg Parkway, and
 - High capacity community transit along Sun Valley Parkway.

2.1.8 *MCDOT Hidden Waters Parkway Corridor Feasibility Study (June 2010)*

This study identified the preferred alignment and general right-of-way requirements for the Hidden Waters Parkway (from Watermelon Road to I-10) proposed as part of the Hassayampa Framework Study. Pertinent information from this document includes:

- The preferred alignment for Hidden Waters Parkway within the study area is along the 339th Avenue alignment; and
- The preferred 339th Avenue alignment of Hidden Waters Parkway differs from the preliminary alignment in the Hassayampa Framework Study, which had Hidden Waters Parkway transitioning from the 339th Avenue alignment to the 331st Avenue alignment south of Buckeye Road.

2.1.9 *Draft Buckeye Transportation Master Plan (December 2009)*

A draft version of this document was made public in December 2009. The *Transportation Master Plan* uses the Town of Buckeye's *General Plan* as its base and develops the circulation element in more detail, covering short-, intermediate-, and long-term transportation planning time periods. Pertinent information from this document includes:

- One of the goals of the plan is to “preserve the Arizona Parkway System” by requiring all Community Master Plans and General Plan Amendments to preserve right-of-way to accommodate proposed parkway routes;
- Sun Valley Parkway and Yuma Parkway are classified as parkway facilities;
- The portion of Yuma Parkway within the Buckeye Municipal Planning Area (MPA) is between 323rd Avenue and I-10; and
- A light rail/bus rapid transit route is shown along Sun Valley Parkway through the study area.

2.1.10 *MCDOT Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study (August 2009)*

This study analyzed the parkway network established by regional transportation framework studies and identified buildout parkway intersection treatments for the purpose of preserving future right-of-way needs. Pertinent information from this document includes:

- Yuma Parkway is anticipated to need four through lanes between Salome Parkway and Wintersburg Parkway, six through lanes between Wintersburg Parkway and Hidden Waters Parkway, and eight through lanes between Hidden Waters Parkway and the I-10 frontage road;
- Salome Parkway is anticipated to need four through lanes west of Wintersburg Parkway and six through lanes east of Wintersburg Parkway;
- Wintersburg Parkway is anticipated to need six through lanes within the study area;
- Hidden Waters Parkway is anticipated to need eight through lanes within the study area;
- Right-of-way preservation of 200 feet is adequate to meet the needs of at-grade parkway-to-parkway intersections of up to eight lanes on each approach;
- There are four at-grade parkway-to-parkway intersections within the study area:
 - Yuma Parkway/Salome Parkway,
 - Yuma Parkway/Wintersburg Parkway (379th Avenue),
 - Salome Parkway/Wintersburg Parkway (379th Avenue), and
 - Yuma Parkway/Hidden Waters Parkway (339th Avenue).

2.1.11 *MAG Unofficial Buildout Traffic Volumes and Proposed Parkway Laneage and Interchanges (June 2009)*

In June 2009, MAG developed updated unofficial buildout traffic projections and proposed parkway laneage and interchanges associated with the network of facilities from the Hassayampa Framework Study. Pertinent information from these documents includes:

- Projected daily traffic volumes for Yuma Parkway range from 5,000 to 97,000 vehicles per day. The buildout traffic projections are unofficial and have not been adopted by the MAG Regional Council;
- The proposed lane configurations for Yuma Parkway are four through lanes between Salome Parkway and 355th Avenue, six through lanes between 355th Avenue and Hidden Waters Parkway, and eight through lanes between Hidden Waters Parkway and the I-10 frontage road; and
- All proposed intersections with Yuma Parkway are anticipated to be at-grade with the exception of the interchanges with the Hassayampa Freeway and I-10.

2.1.12 *Hidden Waters Ranch Development Master Plan (October 2008)*

Hidden Waters Ranch is a proposed master-planned development in Maricopa County generally bounded by 339th Avenue on the east, I-10 on the north, 351st Avenue on the west, and Buckeye Road on the south. Pertinent information from this document includes:

- The land uses designated within the study area include: small lot residential, medium density residential, mixed-use employment centers, a community retail center, recreational open space, dedicated non-developable open space, educational, industrial/employment centers, and public facilities/institutional;
- The circulation plan shows 339th Avenue and Buckeye Road as proposed Parkways through the study area, 347th Avenue and Van Buren Street as proposed Principal Arterials, and Harrison Street, 343rd Avenue, and 335th Avenue as Collectors;
- The roadway sections presented include: Parkway with a 200-foot right-of-way, Principal Arterial with a 130-foot right-of-way, Major Collector with a 110-foot right-of-way, and Collector with an 80-foot right-of-way;
- There are proposed bicycle lanes throughout the proposed development; and
- The Hidden Waters Ranch Land Use Plan and Vehicular and Bicycle Circulation Master Plan are provided in **Appendix TM1-02**.

2.1.13 *MCDOT Design Guideline Recommendations for the Arizona Parkway (August 2008)*

These recommendations detail the indirect left-turn parkway design concept to be used for Arizona Parkway roadway facilities such as Yuma Parkway. Pertinent details regarding the design and layout of the Arizona Parkway include the following:

- A 200-foot-wide minimum right-of-way is recommended. Additional right-of-way and/or easements may be needed for intersections, turn lanes, bus bays, drainage structures, drainage facilities, side slopes, utilities, and landscaping;
- Twelve-foot-wide lanes are recommended for the outside travel lanes;

- Fourteen-foot-wide lanes are recommended for the inside lanes adjacent to the median;
- A six-foot-wide bicycle lane is recommended adjacent to the outside travel lane;
- Curb, gutter, and a detached six-foot-wide sidewalk are recommended;
- Median width varies based on the number of lanes;
- Minimum design speeds are 50 miles per hour (mph) for rolling terrain and 55 mph for level terrain;
- WB-50 is the recommended design vehicle;
- A maximum superelevation rate of 4 percent is recommended;
- U-turn directional crossovers are recommended to be restricted to a maximum of eight per mile;
- Left turns in any direction are prohibited at all intersections;
- Left turns from a side-street or driveway onto the parkway are prohibited;
- Left turns from the parkway to a side-street or driveway are discouraged due to conflicts between u-turns and right turns;
- Intersections (full median breaks) will preferably be restricted to one-mile spacing, with a minimum spacing of one-half mile, and are only recommended where intersecting with arterial or major collector streets;
- Recommended minimum driveway spacing is 165 feet for low-volume segments and 330 feet for high-volume segments. The typical driveway will be limited to right-in/right-out maneuvers; and
- Parkway typical cross-sections and the typical parkway at-grade intersection are provided in **Appendix TM1-03**.

2.1.14 *MAG Interstate 10/Hassayampa Valley Transportation Framework Study (July 2008)*

The *Hassayampa Framework Study* is a long-range transportation planning study conducted by MAG. This study established a conceptual network of freeways, parkways, and arterial roadways within its 1,400 square mile study area to provide access and preserve Interstate 10 (I-10) as a transportation corridor. Opportunities for alternative transportation modes and potential traffic interchange locations along I-10 were also identified in this study. Pertinent information from this document includes:

- The Palo Verde Nuclear Generating Station (PVNGS) Emergency Plan shows evacuation routes through the study area along Salome Highway, I-10, Wintersburg Road, and 355th Avenue;
- The entire study area is within the air quality nonattainment area for ozone;
- A power line corridor runs diagonally through the study area from approximately 339th Avenue/Lower Buckeye Road to 315th Avenue/I-10. A second power line corridor runs along 363rd Avenue through the study area;
- The entire study area is within the Bureau of Land Management (BLM) Phoenix South Resource Management Plan study area;
- Van Buren Street, Yuma Road/Buckeye Road, Lower Buckeye Road, Wilson Avenue, Palo Verde Road, Bruner Road, Johnson Road, 331st Avenue, 339th Avenue, 355th Avenue, 363rd Avenue, 371st Avenue, and Wintersburg Road are

classified by MAG as Arterial Roadways while Salome Highway is classified by MAG as a Highway;

- I-10 has a current state highway functional classification of Rural Principal Interstate;
- Arizona Parkway characteristics include a right-of-way of at least 200 feet and a minimum 60-foot-wide median;
- Yuma Parkway is proposed to originate at Salome Highway and continue east through the study area towards Interstate 10;
- The proposed alignment of Yuma Parkway begins curving to the north at Johnson Road and terminates at a proposed I-10 frontage road near Bruner Road;
- Other proposed parkways in the study area are Wintersburg Parkway, Hidden Waters Parkway, Sun Valley Parkway, and Salome Parkway;
- A new freeway known as the Hassayampa Freeway is envisioned to traverse the study area at about the 363rd Avenue alignment;
- A proposed freeway-to-arterial traffic interchange is identified at the intersection of I-10 and Johnson Road.
- There are proposed freeway-to-parkway traffic interchanges at the intersection of I-10 and Sun Valley Parkway and the intersection of the Hassayampa Freeway and Yuma Parkway;
- Wintersburg Parkway and the section of Yuma Parkway west of the Hassayampa Freeway have been designated “low priority” for implementation;
- Hidden Waters Parkway, Sun Valley Parkway south of I-10, and the section of Yuma Parkway from the Hassayampa Freeway to Sun Valley Parkway/I-10 have been designated “medium priority” for implementation;
- The conceptual transit options include a freight rail connector line running north-south through the study area just west of Wintersburg Road, a high-capacity community transit line running north-south through the study area east of Sun Valley Parkway, and a bus rapid transit line along I-10; and
- Exhibits showing the conceptual transportation framework, the projected roadway geometry and intersection/interchange locations, and the unofficial daily traffic volume projections at buildout are provided in **Appendix TM1-04**.

2.1.15 Buckeye Trails Master Plan (June 2008)

This document outlines the Town of Buckeye’s planned trail network. Pertinent information from this document includes:

- There are three planned trails crossing through the study area: a landmark trail along the Hassayampa River; a parkway trail along Palo Verde Road; and a parkway trail along Yuma Road between Powers Butte Road and Palo Verde Road.

2.1.16 *Cipriani Planning Documents (June 2008)*

Cipriani is a proposed master-planned community within the Buckeye MPA generally bounded by Johnson Road on the east, Yuma Road on the north, 315th Avenue on the west, and Southern Avenue on the south. Pertinent information from these documents includes:

- The land uses designated within the study area include: low density residential, medium density residential, medium high density residential, low high density single-family residential, high density multifamily, regional commercial, greenway, and conservation open space;
- There are an elementary school, potential pocket parks, potential well locations, and a potential water storage location within the study area;
- The circulation plan shows Johnson Road and Yuma Road as proposed Major Arterials, 315th Avenue as a proposed Minor Arterial, and Durango Street and Lower Buckeye Road as proposed Collectors. There is also a proposed Enhanced Collector with Median and a proposed Entry Local within the development;
- The roadway sections presented include a Local Road with a 50-foot right-of-way, an Entry Local with a 60-foot right-of-way, a Collector with a 70-foot right-of-way, an Enhanced Collector with Median with a 70-foot right-of-way, a Minor Arterial with a 110-foot right-of-way, and a Major Arterial with a 130-foot right-of-way; and
- The Cipriani Proposed Land Use and Zoning, Circulation Plan, and Street Cross-sections are provided in **Appendix TM1-02**.

2.1.17 *Town of Buckeye General Plan (May 2008)*

This document outlines the Town of Buckeye's framework and policies for managing the development of the land within its planning area. The *General Plan* includes land use and circulation elements. The Hassayampa Framework Study served as the basis for the circulation element of the *General Plan*. Pertinent information from this document includes:

- Planned land use within the study area consists of very low density residential (0-1 dwelling units/acre [du/ac], low density residential (1.01-3 du/ac), medium density residential (3.01-6 du/ac), medium high density residential (6.01-10 du/ac), high density residential (10.01-15 du/ac), community commercial, regional commercial, professional office, business park, and industrial;
- There is a 65-decibel (db) day-night noise level (dnl) contour around the Buckeye Municipal Airport. Land use within the designated 65 dnl contour is restricted by the criteria set forth in A.R.S. 28-8481(J), which outlines appropriate land uses for such land; and
- Yuma Parkway and Sun Valley Parkway are classified as parkway facilities.

2.1.18 *Draft ASLD White Tanks Conceptual Land Use Plan (2007)*

In 2007, the Arizona State Land Department (ASLD) assigned land use designations to the State Trust land parcels within the Buckeye MPA for future auction. The land use designations were coordinated with the master-planned communities in the area and existing private land owners. ASLD also coordinated its planning effort with the preparation

of the Buckeye General Plan in 2008. The approved Buckeye General Plan incorporates most of the same land use designations as those identified by ASLD's draft Conceptual Land Use Plan. No final action has been taken by ASLD regarding the Conceptual Land Use Plan, which is currently inactive. Pertinent information from this document includes:

- Medium density residential land use designations have been assigned to the State Trust land parcels just west of Johnson Road on the north side of Yuma Road;
- Employment land use designations have been assigned to the State Trust land parcels near the Yuma Road/Palo Verde Road intersection;
- Open space land use designations have been assigned to the State Trust land parcels near the Hassayampa River; and
- The ASLD White Tanks Conceptual Land Use Plan showing the land use designations is provided in **Appendix TM1-02**.

2.1.19 Buckeye Airport Master Plan (March 2007)

This document summarizes the current and future needs of the airport and the improvements recommended. Pertinent information from this document includes:

- The main runway is proposed to have an ultimate length of 7,300 feet.
- The Airport Master Plan shows the runway extension occurring to the north. If the runway does extend to the north, additional property to the north of Yuma Road would need to be acquired for the object free area and runway protection zone associated with the ultimate runway length. Yuma Road would need to ultimately be realigned to the north to provide adequate spacing between the road and the newly extended 7,300-foot runway; and
- Recent discussions with Town of Buckeye staff indicate that the Town is now considering extending the runway to the south instead of to the north. If the runway does extend to the south, no additional property or roadway realignment would be needed north of the airport. Instead, additional property to the south of Broadway Road would need to be acquired and Broadway Road would need to ultimately be realigned to the south.

2.1.20 Shemer D.P.J. Planning Documents (March 2007)

Shemer D.P.J. is a proposed master-planned community within the Buckeye MPA. The development is generally bounded by the 311th Avenue alignment to the east, I-10 to the north, 315th Avenue to the west, and Buchanan Road to the south. Pertinent information from these documents includes:

- The land uses designated within the study area include: low density residential, medium density residential, mixed-use, and commercial;
- The Existing and Proposed Roadway Circulation plan shows 311th Avenue, 315th Avenue, and Van Buren Street with a proposed 80-foot right-of-way and the section of Buchanan Road along the Shemer property boundary with a proposed 110-foot right-of-way, Yuma Road with a proposed 104-foot right-of-way, and a road generally along the 323rd Avenue alignment with a proposed 116-foot right-of-way;

- There are two potential signalized intersections. One signal is shown at the intersection of Johnson Road/Yuma Road and the other at the intersection of Johnson Road/Buchanan Road;
- There are two proposed traffic interchanges on I-10. One is located at the 323rd Avenue alignment and the other at Johnson Road; and
- The Shemer D.P.J. Land Use Plan and the Existing and Proposed Roadway Circulation plan are provided in **Appendix TM1-02**.

2.1.21 MCDOT Maricopa County Transportation System Plan (February 2007)

This document outlines Maricopa County's plans for its transportation system through 2026. The existing and future conditions of the roadways owned and maintained by the County were analyzed. Capacity needs for County roadways were also analyzed based on forecasted travel demands for 2015 and 2026. Pertinent information from the document includes:

- Wintersburg Road, 339th Avenue, and Salome Highway are classified as Minor Arterials through the study area;
- Sun Valley Parkway, Johnson Road, 331st Avenue, 355th Avenue, Van Buren Street from Wintersburg Parkway to Hidden Waters Parkway, Yuma Road from Johnson Road to Sun Valley Parkway, and Lower Buckeye Road from Salome Highway to 331st Avenue are all classified as Minor Collectors through the study area;
- Yuma Road is classified as a Local Road between Wintersburg Road and 339th Avenue;
- Sun Valley Parkway is classified as a Case 3 County Island Roadway. With a Case 3 County Island Roadway, one side of the roadway is bounded by a municipality (i.e., the Town of Buckeye) and the other side of the roadway is unincorporated land;
- Johnson Road is classified as a Case 3 County Island Roadway south of Yuma Road and a Case 4 County Island Roadway north of Yuma Road. With a Case 4 County Island Roadway, the roadway and adjacent lands are unincorporated but the unincorporated lands are totally bounded by one or more municipalities;
- Yuma Road is classified as a Case 3 County Island Roadway west of Johnson Road, a Case 4 County Island Roadway between Johnson Road and Bruner Road, and a Case 1 County Island Roadway between Bruner Road and Sun Valley Parkway. With a Case 1 County Island Roadway, the roadway is unincorporated and it is bounded on both sides by one municipality;
- The Maricopa County Regional Trails Plan includes one Priority 2 trail along the Hassayampa River through the study area. A Priority 2 trail is a trail that serves as an important regional corridor that connects to other regional trails or the regional park system;
- Palo Verde Road between Lower Buckeye Road and I-10 is shown as having capacity needs in the year 2026;
- Bruner Road between Yuma Road and I-10 is shown as having capacity needs in the year 2015;

- 355th Avenue south of Buckeye Road is shown as having capacity needs in the year 2026;
- Van Buren Street between Salome Highway and Wintersburg Road is shown as having capacity needs in the year 2015;
- Lower Buckeye Road between Johnson Road and Bruner Road is shown as having capacity needs in the year 2015; and
- Lower Buckeye Road between 355th Avenue and 347th Avenue is shown as having capacity needs in the year 2026.

2.1.22 *Desert Creek Planning Documents (October 2006)*

Desert Creek is a proposed master-planned community within the Buckeye MPA. The community is generally bounded by 315th Avenue to the east, I-10 to the north, the Hassayampa River to the west, and Broadway Road to the south. Pertinent information from these documents includes:

- The land uses designated within the study area include: low density residential, medium density residential, medium/high density residential, high density residential, very high density residential, high school, elementary schools, parks and open space, and commercial/employment;
- There are two village centers and a potential future police/fire sub-station within the study area;
- The Circulation Master Plan shows Yuma Road as an Internal Major Arterial with Median and Expanded Landscape Parkway (4 travel lanes with a raised median), 315th Avenue as a Minor Arterial with Median and Expanded Landscape Parkways, and Van Buren Street as a Village Collector with Median and Expanded Landscape Parkways. There is also a Themed Arterial with Median and Expanded Landscape Parkway that generally follows the 323rd Avenue alignment through the community;
- The roadway sections presented include an Internal Major Arterial with Median with a 96-foot right-of-way and 35 feet of landscape and pedestrian easement on each side, a Themed Arterial with Median with a 108-foot right-of-way and 40 feet of landscape and pedestrian easement on one side and 25 feet of landscape and pedestrian easement on the other side, a Minor Arterial with Median and Expanded Landscape Parkways with a 84-foot right-of-way and 25 feet of landscape and pedestrian easement on each side, and a Village Collector with Median and Expanded Landscape Parkways with a 80-foot right-of-way and 25 feet of landscape and pedestrian easement on each side; and
- The Desert Creek Land Use Plan, Circulation Master Plan, and Community Roadway Sections are provided in **Appendix TM1-02**.

2.1.23 *Westwind Planning Documents (December 2004)*

Westwind is a master-planned community within the Buckeye MPA. The development is generally bounded by Turner Road to the east, Yuma Road to the north, Palo Verde Road to the west and Broadway Road to the south. Pertinent information from these documents includes:

- The land uses designated within the study area include: residential, school, commercial, fire station, and open space;
- The Master Circulation Exhibit shows Palo Verde Road and Lower Buckeye Road as Major Arterials through the development;
- The street cross-sections for a typical Major Arterial Street (initial construction) include a 130-foot right-of-way and four travel lanes. Palo Verde Road is planned to ultimately have six travel lanes within the 130-foot right-of-way; and
- The Westwind Conceptual Land Use Plan, Master Circulation Exhibit, and Street Cross Sections are provided in **Appendix TM1-02**.

2.1.24 MCDOT Maricopa County Major Streets and Routes Plan: Street Classification Atlas (September 2004)

This document prepared by MCDOT designates the future functional classifications for arterial and collector roadway facilities in the County Road Inventory System. Pertinent information from the document includes:

- Palo Verde Road is classified as an Enhanced Arterial;
- Johnson Road is classified as a Principal Arterial;
- 331st Avenue and 339th Avenue are classified as Minor Arterials;
- 355th Avenue is classified as a Principal Arterial and has an oversize load overlay. The oversize load overlay preferred route includes an overhead equipment minimum clearance of 17 feet. Overhead equipment is to be supported from one side of the roadway and raised medians will be located so as not to obstruct the movement of oversize loads;
- 363rd Avenue is classified as a Minor Arterial between Buckeye Road and Van Buren Street;
- 371st Avenue and Wintersburg Road are classified as Minor Arterials;
- Van Buren Street is classified as a Minor Arterial between Salome Highway and 331st Avenue;
- Buckeye Road is classified as a Minor Arterial between Wintersburg Road and 339th Avenue;
- Lower Buckeye Road is classified as a Minor Arterial between Salome Highway and 331st Avenue; and
- Salome Highway is classified as a Principal Arterial and has an oversize load overlay.

2.1.25 Verma Estates 2 Record of Land Survey (November 2000)

Verma Estates 2 is an existing subdivision in Maricopa County that is partially developed. The subdivision portion within the project vicinity is generally bounded by 355th Avenue to the east, Lower Buckeye Road to the north, 363rd Avenue to the west, and Broadway Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential and vacant land;

- The record of land survey typically dedicated 33 feet of half-street public roadway and utility easement along each side of each parcel except where there is dedicated public right-of-way;
- Lower Buckeye Road is shown as having 40 feet of half-street public easement; and
- Salome Highway is shown as having 200 feet of public right-of-way.

2.1.26 *Maricopa County Tonopah/Arlington Area Plan (September 2000)*

This document was developed by the Maricopa County Planning and Development Department. The plan includes information on land use, transportation, environmental issues, and economic development for the portion of the study area west of the Hassayampa River. Pertinent information from this document includes:

- The PVNGS is located between Elliot Road and Broadway Road from Wintersburg Road to approximately 363rd Ave.
- 379th Avenue (Wintersburg Road), 339th Avenue, Van Buren Street, and Salome Highway are shown as Core Arterials;
- Palo Verde Road (Sun Valley Parkway) has a future functional classification of Urban Principal Arterial;
- Bruner Road has a future functional classification of Urban Local;
- Johnson Road has a future functional classification of Urban Minor Collector;
- 331st Avenue, 339th Avenue, 355th Avenue, 363rd Avenue, 371st Avenue, 379th Avenue (Wintersburg Road), Van Buren Street, and Buckeye Road all have a future functional classification of Rural Collector;
- Wickenburg Road has a future functional classification of Rural Local; and
- Several large lot subdivisions are shown within the study area, including Horseshoe Trails Phase I, Horseshoe Trails Phase II, Saddle Vista, and Butterfield Stagecoach Farms.

2.1.27 *Saddleback Trails Record of Land Survey (January 2000)*

Saddleback Trails is an existing subdivision in Maricopa County that is undeveloped. The subdivision is generally bounded by 387th Avenue to the east, McDowell Road to the north, 391st Avenue to the west, and Van Buren Street to the south. Pertinent information from this document includes:

- All land within the study area is currently undeveloped;
- The record of land survey typically dedicated 33 feet of half-street public roadway and utility easement along each side of each parcel; and
- Van Buren Street is shown as having 40 feet of half-street public easement.

2.1.28 *Buckeye Ranch Phase 1 Replat of Final Plat (June 1999)*

Buckeye Ranch Phase 1 is an existing subdivision in Maricopa County that is partially developed. The subdivision is generally bounded by 355th Avenue to the east, Buckeye

Road to the north, the 358th Avenue alignment to the west, and Buckeye Ranch Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential, vacant land, and an existing well site with a water storage tank;
- The zoning for this subdivision is Rural-43;
- The plat dedicated 55 feet of half-street public right-of-way along Buckeye Road and 355th Avenue; and
- The cover sheet indicates there are planned Phases II, III, and IV for Buckeye Ranch that would extend the subdivision to Lower Buckeye Road but there are no approved plans for these phases.

2.1.29 Saddle Vista Record of Land Survey (May 1997)

Saddle Vista is an existing subdivision in Maricopa County that is partially developed. The subdivision portions within the project vicinity are generally bounded by 371st Avenue to the east, Van Buren Street to the north, 387th Avenue to the west, and Buckeye Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential and vacant land;
- The record of land survey typically dedicated 33 feet of half-street public roadway and utility easement along each side of each parcel except where there is dedicated public right-of-way;
- Van Buren Street is shown as having 40 feet of half-street public easement; and
- Salome Highway is shown as having 200 feet of public right-of-way.

2.1.30 Butterfield Stagecoach Farms Final Plat (December 1996)

Butterfield Stagecoach Farms is an existing subdivision in Maricopa County that is partially developed. The subdivision is generally bounded by 337th Avenue to the east, Harrison Street to the north, the 341st Avenue alignment to the west, and Lower Buckeye Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential, retail, and vacant land; and
- The plat dedicated 110 feet of public right-of-way along Buckeye Road, 55 feet of half-street public right-of-way along Lower Buckeye Road, and 40 feet of half-street public right-of-way along Harrison Street and Durango Street.

2.1.31 Horseshoe Trails Amended Plat (January 1996)

Horseshoe Trails is an existing subdivision in Maricopa County that is partially developed. The subdivision is generally bounded by Wintersburg Road to the east, Van Buren Street to the north, the 403rd Avenue alignment to the west, and Baseline Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential and vacant land;

- The plat dedicated 33 feet of half-street public roadway and utility easement along each side of each parcel except where there is dedicated public right-of-way;
- Buckeye Road is shown as having 80 feet of public right-of-way between 395th Avenue and Salome Highway and 110 feet of public right-of-way between 343rd Avenue and 341st Avenue; and
- Salome Highway is shown as having 200 feet of public right-of-way.

2.1.32 Hopeville Final Plat (December 1984)

Hopeville is an existing subdivision within the Buckeye MPA that is partially developed. The subdivision is generally bounded by the 288th Avenue alignment to the east, Buckeye Road to the north, Palo Verde Road to the west, and Cocopah Street to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential, intermediate commercial, lodge, church, community center, park, and an existing well site with water storage tanks; and
- The plat dedicated 55 feet of half-street public right-of-way along Buckeye Road and Palo Verde Road.

2.1.33 Buckeye Ranchos Plat (December 1959)

Buckeye Ranchos is an existing subdivision within the Buckeye MPA that is partially developed. The subdivision is generally bounded by Buckeye Hills Road (315th Avenue) to the east, Buchanan Street to the north, Powers Butte Road to the west, and Buckeye Road to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential and vacant land; and
- The plat dedicated 65 feet of half-street public right-of-way along Buckeye Road and 315th Avenue and 40 feet of half-street public right-of-way along Powers Butte Road and Buchanan Street.

2.1.34 Wood's North Addition to Wintersburg Plat (November 1939)

Wood's North Addition to Wintersburg is an existing subdivision in Maricopa County that is partially developed. The subdivision is generally bounded by Eagle Tail Avenue to the east, Buckeye Road to the north, Big Horn Avenue to the west, and Roosevelt Street to the south. Pertinent information from this document includes:

- The land uses within the study area include: existing and planned residential and vacant land;
- The plat typically dedicated 30 feet of half-street public roadway and utility easement along each planned roadway; and
- Buckeye Road is shown as having 66 feet of public right-of-way.



2.2 Summary of Programmed Roadway Improvements

Per the MCDOT *Transportation Improvement Program* and discussions with MCDOT staff, there are roadway improvements programmed in fiscal year 2012 along Buckeye Road between Wintersburg Road and 339th Avenue and along Lower Buckeye Road between Salome Highway and 339th Avenue. These roadway improvements consist of relocating fences, utilities, and electric power poles out of the roadway's clear zone.

No other known roadway improvements within the study area are programmed by MCDOT or the Town of Buckeye.

3. EXISTING AND FUTURE CORRIDOR FEATURES

This section summarizes the information gathered from the documents cited in the previous section into existing and future corridor feature categories. Figures are provided, where appropriate, to graphically display the existing and future corridor features that should be considered in determining feasible alignments for Yuma Parkway.

3.1 Jurisdictional Responsibilities

The entire study area is located within Maricopa County. Maricopa County has jurisdiction over the majority of the land and roadways within the study area. The Town of Buckeye has jurisdiction over the land within its town limits adjacent to and within the study area. Portions of the study area currently under Maricopa County jurisdiction are also within the Buckeye Municipal Planning Area.

Jurisdictional boundaries are illustrated in **Figure 2**, as per the Geographic Information Systems (GIS) data provided by the Public Works Department of Maricopa County in May 2009.

3.2 Land Ownership

The study area contains a mix of both public and private lands. Approximately 84 percent of the land in the study area is privately owned. Public land owners in the study area include the Arizona State Land Department (ASLD), which owns 15 percent of the study area, and the Bureau of Land Management (BLM), which owns one percent of the study area. Land ownership in the study area is shown in **Figure 3**, as per the GIS data provided by Public Works of Maricopa County.

3.3 Zoning and Land Use

3.3.1 Existing Zoning and Land Use

Figure 4 shows the existing zoning and parcel boundaries in the study area. Zoning data for the unincorporated portions of the study area was obtained from the Maricopa County Assessor's Office website (<http://www.maricopa.gov/Assessor/GIS/map.html>) while the zoning data for the portion of the study area in Buckeye was obtained from the Town's General Plan.

The Maricopa County zoning designations shown in **Figure 4** include:

- Intermediate Commercial (C-2);
- General Commercial (C-3);
- Commercial Office (C-O);
- Planned Shopping Center (C-S);
- Planned Industrial (IND-1);
- Light Industrial (IND-2);
- Single-Family Residential, 35,000 square feet per dwelling unit (R1-35);
- Single-Family Residential, 10,000 square feet per dwelling unit (R1-10);
- Single-Family Residential, 7,000 square feet per dwelling unit (R1-7);

- Single Family Residential, 6,000 square feet per dwelling unit (R1-6);
- Multiple-Family Residential, 1,000 square feet per dwelling unit (R-5);
- Multiple-Family Residential, 3,000 square feet per dwelling unit (R-3);
- Two-Family Residential, 4,000 square feet per dwelling unit (R-2);
- Rural, 190,000 square feet per dwelling unit (RU-190); and
- Rural, one acre per dwelling unit (RU-43).

The Town of Buckeye zoning designations shown in **Figure 4** include:

- Commercial Center (CC);
- General Commerce (GC);
- Planned Community (PC);
- Rural Residential (RR); and
- Special Use (SU).

The study area is primarily zoned for low density residential uses and planned community uses, with some commercial zoning near Sun Valley Parkway and industrial zoning near Van Buren Street and 339th Avenue.

Figure 5 shows the existing land uses in the study area per the GIS data provided by Public Works of Maricopa County. The predominant existing land use is vacant land (i.e., natural desert open space). There are large clusters of single family residential land uses west of the Hassayampa River. The primary agricultural land use in the study area is Stotz Dairy on the south side of Yuma Road east of Johnson Road. The Buckeye Municipal Airport is located near the southeast corner of the study area. There is one commercial land use (a wholesale plant nursery) within the study area. The one school within the study area is Winters' Well Elementary School, which is located on Buckeye Road between 355th Avenue and 347th Avenue.



Existing elementary school

3.3.2 Future Land Use

Figure 6 shows the anticipated future buildout land uses within the study area per the MAG general plan GIS data provided by Public Works of Maricopa County. The existing vacant land within the study area is anticipated to be converted to primarily residential land use at buildout. Most of the study area land west of the Hassayampa River is planned to have more low density single family residential uses, while the land to the east of the Hassayampa River is planned to have more medium/high density residential and multi-family uses. There are also large areas of retail, office, and industrial land uses planned at major intersections throughout the study area, particularly near the Town of Wintersburg and within the Buckeye MPA (east of the Hassayampa River). These future land use patterns incorporate the land use plans for the master planned communities within the vicinity of the study area.

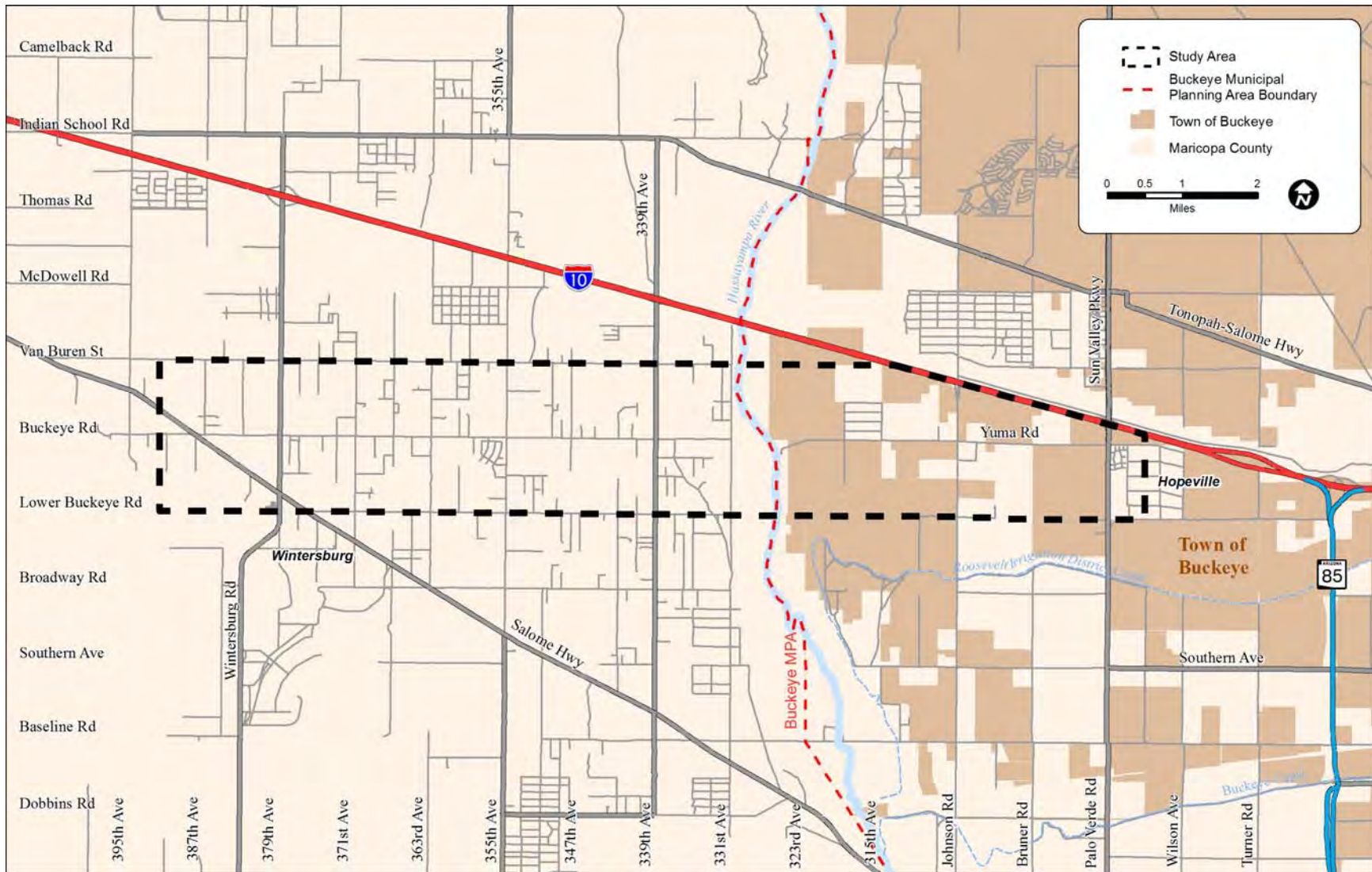


Figure 2 - Jurisdictional Boundaries

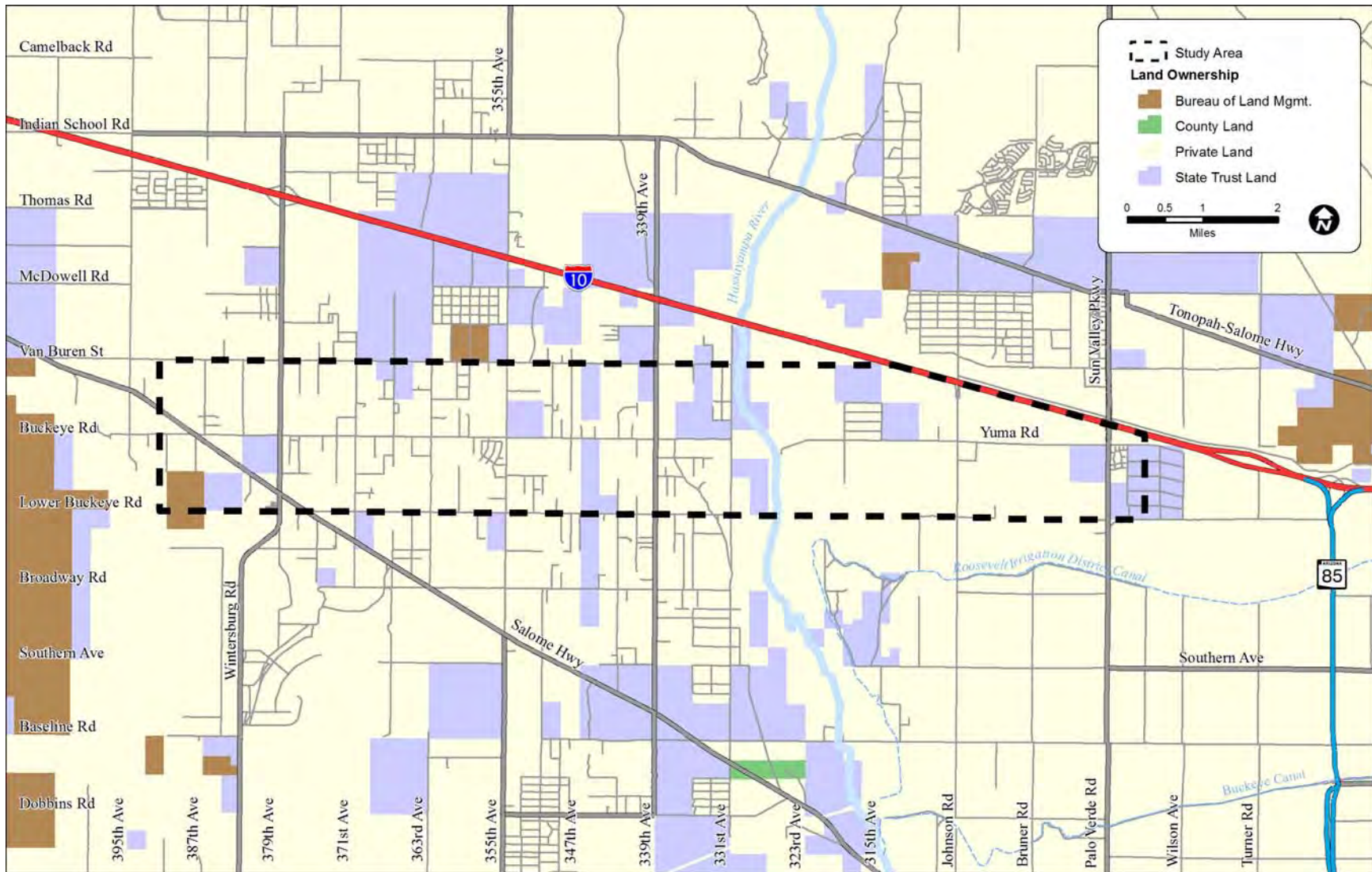


Figure 3 - Land Ownership

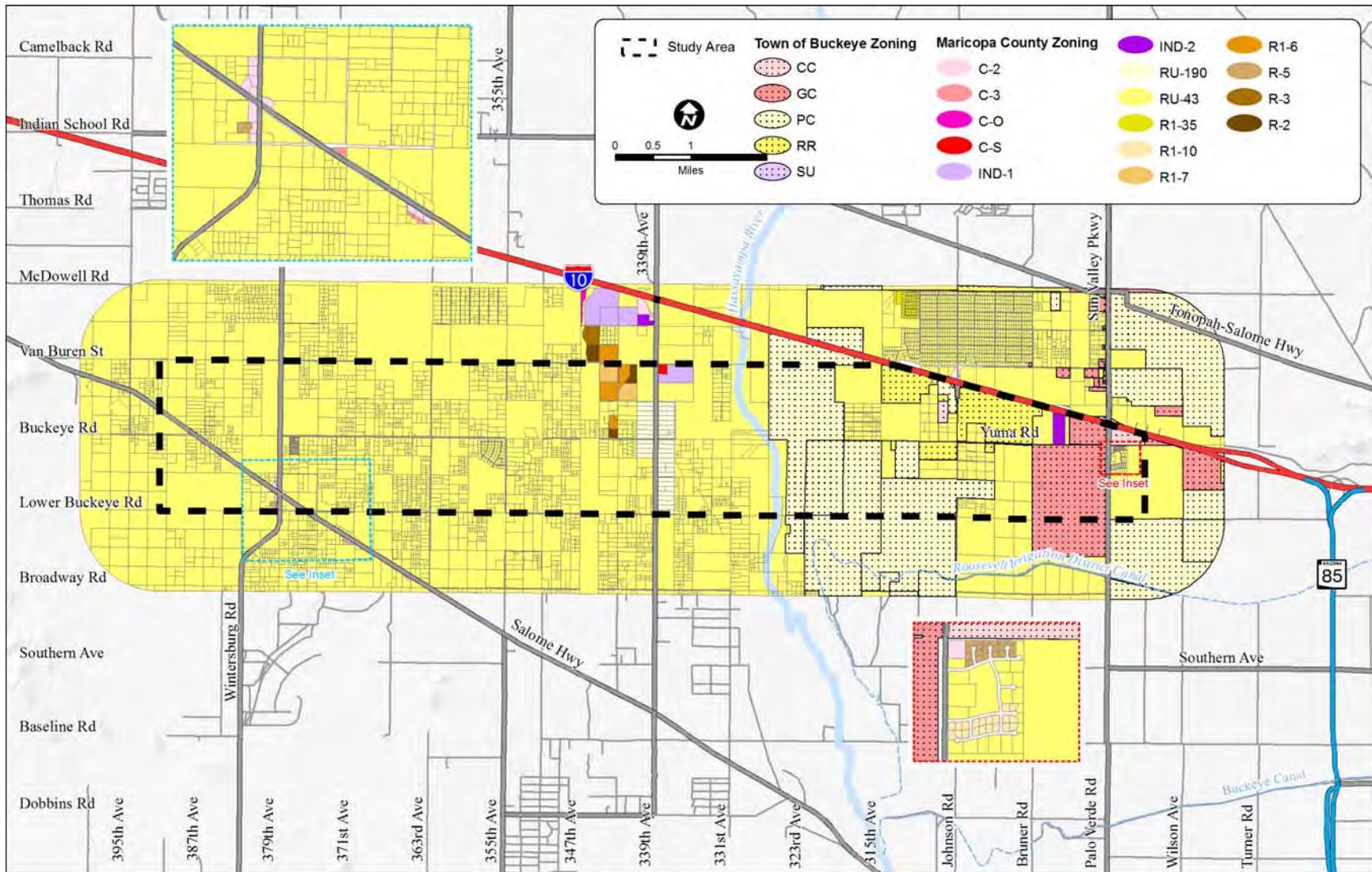


Figure 4 - Zoning

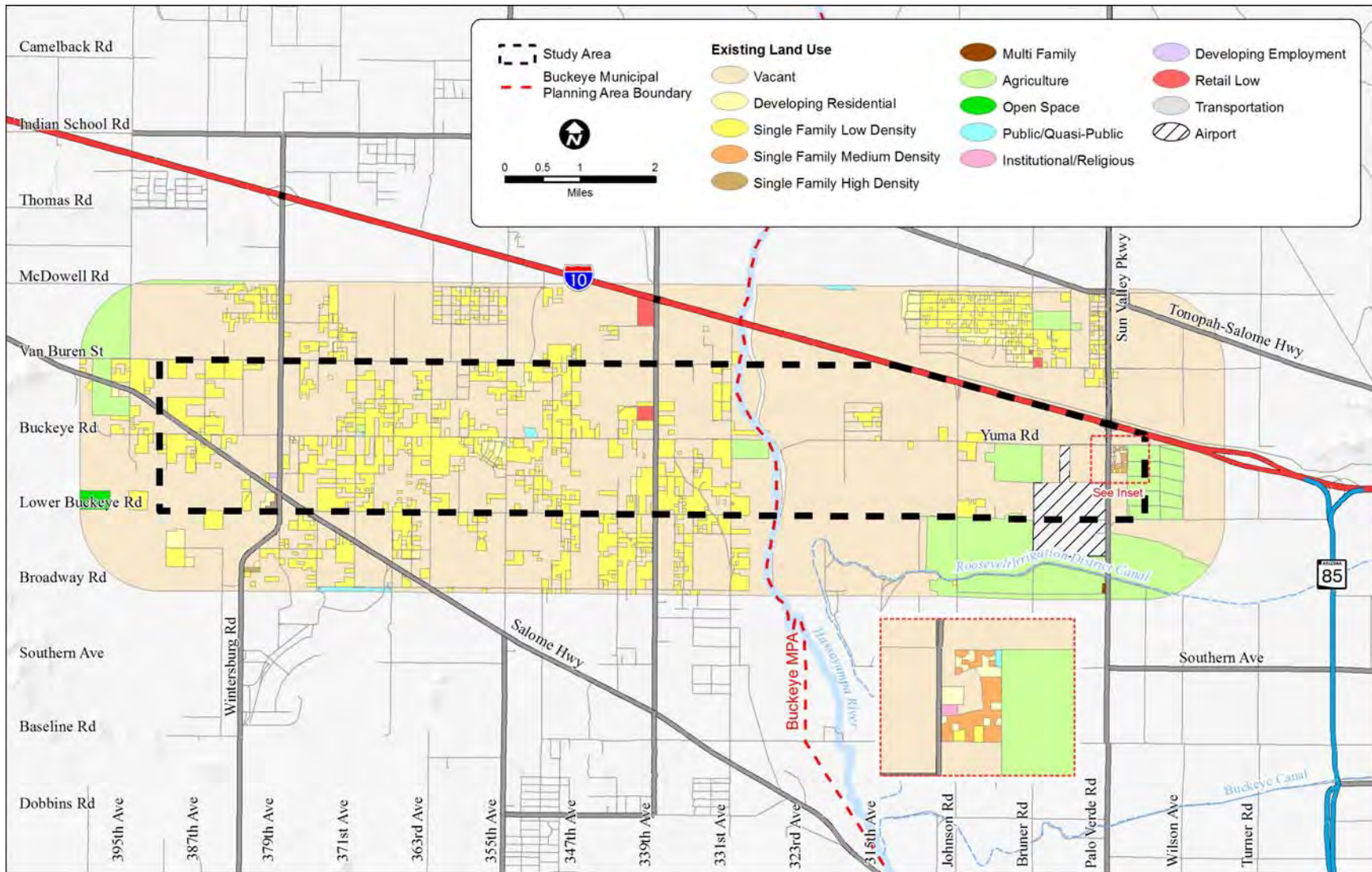


Figure 5 - Existing Land Use

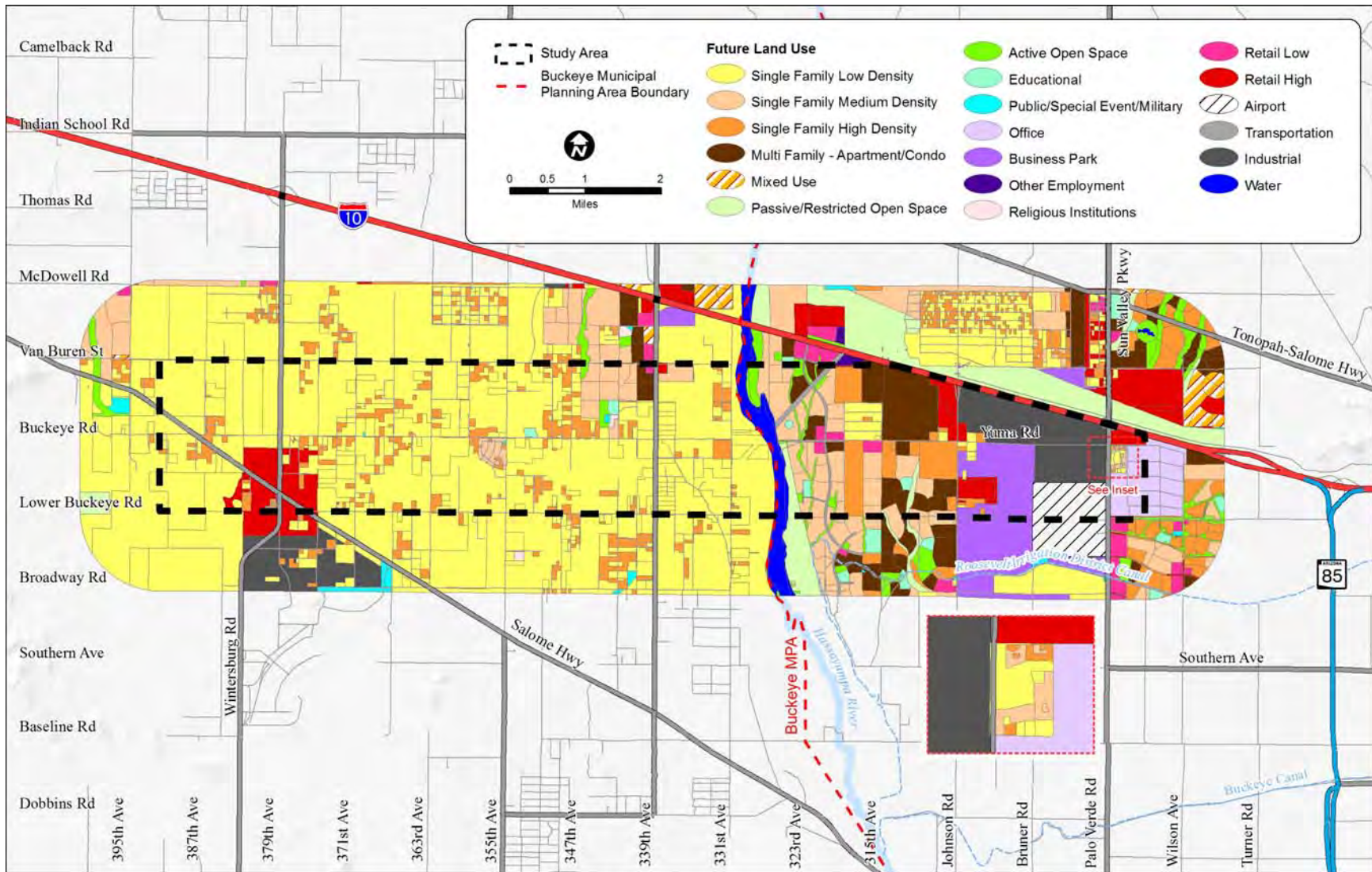


Figure 6 - Future Land Use

3.4 Existing and Planned Developments

Figure 7 shows the existing and active planned developments around and within the study area. While most of the land within the study area is currently undeveloped, a large percentage of the parcels have been subdivided or are part of a development master plan with associated entitlements. **Table 1** provides a summary of the existing and planned developments within the study area.

3.4.1 Existing Subdivisions

There are several existing low density residential subdivisions within the study area, including Buckeye Ranch Phase 1, Buckeye Ranchos, Butterfield Stagecoach Farms, Hopeville, Horseshoe Trails, Saddle Vista, Saddleback Trails, Verma Estates 2, and Wood’s North Addition to Wintersburg. Through these subdivisions, the following public easements and right-of-way were dedicated for major east-west roadways:



Existing subdivision

- Buckeye Ranch Phase 1 – 55-foot half-street right-of-way along Buckeye Road;
- Buckeye Ranchos – 65-foot half-street right-of-way along Buckeye Road;
- Butterfield Stagecoach Farms – 55-foot half-street right-of-way along Lower Buckeye Road and 110-foot right-of-way along Buckeye Road;
- Hopeville – 55-foot right-of-way along Buckeye Road/Yuma Road;
- Horseshoe Trails – 33-foot half-street easement along Buckeye Road;
- Saddle Vista – 33-foot half-street easement along Buckeye Road and 40-foot half-street easement along Van Buren Street;
- Saddleback Trails – 40-foot half-street easement along Van Buren Street;
- Verma Estates 2 – 40-foot half-street easement along Lower Buckeye Road; and
- Wood’s North Addition to Wintersburg – 66-foot right-of-way along Buckeye Road.

3.4.2 Maricopa County Planned Developments

West of the Hassayampa River, the land within the study area is under the jurisdiction of Maricopa County. The planned developments within this region submit to the Maricopa County Board of Supervisors for approval of their development master plans. The Board of Supervisors has approved one planned development within the study area: Hidden Waters Ranch. Through this planned development, the following public right-of-way is stipulated to be dedicated for a major east-west roadway:

- Hidden Waters Ranch – 200-foot right-of-way along Buckeye Road and 130-foot right-of-way along Van Buren Street.

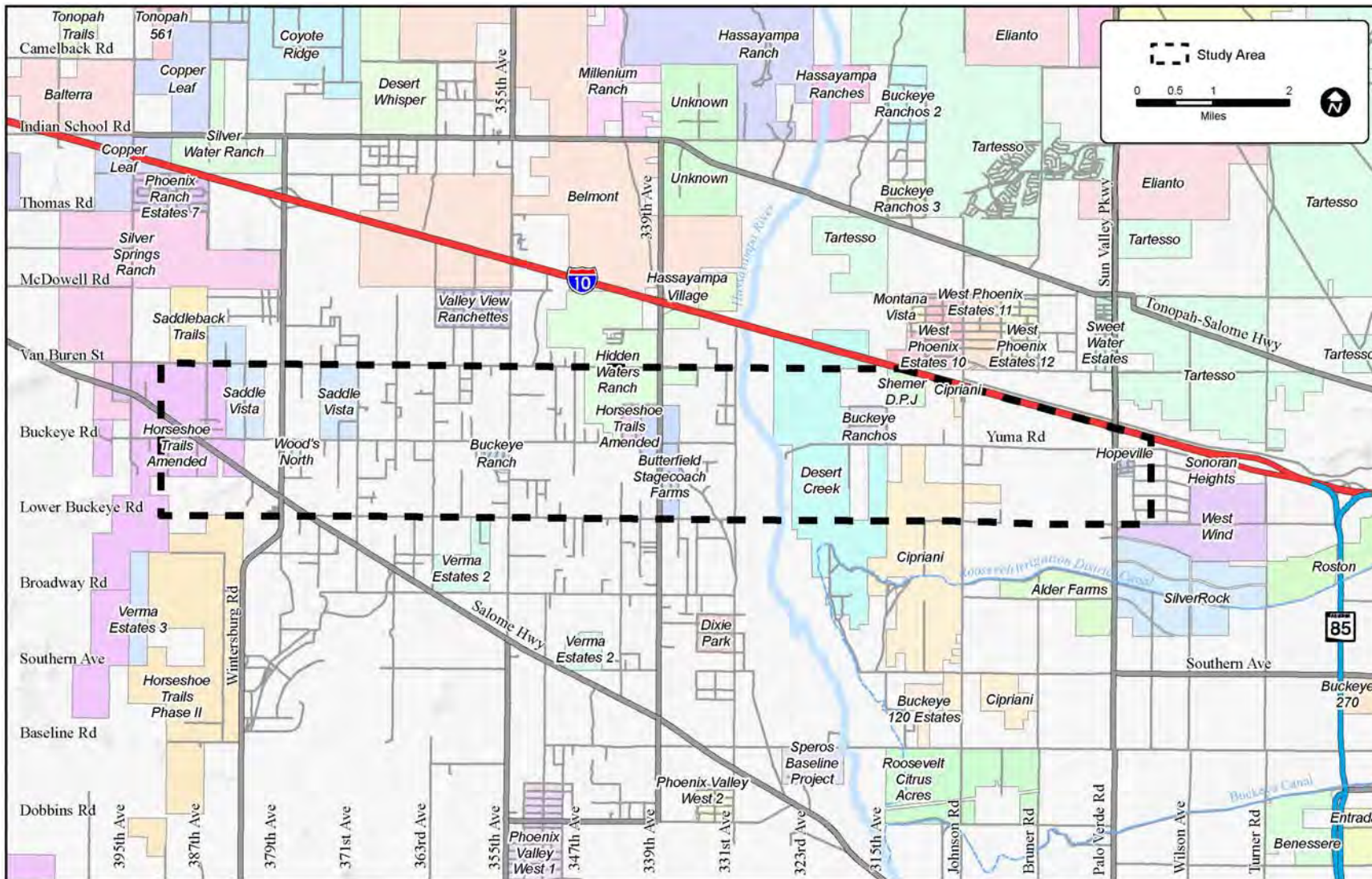


Figure 7 - Existing and Planned Developments

Table 1 - Summary of Existing and Planned Developments

Current Jurisdiction	Development Name	Area [acres]	Planned Units/ Existing Lots	Approval Date	Right-of-Way or Easement Dedications/ Stipulations	Assumed East-West Roadway Classification	Length of East-West Roadway Segment	Development Status
Maricopa County	Buckeye Ranch Phase 1	70	65	1999	55' half street (Buckeye Rd)	Arterial	1/3 mile	Partially developed
	Buckeye Ranchos	157	32	1959	65' half street (Buckeye Rd)	Arterial	1/2 mile	Partially developed
	Butterfield Stagecoach Farms	337	36	1996	110' full street (Buckeye Rd) 55' half street (Lower Buckeye Rd)	Arterial Arterial	1/2 mile 1/4 mile	Partially developed
	Hidden Waters Ranch	1,314	1,535	2008	200' full street (Buckeye Rd) 130' full street (Van Buren St)	Parkway Arterial	1/8 mile 1-1/2 miles	Approved Plan
	Hopeville	53	62	1984	55' half street (Buckeye Rd/Yuma Rd)	Arterial	1/4 mile	Partially developed
	Horseshoe Trails Amended	12,987	84	1996	66' full street (Buckeye Rd) 80' full street (Buckeye Rd) 110' full street (Buckeye Rd)	Collector Collector Arterial	1/4 mile 3/4 mile 1/4 mile	Partially developed
	Saddle Vista	2,687	70	1997	33' half street (Buckeye Rd) 40' half street (Van Buren St)	Collector Collector	1 mile 1-1/4 miles	Partially developed
	Saddleback Trails	320	8	2000	40' half street (Van Buren St)	Collector	1/2 mile	Undeveloped
	Verma Estates 2	470	12	2000	40' half street (Lower Buckeye Rd)	Collector	1/4 mile	Partially developed
	Wood's North Addition to Wintersburg	20	96	1939	66' full street (Buckeye Rd)	Collector	1/8 mile	Partially developed
Town of Buckeye	Cipriani	2,346	69	2008	130' full street, 160' with easement (Yuma Rd)	Arterial	1/3 mile	Approved Plan
	Desert Creek	2,234	8,490	2006	96' full street, 166' with easement (Yuma Rd) 80' full street, 130' with easement (Van Buren St)	Arterial Arterial	1-1/4 miles 1 mile	Approved Plan
	Shemer D.P.J.	165	5	2007	104' full street (Yuma Rd)	Arterial	N/A	Approved Plan
	Westwind	807	2,987	2004	130' full street (Lower Buckeye Rd)	Arterial	1/2 mile	Approved Plan

3.4.1 *Town of Buckeye Planned Developments*

East of the Hassayampa River, the study area lies within the Buckeye MPA, where there are four approved master-planned communities: Cipriani, Desert Creek, Shemer D.P.J., and Westwind. Through these planned developments, the following public right-of-way is stipulated to be dedicated for major east-west roadways:

- Cipriani – 130-foot right-of-way along Yuma Road;
- Desert Creek – 96-foot right-of-way along Yuma Road with 35 feet of landscape and pedestrian easement on each side and 80-foot right-of-way along Van Buren Street with 25 feet of landscape and pedestrian easement on each side;
- Shemer D.P.J. – 104-foot right-of-way along Yuma Road and 80-foot right-of-way along Van Buren Street; and
- Westwind – 130-foot right-of-way along Lower Buckeye Road.

3.4.2 *State Trust Land Development Plans*

ASLD has developed a draft conceptual land use plan for the State Trust land located east of the Hassayampa River in the vicinity of the White Tank Mountains. The State Trust land uses within the study area have been designated to coordinate with the adjacent master-planned communities in the area. It is anticipated that this land will be auctioned off for development at some point in the future. Minimizing the number of remnant parcels caused by new roadway alignments is important to ASLD to preserve the value of the State Trust land.

3.4.3 *General Development Timeline*

The progression of development within the study area has slowed significantly in recent years. At the time the Hassayampa Framework Study was conducted, the Phoenix metropolitan area was experiencing significant population growth over a period of several years. In the past few years, however, the rate of growth has slowed due to the economic downturn, as evidenced by the fact there are few development or rezoning requests currently being processed by Maricopa County and the Town of Buckeye for land within the study area.

The rate of growth in development within the study area is expected to increase following a significant economic recovery, but the development timeframes for when buildout will be reached will likely be extended.

3.5 **Transportation Network**

3.5.1 *Existing Transportation Network*

Within the study area, Buckeye Road is a paved roadway between Wintersburg Road and 339th Avenue that generally has 110 feet of existing right-of-way. Buckeye Road is an unpaved roadway west of Wintersburg Road and east of 339th Avenue that generally has no existing right-of-way.



Existing Yuma Road

East of the Hassayampa River, the roadway along the Buckeye Road alignment is known as Yuma Road. Yuma Road is a paved roadway between Johnson Road and Palo Verde Road that generally has 90 feet of existing right-of-way. Yuma Road is an unpaved roadway west of Johnson Road and east of Palo Verde Road that generally has no existing right-of-way.

Both Buckeye Road and Yuma Road terminate at the Hassayampa River, meaning there is no existing public crossing of the Hassayampa River on the Buckeye Road/Yuma Road alignment.

The other paved major east-west roadway segments in the study area are Van Buren Street between Wintersburg Road and 339th Avenue and Lower Buckeye Road between Salome Highway and 339th Avenue, both of which generally have 80 feet of existing right-of-way.

Other paved roadways in the study area are I-10, Salome Highway, Wintersburg Road (379th Avenue), 371st Avenue north of Buckeye Road, 363rd Avenue north of Buckeye Road, 355th Avenue, 339th Avenue, Johnson Road, and Palo Verde Road/Sun Valley Parkway.

The study area includes an existing traffic interchange at I-10/Sun Valley Parkway/Palo Verde Road and an overpass of I-10 on Johnson Road. Other facilities along I-10 in the study vicinity include traffic interchanges at Wintersburg Road and at 339th Avenue and overpasses at 355th Avenue and 395th Avenue.

MCDOT utilizes the Road Management System (RMS) tool to analyze the physical attributes of roadways as well as the condition of roadway pavement and ride quality. All paved County roadways within the study area have pavement condition ratings and sufficiency ratings of Excellent or Very Good. Most paved County roadways within the study area have International Roughness Index (IRI) ratings of Average or better for study area roadways, although there are a few segments with IRI ratings of Rough or Very Rough.

Existing 2009 daily traffic count volumes for the existing transportation network were taken from the Traffic Counts web pages of MCDOT and ADOT. Most study area roadways carry less than 1,000 vpd. The most heavily traveled study area roadways are I-10 (33,500 vpd), Wintersburg Road (5,300 vpd), 339th Avenue (2,400 vpd), and Salome Highway (1,300 vpd). All existing study area roadways are operating below roadway capacities.

There are no known transit routes, trails, sidewalks, or bicycle lanes within the study area.

The major features of the existing transportation network are shown in **Figure 8**.

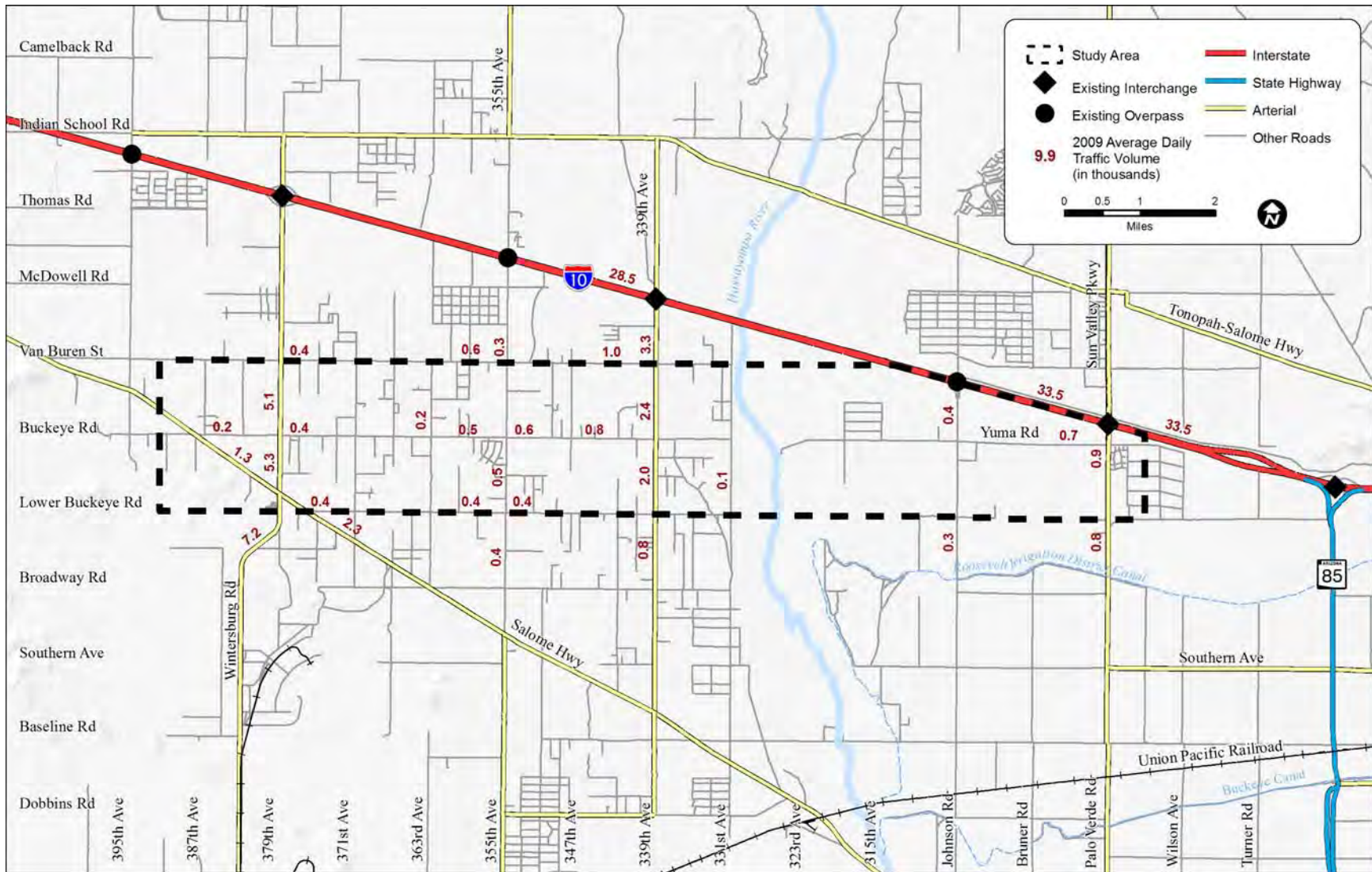


Figure 8 - Existing Transportation Network

3.5.1 Future Transportation Network

The transportation network in the study area is anticipated to change with future buildout conditions. According to the Hassayampa Framework Study and the *MAG 2010 Update to the Regional Transportation Plan (RTP)*, most existing roadways are expected to change to a higher functional classification and be upgraded as the existing transportation network is transformed into an interconnected multimodal network of parkways, freeways, arterials, railroad lines, and transit routes, as shown in **Figure 9**.

3.5.1.1 Roadways

The study area is anticipated to ultimately contain one east-west parkway called Yuma Parkway and four other parkways (Salome, Wintersburg, Hidden Waters, and Sun Valley Parkways) at buildout.

A new freeway known as the Hassayampa Freeway is envisioned to traverse the study area at about the 363rd Avenue alignment.

Arterial roadways are projected to typically be spaced about one mile apart from other high-capacity roadways (i.e., freeways, parkways, and arterials), with the spacing being larger in the vicinity of the Hassayampa River.

3.5.1.2 Interchanges

A critical component of the envisioned future transportation network is the point where the high-capacity roadways will cross each other. It is anticipated that there will be two freeway-to-parkway interchanges and four parkway-to-parkway interchanges within the study area.

The two freeway-to-parkway interchanges are proposed where Yuma Parkway will cross the Hassayampa Freeway and where Sun Valley Parkway will cross I-10. The ADOT *Freeway-to-Parkway Interchange Templates* further define the design standards and right-of-way requirements associated with freeway-to-parkway interchanges.

Three parkway-to-parkway interchanges are proposed along Yuma Parkway where it crosses the Salome, Wintersburg, and Hidden Waters Parkways. A fourth parkway-to-parkway interchange is proposed where Salome Parkway crosses Wintersburg Parkway. Each parkway-to-parkway interchange will have its own associated design standards and right-of-way requirements, as detailed further in the MCDOT *Arizona Parkway Intersection/Interchange Operations Analysis and Design Concepts Study*.

3.5.1.3 Transit and Rail

A high capacity community transit line is proposed along Sun Valley Parkway while a bus rapid transit line is proposed along I-10.

A freight rail connector is proposed that would run north from the PVNGS and cross through the study area directly west of, and parallel to, the proposed Wintersburg Parkway.

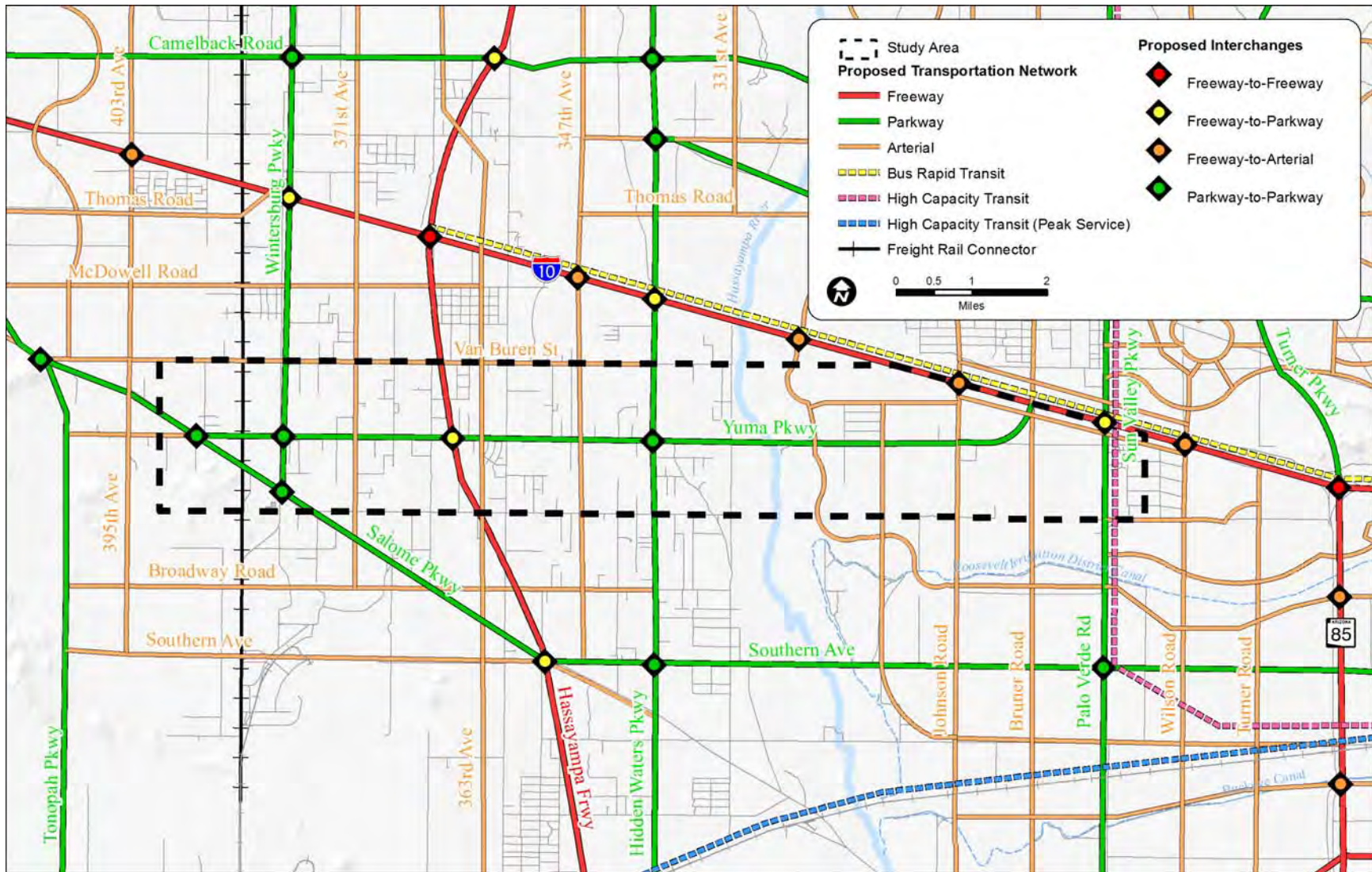


Figure 9 - Future Transportation Network

3.5.1.4 Funding the Future Transportation Network

The proposed master-planned developments and other future developments in the study area will play a major role in the future layout, construction timing, and financing of the future transportation network within the study area.

Design and construction of the proposed future transportation network will likely require a combination of existing public and private funding sources, and perhaps new funding sources.

3.6 Utilities and Facilities

Figure 10 depicts the existing major utilities and facilities within the study area.

3.6.1 Water

The developed properties within the study area generally have individual wells to supply water. There is a small private water system in the vicinity of Buckeye Road/355th Avenue that is operated by Water Utilities of Greater Tonopah. There is also a small private water system in the vicinity of Hopeville that is operated by the Allenville Water Company.

The Town of Buckeye has a municipal water line along Yuma Road between Powers Butte Road and Johnson Road and along Powers Butte Road and Johnson Road south of Yuma Road. There are also three Town of Buckeye wells within the study area.

3.6.2 Sewer

There are no known existing or planned municipal or county sewer facilities in the study area. Existing developed properties utilize septic tanks.

3.6.3 Electric Power

Arizona Public Service (APS) is the primary electric power service provider in the study area with 12kV power lines along each major roadway.



Existing 500kV transmission lines

Two joint APS/Salt River Project (SRP) 500kV transmission lines diagonally cross through the study area between 315th Avenue and 339th Avenue. A 69kV transmission line owned by APS exists along Wintersburg Road through the study area.

There are no known additional power transmission lines planned within the study area.

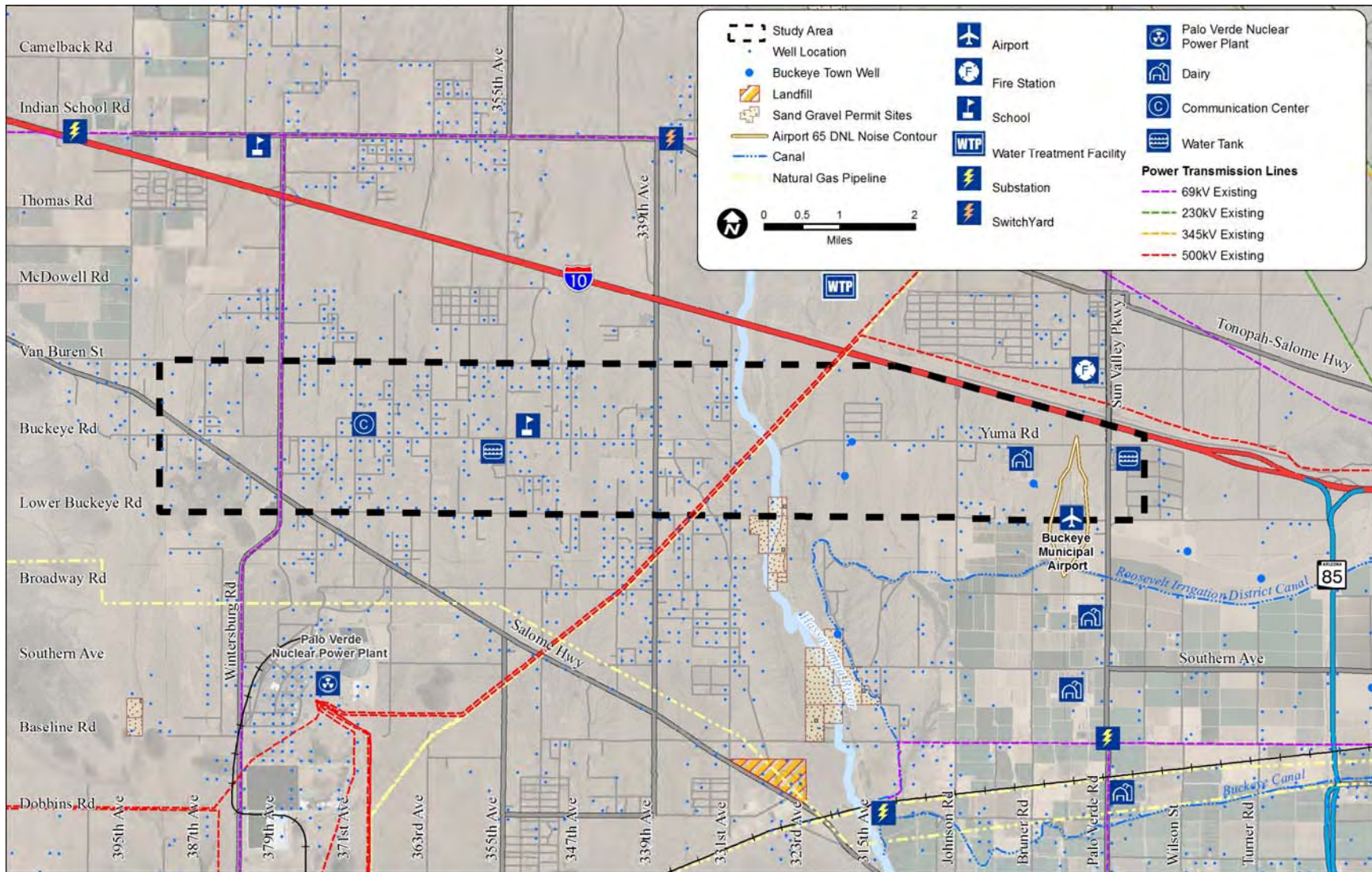


Figure 10 - Existing Utilities and Facilities

3.6.1 *Solar Energy*

There are currently no planned solar energy projects within the study area. There has been interest, however, regarding solar energy projects in the study vicinity.

3.6.2 *Palo Verde Nuclear Generating Station*

The PVNGS is located approximately two and a half miles south of the study area. Portions of I-10, Salome Highway, Wintersburg Road, and 355th Avenue/Wickenburg Road are planned evacuation routes for PVNGS.

The majority of the west half of the study area is within the five-mile radius of the Ingestion Pathway Zone. The ten-mile radius Ingestion Pathway Zone covers the majority of the east half of the study area. The entire study area is contained within the fifty-mile radius Ingestion Pathway Zone for PVNGS.

3.6.3 *Agriculture*

There is one major agricultural facility within the study area – Stotz Dairy – along the south side of Yuma Road just west of the Buckeye Municipal Airport.



Existing agricultural facility

3.6.4 *Buckeye Municipal Airport*

The Buckeye Municipal Airport is located south of Yuma Road and west of Palo Verde Road. The main runway is currently 5,500 feet long. The Town of Buckeye is planning to ultimately extend the runway to 7,300 feet.

Additional property to the north of Yuma Road will need to be acquired for the runway protection zone associated with a 7,300-foot-long runway. If the runway is extended to the north, Yuma Road will have to be realigned to the north to provide adequate spacing between the road and the runway.

3.6.5 *Gas*

There is an existing 36-inch natural gas pipeline owned by Transwestern that crosses through the study area adjacent and parallel to the existing SRP 500kV transmission lines.

There are no known additional gas pipelines planned within the study area.

3.6.6 *Telecommunications*

Qwest is the primary telecommunications service provider in the study area with telecommunications lines along most major roadways. There is an existing Qwest telecommunications facility on the north side of Buckeye Road just east of 371st Avenue.

3.6.7 Irrigation

There are no major irrigation canals within the study area. The closest major canal is the Roosevelt Irrigation District Canal, which lies south of the study area and east of the Hassayampa River.

3.6.8 Sand and Gravel Operations

There are sand and gravel operations permit sites along the Hassayampa River floodplain in the southern part of the study area. The location of a proposed bridge on Yuma Parkway to cross the Hassayampa River could impact sand and gravel operations as there are currently restrictions on these operations within one mile upstream and two miles downstream of a bridge.

3.7 Topography

Figure 11 illustrates the topography of the study area through slope analysis.

Slopes of more than five percent occur near the Hassayampa River and near the Palo Verde Hills in the southwest corner of the study area. Most of the remainder of the study area is relatively flat, particularly west of the Hassayampa River and north of Salome Highway.

There is a difference of 278 feet between the low elevation of 962 feet and the high elevation of 1,240 feet. Most of the study area has an elevation between 1,000 and 1,100 feet.

3.8 Recreational and Wildlife Areas

Several recreational and wildlife areas exist within or near the study area, as shown in **Figure 12**.

There are no potential wildlife linkage zones or designated wildlife habitats within the study area, but there are two Sonoran Desert Tortoise Habitat areas and several wildlife linkage zones just outside the study area. The Hassayampa River should be considered a linkage zone even though no official linkage designation exists because it is a natural drainage channel through which animals regularly move. The study area also includes suitable habitat for protected species such as the Sprague's pipit, the Tucson shovel-nosed snake, and the Western burrowing owl, although none of these species has been found within the study area.

There are four planned trails and one planned community park within the study area.

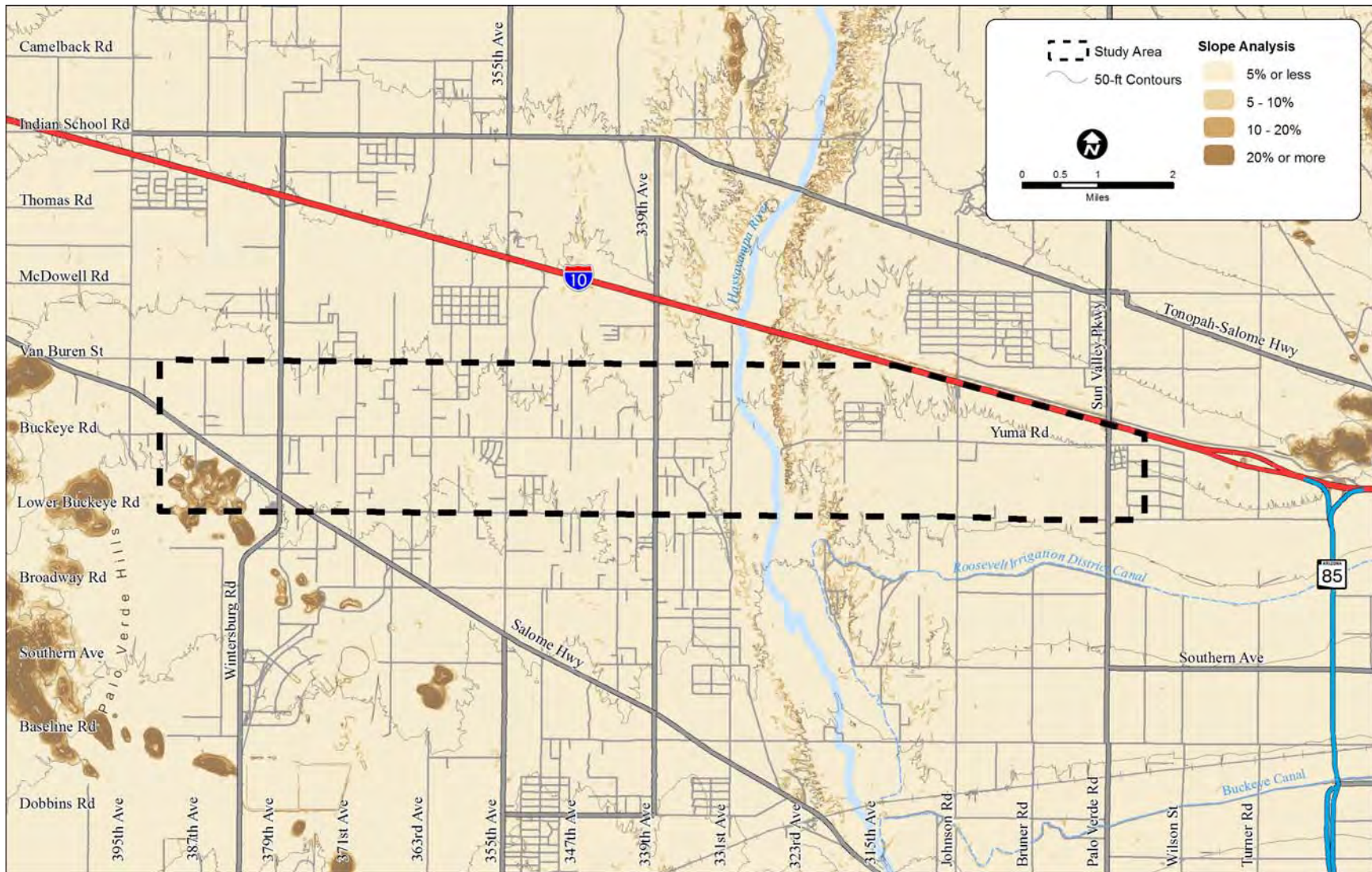


Figure 11 - Topography

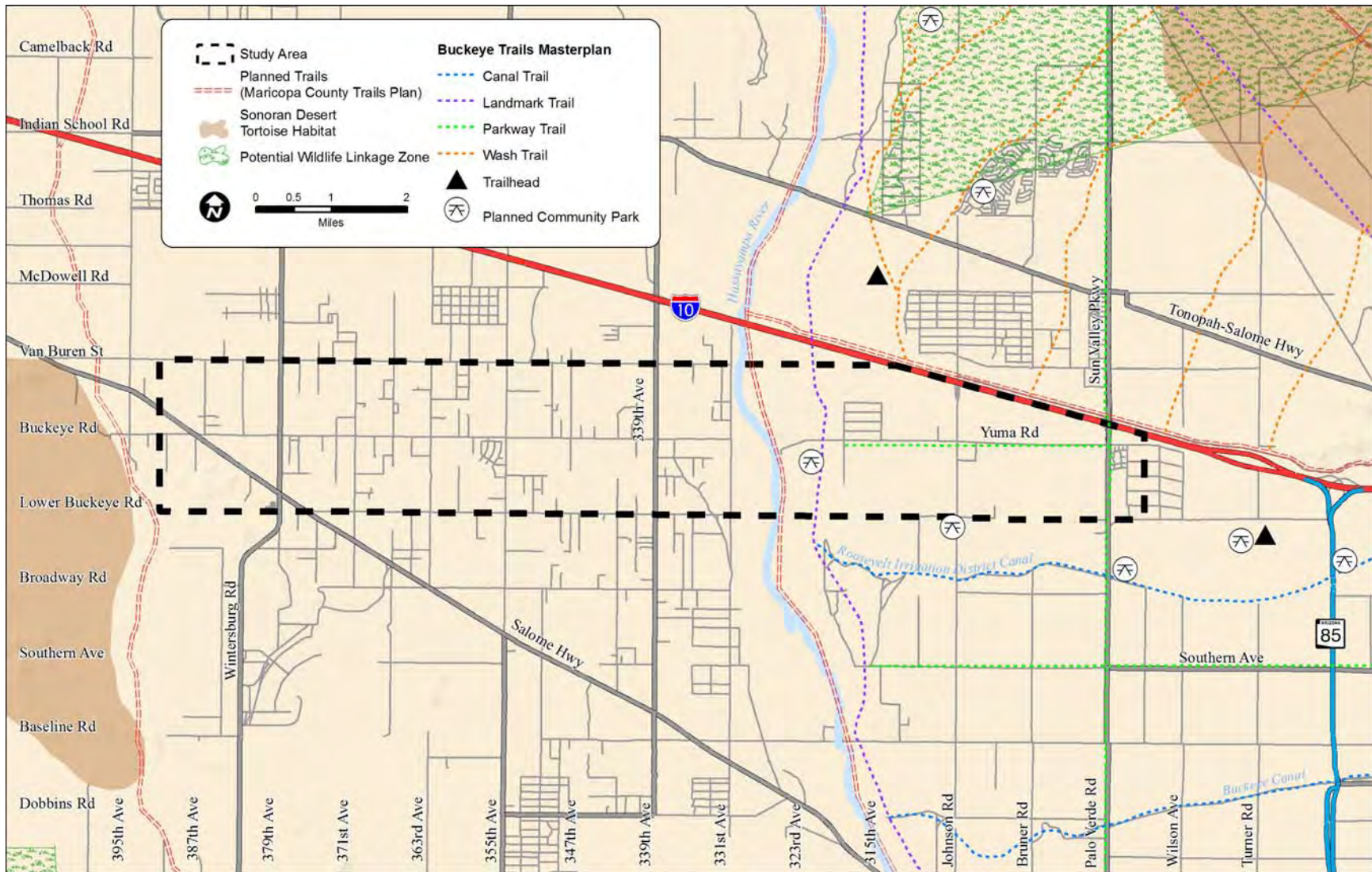


Figure 12 - Recreational and Wildlife Areas

4. SUMMARY OF IDENTIFIED OPPORTUNITIES AND CONSTRAINTS

Based on the existing and future corridor features discussed previously, the following potential opportunities/constraints have been identified (generally listed in order from west to east in the study area) that should be considered in determining feasible alignments for Yuma Parkway:

- Steep topography associated with Palo Verde Hills;
- BLM land;
- Planned parkway-to-parkway interchanges with Salome Highway and Wintersburg Parkway;
- Segments of existing right-of-way and roadway easements along Yuma Road/Buckeye Road;
- Existing vacancy of land;
- Existing wells and water tanks;
- Planned rail line west of the proposed Wintersburg Parkway;
- High voltage power corridor along Wintersburg Road;
- Partially developed subdivisions, such as Buckeye Ranch Phase 1, Buckeye Ranchos, Butterfield Stagecoach Farms, Horseshoe Trails Amended, Saddle Vista, Saddleback Trails, Verma Estates 2, and Wood's North Addition to Wintersburg;
- ASLD State Trust land;
- Qwest facilities
- Planned freeway-to-parkway interchange with the Hassayampa Freeway;
- Planned parkway-to-parkway interchange with Hidden Waters Parkway;
- Winters' Well Elementary School;
- Hidden Waters Ranch development master plan;
- Topography changes near the Hassayampa River;
- No existing crossing of Hassayampa River;
- Sand and gravel operations along the Hassayampa River;
- High voltage power corridors running diagonally through the eastern half of the study area;
- Transwestern natural gas transmission line running adjacent to the high voltage power corridors;
- Planned trails through the eastern half of the study area;
- Desert Creek master-planned community;
- Shemer D.P.J. master-planned community;
- Cipriani master-planned community;
- Stotz Dairy;
- Buckeye Municipal Airport
- Westwind master-planned community;
- Existing Sun Valley Parkway and utility corridor alignment;
- Connection of Yuma Parkway to I-10 frontage roads or to Palo Verde Road;
- Planned freeway-to-parkway interchange between Sun Valley Parkway and I-10;
- Planned community transit route along Palo Verde Road; and
- Community of Hopeville.

APPENDIX TM1-01

SUMMARY TABLE OF DOCUMENTS REVIEWED

Summary Table of Documents Reviewed - Kimley-Horn and Associates

AZGS = Arizona Geological Survey
 ADOT = Arizona Department of Transportation
 ADWR = Arizona Department of Water Resources
 FCDMC = Flood Control District of Maricopa County
 FEMA = Federal Emergency Management Agency
 KHA = Kimley-Horn and Associates
 MAG = Maricopa Associated Governments
 MC = Maricopa County
 MCDOT = Maricopa County Department of Transportation

**Yuma Parkway
 Corridor Feasibility Study
 Data Collection Summary**

LIBRARY	ITEM				TRACKING				
	KHA No.	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
	34	Maricopa County Regional Trail System Plan	description of plans for regional trail facilities	Maricopa County	Aug 2004	MC	pdf	BCP	Planning
	36	Maricopa County Zoning Ordinance	zoning ordinance	Maricopa County	Jun 2010	MC	pdf	BCP	Planning
	37	Maricopa County Zoning Ordinance	zoning ordinance descriptions and codes	Maricopa County	Jul 2009	MC	pdf	MLG	Planning
	53	Town of Buckeye Draft Transportation Master Plan	exhibits showing planned road, trail, and transit networks	Town of Buckeye	Dec 2009	Buckeye	pdf	BCP	Planning
	54	Town of Buckeye General Plan Figures	land use, circulation, environmental conditions, growth area land use, floodway transitional areas, master planned communities	Partners for Strategic Action	May 2008	Buckeye	pdf	MLG	Planning
	55	Town of Buckeye GIS Data	land use and zoning GIS data	Town of Buckeye	Aug 2010	Buckeye	GIS in email	BCP	Planning
	56	Town of Buckeye Zoning and Annexation History Figures	zoning and annexation history	Town of Buckeye	May 2009	Buckeye	pdf	MLG	Planning
	85	Unofficial Buildout Travel Demand Volumes	updated unofficial buildout traffic projections associated with the Hassayampa Framework Study	MAG	Apr 2011	MAG	pdf	MLG	Planning
	86	Hidden Waters Parkway Corridor Feasibility Study	identifies preferred alignment and general right-of-way requirements for the proposed Hidden Waters Parkway as part of the Hassayampa Framework Study	KHA	Jun 2010	MCDOT	pdf	MLG	Planning
	88	Roadway Management System FY 2010	roadway pavement conditions	MCDOT	Jul 2010	MCDOT	pdf	MLG	Planning
	89	State of the System Report FY 2011	roadway physical and operational conditions	MCDOT	Apr 2011	MCDOT	pdf	MLG	Planning
	90	Buckeye Airport Master Plan	current and future airport needs and recommended improvements	Coffman Associates	Mar 2007	Buckeye	pdf	MLG	Planning
	91	Buckeye Airport Strategic Plan	summary of the mission, vision, and strategies for the airport from the strategic planning workshop	Buckeye Airport Development Group	Oct 2010	Buckeye	pdf	MLG	Planning
	92	Draft ASLD White Tanks Conceptual Land Use Plan	assigned land use designations to State Trust land parcels within Buckeye MPA	Planning/JW	Feb 2007	ASLD	pdf	MLG	Planning
	93	ADOT Freeway to Parkway Interchange Templates	design templates for grade-separated freeway-to-parkway interchanges	HDR Engineering	Oct 2010	ADOT	pdf	MLG	Planning
	94	Hidden Waters Ranch Development Master Plan	planning documents, circulation and land use plan	LVA Urban Design Studio	Oct 2008	339th & 10 and ASLD	pdf	MLG	Planning
	95	Cipriani Planning Documents	circulation, cross-sections, and land use plan	CMX	Jun 2008		pdf	MLG	Planning
	96	Desert Creek Planning Documents	circulation, cross-sections, and land use plan	Greedy Pickett	Oct 2006		pdf	MLG	Planning
	97	Shemer D.P.J. Planning Documents	circulation and land use plan	RBF Consulting	Mar 2007		pdf	MLG	Planning
	98	Westwind Planning Documents	circulation, cross-sections, and land use plan	RBF Consulting	Dec 2004		pdf	MLG	Planning
	47	Roadway Design Manual	guidelines for standard roadway design	MCDOT	Apr 2004	KHA	pdf	BML	Roadway
	69	Special Provisions for Palo Verde Road T.I.	special provisions for bid document	ADOT	Jul 1987	FCDMC	pdf	BML	Roadway

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**Yuma Parkway
 Corridor Feasibility Study
 Data Collection Summary**

LIBRARY KHA No.	ITEM				TRACKING			
	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
1	2010 Update - Regional Transportation Plan	transportation improvement planning info	MAG	Jul 2010	MAG	pdf	BCP	Transportation
4	Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study	AZ parkway intersection ROW information	Wilson & Company	Aug 2009	MCDOT	PDF	MLG	Transportation
5	Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study	report with R/W requirements, traffic volumes, intersection layouts	Wilson & Company	Aug 2009	MCDOT	pdf	MLG	Transportation
6	Arizona Parkway Projected Travel Volumes and Laneage/Interchange Needs	Projected build-out traffic volumes for Hassayampa and Hidden Valley Framework areas with laneage and interchange needs on parkways; GIS shapefiles	Wilson & Company	Jun 2009	MAG	pdf/GIS on CD	MLG	Transportation
16	Design Guideline Recommendations for the Arizona Parkway	AZ parkway ROW requirements, intersection layout	DMJM Harris; AECOM	Aug 2008	MCDOT	PDF	MLG	Transportation
21	Enhanced Parkway Study Final Report	AZ parkway intersection ROW information	Morrison Maierle	Aug 2007	MCDOT	PDF	MLG	Transportation
23	FY 2011-2015 Transportation Improvement Program	programmed transportation improvements	MCDOT	Jul 2010	MCDOT	pdf	MLG	Transportation
24	GIS and Volume Data	GIS Data, buildout traffic volumes	Wilson & Company	Jun 2009	MAG	CD	BCP	Transportation
30	Interstate 10/Hassayampa Valley Transportation Framework Study Final Report and Executive Summary	overview, existing and future conditions, evaluation framework, travel demand forecasting, alternatives, implementation, funding; GIS shapefiles	DMJM Harris; AECOM	Jul 2008	bqaz.org/ MAG	pdf/GIS on CD	MLG	Transportation
33	Maricopa County Major Streets and Routes Plan Street Classification Atlas	road classifications	MC	Sep 2004	MC	pdf	BCP	Transportation
35	Maricopa County Transportation System Plan	road conditions, road planning info	MC	Feb 2007	MC	pdf	BCP	Transportation
87	Draft Maricopa County Major Streets and Routes Plan Street Classification Atlas	road classifications	MC	May 2011	MC	pdf	BCP	Transportation
99	Buckeye Ranch Phase 1 Replat of Final Plat	plat information	David Evans & Associates	Jun 1999	MC	pdf	MLG	Transportation
100	Buckeye Ranchos Plat	plat information	Collar, Williams & White Engineering	Dec 1959	MC	pdf	MLG	Transportation
101	Butterfield Stagecoach Farms Final Plat	plat information	Neil/McGill Consultants	Dec 1996	MC	pdf	MLG	Transportation
102	Hopeville Final Plat	plat information	Phoenix Engineering	Dec 1984	MC	pdf	MLG	Transportation
103	Horseshoe Trails Amended Plat	plat information	Consulting Land Surveyors	Jan 1996	MC	pdf	MLG	Transportation
104	Saddle Vista Record of Land Survey	survey information	Consulting Land Surveyors	May 1997	MC	pdf	MLG	Transportation
105	Saddleback Trails Record of Land Survey	survey information	Consulting Land Surveyors	Jan 2000	MC	pdf	MLG	Transportation

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**Yuma Parkway
 Corridor Feasibility Study
 Data Collection Summary**

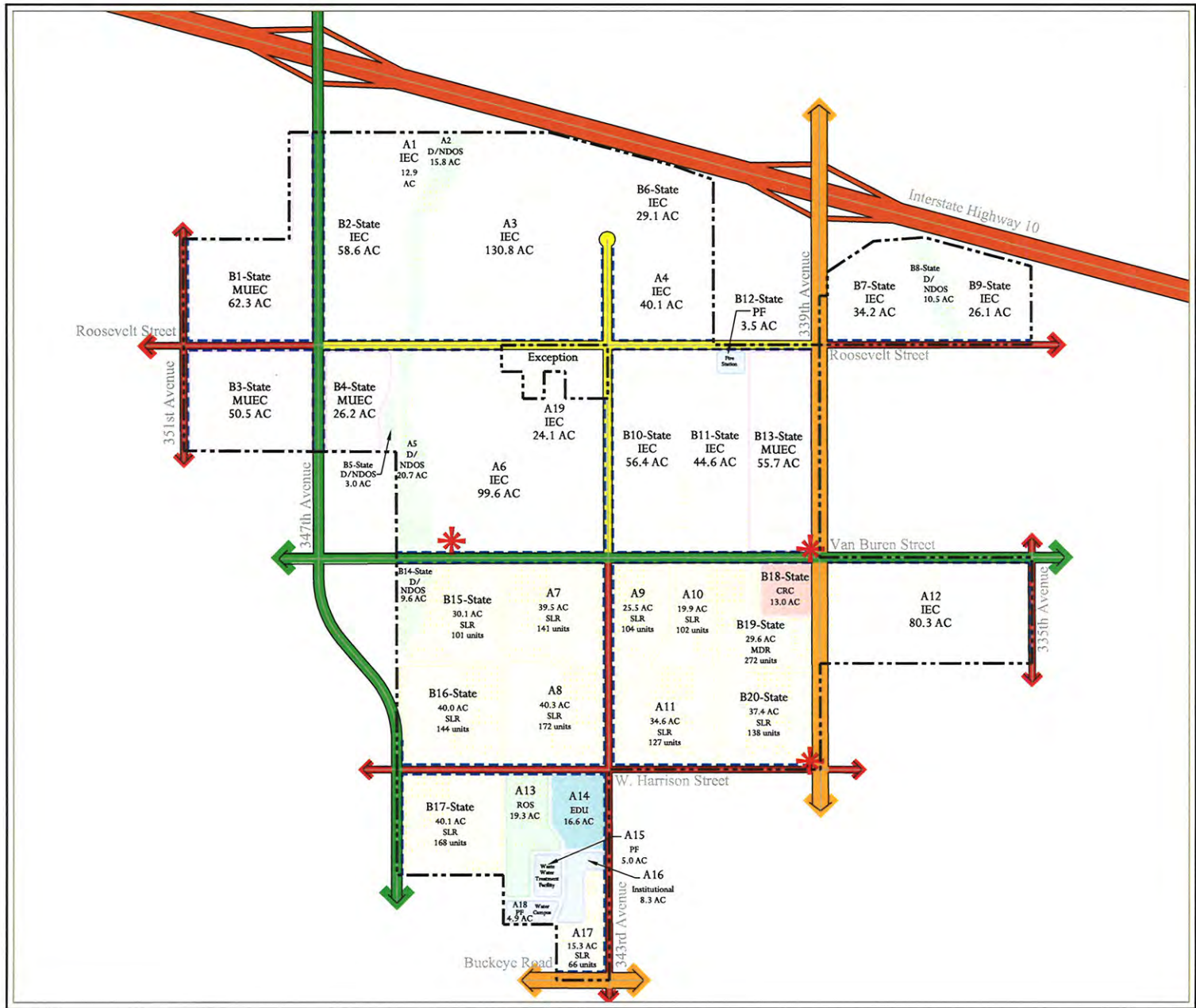
LIBRARY	ITEM				TRACKING			
KHA No.	Title	Description	Author	Date	Source	Format/ File Type	Collected By	Discipline
106	Verma Estates 2 Record of Land Survey	survey information	Consulting Land Surveyors	Nov 2000	MC	pdf	MLG	Transportation
107	Wood's North Addition to Wintersburg Plat	plat information	MC	Nov 1939	MC	pdf	MLG	Transportation
52	Tonopah/Arlington Area Plan	land use, zoning, transportation classifications, environmental information	MC	Sep 2000	MC	pdf	MLG	Transportation/ Planning



APPENDIX TM1-02

MASTER PLANNED COMMUNITIES

LAND USE AND CIRCULATION PLANS



Development Master Plan

HIDDEN WATERS RANCH

MARICOPA COUNTY, ARIZONA

Amendment #1

FIGURE 11 Vehicular and Bicycle Circulation Master Plan

LEGEND

- Existing I-10 Freeway
- Parkway (200' ROW)
- Principal Arterial (130' ROW)
- Major Collector (110' ROW)
- Collector (80' ROW)
- Proposed DMP Site
- Bicycle Lane
- ✱ Community Entry Monuments

SCALE: (+/-)

NORTH

Date: 01.26.06
 Job No.: 0559
 Drawn by: PR
 Revised: 10-20-08

LVA urban design studio
 land planning landscape architecture
 120 south ash avenue • tempe, arizona 85281 • phone: 480.994.0994

0559\New Planning Industrial\CAD\Revised DMP Exhibits\TAC Comments Revised 10-7-08\Fig 11 - Vehicular and Bicycle Circulation Master Plan 10-7-08.dwg

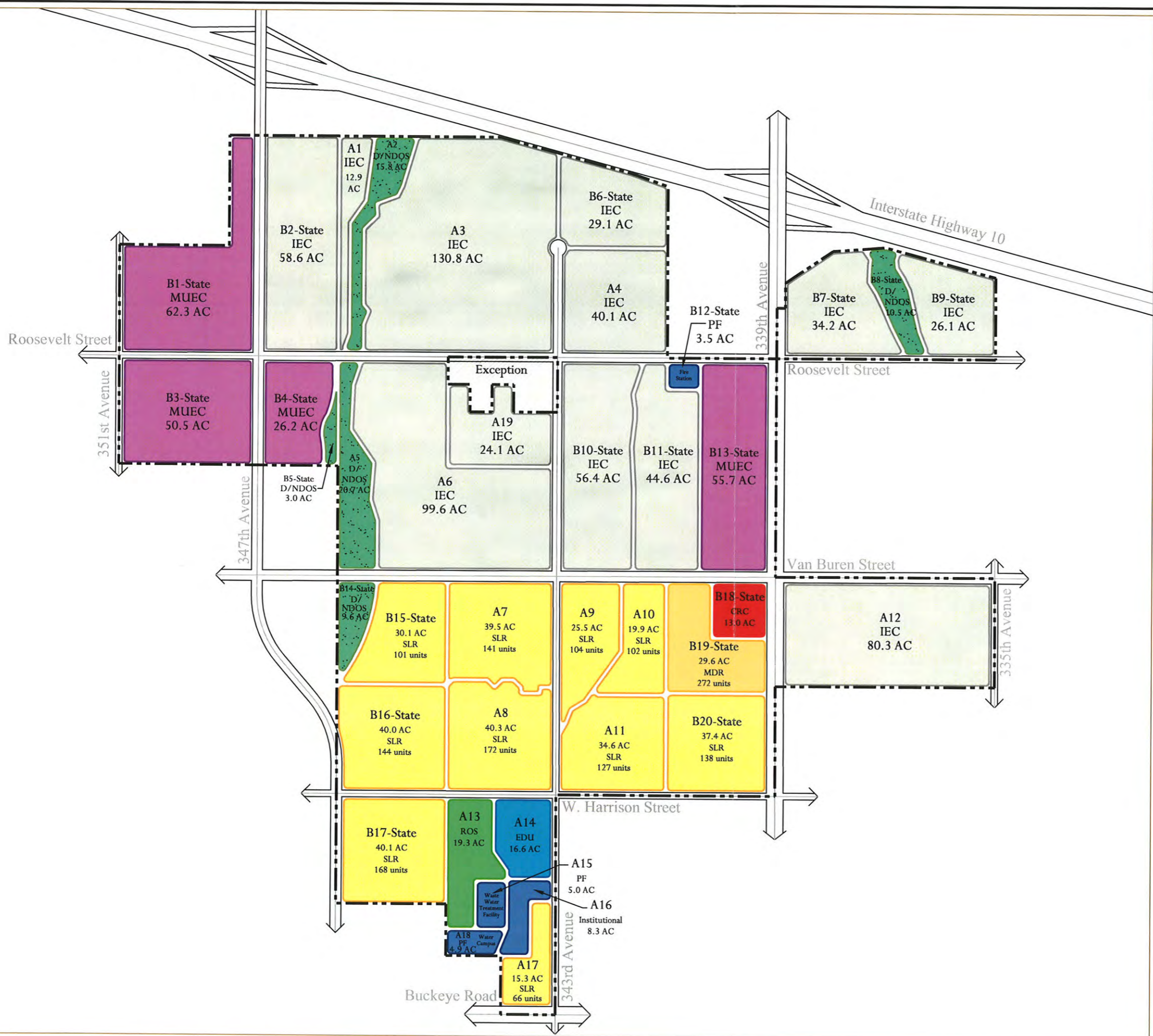
Development Master Plan

HIDDEN WATERS RANCH

MARICOPA COUNTY, ARIZONA

Amendment #1

FIGURE 9 Land Use Master Plan



LEGEND

- Proposed DMP Site
- SLR - Small Lot Residential (2-5 du/ac)
- MDR - Medium Density Residential (5-15 du/ac)
- MUEC - Mixed-Use Employment Center
- CRC - Community Retail Center
- ROS - Recreational Open Space
- D/NDOS - Dedicated Non-Developable OS
- EDU - Educational (Elementary School)
- IEC - Industrial/Employment Center
- PF - Public Facilities/Institutional

Legend	Land Use Designation	Total AC.	% total
SLR	Small Lot Residential (2-5 du/ac)	322.7	25%
MDR	Medium Density Residential (5-15 du/ac)	29.6	2%
PF	Public Facilities (WWRF, Fire Dept.)	13.4	1%
INST	Institutional	8.3	1%
EDU	Elementary School	16.6	1%
MUEC	Mixed-Use Employment Center	194.7	15%
IEC	Industrial Employment Center	636.8	48%
CRC	Community Retail Center	13.0	1%
ROS	Recreational Open Space (Parks)	19.3	2%
D/NDOS	Dedicated Non-Developable Open Space	59.6	5%
Total		1,314	100%

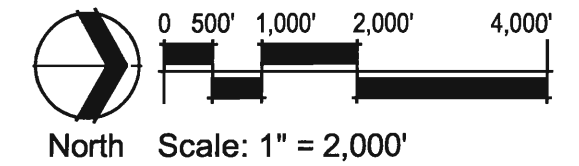
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Date: 02.13.06
 Job No.: 0559
 Drawn/Checked: PR/MR
 Revised: 10-16-08

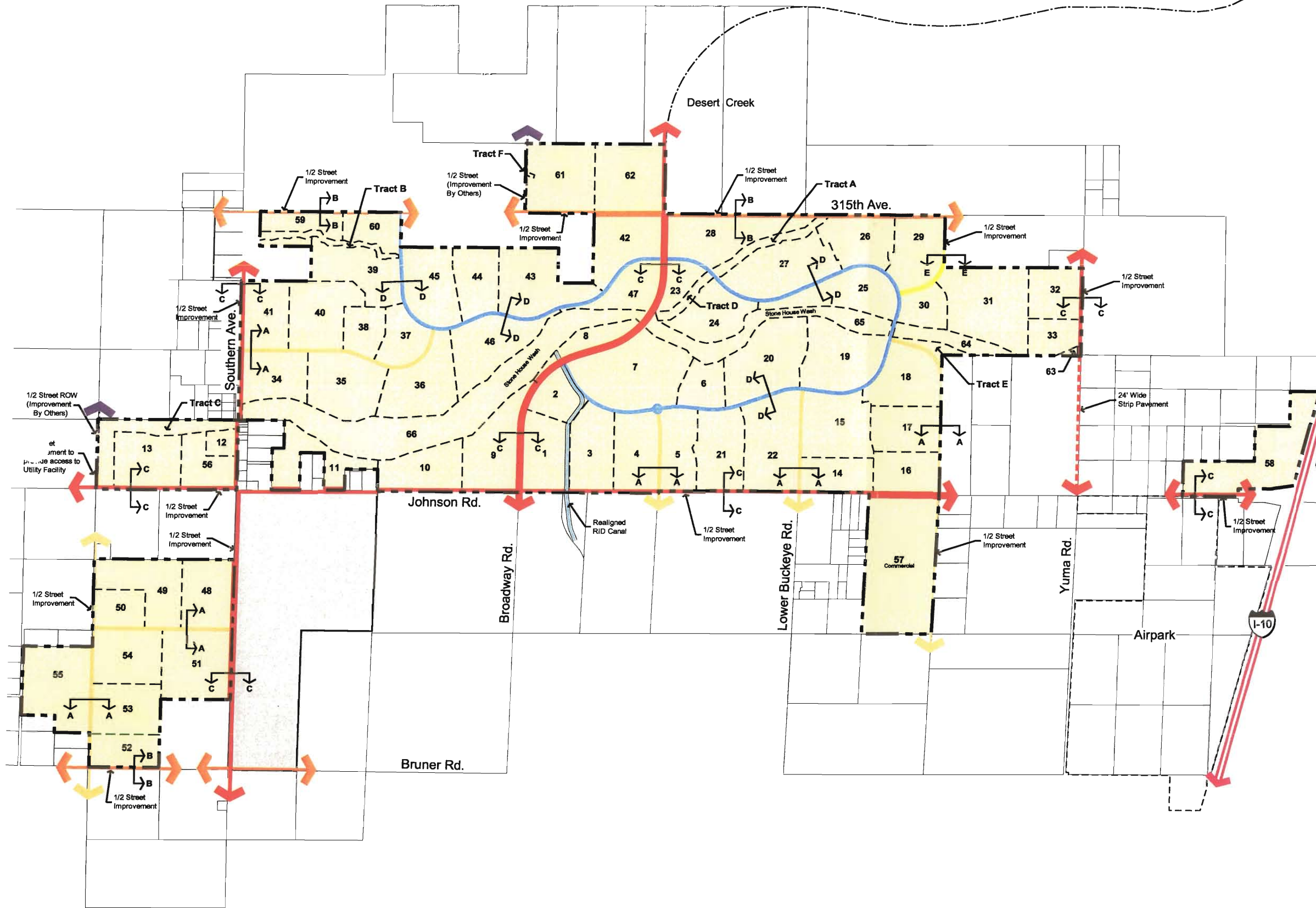
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Figure 9



Legend

- CMP Boundary
- Parcel Boundary
- Existing Freeway
- Proposed Major Arterial
- Proposed 24' Wide Strip Pavement
- Proposed Minor Arterial
- Proposed Collector
- Proposed Enhanced Collector w/ Median
- Proposed Entry Local
- Improvement By Others
- Typical Cross-section Location
- Cipriani PR Area (Not a part of CMP)

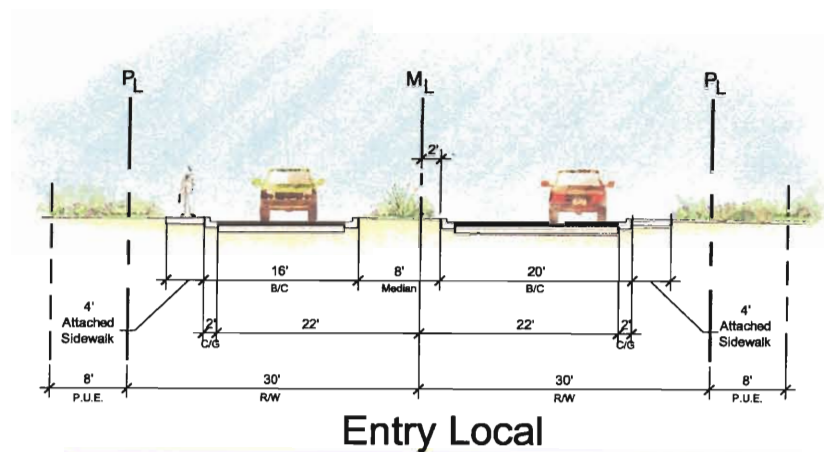


Notes

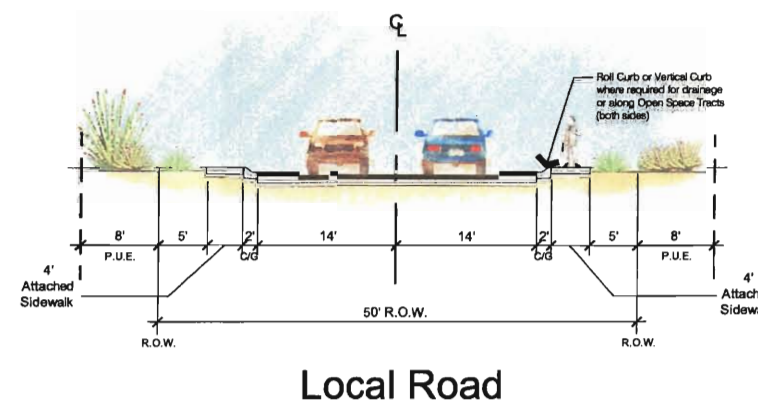
- See Figure 14 for Typical Street Cross-sections of indicated major and minor arterials.



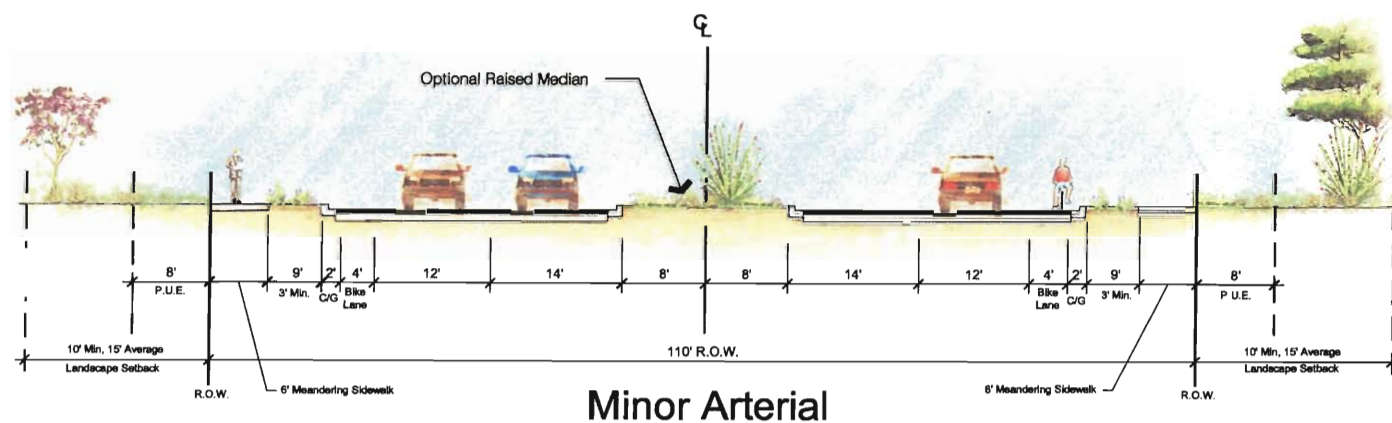
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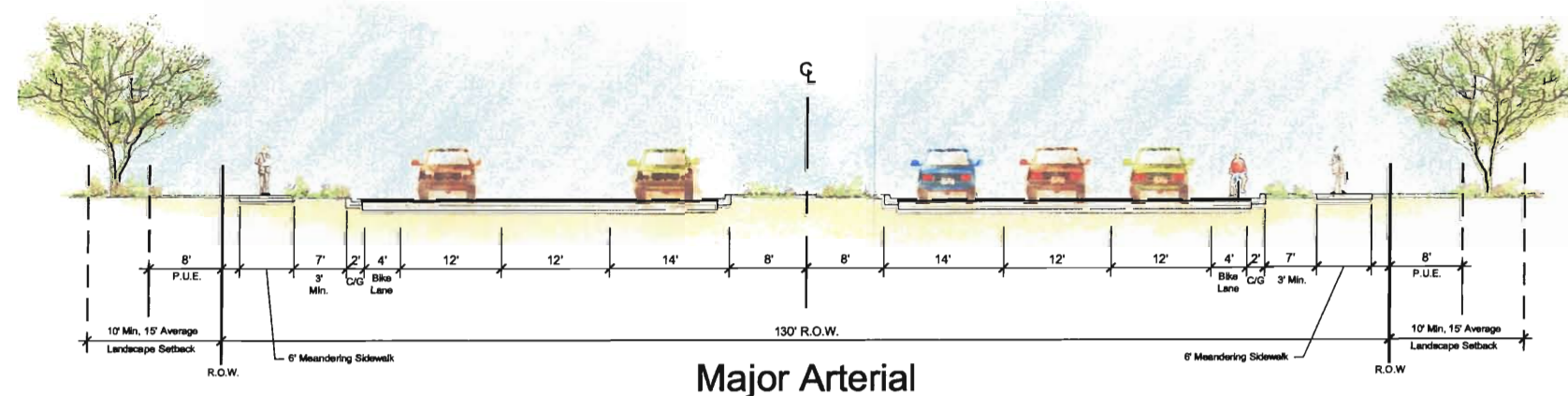
Entry Local
Proposed Entry Local (Cross-section E-E)
Per the Town of Buckeye Typical Residential Entrance Section (60' ROW) Detail
(Minimum 50 Lineal Feet)



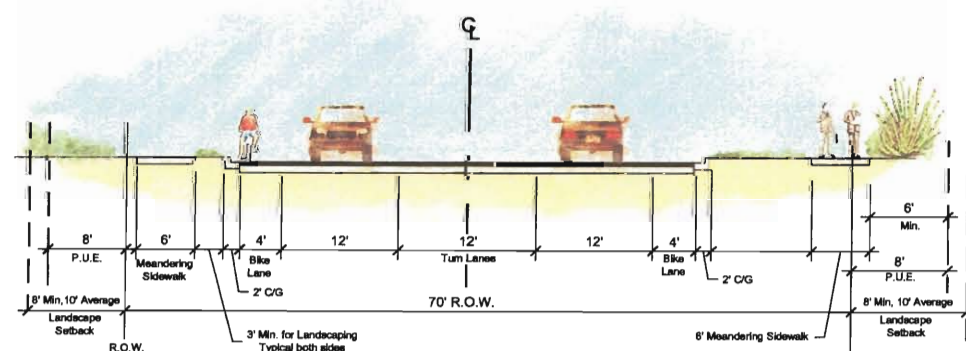
Local Road
Proposed Local Road
Per Town of Buckeye Local Section (50' ROW) Detail



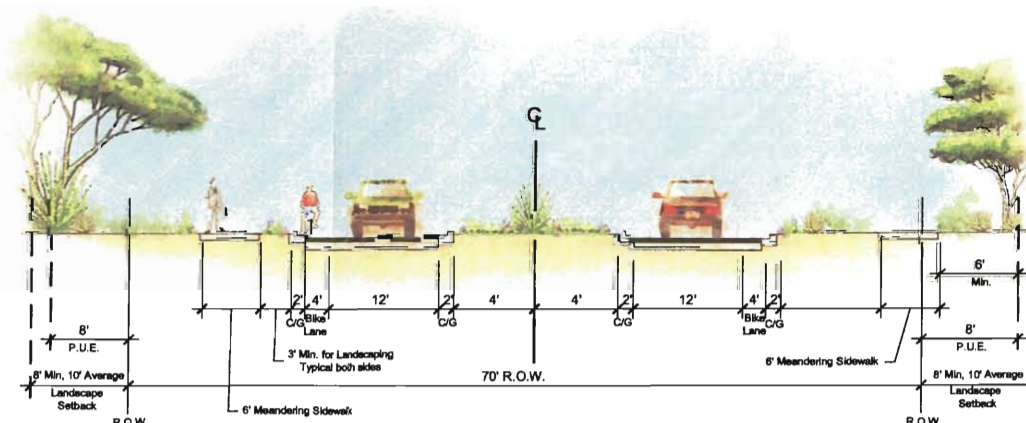
Minor Arterial
315th Ave., Bruner Rd
Cross-section B-B
Per Town of Buckeye Arterial Section (110' ROW) Detail



Major Arterial
Proposed Cipriani Parkway (Johnson Rd.),
Broadway Rd., Southern Ave., Yuma Rd.
Cross-section C-C
Per Town of Buckeye Collector Section (130' ROW) Detail



Collector
Proposed Collector Road
Cross-section A-A
Per Town of Buckeye Collector Section (70' ROW) Detail



Enhanced Collector w/ Median
Proposed Loop Road
Cross-section D-D
Per Town of Buckeye Collector Section (70' ROW) Detail

Notes

- Details are based on the Town of Buckeye Standard Details, dated 8/15/2005 from W.C. Scoutten, Inc.
- Roadway sections may be phased with narrower sections. Construction will be based on the traffic study criteria.
- Per W.C. Scoutten, Inc., Street Geometrics for Cipriani are based on the City of Scottsdale Standards for Street Design Element Figure 3: 1-8 Basic Design Data for Streets.
- All Detached Sidewalk shall require vertical curb on the street sections.
- Illustrations are conceptual and subject to change through the design and development process.

CMX Project Number: 6984 June 2008
Project Manager: T. Bonar
Designed By: N/A
Graphics By: N/A
Drawn By: J. Newbegin / C. Klock / S. Bunting

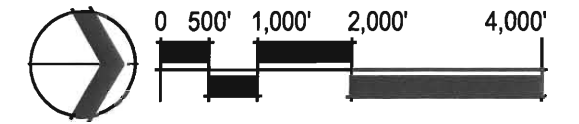


Cipriani

Buckeye, Arizona
Community Master Plan (CMP)

Proposed Land Use and Zoning

Figure 6



North Scale: 1" = 2,000'

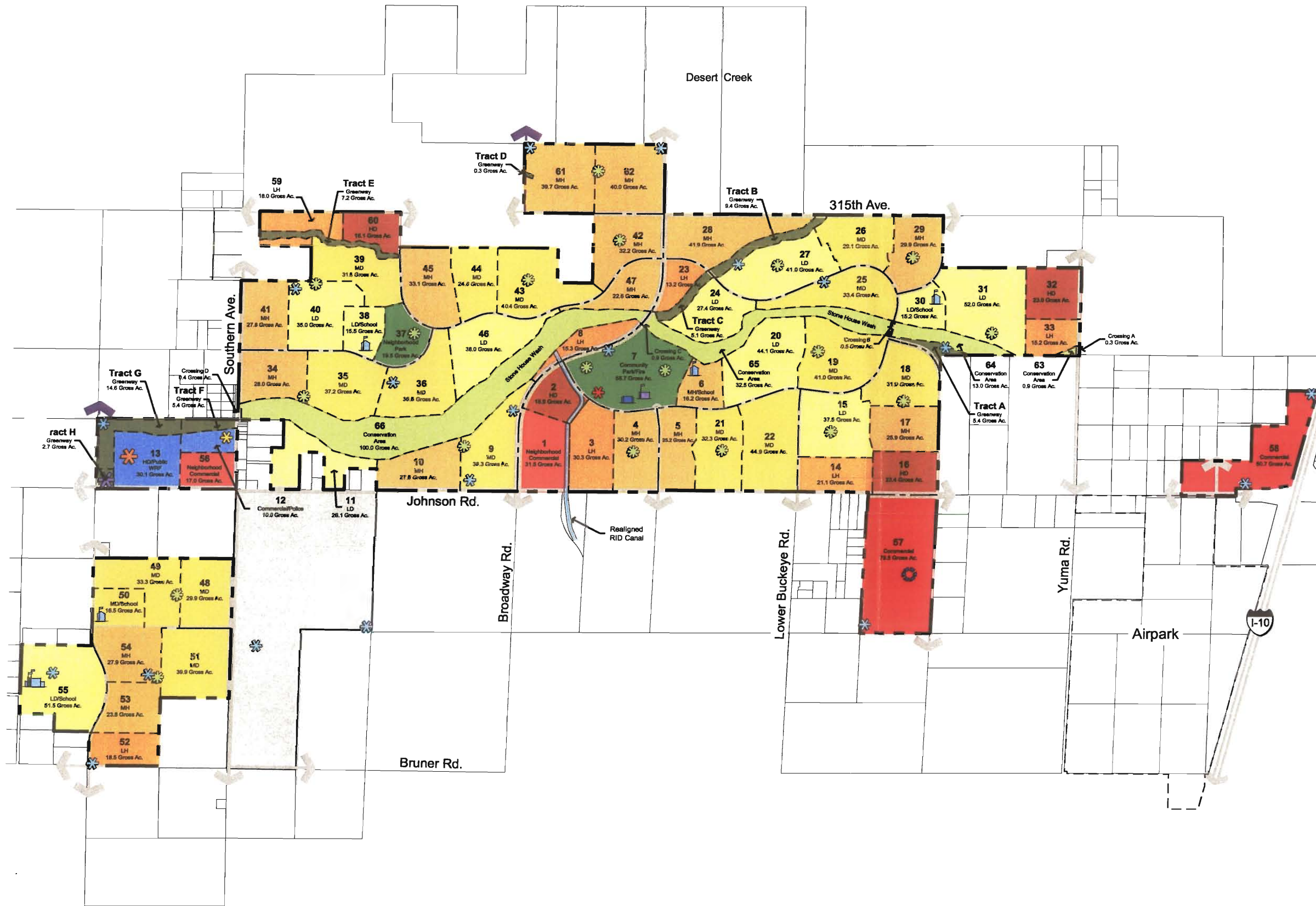
Legend

- CMP Boundary
- Parcel Boundary
- PC - LD Low Density (0-3 du/Ac)
- PC - MD Medium Density (2-4 du/Ac)
- PC - MH Medium High Density (3-6 du/Ac)
- PC - LH Low High Density Single-Family (6-12 du/Ac)
- PC - HD High Density Multifamily (12-22 du/Ac)
- Cipriani PR Area (not a part of CMP)
- PC - Regional Commercial
- PC - Neighborhood Commercial
- PC - Park
- PC - Greenway
- PC - Conservation Open Space
- PC - Public WRF/Police
- Elementary School
- High School
- Multi-generation Center
- Potential Library
- Water Reclamation Facility
- Potential Pocket Park
- Police Station
- Fire Station
- Potential Well Location
- Potential APS Substation
- Potential Water Storage Location

Site Data

Approximate Cipriani Project Gross Area	2,345.7 Acres
Approximate CMP Gross Area	2,105.7 Acres

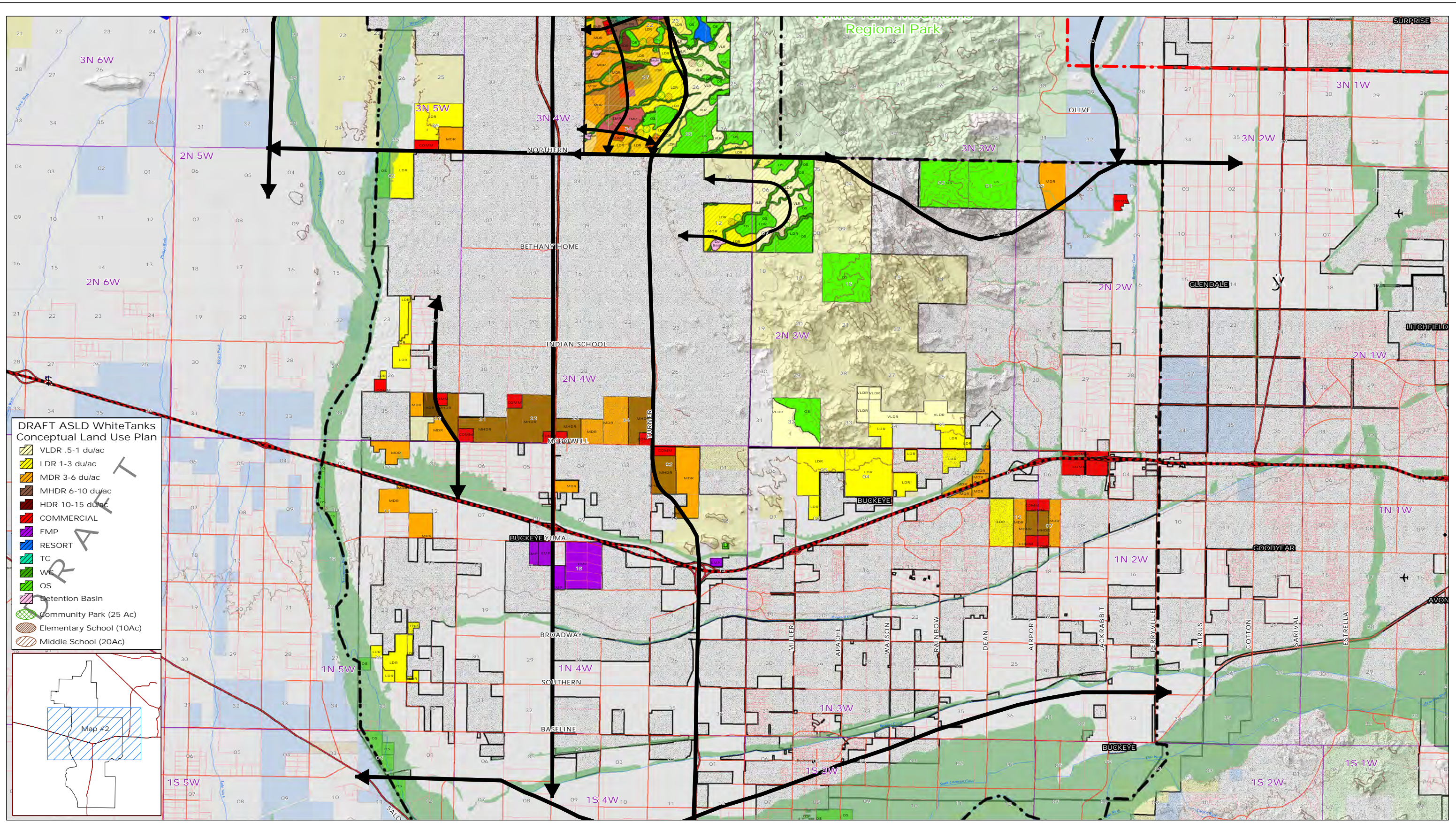
Notes



CMX Project Number: 6984 June 2008
Project Manager: T. Bonar
Designed By:
Graphics By: N/A
Drawn By: J. Newbegin / C. Klock / S. Bunting



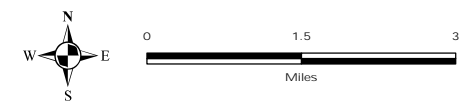
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Jun 23, 2008 1:19pm
© Copyright, CMX 2008 - This plan document set is the sole property of CMX. No alterations to these plans, other than adding "as-built" information, are allowed by anyone other than authorized CMX employees.



- Buckeye Planning Area
- Surprise Planning Area
- State Trust Land
- Cities
- Private
- U.S.B.L.M.
- Indian Reservation
- Military
- State & Local Park
- FEMA Floodplain
- Interstates
- Highways
- Roads
- Streams
- Gas Pipeline

- BUCKEYE CONCEPTUAL PLAN - Draft Status**
- | | | |
|----------------------------------|----------------------------------|-------------------|
| Very Low Density Res (5-1 du/ac) | Medium High Den Res (6-10 du/ac) | Employment |
| Low Density Res (1-3 du/ac) | High Density Res (10-15 du/ac) | Land Fill |
| Medium Density Res (3-6 du/ac) | Commercial | Open Space |
| | | Proposed Roadways |

ASLD CONCEPTUAL LAND USE PLAN for BUCKEYE
DRAFT
Map #2













ASLD makes no warranties, implied or expressed, regarding information shown on this map. Produced by Planning / J/W 11/2006, revised 2/2007
o:\jlaney\asset\greg\Buckeye\BuckeyeConceptualPlan.mxd








Shemer D.P.J.

Existing and Proposed Roadway Circulation





Legend

-  A - Proposed 60' ROW
-  B - Proposed 50' ROW
-  C - Existing 40' ROW
-  D - Proposed 80' ROW
-  E - Existing 65' ROW
-  F - Proposed 104' ROW
-  G - Existing 40' ROW
-  H - Proposed 116' ROW
-  J - Proposed 110' ROW
-  Other Planned Roadways

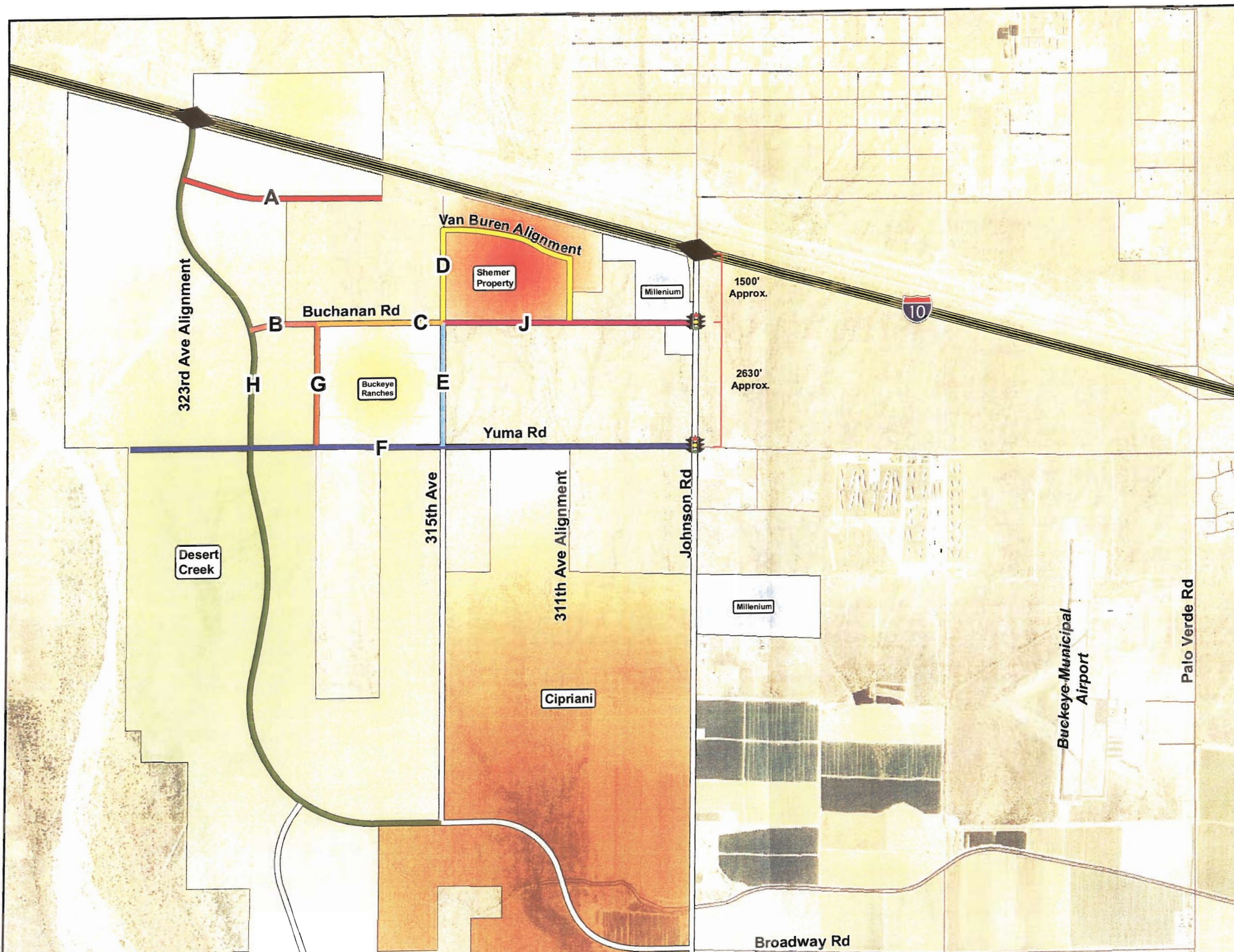
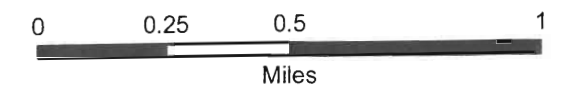
Development Boundaries

-  Shemer
-  Desert Creek
-  Cipriani
-  Buckeye Ranches
-  Millenium

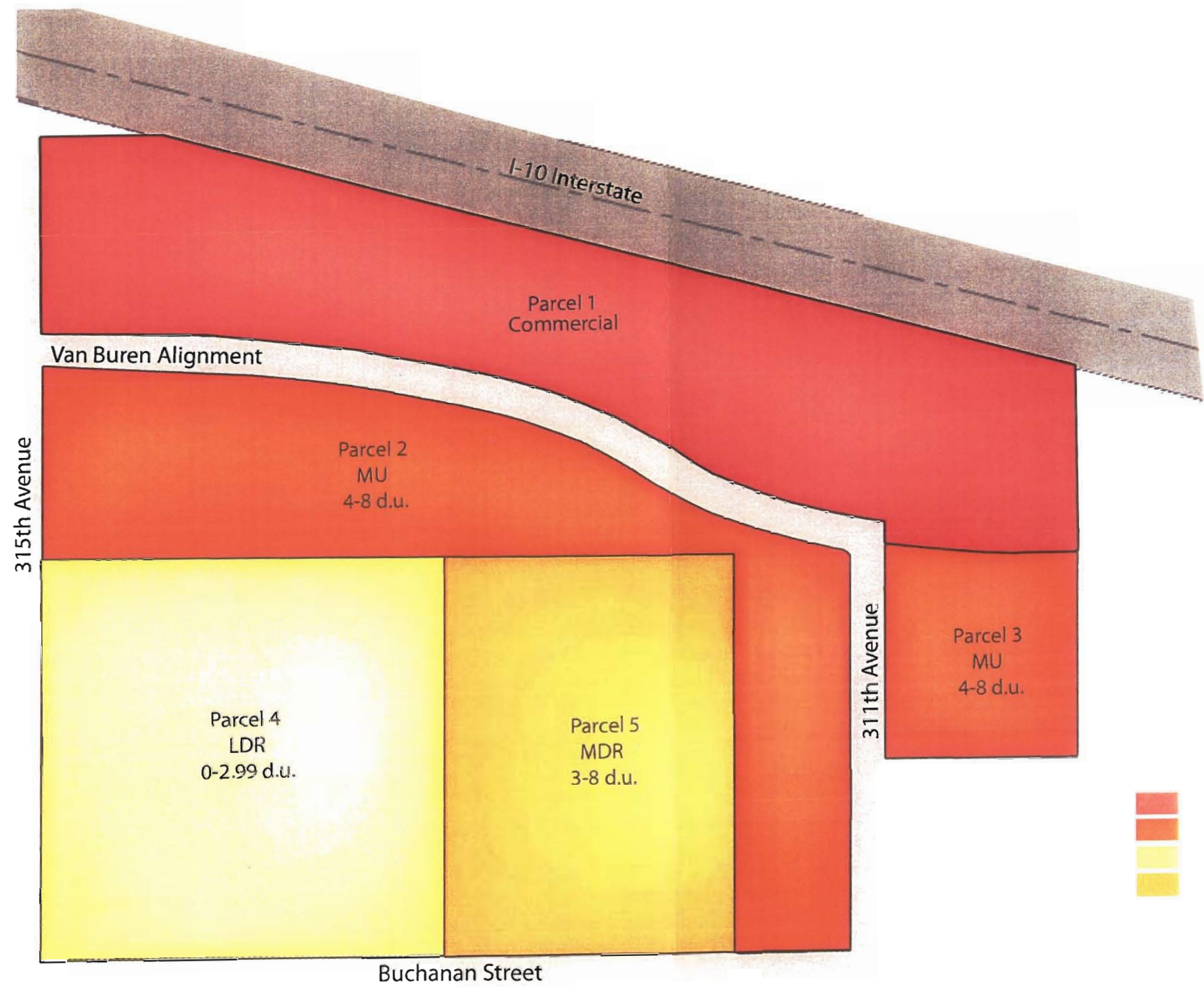
Area Roadways

-  Freeway
-  Arterials/Collectors
-  Potential Signalized Intersection
-  Proposed Traffic Interchange (Not To Scale)

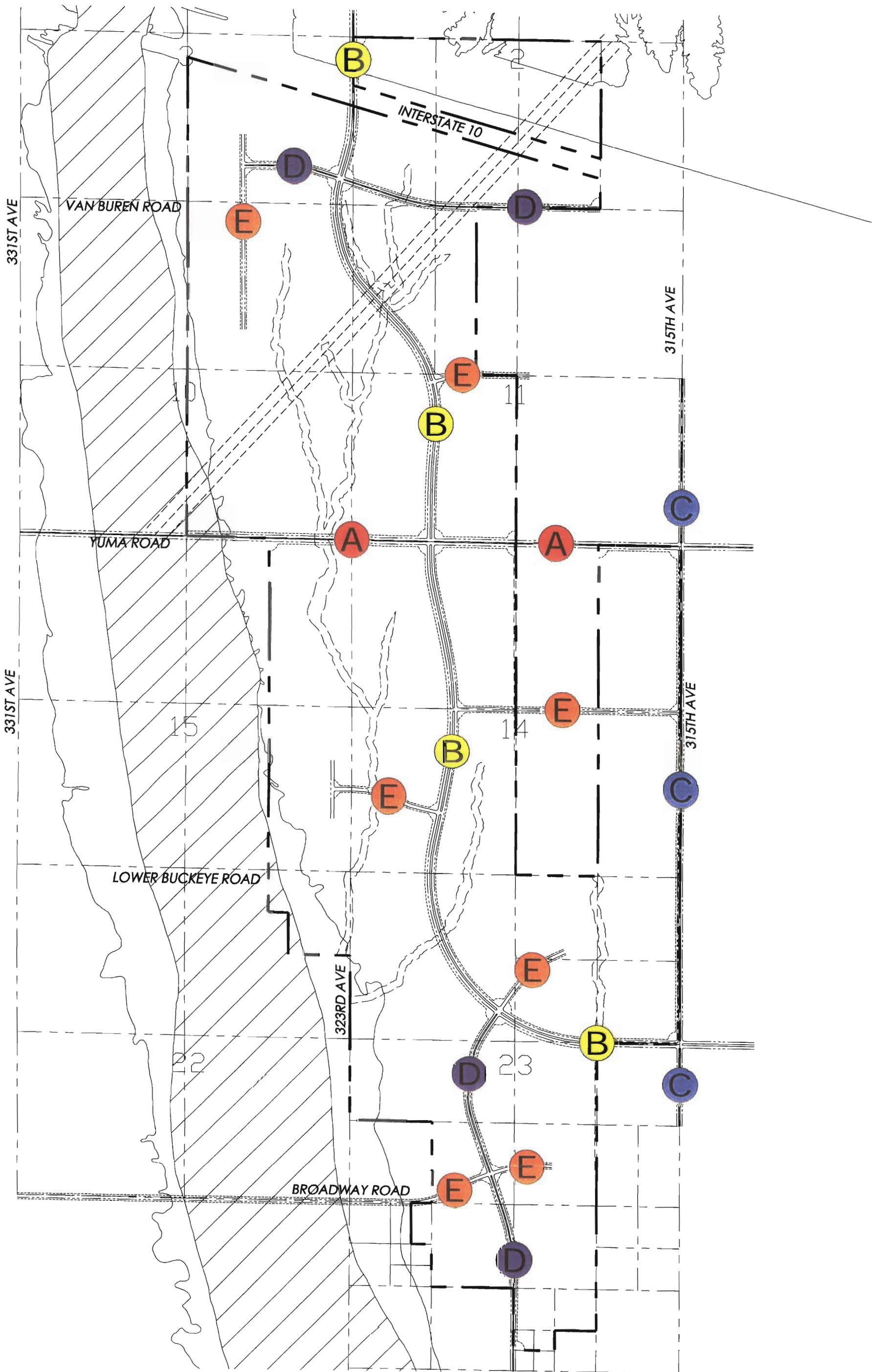
Information shown on map has been sourced from local government agencies. For Planning Purposes only.



Land Use Plan



		Acres
Commercial		43.2
Mixed-Use	(4-8 d.u.)	44.3
Low Density Res.	(0-2.99 d.u.)	37.1
Medium Density Res.	(3-8 d.u.)	26.7
R.O.W.		14.0
Total		165.3 +/-



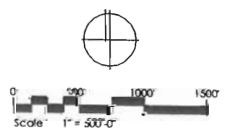
DESERT CREEK

BUCKEYE, ARIZONA

Circulation Master Plan

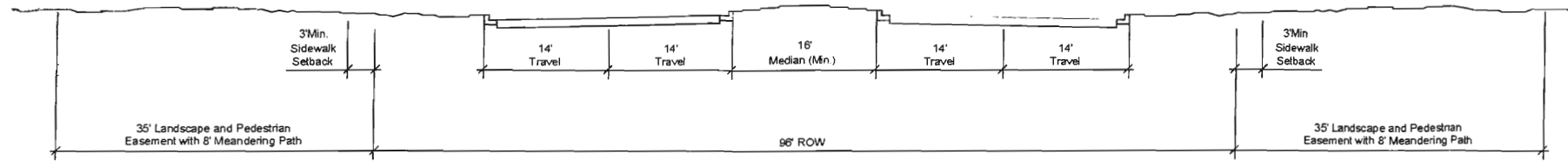
Date: March 6, 2006

GREY PICKETT
landscape architecture | community design



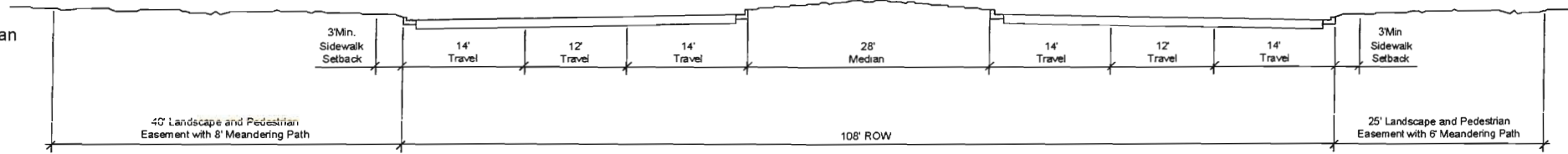
A

Internal Major Arterial with Median and Expanded Landscape Parkways.



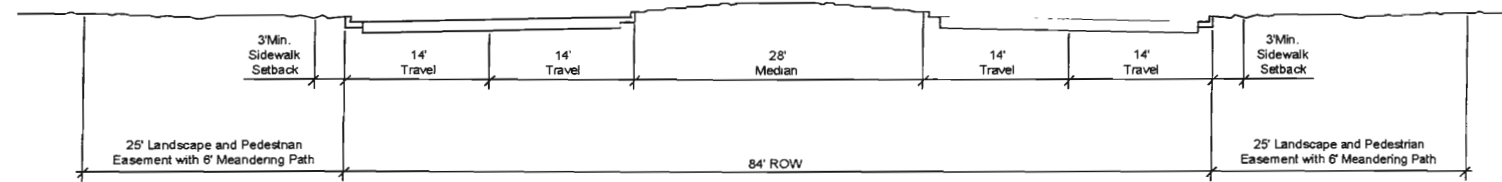
B

Themed Arterial with Median and Expanded Landscape Parkways.



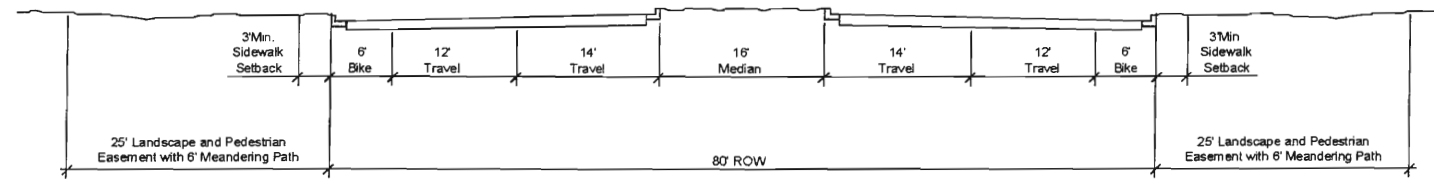
C

Minor Arterial with Median and Expanded Landscape Parkways.



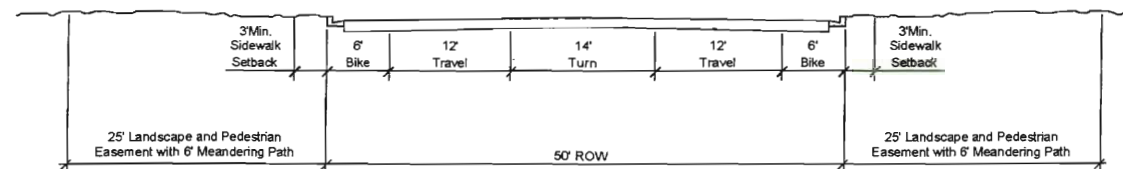
D

Village Collector with Median and Expanded Landscape Parkways.



E

Residential/Non Residential Collector with Turning Lane and Expanded Landscape Parkways.



* These cross sections may be altered per approved Townwide roadway standards.

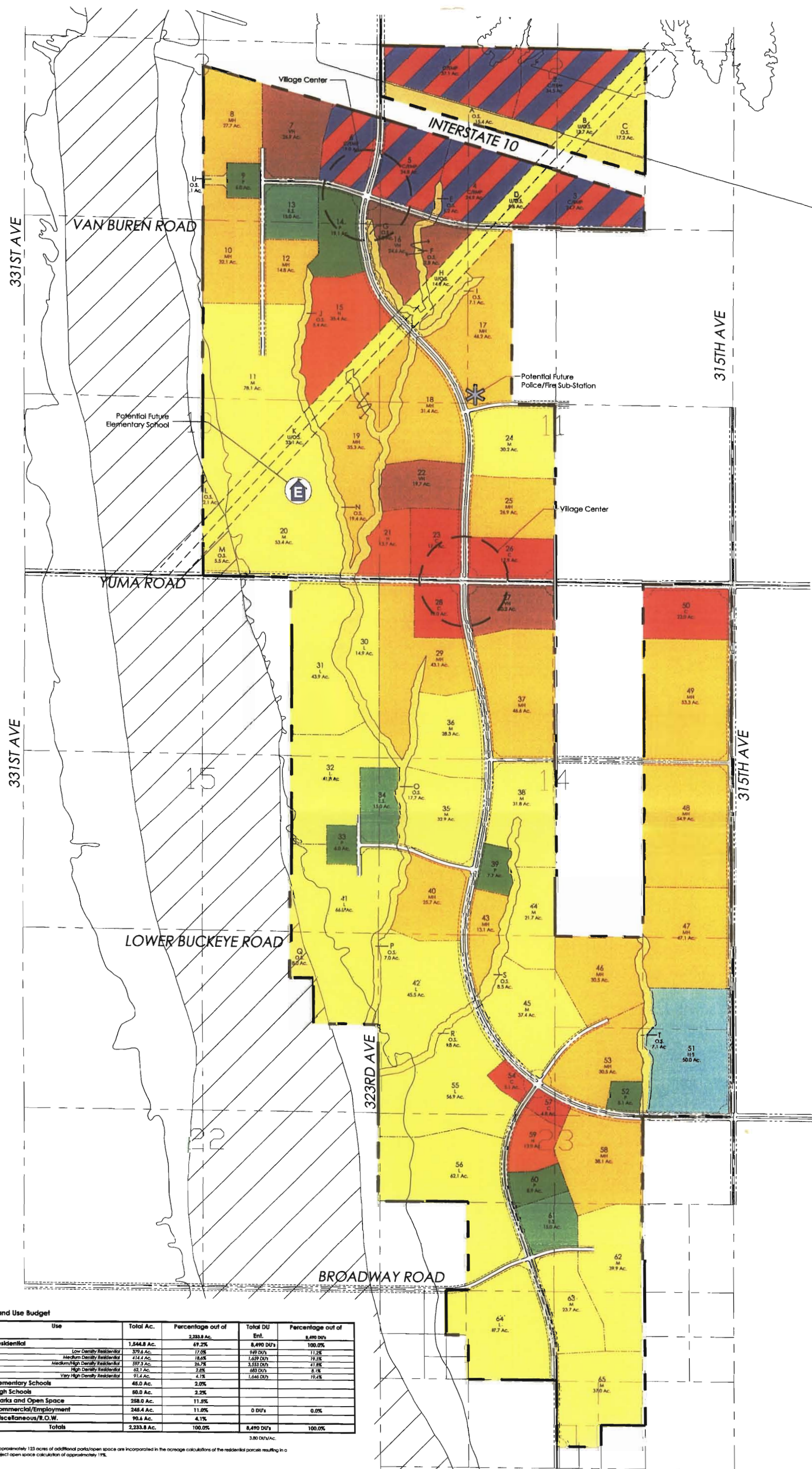


DESERT CREEK

BUCKEYE, ARIZONA

Community Roadway Sections





Land Use Budget

Use	Total Ac.	Percentage out of 2,233.8 Ac.	Total DU Ent.	Percentage out of 8,490 DU's
Residential	1,544.8 Ac.	69.2%	8,490 DU's	100.0%
Low Density Residential	379.6 Ac.	17.0%	949 DU's	11.2%
Medium Density Residential	414.4 Ac.	18.6%	1,659 DU's	19.5%
Medium/High Density Residential	397.3 Ac.	17.8%	3,533 DU's	41.6%
High Density Residential	65.1 Ac.	2.9%	483 DU's	5.7%
Very High Density Residential	91.4 Ac.	4.1%	1,446 DU's	17.0%
Elementary Schools	45.0 Ac.	2.0%		
High Schools	80.0 Ac.	3.6%		
*Parks and Open Space	258.0 Ac.	11.5%		
Commercial/Employment	248.4 Ac.	11.1%	0 DU's	0.0%
Miscellaneous/R.O.W.	95.6 Ac.	4.3%		
Totals	2,233.8 Ac.	100.0%	8,490 DU's	100.0%

3.80 DUs/Ac

*Approximately 123 acres of additional parks/open space are incorporated in the acreage calculations of the residential parcels resulting in a project open space calculation of approximately 17%.

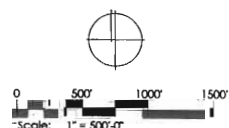
DESERT CREEK

BUCKEYE, ARIZONA

Land Use Map

Date: October 25, 2006


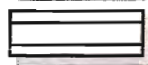


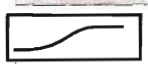
GREY|PICKETT
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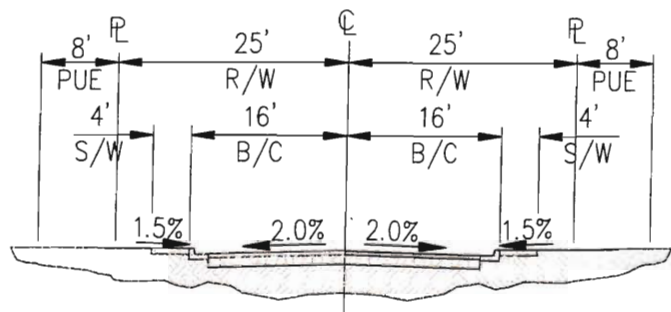
Westwind

Master Circulation Exhibit

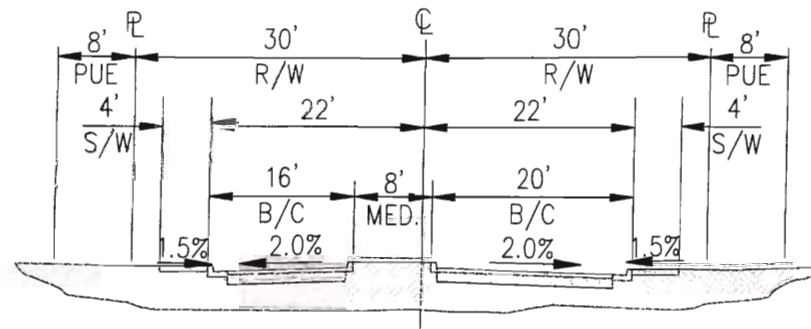


-  Major Arterial
-  Minor Arterial
-  Major Collector
-  Minor Collector
-  Area Roads by Others

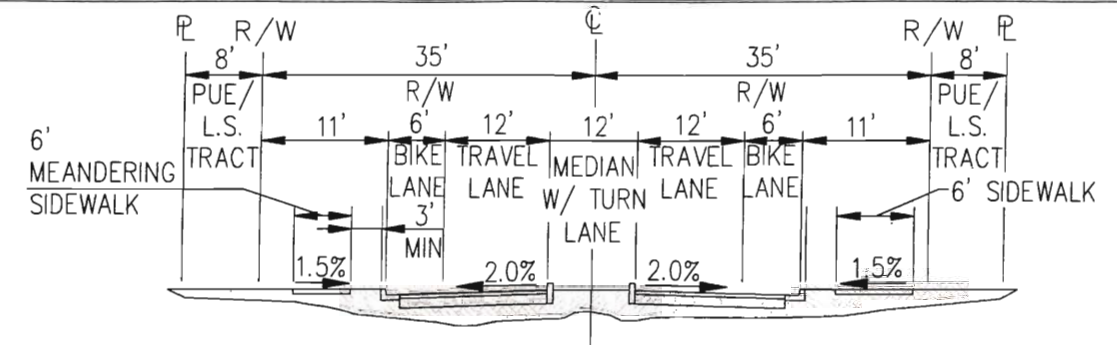




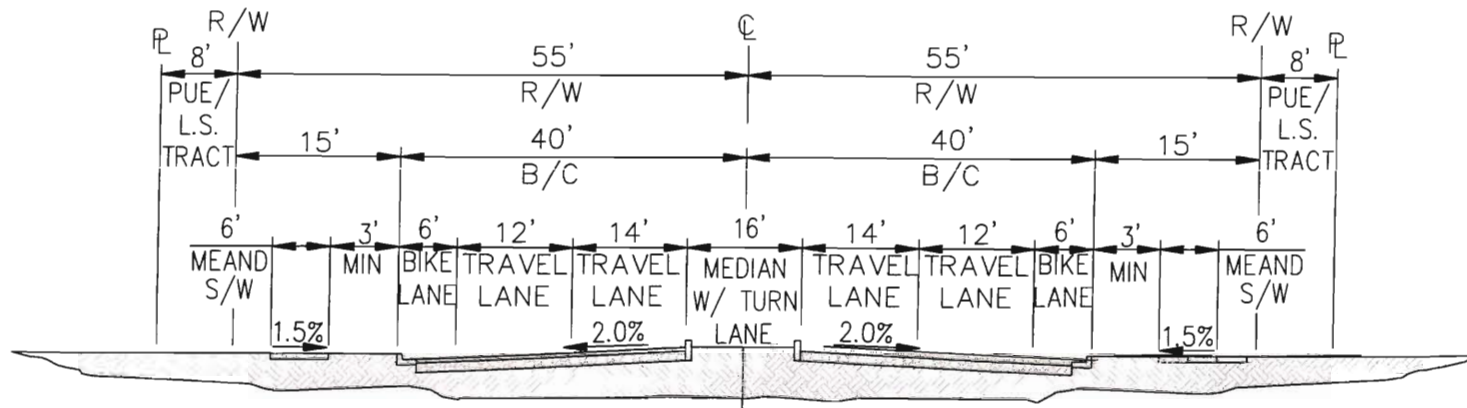
TYPICAL RESIDENTIAL STREET
NTS



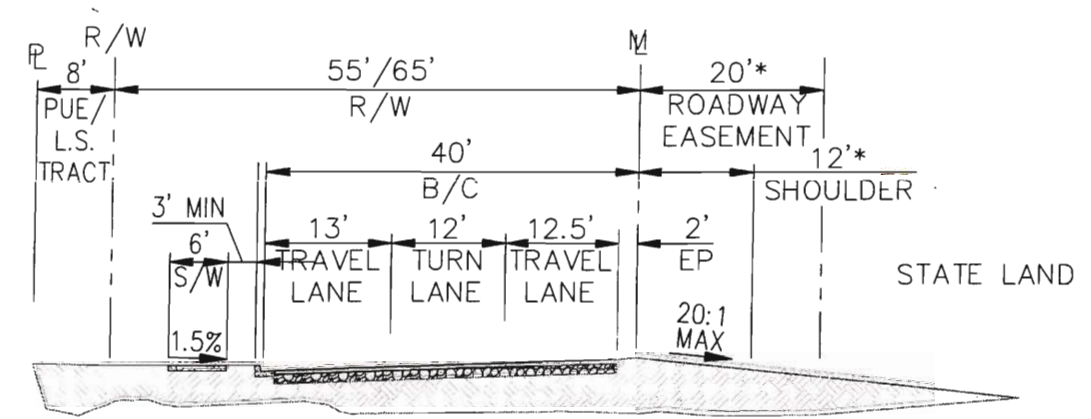
TYPICAL RESIDENTIAL ENTRANCE
NTS



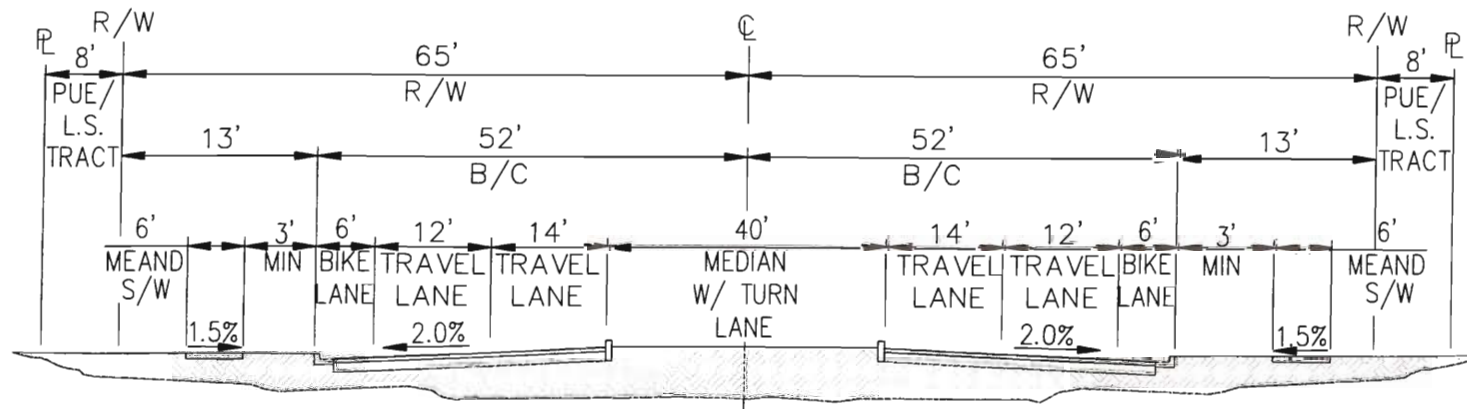
MAJOR COLLECTOR STREET
NTS



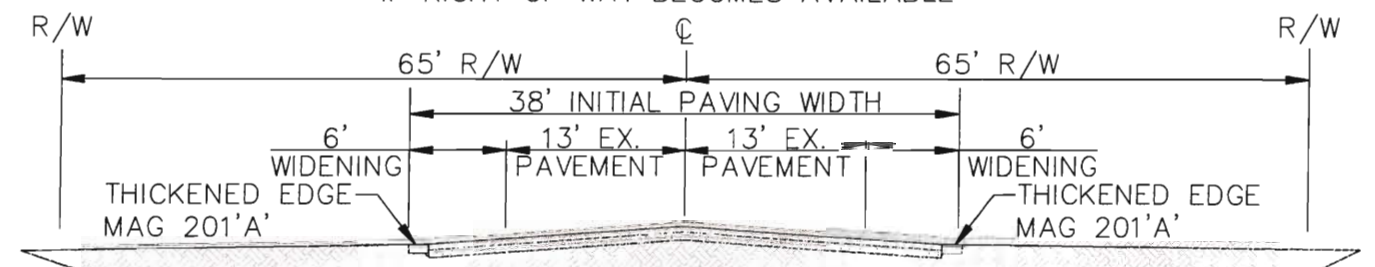
MINOR ARTERIAL STREET
NTS



ARTERIAL HALF STREET
NTS
*IF RIGHT OF WAY BECOMES AVAILABLE

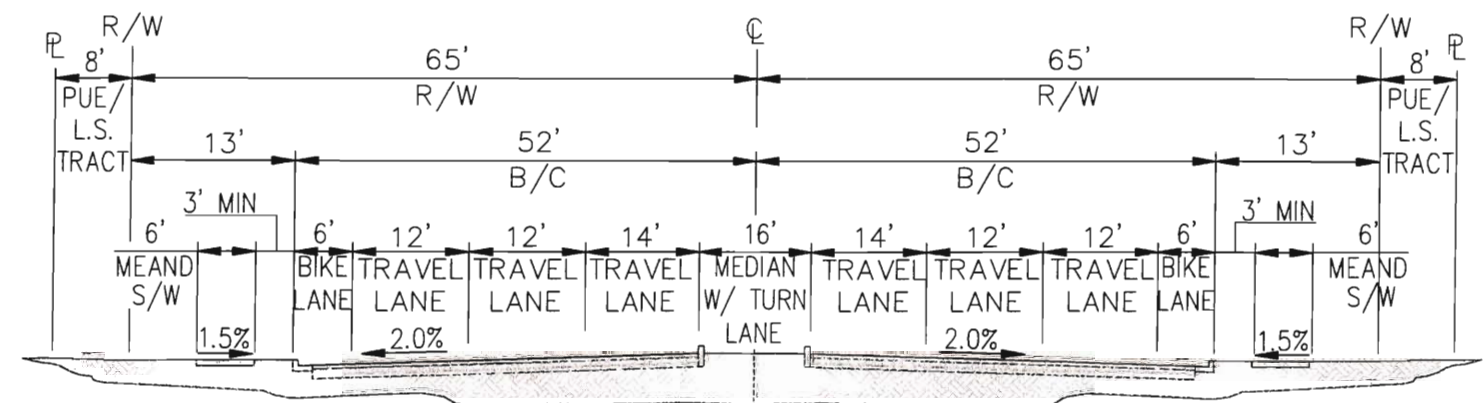


MAJOR ARTERIAL STREET - INITIAL CONSTRUCTION
NTS



**PALO VERDE ROAD
INITIAL CONSTRUCTION**
NTS

NOTE: EXISTING PAVEMENT WILL BE RESURFACED OR TOTALLY RECONSTRUCTED DEPENDING ON GEOTECHNICAL ANALYSIS FINDINGS



(FUTURE) PALO VERDE ROAD
NTS



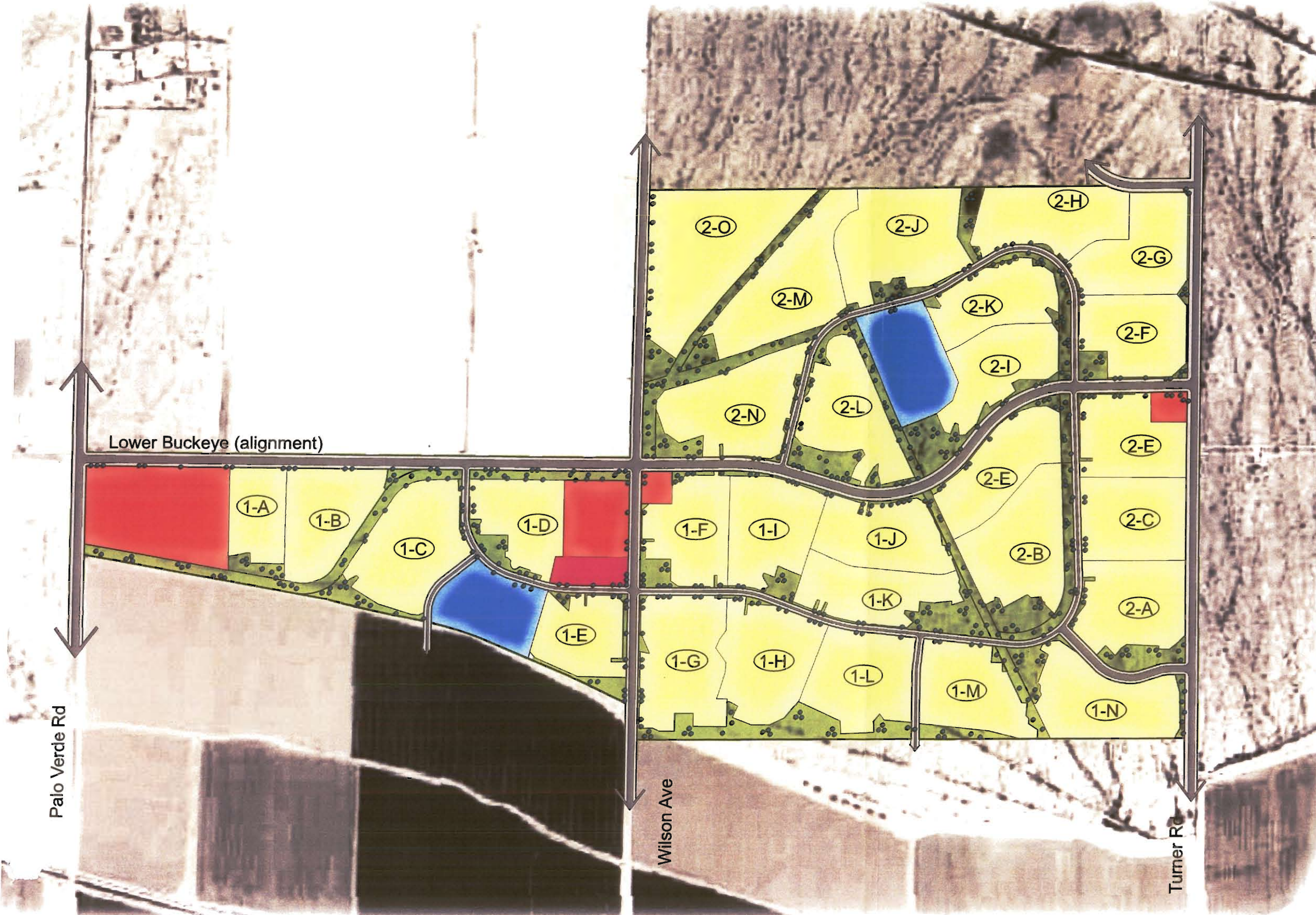
PLANNING ■ DESIGN ■ CONSTRUCTION






16605 NORTH 28th AVENUE, SUITE 100
PHOENIX, ARIZONA 85053-7550
602.467.2200 ■ FAX 602.467.2201 ■ www.RBF.com

WESTWIND
STREET CROSS SECTIONS

Westwind

Conceptual Land Use Plan



-  Residential
-  School
-  Commercial
-  Fire Station (conceptual location)
-  Open Space

West Wind Landuse Table	Acres	Target Density	Units
Residential*	687		2,987
School	32		
Public Fac.	5		
Subtotal	724	4.12 DUA **	
Commercial	39		
Arterial R.O.W.	44		
Total	807	3.70 DUA Gross	2,987

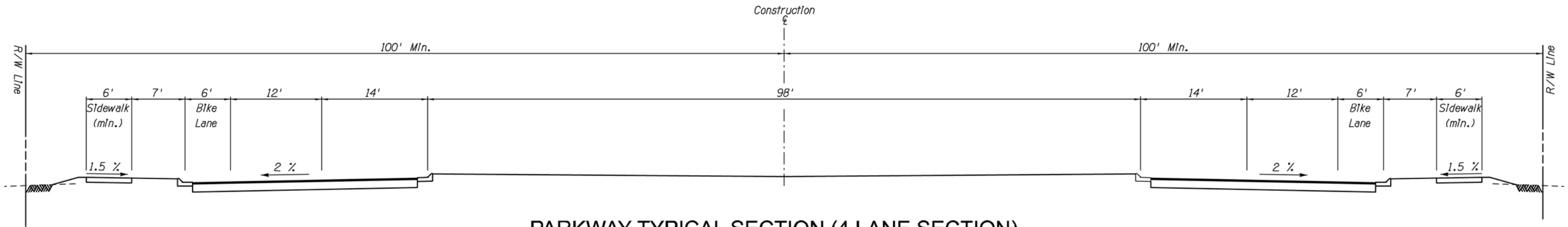
*Includes min. total parcel open space of 121 acres
 **Net density per Town of Buckeye ordinance. Excludes commercial parcels & arterial R.O.W.



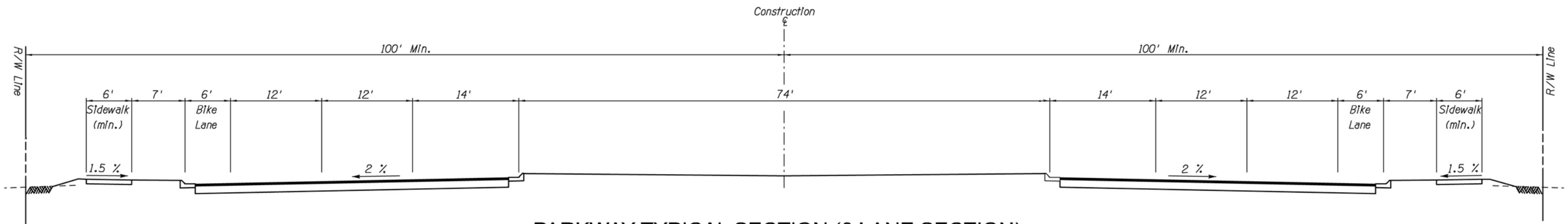


APPENDIX TM1-03

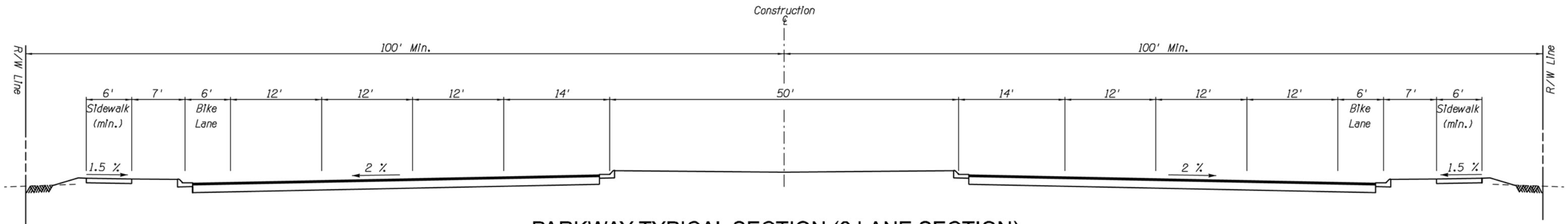
ARIZONA PARKWAY DETAILED INFORMATION



PARKWAY TYPICAL SECTION (4 LANE SECTION)

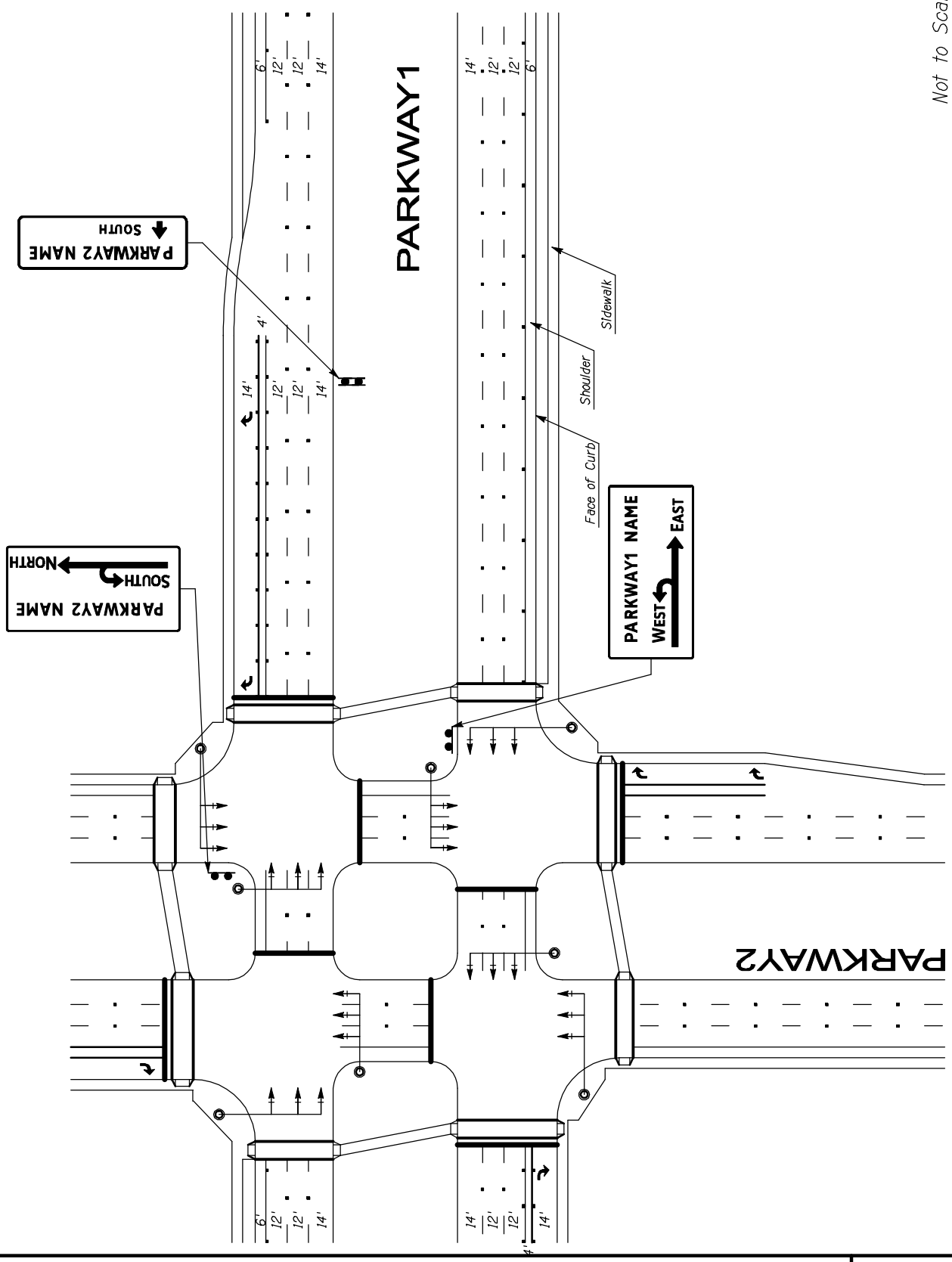


PARKWAY TYPICAL SECTION (6 LANE SECTION)



PARKWAY TYPICAL SECTION (8 LANE SECTION)

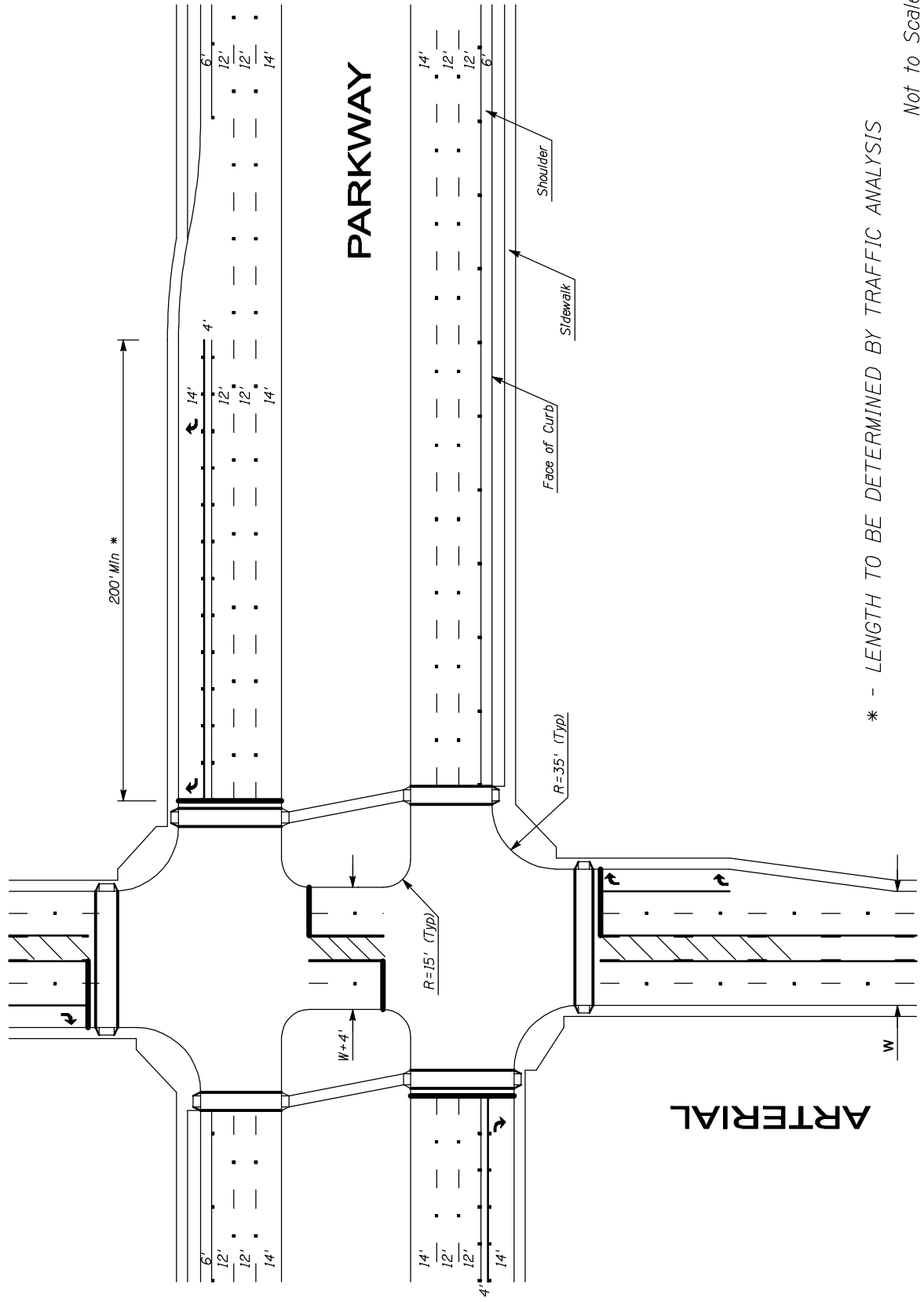
Notes:
When curb is present, dimensions are to face of curb



Not to Scale

FIGURE 18 - TYPICAL PARKWAY INTERSECTION

DESIGN FILE: nt\60040833\Prod\civ\Rep\Int\03.dgn



* - LENGTH TO BE DETERMINED BY TRAFFIC ANALYSIS

Not to Scale

GEOMETRICS FOR TYPICAL PARKWAY / ARTERIAL INTERSECTION

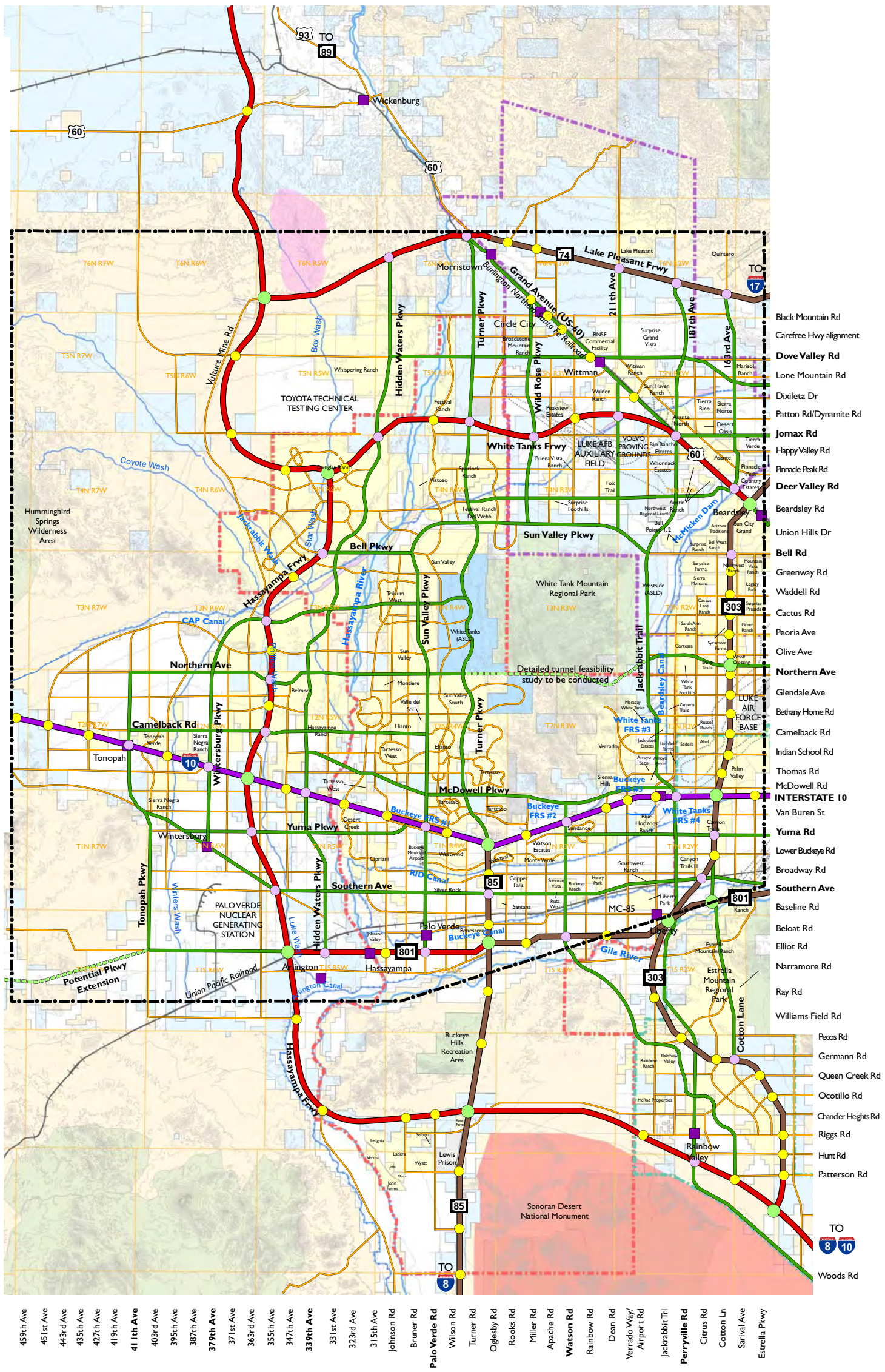
DATE: 08/08

SHEET NO: S-2



APPENDIX TM1-04

MAG FRAMEWORK STUDY DATA



TRANSPORTATION FRAMEWORK RECOMMENDATION

Legend

- Study Area Boundary
- Railroads
- Roads
- ~ Rivers/Washes
- ~ Canals
- Unincorporated Communities
- Township/Range
- Noise Contours
- Topography (100' contours)
- Proposed Service Traffic Interchanges
- Proposed Parkway Traffic Interchanges
- Proposed System Interchanges
- Planned Developments
- BLM Raptor Protection Zone
- State Land Development Master Plan
- National Monument
- Wilderness Area
- Land Ownership: BLM
- State Land
- Regional Parks
- Military
- Bureau of Reclamation
- Buckeye
- Glendale
- Goodyear
- Surprise

Proposed Roadway Network

- Improvements to Existing Freeways
- Future Regional Transportation Plan (RTP) Freeways (Prop 400)
- New Freeway Proposals
- New Parkway Proposals
- New Parkway Alternatives
- Future Major Arterial Network

Notes

While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

General alignments for new freeway, highway, arterial, and bridge facilities will be determined following the completion of appropriate design and environmental studies.

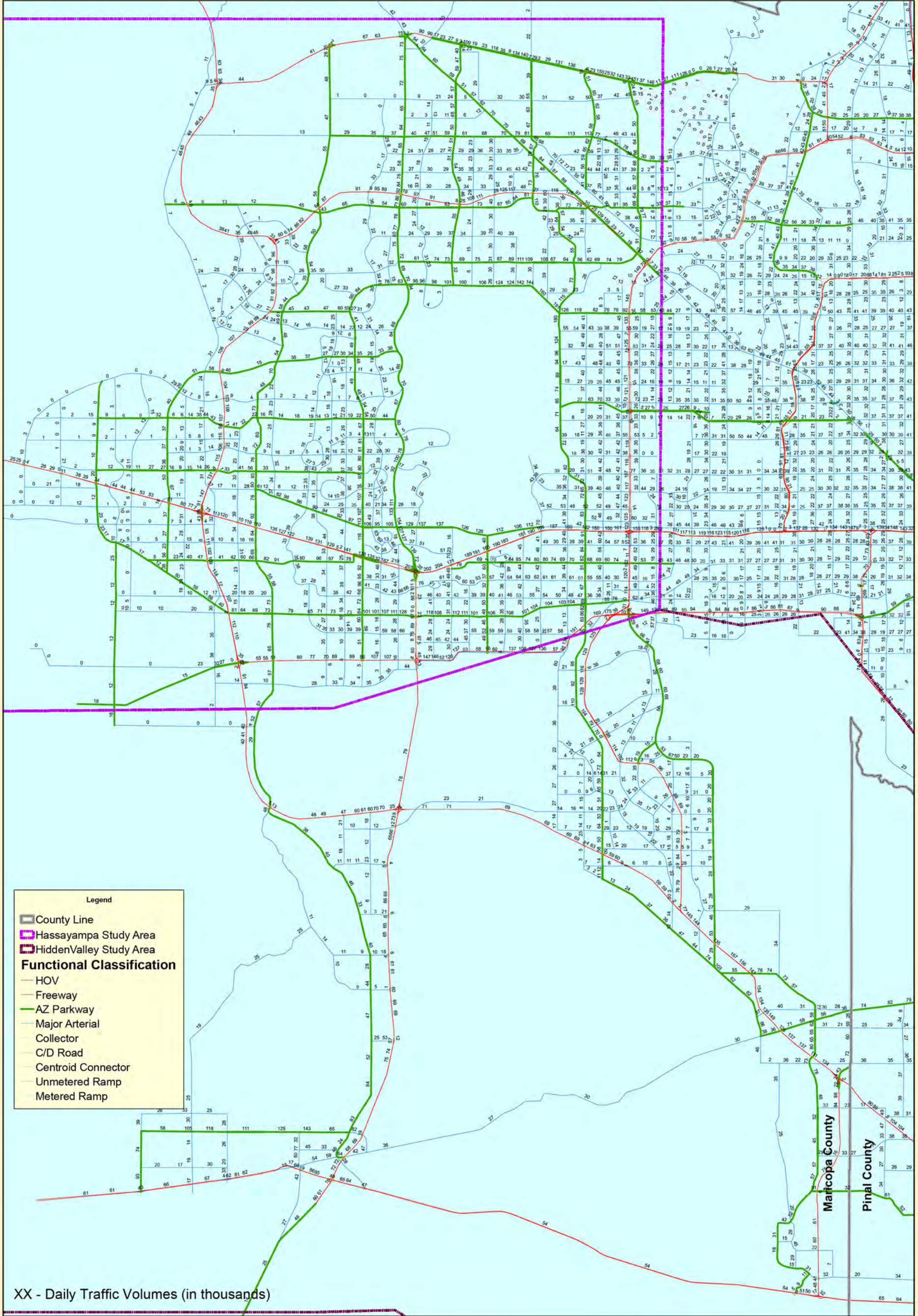
Locations of proposed freeway interchanges and the use of parallel roads connecting to freeways are preliminary and subject to review and approval of the FHWA and ADOT.

Arterial river crossings are conceptual to demonstrate the number of crossing needed to support development. Final locations and number will be determined in engineering and water resource studies.

Locations of proposed roadway facilities south of the study area are subject to refinement in the I-8 and I-10/Hidden Valley Roadway Framework Study to be completed in 2008, and roadways north to be planned in the New River Roadway Framework Study, schedule to be determined.

Olive Avenue traffic interchange on SR-303L to be a half-diamond.

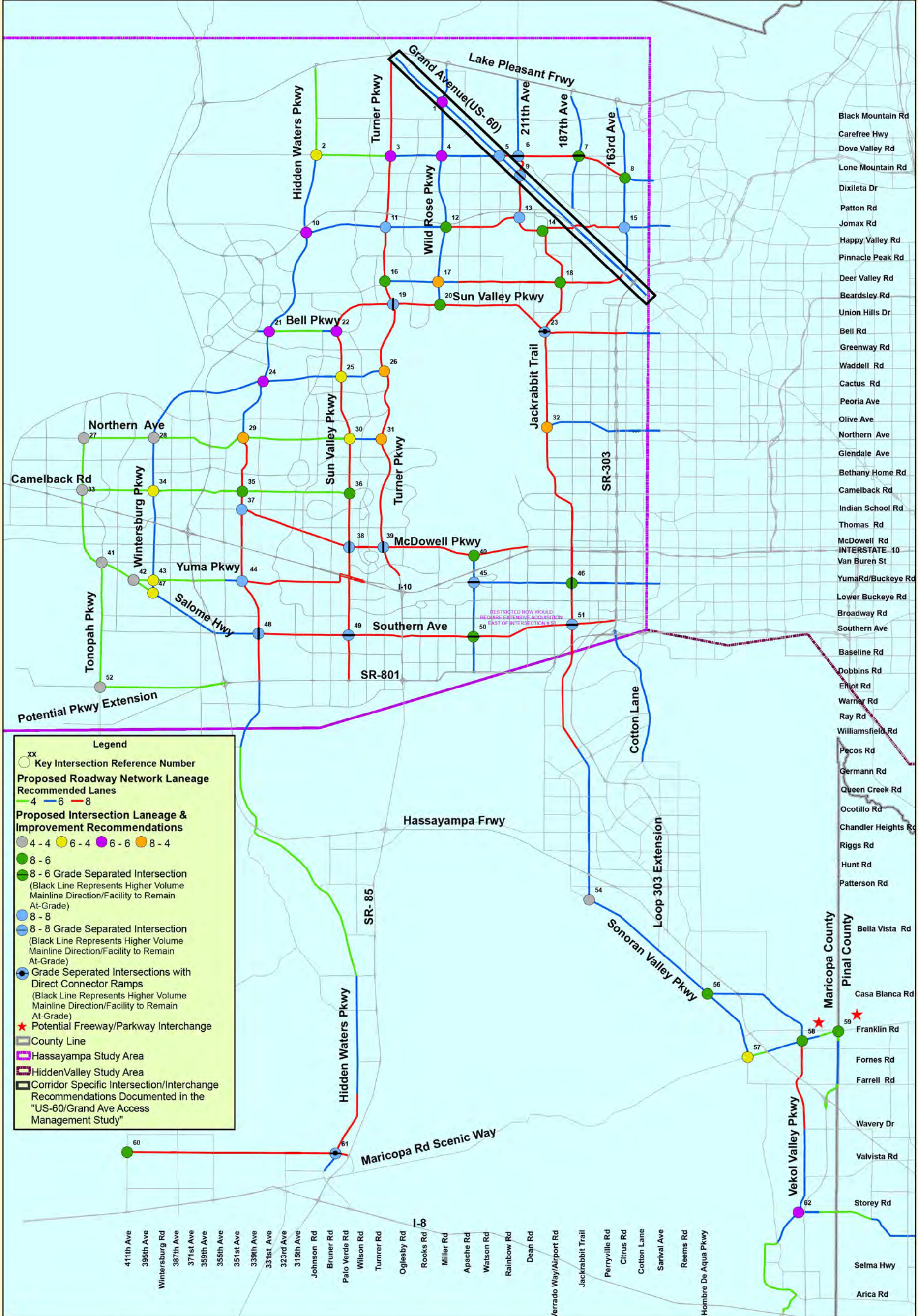
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Data Source:
 Maricopa Association of Governments,
 Hidden Valley Buildout 24-Hour Volume
 Forecasts, and Hassayampa Valley Buildout
 24-Hour Volume Forecasts,
 Dated: September 30, 2008.
 Prepared by: Wilson & Company,
 Dated: 06/02/2009

MAG Buildout Traffic Projections I-10/Hassayampa Valley Framework Study I-10/Hidden Valley Framework Study





Legend

- xx Key Intersection Reference Number
- Proposed Roadway Network Laneage**
- Recommended Lanes: 4 (green), 6 (blue), 8 (red)
- Proposed Intersection Laneage & Improvement Recommendations**
- 4 - 4 (grey circle)
- 6 - 4 (yellow circle)
- 6 - 6 (purple circle)
- 8 - 4 (orange circle)
- 8 - 6 (green circle)
- 8 - 6 Grade Separated Intersection (Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- 8 - 8 (blue circle)
- 8 - 8 Grade Separated Intersection (Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- Grade Separated Intersections with Direct Connector Ramps (Black Line Represents Higher Volume Mainline Direction/Facility to Remain At-Grade)
- Potential Freeway/Parkway Interchange (Red star)
- County Line (Dashed line)
- Hassayampa Study Area (Purple outline)
- HiddenValley Study Area (Red outline)
- Corridor Specific Intersection/Interchange Recommendations Documented in the "US-60/Grand Ave Access Management Study" (Thick black line)

Prepared by:
Wilson & Company,
Dated: 06/02/2009

Proposed Laneage for Arizona Parkway Segments & Intersection/Interchange Improvement Recommendations

N
0 2 4 6 8 Miles

BUILD OUT TRAVEL DEMAND VOLUMES

Interstate 10/Hassayama Valley Roadway Framework Study

August 2008

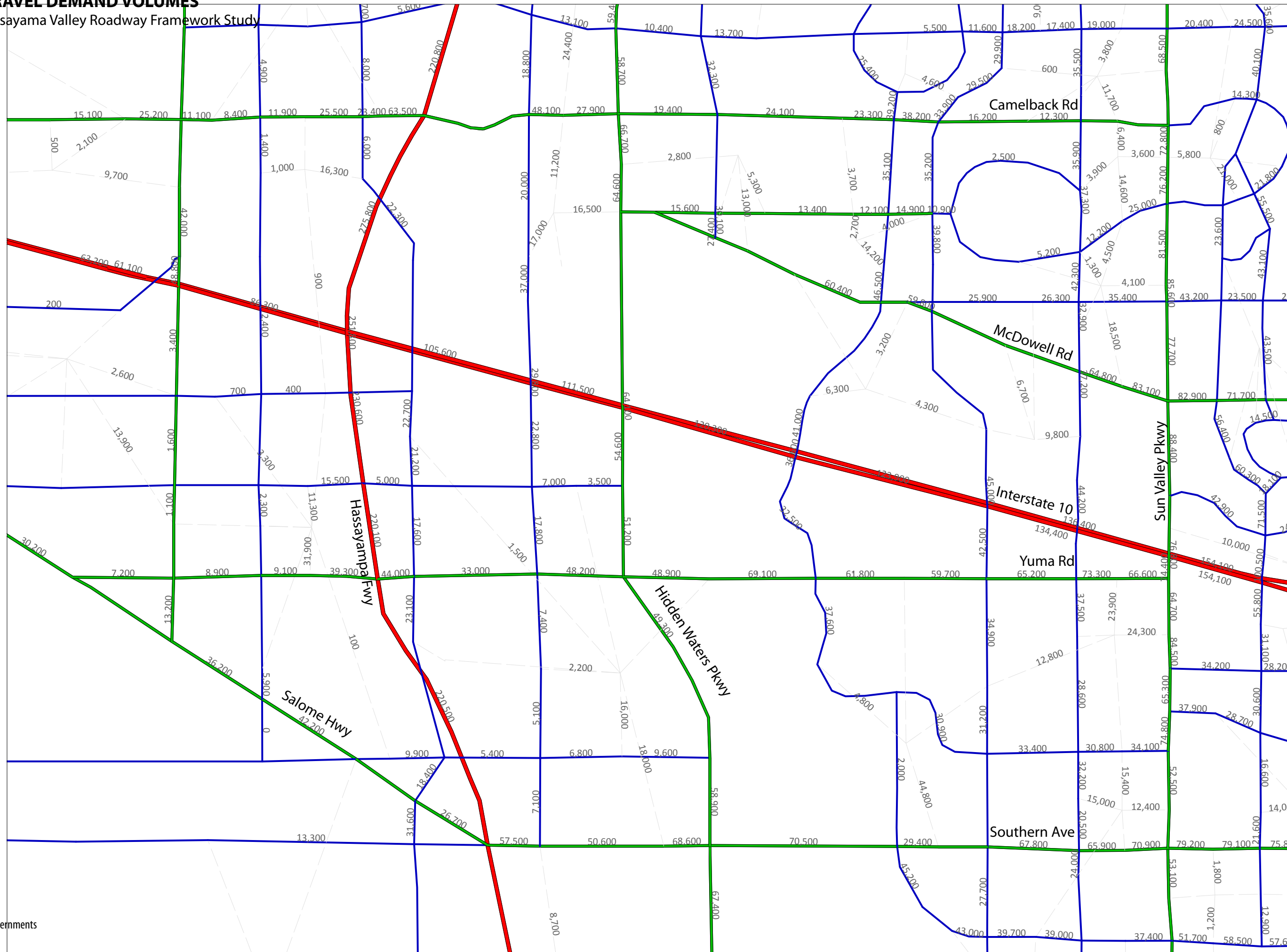


Figure 2.3
Recommended Number of Lanes for Buildout Parkway Network

