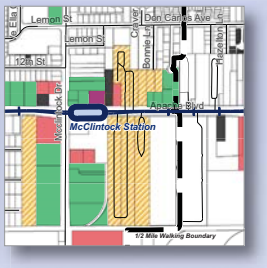

Apache Boulevard Station Area Plans

Public Review Draft

Prepared for

City of Tempe, Arizona

Prepared by

Community Design + Architecture

HDR|SR Beard & Associates

Economic & Planning Systems

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Introduction

This document contains station area plans for the four Valley Metro light rail (LRT) stations on Apache Boulevard in the City of Tempe: Dorsey, McClintock, Smith-Martin, and Price Freeway Station, (refer to Figure 1: Valley Metro Light Rail and Apache Boulevard Project Context).

The City of Tempe is committed to serving pedestrians and has adopted a Transportation Overlay District to promote walking and other non-auto modes of transportation in areas served by light rail. When adopting the Transportation Overlay District, City of Tempe officials recognized that detail was lacking from the ordinance, including specifics such as appropriate land uses surrounding each station, and design and development guidelines to enhance the pedestrian environment and encourage transit ridership for the light rail transit system. According to the Transportation Overlay District in the Zoning and Development Code: "The station area plans shall define other design standards determined necessary to achieve a specific character for an area. The Station Area Planning Process can also evaluate the need for expanded TOD boundaries and/or creating pedestrian linkages along streets as needed." These station area plans are designed to provide that implementation assistance by providing design guidance for public and private investment near light rail.

Apache Boulevard's unique set of issues include affordable housing, retention of local businesses, application of Transit-Oriented Development (TOD)-supportive development concepts, improving the pedestrian environment, and integrating the community vision. This study will guide the City of Tempe in planning for public and private investment along and near the light rail on Apache Boulevard. These plans will also assist the City in implementing the tools that will make safe, secure, comfortable, and attractive multi-modal environments.

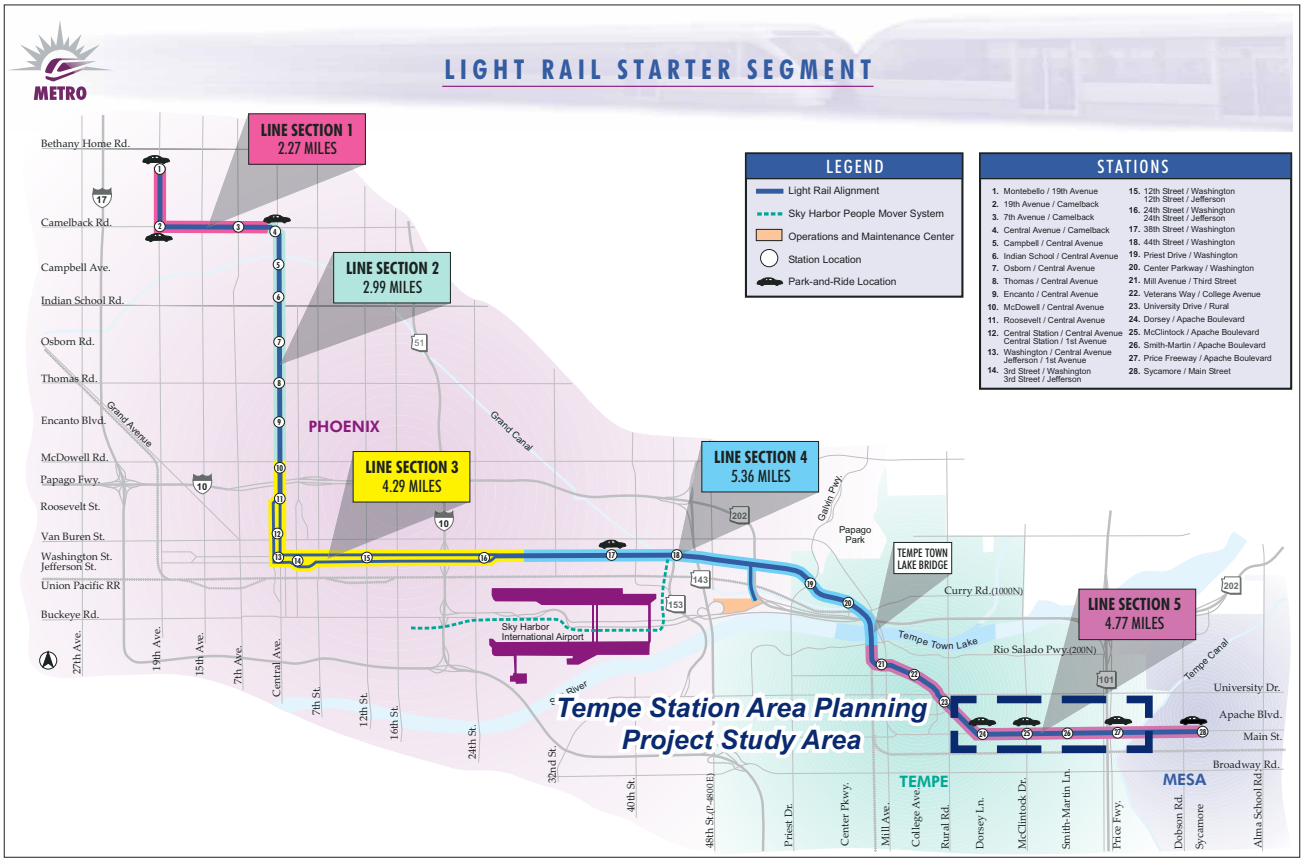

Figure 1: Valley Metro Light Rail and Apache Boulevard Project Context (Valley Metro)

Format of This Document

This document begins with a description of Transit-Oriented Development and continues with a discussion of the community's vision for Apache Boulevard, including desired urban form and uses, placemaking and thematic elements, the role of parking, building height and neighborhood integration, transportation linkages, open space, the importance of retaining local businesses, and the need for affordable and diverse housing. Corridor-wide issues that affect all Apache Boulevard stations are then described, followed by station area plans for each of the four stations along Apache Boulevard: Dorsey, McClintock, Smith-Martin and Price Freeway. The Implementation section discusses specific policy tools and revenue sources that can be used to implement the recommendations. Appendices provide additional detail on the outreach process and a recommended plant palette for the Apache Boulevard corridor.

What Is Transit-Oriented Development?

A walkable, transit-oriented environment

Transit-Oriented Development (TOD) integrates land use and transportation by developing areas near transit stations that help encourage transit ridership. Elements of transit-oriented development include human-scaled elements, varied land uses, and transit-supportive densities.

Human-scaled elements help ensure the comfort of people in the urban environment, including transit riders as well as area residents, employees and visitors. Human-scaled development is designed for pedestrians and allows retail patrons to walk between shops, transit riders to walk to destinations, and neighbors to walk to local services. Buildings are oriented to the street and the role of parking is minimized, with parking placed at the rear or side of buildings rather than in front of buildings. Other elements of a walkable environment are described in the corridor-wide issues section of this report as well as the station area plans.

Varied land use refers to different uses placed within walking distance of one another or mixed within the same building, such as ground-level retail with residential above. The variety of land use depends on market conditions and support. Varied land use also includes higher density residential uses. Providing varied land uses within walking distance of each other allows residents

and workers to walk rather than drive a car for daily errands. Varied land uses also support transit ridership by creating a mix of origins and destinations along the line.

A range of housing types and price points is desirable in a TOD. Most TODs include market-rate housing to capitalize on the value added by nearby transit. Locating affordable housing near transit infrastructure, such as light rail, has complementary community benefits: access to high-quality transit decreases auto ownership costs, and lower-income households are more likely to use transit, thereby increasing transit ridership.

TODs also have site and building elements that cater to pedestrians, including the avoidance of blank walls and orienting doors and windows to the street. Many of these elements are addressed in Tempe's Transportation Overlay District ordinance.

Multifamily housing

Defining Light Rail Station Areas

The addition of LRT along Apache Boulevard in Tempe creates a major opportunity to catalyze redevelopment and revitalization along this corridor, which includes the uses fronting directly onto the street as well as the surrounding neighborhoods.

To fully understand the study area, it is important to discuss the station areas at varying degrees of scale. For instance, when discussing economic trends or circulation, looking at a larger area will better address the context. For urban design and development guidance purposes, it is more useful to narrow discussions to specific parcels and blocks. The broader project study area used to assess development trends and socioeconomic conditions for these plans includes the Apache Boulevard corridor and the areas a half-mile to the north and south (roughly between Broadway and University Boulevards), from Rural Road to the Tempe municipal boundary at the Tempe Canal.

Within this broad area, individual station areas can be defined a number of ways. The City of Tempe's Transportation Overlay District zone includes parcels that are within a 1,950-foot walking distance from a station, but it also defines Station Areas (where certain additional development standards apply) as the parcels whose street frontage is within an 800-foot walking distance of the station, measured along public streets with the exception of single family residential within historic districts (refer to Figure 2: Light Rail Station Areas). These shorter walking distances take into account the extreme temperatures of the Phoenix region, which can make long walks uncomfortable during the summer

months, but it is also worthwhile to consider the potential for walk trips from at least a half-mile away from stations, given the region's milder temperatures at many times of year.

The half-mile walking distance boundary used to define station catchment areas in this analysis is based on a national standard for the distance that most people will walk to a rail station. While the half-mile maximum walking distance to rail has long been a rule of thumb among planners, recent research has found that nationally, roughly half of all walking trips to rail stations are *longer* than a half mile.[1] Bicycle trips to rail are often two miles or more in length. The Transportation Section of each station area plan examines potential connections from designated Tempe bikeways to the LRT stations.

The four station platforms along Apache Boulevard are spaced approximately every half-mile, resulting in considerable overlap of the half-mile walking boundaries. To facilitate analysis, station catchment areas in this analysis have been defined as non-overlapping; parcels within a half-mile of two stations were generally assigned to the closest station, with consideration of likely walking routes.

Opportunities do exist beyond these boundaries, and there is a need to stabilize, revitalize, and connect many of the neighborhoods beyond the immediate station vicinity. Limiting discussions to the walkable boundary does not suggest that abrupt changes or characters in land use or building and landscape detail should occur at any study boundaries. A gradual transition and acknowledgement of adjacent areas should ensure that positive development (improvements in resources, community character, building quality, land values, retail activity, open space enhancements, etc.) is not restricted to the station areas of this analysis.

[1] Mineta Transportation Institute. "How Far, By Which Route, And Why? A Spatial Analysis Of Pedestrian Preference," MTI Report No. 06-06, San Jose, CA, 2007. The median walking distance to rail transit was 0.47 miles, meaning that half of all walk trips were longer than 0.47 miles.

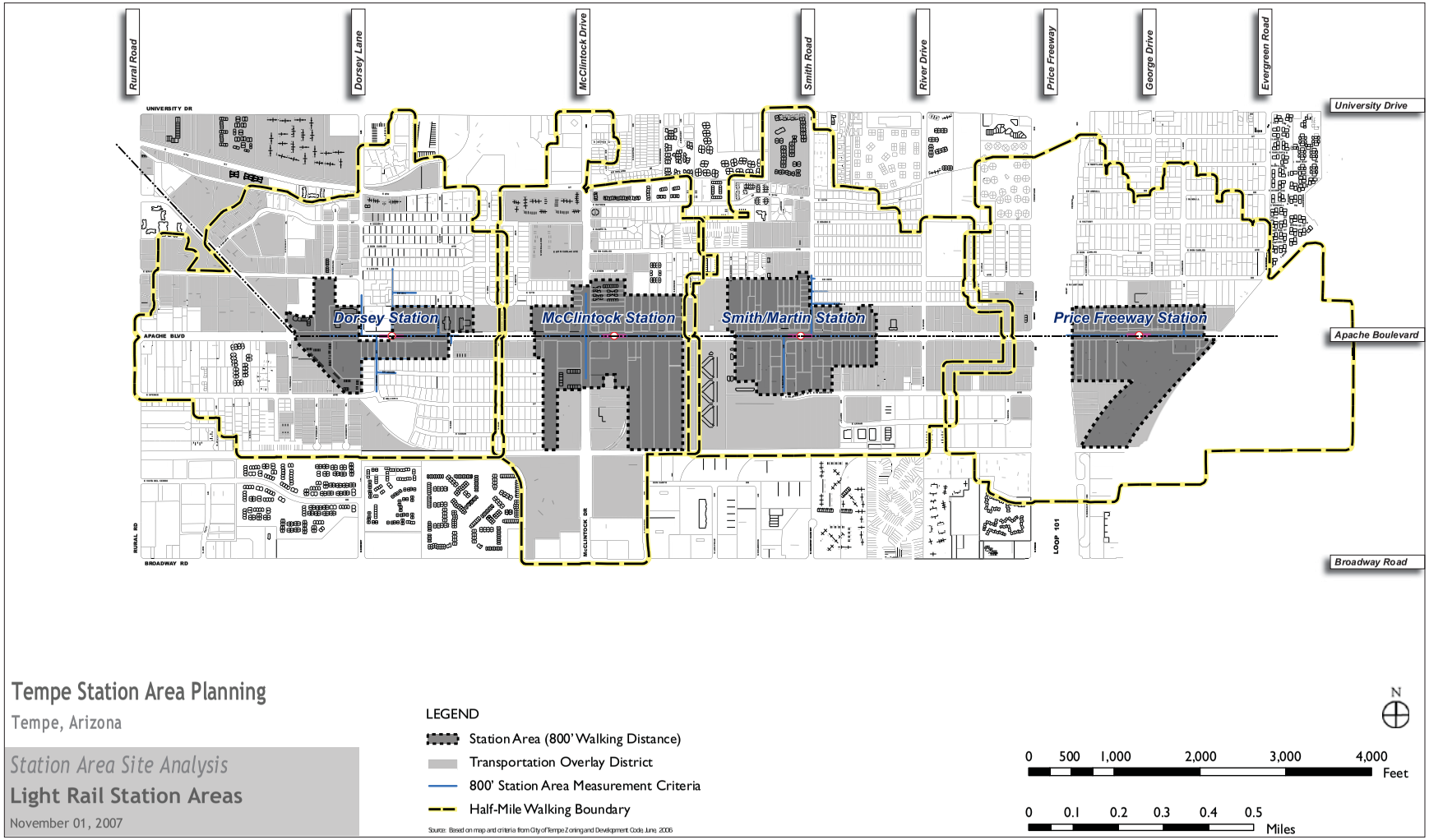

Figure 2: Light Rail Station Areas

Community Outreach

October 27, 2007 Design Charrette

Community outreach for the station area planning process included a community workshop and a multi-day design charrette. In addition, outreach to area merchants and residents for the station area planning was coordinated with Valley Metro's ongoing outreach related to the LRT construction project.

Appendix A contains memos summarizing the results of the community outreach process.

Public Workshop

On June 5, 2007, a public workshop was held at the Tempe Police Substation on Apache Boulevard. Consultant team members and city staff hosted 35 participants, including representatives from the Tempe Chamber of Commerce, Arizona State University (ASU), Apache Boulevard Project Area Committee (APAC), and many local citizens. Following opening remarks and a presentation by the consultant about the Station Area Planning effort, a question, answer and comment session was held.

Key insights gained from the workshop include a concern about local housing affordability and the status of mobile home parks in light of rising land values. Concern was also voiced over safety and access for pedestrians and bicyclists, as well as vehicles around the LRT tracks, stations and crossings. Neighborhood

residents inquired about policy and enforcement to deal with an anticipated increase in parking, particularly by ASU students, on neighborhood streets.

Participants also expressed the importance of respecting local physical and cultural contexts during redevelopment, such as stepping back taller buildings, and maintaining local businesses. Some participants perceived an increase in crime attributed to construction activity that they felt could be addressed through Crime Prevention Through Environmental Design (CPTED) "Eyes on the Street" techniques in urban and architectural design following LRT completion.

Design Charrette

Between October 24-27, 2007, several Station Area Planning events, building upon the June 5th public workshop, were held at the Tempe Police Substation. These events began with a public open house and a series of stakeholder meetings with members of APAC, developers, City economic, housing, and engineering staff, and local business representatives. Culminating in a Saturday morning public design workshop, these events sought to identify and probe deeper into key issues of the Station Area Planning process. These sessions were collectively attended by 53 participants, including members of the City of Tempe Development Review Commission and local citizens, in addition to those stakeholder groups mentioned above.

Participants echoed many sentiments from the June 5th workshop, including a desire to retain local businesses and respect existing neighborhoods. New development was typically welcomed and viewed as an opportunity to strengthen the local business climate and enhance the pedestrian realm.

The effect of current base zoning and overlay district provisions on allowable building heights, density, and parking requirements was discussed and explored through 3D visualizations (refer to Figure 3: 3D Model Visualizations). The consultant team prepared 3D massing models illustrating the allowable building heights under the base zoning and TOD overlay. The pattern of building heights allowable under current regulations does not reflect community desire for taller buildings near LRT stations and lower building heights in between; rather, allowable heights vary according to the base zoning. Although the vision for the entire corridor is for mixed use development along Apache Boulevard, the current height provisions allow taller buildings for properties with residential base zoning than for properties with commercial base zoning. The 3D visualizations

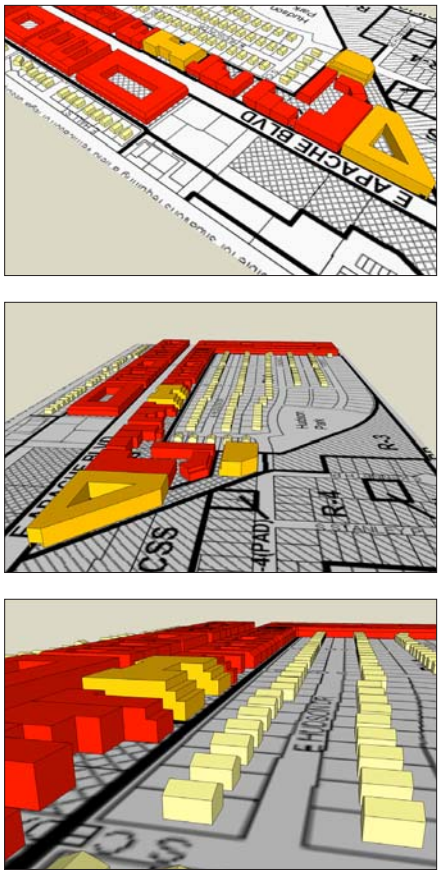

Figure 3: 3D Model Visualizations illustrate the challenges zoning height restrictions create for shallow parcels along Apache Boulevard, adjacent to single family housing districts.

also explored the effect of the TOD overlay's open space and stepback provisions for properties adjacent to single-family residential areas, which have the effect of making taller buildings more difficult to construct on the shallower properties fronting Apache Boulevard (particularly on the south side of Apache Boulevard between Cedar Street and McClintock Drive, where the typical property depth is only 200 feet).

Participants suggested the need for improved access and streetscape amenities along Apache Boulevard and between neighborhoods and such area destinations as LRT stations, parks, and ASU. Using maps and illustrative graphics, participants discussed improving access through a combination of proposed multi-use paths, pedestrian amenities, and new streets. As a barrier to access for southern neighborhoods, the Union Pacific Railroad prompted discussion about possible new grade-separated rail crossings and improvements to the McClintock underpass.

Community Vision

The community vision for Apache Boulevard is a codified in the *Tempe General Plan* 2030, the Apache Boulevard Specific Area Redevelopment Plan (1997), and other city policies and guiding documents including the Zoning and Development Code. The community vision for Apache Boulevard has been clarified through the decades of work by members of the Apache Boulevard Project Area Committee and confirmed through the public outreach process for the Apache Boulevard Station Area Plan.

An urban, multi-modal boulevard

Light rail is seen as an impetus for reinvestment along Apache Boulevard to enhance the quality of life for those living and working in the area. The community vision includes the following key aspects:

- **Urban form.** Apache Boulevard should be an urban, multi-modal boulevard with attractive mixed use buildings lining both sides of the street, an abundance of shade and planting, and details such as window boxes and balconies to create a vibrant image.

- **Land uses.** Mixed use projects are desired with ground level retail, interesting restaurants, residential units and other uses that create an active and interesting pedestrian

Pedestrian-oriented environment

Transportation linkages

environment. More grocery stores are needed, and small office space is also desired. Businesses that complement the nearby residential areas are also desired. Revitalization and enhancement of existing structures is an important part of enhancing the image of Apache Boulevard.

- **Placemaking and thematic elements.** Enhancing the visual attractiveness and aesthetics of Apache Boulevard through landscaping, attractive development, public art, and pedestrian-oriented spaces is important.

- **Role of parking.** The 1997 Plan noted that shared parking should be encouraged and the majority of available parking for businesses should be placed either behind the business or underground to enhance the pedestrian environment. This station area planning effort revealed that commercial parking standards make office development difficult and residential parking standards could also be relaxed. In addition, "unbundling" residential parking from unit cost would help affordability.

- **Building height and neighborhood integration.** Transit-oriented development clustered around station areas is important. There is a desire for varied building heights; they should be higher near stations and lower in between stations. Building heights should be lower near single-family residential areas. Varied building heights will create visual interest along the Boulevard and permit a range of building types and construction techniques that are economically viable in the corridor.

- **General Plan and zoning.** The community vision which is codified in the General Plan, the Apache Boulevard Plan and other policies and codes is not reflected in the existing zoning within the station areas. Ninety-one percent of the properties adjacent to Apache Blvd. and Terrace Road are currently zoned Commercial Shopping and Services (CSS), with the balance consisting of a mixture of Residential, Trailer Park and General Industrial. The General Plan states that mixed use is the projected land use along Apache Boulevard and portions of Terrace Road. To fully realize the community vision and comply with the General Plan, the properties will require rezoning.

- **Transportation linkages.** Transportation linkages are important to provide access from adjacent neighborhoods to businesses along Apache Boulevard. The ability to walk and bicycle from neighborhoods to LRT stations, schools, parks, and shopping opportunities is important. Key pedestrian

access routes from neighborhoods to Apache Boulevard need improvements such as wider sidewalks, pedestrian-scale lighting, additional landscaping, enhanced crosswalks and amenities. The Union Pacific Railroad has created an obstacle south of Apache Boulevard and some cul-de-sac streets also create connectivity challenges.

- **Open space.** Open space is a valuable community asset that needs to be enhanced with the additional of new shared paths, pedestrian plazas, and outdoor uses such as dining.

- **Importance of retaining local businesses.** The existing businesses have provided needed services to the area and are an important part of the community. The business owners will have an opportunity to continue to play an important role in the community in the future as properties redevelop and new development occurs within the station areas. As development occurs, the City should work with developers to encourage the provision of leasable spaces that meet the needs of local businesses and work with local businesses to identify suitable spaces for relocation.

- **Affordable and diverse housing.** Affordable and diverse housing is an important need that was identified by the community. Housing is the largest single cost for most Americans, followed by transportation. Transit-Oriented Development and affordable housing share a synergy that is created by providing an alternative means of transportation, which reduces the need for individuals and families to own additional vehicles, which in turn reduces the amount of parking that would be needed in new developments, thereby further reducing development costs. The ability to combine the transportation alternatives with the reduced cost of development increases transit ridership and provides a more affordable lifestyle for many households.

Open space

Importance of local businesses

Housing diversity

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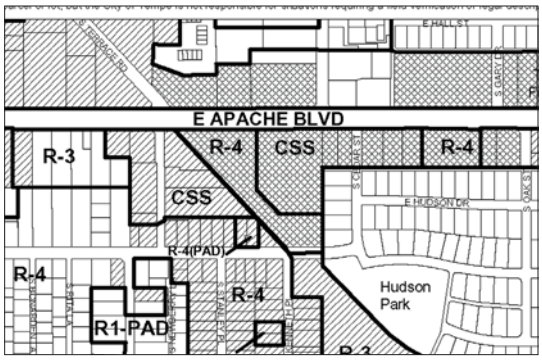
Corridor-Wide Issues

Zoning

In order for the community vision to be fully realized, with transit-oriented development of varying heights, densities and uses that is supportive and respectful of the single family neighborhoods, properties in the corridor will require rezoning prior to reinvestment and redevelopment.

The existing base zoning for properties adjacent to Apache Boulevard includes CSS (Commercial Shopping and Services), Multi-family Residential, Trailer Park and General Industrial. The vast majority of the properties, 91 percent, are currently zoned CSS, which is a holdover from when Apache Boulevard was designated as a state highway and acted as the community's primary commercial corridor. The CSS development standards allow for a maximum building height of 35 feet and, if a use permit is granted, 20 residential units per acre. While many existing uses will continue to remain viable under the current zoning, the CSS zoning category does not allow for the height or densities needed for future development to achieve the community vision.



Base zoning

Pedestrian-oriented environment

The City implemented a Transportation Overlay District (TOD) for the LRT corridor to provide alternative standards for the City's base zoning categories, making them more transit-supportive and pedestrian-oriented. The TOD's purpose as stated "is to encourage appropriate land development and redevelopment that is consistent with and complementary to the community's focused investment in transit, bicycle and pedestrian infrastructure in certain geographic areas of the City." The TOD lists several specific objectives, one of which is to "[e]ncourage a mix of uses and balance of densities and intensities within identified activity areas accessible to alternative modes of transportation." As such, the TOD generally allows a 20 percent increase in height and density above the base zoning allowances and requires enhanced pedestrian amenities.

The General Plan and the Transportation Overlay District both attempted to bridge the gap between the current zoning and the community vision.

The City's General Plan includes both a Projected Land Use and a Projected Residential Density Map, The projected land use for the station areas reflects a Mixed use designation for residential and commercial uses. The General Plan also states that "[t]his category encourages creatively designed developments which create a living environment, reflective of a village concept, in which there is the opportunity to live, work and recreate in the same development or within the area. Basic criteria for development include reasonable scale to the surrounding neighborhood, encouragement of alternative modes of transportation (such as bicycling and walking) and a well-conceived plan with access to, and integration of, transit facilities." The General Plan Density Map shows a range of densities. In some cases, where properties lie adjacent to single family neighborhoods, the projected density is lower (less than 25 du/ac) to provide for lower scale development in response to neighborhood concerns regarding height, density and traffic impacts of future projects.

The densities of developments within Transit-Oriented Developments around the country vary widely, depending on the mode of transit, regional location and access, neighborhood context, and economic factors such as land values and the market demand for various types of housing. Using a national database of station areas, the Center for Transit-Oriented Development has developed a matrix of typical characteristics of different types of station areas. The Apache Boulevard station areas would most likely be classified as "urban neighborhoods"– station areas that are primarily higher-density residential with neighborhood-supported retail and office uses, have relatively frequent transit service, and a enjoy a moderate to good level of regional connectivity. Typical

residential project densities for new transit-oriented developments, according to CTOD, are 20 dwelling units per acre and higher in urban neighborhood station areas and 60 dwelling units per acre and higher in urban downtowns.

Transit-supportive environment

The area around Dorsey station has one of the highest residential densities in the State of Arizona, indicating robust demand for higher-density forms of housing near the ASU campus. Recent residential and mixed-use developments in the Apache Boulevard corridor have succeeded in the marketplace at urban, transit-supportive densities, including a townhouse development at about 20 du/ac and several high-density projects ranging from 40 to 85 dwelling units per acre. The LRT investment can be expected to extend the feasibility of this type of development to the other station areas, by increasing the corridor's accessibility to the campus and other job centers.

These Station Area Plans aim to establish appropriate heights and densities for development along Apache Boulevard and in the surrounding neighborhoods to conform to the community's vision. Neighborhood participants expressed concerns regarding the unlimited building heights and densities found in Tempe's MU-4 zoning, feeling that the lack of standards could be detrimental to the community vision and to the adjacent neighborhoods. Therefore, the General Plan provides a basis for the following recommended height and density limits in the station areas and along the LRT corridor, acknowledging the need to rezone property. Specifically:

- Station Areas not adjacent to single family neighborhoods:
  - Max Height - 60 feet
  - Max Density - 45 dwelling units per acre
  - Proposed Zoning - MU-3 (TOD), R-4 (TOD)

- Station Areas adjacent to single family neighborhoods:
  - Max Height – 50 feet
  - Max Density – 35 dwelling units per acre
  - Proposed Zoning MU-3 (TOD), R-4 (TOD)

- Corridor Areas not adjacent to single family neighborhoods:
  - Max Height – 60 feet
  - Max Density – 45 dwelling units per acre
  - Proposed Zoning MU-3 (TOD), R-4 (TOD).

- Corridor Areas adjacent to single family neighborhoods:
  - Max Height – 50 feet
  - Max Density – 35 dwelling units per acre
  - Proposed Zoning MU-3 (TOD), R-4 (TOD).

A density bonus above the listed densities may be supported if affordable housing is provided in accordance with the following section.

Affordable Housing/ Density Bonus

The creation and retention of housing that is affordable to average and lower income households in Tempe is a priority for the station area planning effort. Some of the future redevelopment along Apache Boulevard is likely to occur on land currently used for mobile homes and RV parks that provide low-cost housing to current Tempe residents. Moreover, much of the new residential construction occurring in Tempe in recent years has targeted higher-income households, leaving moderate and lower income households with fewer housing choices.

In recognition of the community benefit created through the provision of long-term affordable housing, the City should allow developers to achieve higher densities if they provide a minimum of 10 percent of the total housing units in their projects at "below market rate" (BMR) prices. Specifically, rental projects (whether single use or mixed use) could be eligible for a density of up to 75 dwelling units per acre by providing at least 10 percent of their units at prices affordable to households earning below 80 percent of the Area Median Income (AMI), and for-sale projects could also be granted up to 75 units per acre with 10 percent of the total units priced for households below 120 percent of AMI. For reference, the 2007 AMI in Tempe was $39,300 for a two-person household and $59,100 for a family of four, but these figures are reset each year.

To achieve these density bonuses – which should also allow taller buildings (up to 90-foot heights in areas not adjacent to single family neighborhoods and 70-foot heights adjacent to single family neighborhoods, with a step-back provision still required) – a developer would need to ensure that the BMR units would be available at restricted prices for at least 30 years. For rental properties, this compliance is ensured by monitoring the annual incomes of tenants in BMR units; in the event that a BMR tenant's income grows to exceed the targeted level, the next vacant unit in the development would need to be offered at BMR pricing. For ownership units, a deed restriction would be placed on the designated BMR unit prohibiting the buyer from reselling the unit at a price above the BMR target (adjusted for inflation) for a period of 30 years. While this approach limits the equity that buyers can build in their purchased units, it preserves the BMR unit in the housing stock for an extended period, ensuring that the community's grant of higher density to the project is exchanged for a long-term community benefit.

Direct rainwater to planted areas rather than storm sewers.

Plant native trees and shrubs to minimize extra irrigation.

It is important to note that developers and property owners will not be required to provide BMR housing in their projects as part of their *base* zoning, but that those who seek to capitalize on the financial advantages of density *beyond* their base zoning must meet this housing affordability goal. Additional details regarding the implementation process and compliance requirements for the density bonus and workforce housing initiatives will be provided in separate ordinances prepared by the City of Tempe.

Utilize pervious paving to allow stormwater to infiltrate on site, rather than flood property or create site run-off.

Stormwater Management

Arizona experiences heavy rainfall in storm events that occur during the summer monsoon season each year. These storms create high volumes of stormwater, particularly in urban areas such as Tempe, where much of the landscape is impervious. The high volume and rate of stormwater runoff can cause flooding and damage to personal property. Pollutants, including sediment, motor oils and heavy metals are washed into sewer systems and natural drainages, impairing water quality.

While storm events pose certain threats, Best Management Practices (BMPs) can be designed to recharge ground water reserves, improve water quality, decrease the amount of potable water used for irrigation, and create pleasant open spaces within cities. The goals of such BMPs should be to slow, spread, and infiltrate stormwater on site, before it enters a sewer or natural drainage. This can be accomplished by designing open spaces where stormwater can flow from the top of the site to the bottom, meandering through areas where organic matter—native plants and percolating soils—soak up moisture, slow the rate of flow, and minimize evaporation. Stormwater can also be collected in cisterns to be used for on site landscaping, or treated by filter and separator devices, before it is discharged. In all cases, regulations regarding the doctrine of prior appropriation must be carefully consulted when harvesting stormwater to ensure that the water rights of another entity are not violated.

Harvest rainwater for on-site use.

Streetscape Design

Sidewalk Design and Width

Sidewalks are not just thoroughfares for pedestrians; they are also important components of successful placemaking. Sidewalks are social spaces where people interact and walk together, so they must be wide enough to accommodate movement as well as amenities such as seating that facilitate social interaction. This

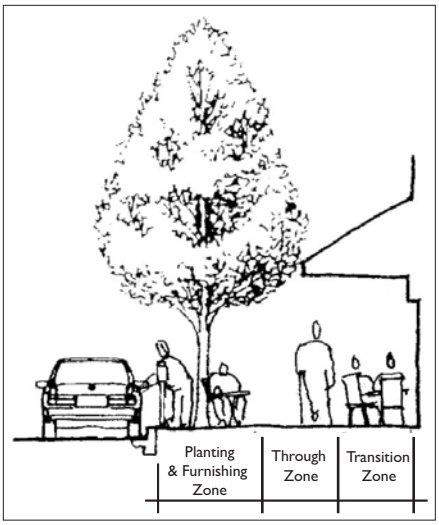


Figure 4: Sidewalk Zones

In urban areas, sidewalks become not just a space for walking, but also an environment for lingering, and therefore require generous width.

makes the sidewalk more comfortable and appealing, which can encourage uses that increase security by implementing principles of CPTED.

Good sidewalk design accommodates an edge zone to buffer pedestrians from street traffic, a furnishing zone for trees, signs, benches and other amenities, a throughway zone for pedestrian travel, and a frontage zone along building facades (refer to Figure 4). The width of these sidewalk zones varies according to the type of street they parallel. The throughway zone should be a minimum of eight feet wide as indicated in the Transportation Overlay District in the Zoning and Development Code, and free from obstructions such as light poles, landscaping, street furnishings and similar features. Where sidewalks must be narrower, it is important to minimize obstructions and maintain a consistent throughway zone.

Apache Boulevard requires ample sidewalks to accommodate the high level of foot traffic anticipated with the LRT and ongoing land development. A pedestrian realm of at least 14 feet, as required by the Transportation Overlay District, will provide a comfortable space for furnishings and shade trees, which are especially important on the southern edge of sidewalks on the north side of Apache. Such a width will also allow a good through zone and provide space for window shopping, shop signage, and café tables. Outdoor dining enlivens the pedestrian realm and should be encouraged where adjacent use and sidewalk width permits. In residential areas, sidewalks should be at least six feet wide. Sidewalks in residential areas that may have more pedestrians, such as those near parks, schools, or neighborhood centers, may need wider sidewalks.

Because pedestrians are directly responsible for their movement, they not only see but also feel every variation in grade and texture. Therefore, pathways should be designed accordingly with special attention to those with mobility problems. The surface of the pathway should remain continuous even at driveways. This signals to the drivers that it is they who are crossing the pedestrian realm and must yield accordingly. Curb cuts themselves should be consolidated where possible to minimize such potential conflict points.

General maintenance such as fixing potholes, sidewalk decay, damaged benches and other pedestrian amenities should be conducted regularly. Proper maintenance not only ensures physical safety, but also indicates a level of care which in turn improves a pedestrian's sense of security. Electrical and telephone boxes should be moved to the side of buildings where possible or placed underground. Where this is not possible, landscaping or ornamental fencing could be used to improve the appearance of these features and make them less noticeable.

Crosswalk and Intersection Design

Safe street crossings can transform a major corridor into a community "spine" rather than a "divider." The width of streets, the geometry of intersections, the timing of signalization, and the frequency of crossing opportunities all play important roles in achieving a pedestrian-friendly environment (refer to Figure 5).

Street crossing can be made safer by reducing the curb-to-curb distance across streets through the use of sidewalk bulb-outs. This technique extends the protected pedestrian realm into the street, giving pedestrians greater visibility and shorter crossing times. Bulb-outs also tighten curb radii, requiring cars to reduce their speed when turning, which further improves pedestrian safety. Bulb-outs typically work on streets that have on-street parking, so that a travel lane is not affected by the extension.

Center medians give pedestrians refuge, across especially long crossings.

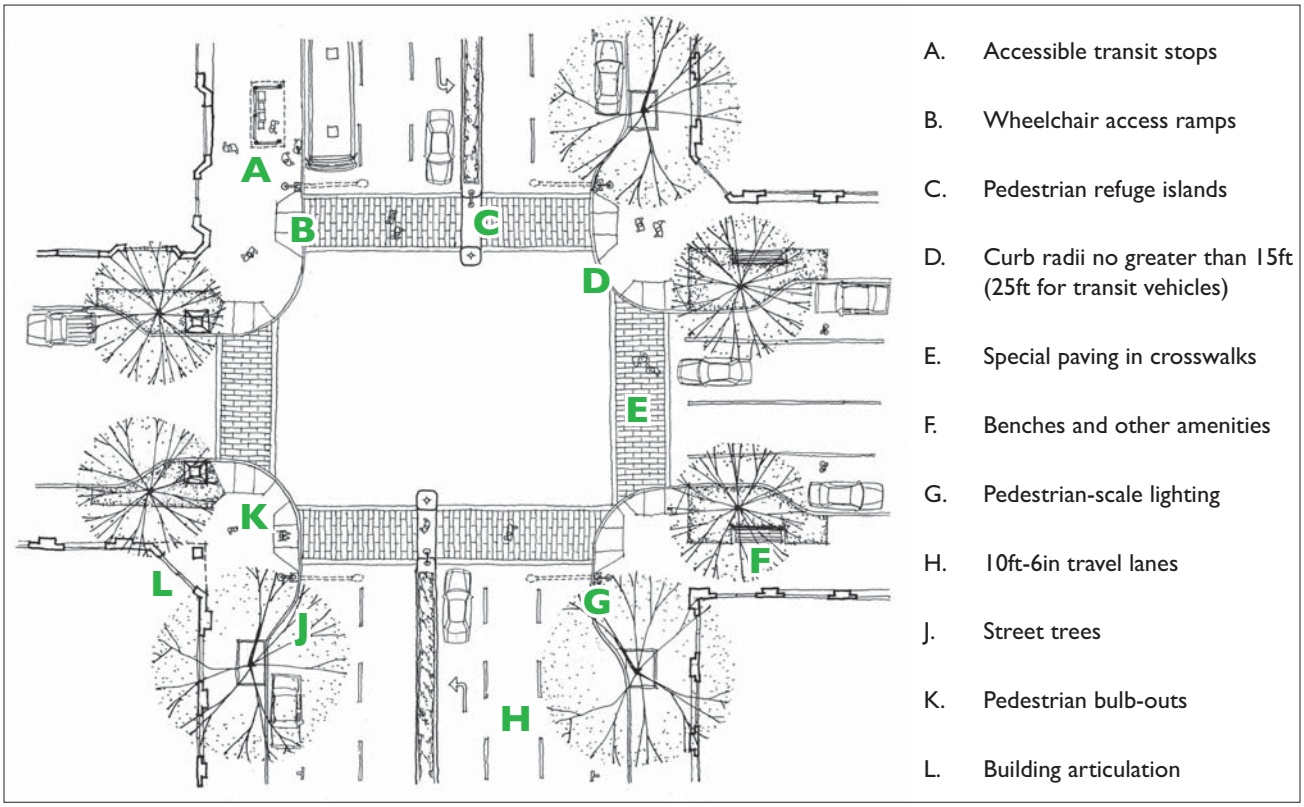


Figure 5: Components of a pedestrian-friendly intersection

A building entryway provides shade.

Along a commercial street, storefront awnings provide shade.

A trellis feature provides partial shade over a sidewalk.

Shading

Given Tempe's arid landscape and climate, adequate shading is critical to creating a transit-supportive and multi-modal pedestrian environment. Shade is a beneficial tool that the City of Tempe can use to support its commitment to pedestrians and promote choice of transportation. As part of the LRT project, shade structures have been built on the station platforms, but shading is also needed along station access routes. Zoning requirements for the Transportation Overlay District require that new development provide shade trees, awnings, or other means of shading public sidewalks to a minimum of 33 percent full shade and require that the shading project over the walkable surface at 3:00pm on the summer solstice. This requirement should be increased to require a minimum of 50 percent full shade.

Shading can be achieved through use of landscaping, exterior building design, and outdoor shade structures. Trees that are appropriate for pedestrian traffic areas, as well as for the natural climate and landscape, can be strategically planted at bus stop locations and intermittently along major pedestrian routes to provide respite and shade. Appropriate landscaping will also enhance the aesthetic quality of the sidewalk. Careful attention to tree canopy, size, type, required maintenance and placement will ensure adequate shading of sidewalks. Particularly on the north side of Apache Boulevard, trees should be located close to the curb in order to adequately shade the walkable surface.

Buildings can provide shade on the private property through architectural elements such as arcades, canopies, and awnings. Shaded public walkways on private property could potentially be counted towards the minimum shading zoning requirement, assuming adequate transitions between the public sidewalk and the private property. Care should be taken to place shade structure elements so that pillars or supports do not block the pedestrian throughway. On exposed sidewalks and at bus stops, outdoor shade structures such as trellises and overhead design elements will help protect pedestrians and also contribute to the aesthetic identity of the corridor. To maximize the shading protection of any of these methods, careful consideration needs to be applied to placement, direction, material, and other factors. Shadow studies should be used to verify the effectiveness of shading designs.

Landscaping

Landscaping can be used to create a buffer between pedestrians on the sidewalk and vehicle lanes, as well as to provide shade, color and visual interest. Landscaping also mitigates the visual impact of overhead LRT wires and can be used to build character.

All landscaping should be drought resistant and included on the Arizona Department of Water Resources and City of Tempe lists of acceptable plants. Plantings should include a variety of species with varying flowering cycles to provide a range of color throughout the year. Cacti and plants with thorns should be avoided on sidewalks and in areas accessible by pedestrians, although they may be appropriate in portions of medians where pedestrian traffic is not anticipated. A recommended plant palette is provided in Appendix B.

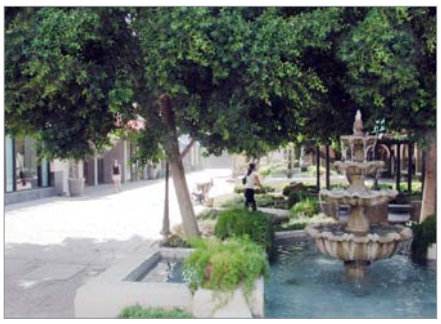
Trees should be pruned and maintained properly, as indicated in the Transportation Overlay District standards, to allow for effective shading without infringing on the right of way.

A freestanding structure provides shade in a plaza.

Trees provide shade over a sidewalk.

Outdoor Seating

Encouraging commercial uses such as restaurants, cafes, and retail to display or otherwise expand their activity on to exterior portions of their facilities greatly contributes to activating the public realm of the street. Achieving this might include placement of small tables and chairs outside restaurants, or display of retail goods along storefronts where adequate sidewalk and building frontage width allows. Activating the street frontage will enhance the quality and character of the pedestrian realm, supporting TOD and increasing safety by implementing CPTED. Where sidewalks and building frontages have sufficient space for placement of such activities, the pedestrian path of travel should also be carefully considered to limit conflict. Outdoor dining and seating should face onto the sidewalk and include adequate shading and protection. The building can also be designed to provide outdoor space, such as a small plaza or courtyard. These active frontages also give the sense of a more spacious pedestrian zone, while creating a subtle transition between public and private space.



Trees provide shade surrounding a small urban plaza.

Outdoor dining provides activity and more "eyes on the street."

Creating an enjoyable environment for pedestrians can include public art.

Pedestrian pass-throughs or accessways can accommodate dining and sales.

Plazas and Public Space

Public open spaces such as plazas, parks, and small landscaped areas are vitally important pieces of the pedestrian environment. They provide both visual interest to passers-by and public space where the community can gather, rest, and relax, becoming desirable walking destinations unto themselves. With some focused attention to design, public open spaces can elevate the quality of the pedestrian realm and the community's visual identity (refer to Figures 6 and 7). Size is secondary to the quality of the space; small, well-designed spaces can play a large role in building community. Design goals for public open spaces focus on making them visible, attractive, accessible and multi-generational.

When designing a park or open space, consider both its relationship to surrounding uses and whether it is formal or informal in character. According to CPTED principles, it is generally preferable to design edges to be visually permeable from surrounding buildings and public streets. Accessibility does not preclude parks or plazas from fronting directly onto a public or commercial building. In fact, this can create an active edge with cafes, displays, daycare facilities, or other interactive uses. Public open spaces can serve as a "front yard" to civic buildings that emphasizes the importance of the building and provides space for community gatherings. Visibility affords users a sense of safety, and can make the space more attractive to occupy. Studies have shown that users prefer a sense of prospect/refuge; they tend to situate themselves against something and maximize their view outward. The type and configuration of seating is a major determinant in the attractiveness of a park or plaza.

Wayfinding Signage

LRT riders and other pedestrians who may be unfamiliar with the area, as well as bicyclists, would benefit greatly from the provision of wayfinding signage. This type of signage would be installed in the public right-of-way along key pedestrian and bicycle routes and would indicate the direction and distance to LRT stations as well as other important neighborhood destinations, such as parks and schools. Bicycle route and destination signage should comply with Tempe's citywide standards, while pedestrian wayfinding signage could be designed to complement the orientation signs installed on the LRT platforms.

Sidewalk Amenities

The placement of pedestrian amenities such as trash receptacles and benches should not be regimented (e.g. "place every 40 feet"). Rather, amenities must have a relationship to the needs of a specific location. This is particularly important given that funds for such elements are generally limited. Street amenities and transit stops should reflect the character of a local neighborhood or district. For example, along Apache Boulevard, consistent lighting, banner signs, benches and receptacles will help create a sense of unity along this section of the LRT corridor.

Public seating is a welcome relief for pedestrians. They invite people to stay on the street to rest, converse, wait, read, or just people-watch. Research has revealed that most people prefer locations where there is the most opportunity to watch other people. As noted in CPTED guidelines, people feel safer when they can see and be seen by other people. People-watching of this sort naturally occurs in areas with outdoor eating, window shopping, and active uses such as playgrounds.

Streetscape and development projects can also incorporate public art as a way to improve the aesthetics and character of Apache Boulevard. Tempe's Urban Open Space Plan identifies several locations along Apache Boulevard in the Dorsey station area as opportunities for plazas and public art (refer to Figure 11, Civic and Community Destinations, Dorsey Station Area).

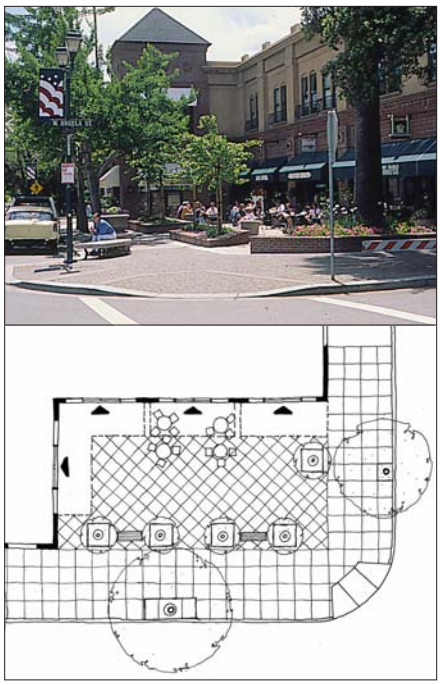


Figure 6: Corner plazas benefit pedestrians and businesses, creating a place where people can dine, shop, linger and observe life on the street (above). A corner plaza takes advantage of two streets to attract people and provide open space in an urban context (below).

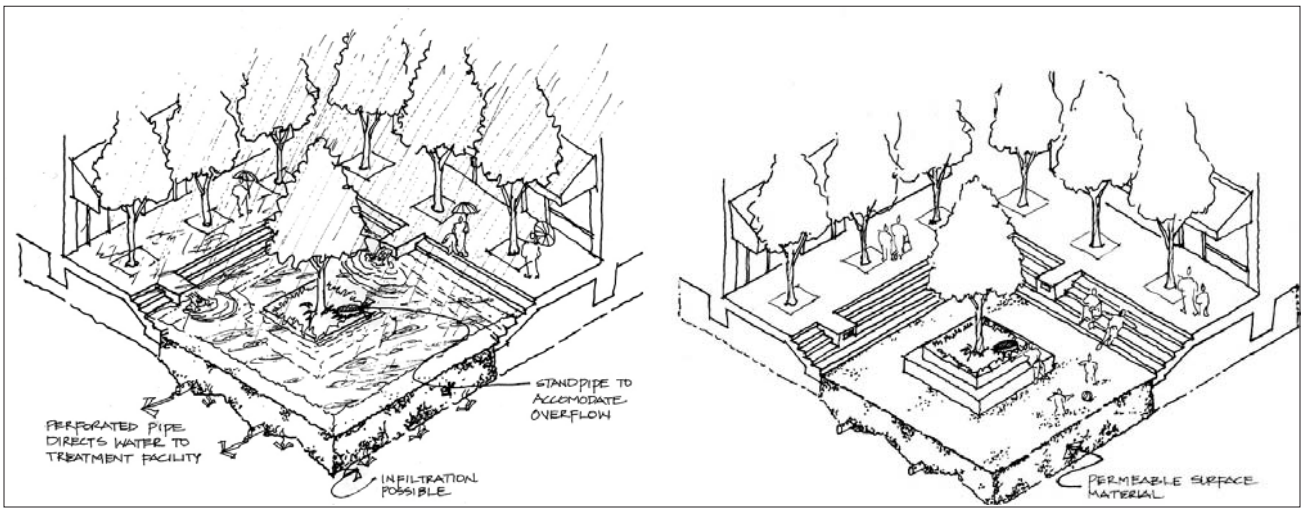


Figure 7: Public plazas may also be able to temporarily retain stormwater during wet weather, while providing open space for pedestrians and window shoppers when dry.

Pedestrian-scaled street lighting, in the foreground, contrasts with auto-oriented "cobra-head" lighting in the background.

Street Lighting

Appropriate pedestrian-scaled lighting needs to be provided, especially in Tempe's climate where significant pedestrian activity occurs in the evening when it is cooler. Pedestrians have a smaller field of focus, when compared with people in a moving vehicle, since they move at a slower pace, look at more detail, and stop frequently for long periods of time. Thus they require shorter light standards to direct more intense light onto a smaller space.

Two types of street lighting fixtures have been installed on Apache Boulevard. The taller fixtures serve the auto, while lower fixtures provide the lighting appropriate for pedestrians. Other major streets, including Dorsey and McClintock, are lit by conventional "cobra head" fixtures that are geared to motorists rather than pedestrians. Adding pedestrian-scale lighting fixtures similar to those on Apache Boulevard would also be appropriate for key pedestrian access routes to stations.

Pedestrian-Friendly Building and Site Design

Disneyland's designers understand pedestrians, as do those of shopping malls. Both understand that maintaining a pedestrian's visual interest can increase the distance they are willing to walk. The same technique can be used to create a safe and comfortable pedestrian realm in our everyday communities. Development with frontage onto the streets provides surveillance, activity, and visual interest, which is achievable through the use of continuous and consistent building frontage with a high level of articulation (windows, doors, awnings, balconies, etc).

Transparency at the ground floor attracts window shoppers and passersby.

Façade Transparency

Designing a safe and attractive pedestrian realm with development fronting the streets fosters an increased sense of security. Urban planner Jane Jacobs coined the now much-used phrase "eyes on the street" to describe how the users of a building themselves become an informal system of surveillance discouraging clandestine activity. CPTED principles also emphasize clear sightlines between people inside a building and those outside it.

An effective means of maintaining visual interest for a pedestrian is achieving a sense of transparency and connection between the pedestrian and the uses along the street. In commercial areas, where ground floor uses include shops, cafes and offices, large windows and well-marked entrances provide literal transparency that increases pedestrian comfort and improves the link between businesses and local foot traffic (refer to Figure 8). On residential streets, porches, large windows, and welcoming entryways provide opportunities for friendly transition between public and private spaces, and also afford more activity and "eyes on the street."

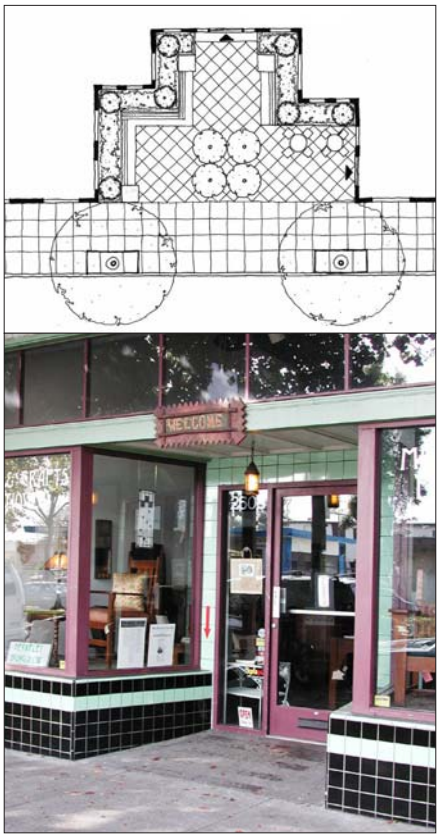


Figure 8: Recessed storefront entrances and small entry plazas for residential or office buildings allow greater mobility and expand the utility of narrow sidewalks.

Façade Articulation

The increased activity and visual interest associated with a varied, but continuous building frontage can give the perception of shorter distances, as opposed to expanses of empty land or along stretches of blank facades. Façade articulation provides visual interest and reduces the feeling of exposure for the pedestrian. This helps to make walking a more attractive mode of transportation. In keeping with CPTED principles, care should be taken in designing articulated facades so as not to create overly large "blind spots" where people could hide.

Articulation in the form of an integrated seatwall and an attractive display increase and enhance the interaction between pedestrians.

Architectural Detailing

To lend interest to building facades that front on sidewalks, architectural details similar to those used for surrounding commercial and residential uses should be utilized. This can include trellises, awnings, arbors, overhangs, balconies, railings, public art, and architectural façade details. Similar treatment of parking structure facades is recommended, if such structures must front on the street. Inclusion of hand-wrought materials such as brick, textured block, stone or tile can contribute to an appealing pedestrian realm.

Placing signage away from windows and doors creates a clear and consistent character along commercial storefronts.

Building Signage

In addition to wayfinding signage in the public right-of-way, successful pedestrian- and transit-oriented development requires attention to commercial signage. Signs in successful pedestrian-oriented districts tend to be smaller and more detailed than those in auto-oriented districts. A combination of building signage, awning signage and overhanging signage is appropriate, while freestanding and monument signs, which are aimed mainly at passing automobiles, are inappropriate. Careful consideration should be made of window and door signage and interior displays so that transparency is not significantly diminished by these elements. Interior displays that are oriented only to the customer inside the store and not to the pedestrian do not support street life or encourage pedestrians to stop and shop. On the building façade and under shade structures and awnings, overhanging store signage is encouraged, but should be hung so as to provide a clear distance of at least 8 feet beneath the lower edge.

Parking

Appropriate parking ratios for TOD areas

Tempe's Transportation Overlay District allows for some reductions in residential parking ratios in the LRT Corridor and Station areas, which are generally consistent with national practices, taking into account such specific circumstances as Tempe's large student population. Multi-family uses are allowed a minimum of 0.75 spaces per bedroom, and many non-residential uses including retail, service, restaurants, and theaters, are eligible for up to 50 percent reductions in parking minimums. The City should allow projects in the Station and Corridor overlay district to build no more parking than these allowable parking minimums unless applicants can demonstrate

special circumstances that would require additional parking. Reducing parking requirements allows developers to provide more affordable lease rates and creates an environment with fewer cars and less traffic, which is better for pedestrians, bicyclists, and transit. Projects with a residential component should also be encouraged to "unbundle" parking from residential units, allowing residents to lease a parking space separately from the unit itself. This reduces the cost of housing for residents who choose not to own a car and for households that choose to own only one car.

The City should also consider reducing parking requirements for office uses in station areas, since the current codes do not provide as much reduction in allowable parking for office as for other commercial uses. This would help to encourage employment in the corridor and make the LRT operation more efficient by helping to balance origin trips (trips originating in the corridor) with destination trips, such as trips to employment destinations in the corridor.

Shared Parking

Compact, mixed use development can reduce parking demand by making shared parking feasible. Typical parking standards specify the number of required spaces per square foot of use based on peak hour demand estimates. Mixed use development will often include uses that have peak parking demands at different times. Thus, overall parking requirements can be reduced if the appropriate uses are mixed within one development or parking district. For example, office uses need the most parking during the day, while entertainment uses generally need the most parking in the evening. Interconnectivity between parking areas helps to maximize the utility of shared parking, minimizing the need for curb cuts along the main arterial and thereby reducing conflicts between drivers and pedestrians.

Tempe's zoning code (Section 6-311) allows commercial, industrial, civic, or mixed use projects to request approval of alternative parking space requirements using a parking demand study and includes a methodology for calculating alternative parking demand.

Car-sharing Incentives

Car-sharing services, which originated in Europe in the 1980s, are an important means of reducing vehicle travel in walkable and transit-rich locations. Members of a car-sharing organization can typically reserve cars by phone or online on an hourly or

Comfortable walkways facilitate the movement of pedestrians within a parking lot.

The adjacent parking lot dominates the sidewalk (above) while a hedge buffers a sidewalk from adjacent parked cars (below). In the evening, the hedge can prevent headlights from shining on pedestrians.

daily basis at locations (sometimes called points of departure or "pods") near their homes, workplaces, or a transit station, allowing them to make occasional trips by car without the financial and logistical burden of auto ownership. In the 1990s and early 2000's, several local non-profit and national for-profit car-sharing services arose in the United States. For each car sharing space, provide a credit against the parking requirement of 5-10 required spaces, to a maximum of 10 to 20 percent of the required number of spaces.

In September 2007, a national car-sharing provider, FlexCar, began service in Tempe. (In October 2007, FlexCar announced plans to merge with its primary for-profit competitor, ZipCar.) College students aged 18 to 20 who do not own a car are the primary market for the service, particularly since most major car rental companies will only rent to those 21 and over. After paying a $35 annual fee, FlexCar members can rent the cars for $8 per hour or $55 per day, which includes gas, insurance, maintenance and parking. The current locations are clustered around the ASU campus; the ones closest to the Apache Boulevard corridor are located at Rural Road and Spence Avenue and in the Tyler Street parking structure. Car-share pods often begin with just one or two vehicles and add more as demand builds.

Car sharing programs have been proven to have significant positive environmental and social impacts. National studies show that each shared car replaces up to 20 privately owned vehicles. Car sharing members report driving significantly less and are more likely to walk, bike, and use public transportation.[2] Members also report savings of $500 or greater per month compared to the average cost of owning and operating a car in the city, and businesses have saved thousands of dollars by eliminating company fleets or augmenting their transportation offerings with car sharing programs.

The park and ride facilities at the Dorsey, McClintock and Price Freeway stations are logical locations for future car-share pods. In addition, incentives such as reduced parking requirements would be appropriate for development projects that provide spaces for car-sharing pods in their parking areas. Since having a car-sharing pod nearby makes it easier for residents to meet their travel needs without owning a car, and since studies show that one car-sharing vehicle can replace up to 20 privately owned vehicles, reducing residential parking requirements and "unbundling" residential parking from units are appropriate incentives to developers to provide car-sharing spaces.

[2] "Carsharing," Victoria Transport Policy Institute TDM Encyclopedia, http://www.vtpi.org/tdm/tdm7.htm

Design Guidelines for Surface Parking Lots

Parking facilities can be integrated into the community or a specific site in such a way that they do not alienate the pedestrian, but actually encourage more pedestrian activity. This can be achieved by designing to accommodate cars and deliveries, while allowing safe pedestrian and bicycle movement around and through the lot. Well-designed parking lots typically include clearly delineated walkways running parallel to the parking rows and separated from traffic lanes by curbs, and whenever possible, vegetation. Where pedestrian pathways cross the auto lane they should be clearly delineated by a contrasting color and/or raised slightly to form a "speed table" that indicates the priority of the pedestrian. Additionally, providing shade through tree planting helps to create a cooler, more hospitable environment for pedestrians in parking lots.

An orchard configuration maximizes shade for parked cars and pedestrians in parking lots.

Parking Location and Access

To minimize conflicts between pedestrians and vehicles entering and exiting parking lots and structured parking, auto access from pedestrian-oriented streets should be avoided unless no other reasonable access is available. Where alleys are present, driveways leading to parking lots and loading and service areas should be accessed from the alley. Lots with more than one street frontage and no alley should locate vehicular access along the street with the least amount of pedestrian activity (refer to Figure 9). Wherever possible, loading and service drives should be of a depth that prevents loading and service vehicles from obstructing the sidewalk and roadway. Where feasible, driveways should be consolidated within a single lot and shared with adjacent properties to minimize encroachment upon sidewalks.

Landscaping can break up large asphalt areas within parking lots and has added stormwater benefits.

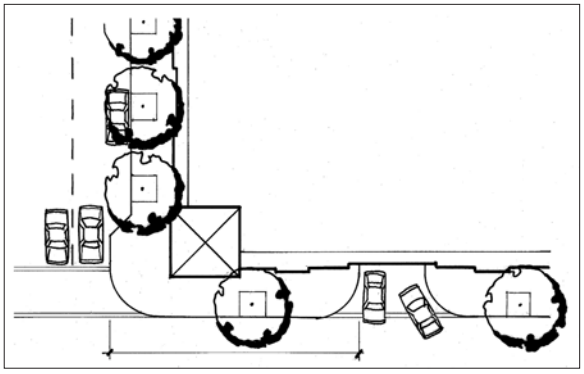


Figure 9: Auto entry points should be located away from intersections to allow corners to become pedestrian spaces.

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Dorsey Station Area Plan

The Dorsey station area is roughly bounded by University Drive to the north, Rural Road to the west, the Union Pacific Railroad to the south, and Una-Butte Avenue to the east. (Refer to Figure 10: Dorsey Station Area).

Key civic destinations in this area include Hudson Park and Creamery Park, Arizona State University, Southwest Institute of Healing Arts, the New School for Arts & Academics, and the Tempe Fire Department administration building and Station One. (Refer to Figure 34: Civic and Community Destinations, Dorsey Station Area).

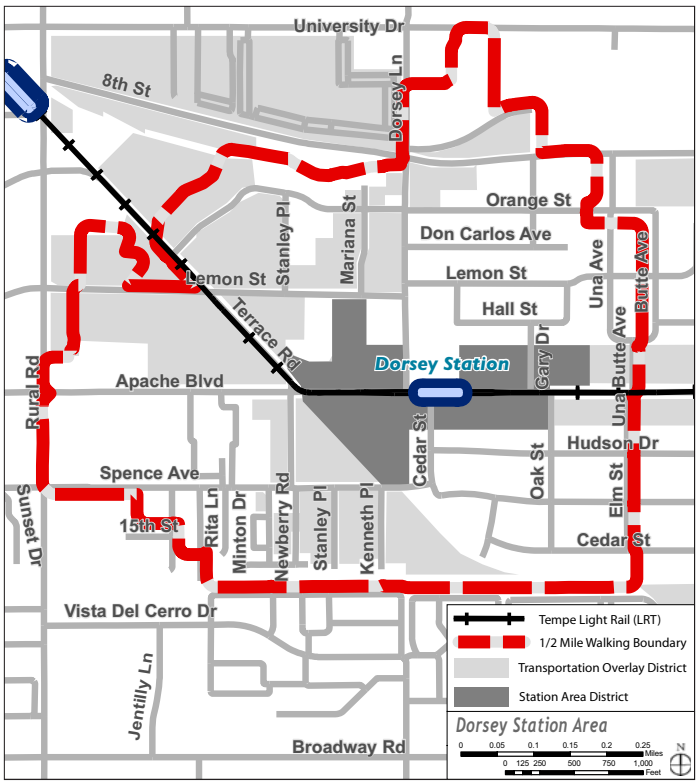

Figure 10: Dorsey Station Area

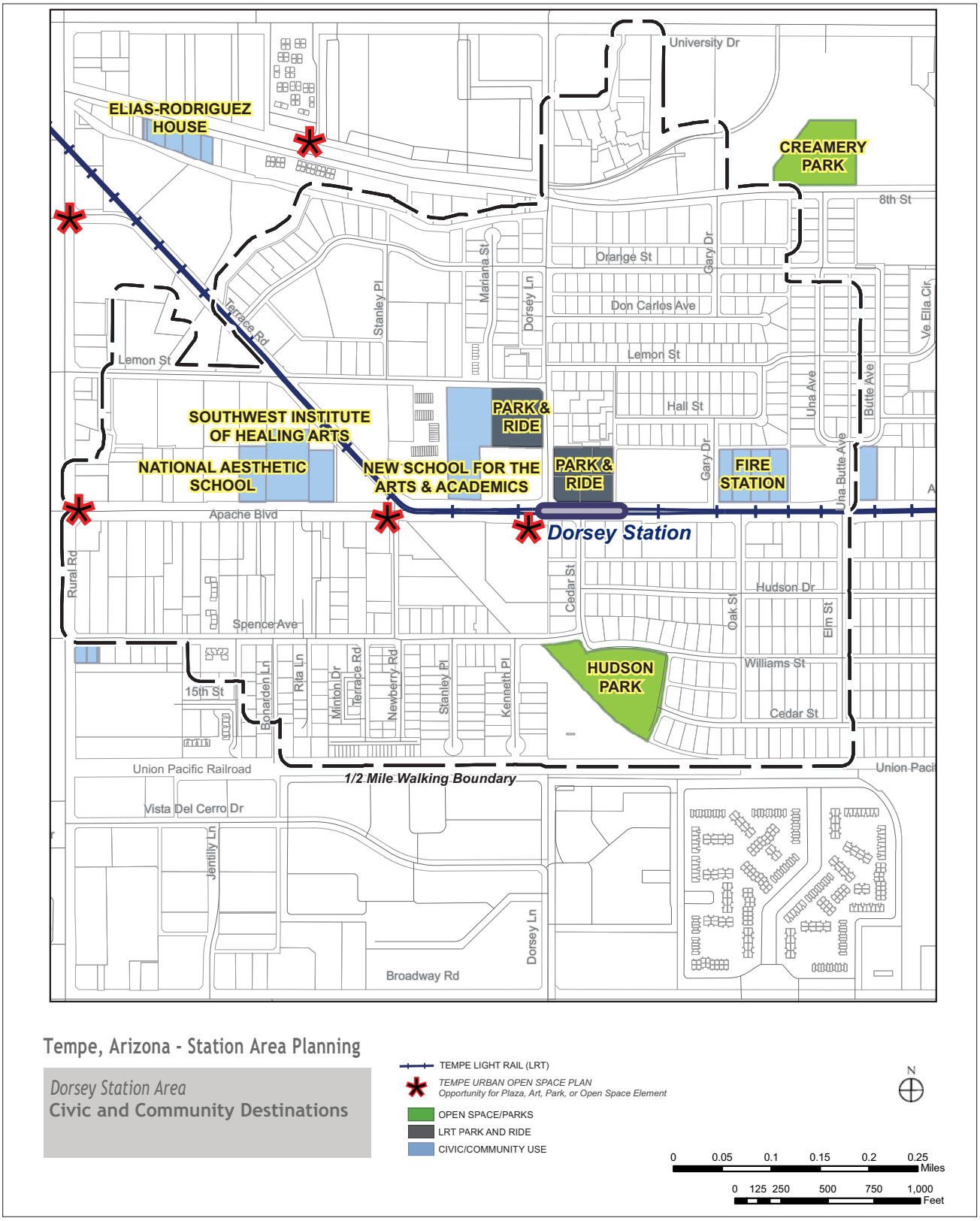

Figure 11: Dorsey Station Area Civic and Community Destinations

Existing Conditions

Demographics

In relation to the City of Tempe, the Dorsey area is more racially diverse, with a greater mix of Hispanic/Latino and Asian residents. However, its predominant demographic group is white, representing more than half the area's population. Also, over half of the population ranges in age between 21 and 34, likely due to the proximity of ASU, which is significantly more than the citywide proportion in this age group. Similarly, the area shows a higher number of unmarried and educated individuals, while the average household income is significantly lower than the City's. With regard to transportation, up to 27 percent of commute trips in and out of the station area are made by transit, bicycling, or walking, whereas the City as a whole only achieves 10 percent.[3]

Table 1 provides a summary of demographic information for the Dorsey station area.

Existing and Planned Land Use

Of the four Apache Boulevard stations, the Dorsey station area has the highest ratio of residential uses as well as multi-family residential. Two distinct neighborhoods make up the significant single family residential component. It also has a significant retail and commercial element. The overall land use configuration of the Dorsey Station area is defined by a mostly stable residential and retail/commercial character. The pie chart indicates the land use acreage ratio of parcels within the Dorsey Station half-mile walking boundary (refer to Figure 12: Dorsey Station Area Land Use Summary; and, Figure 13: Dorsey Station Area Existing and Proposed Land Use).

The Dorsey Station's close proximity to the ASU campus creates an area that is highly active and supportive of TOD. Near Rural Road, along Apache Boulevard, there are several fast food and casual restaurants, high to moderate quality hotels, and a couple of strip malls. There are also other educational institutions in the station area, the New School for Arts and the

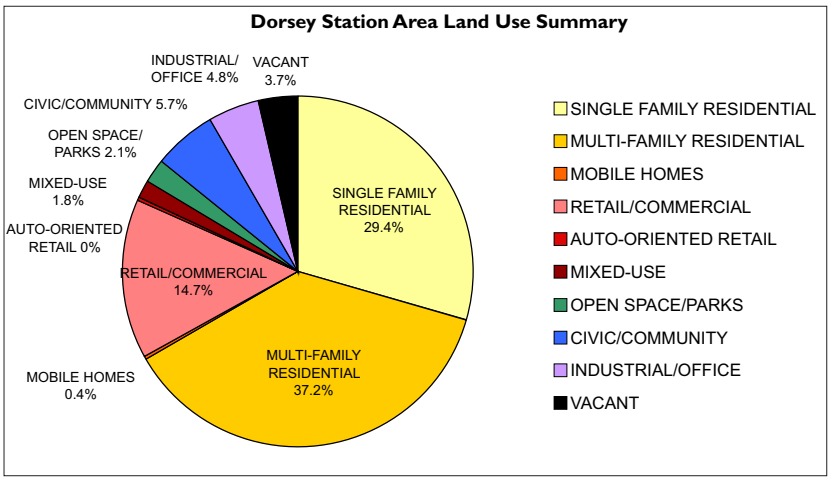

Figure 12: Dorsey Station Area Land Use Summary

[3] Claritas Inc. "Pop-Facts: Demographic Snapshot Report," Trade Area: E. Apache Blvd. at Dorsey Ln., Tempe, AZ, 2006. Data represents the half-mile radius from the Trade Area intersection.

Table 1
Station Specific Market Data: Dorsey Ln. and Apache Blvd., Tempe (2006)
Valley Metro LRT Market Study Update; EPS# 16027

Item	Station Area Radii 1/2 mile	Station Area Radii 1 mile	Station Area Radii 5 mile	Tempe	Maricopa
Population	11,709	25,056	325,454	160,111	3,638,112
Projected Population (2011)	11,991	25,694	336,027	165,133	4,125,250
Population Percentage Increase (2006-2011)	2.4%	2.5%	3.2%	3.1%	13.4%
Annual Population Growth (2006 - 2011)	0.5%	0.5%	0.6%	0.6%	2.5%
Population Density/ Sq. Mile	14,916	7,980	4,146	4,054	394
Avg. Household Size	2.17	2.27	2.42	2.38	2.71
Avg. Age	27.2	28.6	33.6	33.8	34.1
Avg. Household Income	$38,866	$53,135	$65,169	$61,412	$69,814
Bachelors Degree+	44.9%	41.6%	29.5%	39.8%	25.8%
% Owner Occupied HH	6.7%	20.8%	47.9%	50.4%	69.4%
Average Home Value (1)	$249,812	N/A	N/A	$286,023	$270,697
Housing Unit Types - Detailed					
1 Unit Attached	1%	4%	9%	9%	6%
1 Unit Detached	8%	20%	40%	45%	62%
2 Units	1%	2%	1%	1%	1%
3 to 19 Units	29%	26%	23%	20%	12%
20 to 49 units	21%	15%	6%	6%	3%
50 or More Units	37%	29%	16%	15%	8%
Mobile Home or Trailer	2%	3%	5%	4%	7%
Boat, RV, Van, etc.	0%	6%	0%	0%	1%
Housing Unit Types - Summary					
% Units Single Family- attached or detached	9.7%	24.2%	48.5%	54.3%	67.5%
% Units - Multi-family	88.5%	72.1%	46.4%	41.9%	24.4%
% Units - Mobile Home or Trailer	1.8%	3.0%	4.9%	3.7%	7.5%

(1) Average home value was derived from a sample of median home prices from Zillow.com.

Sources: Claritas, Inc.; Zillow.com; Economic & Planning Systems

Southwest Institute of Healing, that can be identified with and draw from the area's student-supportive character. Compared to the rest of Apache Boulevard to the east, the character of the Dorsey station area is relatively new, well maintained, and further developed.

An economic analysis prepared for Valley Metro found Dorsey to be the most feasible Apache Boulevard station area for neighborhood-serving retail and for-sale and rental residential.[4] The development momentum following this trend is already in motion through various planned and approved residential and mixed use residential projects in the Dorsey station area. Dorsey is the only station area that has a large-scale grocery store, Food City, which acts as an anchor for the existing and future residential uses. This station area reflects a high level of recent and near-term investment, in comparison with the rest of Apache Boulevard to the east.

The Dorsey station area is especially important as it is a transition zone between ASU and the local character of Apache Boulevard. Due to its close proximity to ASU campus, there are several university and student related uses within the Dorsey station area. This area has the highest residential density in the State of Arizona, mostly due to the student population living on both sides of Terrace Road and 8th Street. The residential density and university life makes this area a very active place that has a demand for and can support a variety of uses.

The growth of the campus and City has resulted in several development projects along Apache Boulevard, most of which are in construction, proposed, or approved within the Dorsey Station half-mile walking boundary (refer to Figure 14: Dorsey Station Area Proposed Development Projects). Most of the projects are mid- to high-rise residential and mixed use developments. There are also a few loft and single family developments built or under construction to the south of Apache Boulevard near the Union Pacific Railroad (UPRR) right of way. These projects, such as the Newberry Terrace lofts and single family infill development on Terrace and Newberry Road, will improve the substandard and discontinuous quality of the surrounding residential neighborhood. These new projects will help support TOD and the LRT's success in the near-term. Furthermore, the development momentum will influence and guide future growth farther east along Apache Boulevard.

The single family residential areas east of Dorsey Lane and Cedar Street, north and south of Apache Boulevard, are designated cultural resource areas, according to the *Tempe General Plan*

New School for the Arts

[4] Economic & Planning Systems, *Light Rail Station Area Development Feasibility Analysis and Implementation Recommendations,* May 2, 2007.

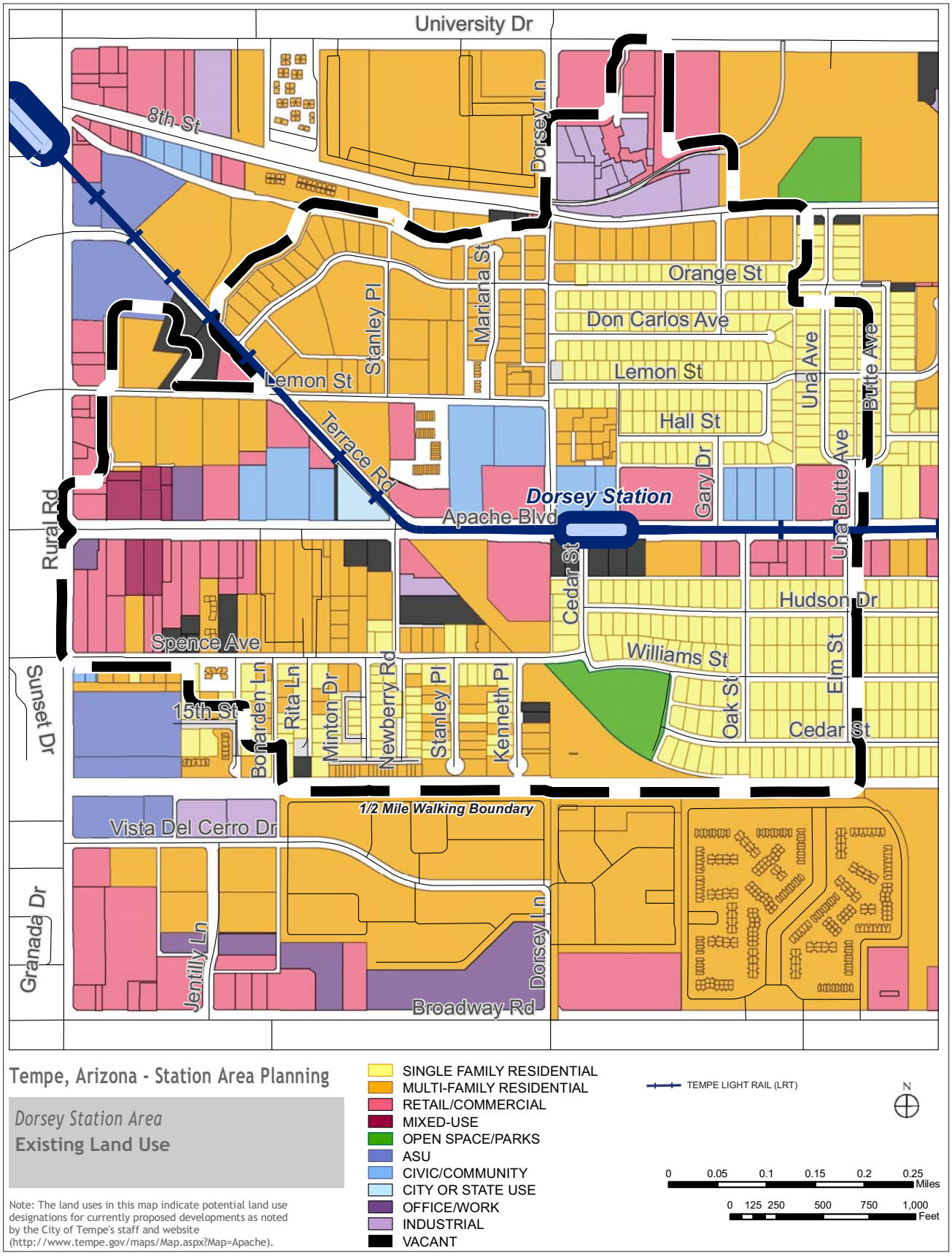

Figure 13: Dorsey Station Area Existing Land Use

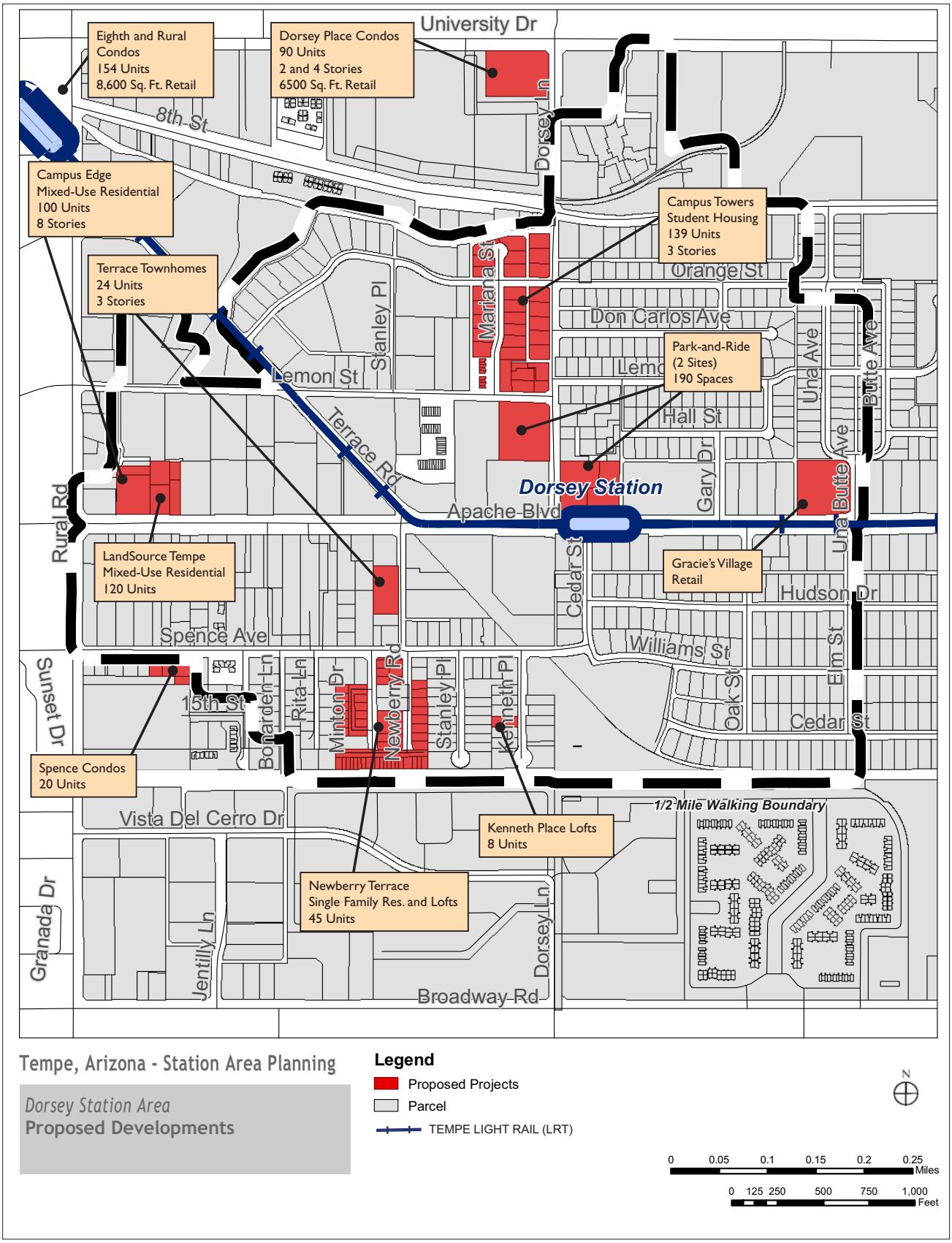

Figure 14: Dorsey Station Area Proposed Development Projects

2030, that are significant to the character of Tempe. Development in these neighborhoods may not exceed the underlying original zoning and these areas will not be considered for any major development opportunities or changes. These areas act as filters that help keep student-related housing and uses from encroaching into the local neighborhoods. East of the station, the parcels directly on Apache Boulevard are the main focus of current and potential development and redevelopment activity.

Opportunity Sites

The Dorsey Station area features several opportunity sites, defined as parcels or groups of contiguous parcels that are currently vacant or contain uses that underutilize the development potential of the property, demonstrate fairly low investment, or whose use is incompatible with transit and pedestrian activity (refer to Figure 15: Dorsey Station Area Possible Opportunity Sites). On the south side of Apache Boulevard on either side of Cedar Street, several adjacent vacant parcels around one-half acre in size provide opportunity for a mixed use retail and residential development that would face the Dorsey Station platform, enhancing the pedestrian realm and creating a better environment for transit users. Fronting on Apache Boulevard just west of Terrace Road, vacant parcels, also around one-half acre, lie adjacent to a proposed townhome development; numerous other vacant and underutilized parcels ranging from about 2500 square feet to 1.5 acres are scattered throughout the Dorsey station area, adjacent to or near proposed developments, demonstrating the potential for additional infill housing and retail in the area.

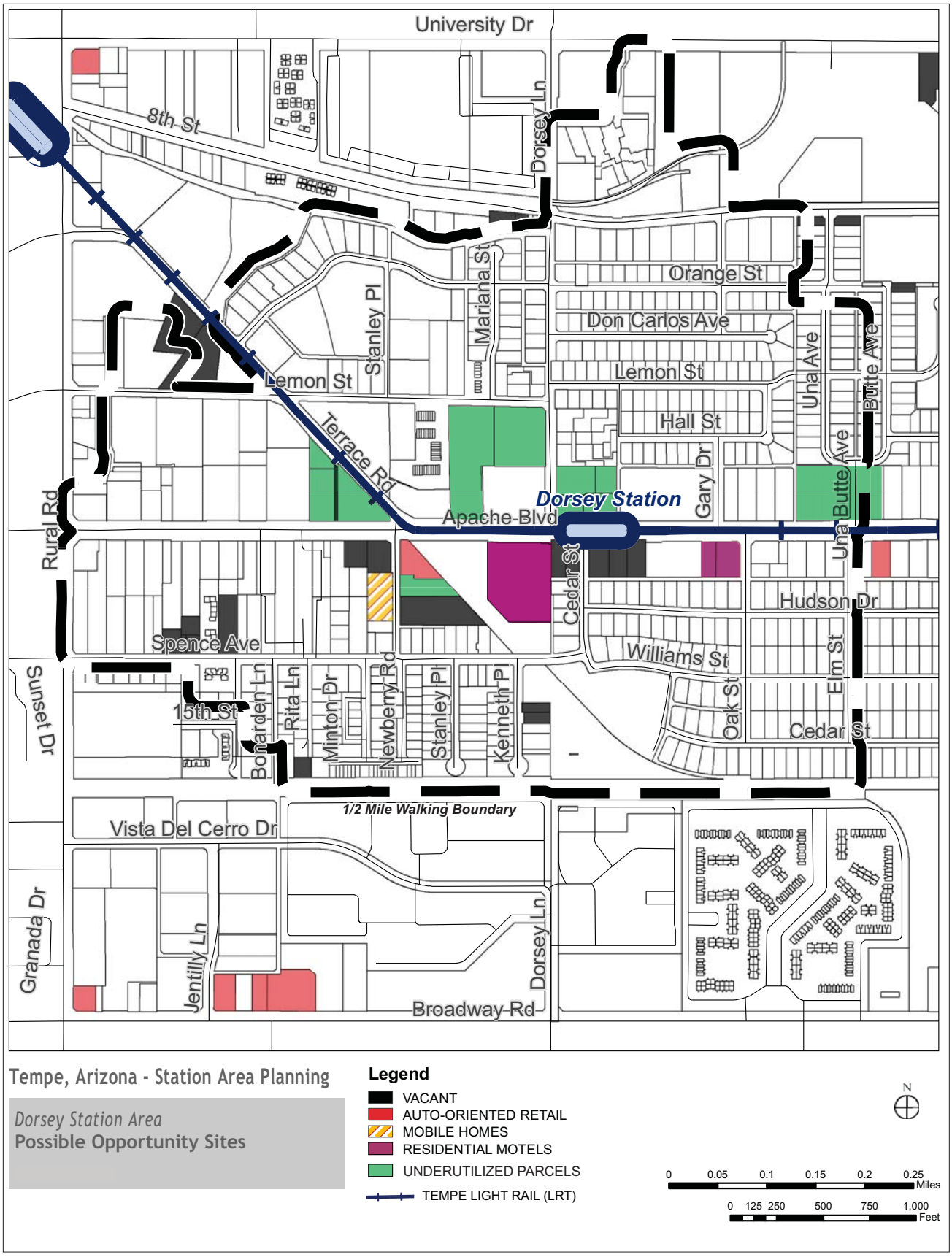

Figure 15: Dorsey Station Area Possible Opportunity Sites

Elias-Rodriguez House

Land Use and Urban Design Recommendations

Within the Dorsey station area, both private development and improvements to the public realm should reinforce the activity already present, connect it to the LRT station, and increase awareness of the neighborhood's assets.

Destinations in the Station Area

The Elias-Rodriguez House at 927 East 8th Street is an historic adobe home built in a vernacular Sonoran style. Constructed between 1892 and 1912, this house is one of Tempe's earliest settlements. As such, the Elias-Rodriquez House exhibits the area's cultural heritage, enhancing the identity of the area with its unique character.

Restaurant/nightlife cluster

The Four Peaks Brewing Co., in the historic creamery building at 1340 East 8th Street, and Dos Gringos Trailer Park at 1001 East 8th Street are valued local restaurant/bars that are popular with ASU students and provide venues for entertainment and nightlife.

Educational institutions

Arizona State University (ASU) is a comprehensive public metropolitan research university enrolling more than 60,000 undergraduate, graduate, and professional students on four campuses. ASU's Tempe campus comprises more than 700 acres just west of the Dorsey station area and includes the Colleges of the Arts, Design, Education, Liberal Arts, Law, and Sciences, and the Schools of Business, and Sustainability. As an institution, ASU is a significant presence in the area, and attracts not only students but also professors, researchers, and support staff, many of whom live in and travel through the area as transit and bicycle riders and pedestrians. The Arizona State University Campus will be served by the University/Rural Station and the Veterans Way/College Avenue Station in Tempe.

Other educational institutions in the Dorsey station area include the Southwest Institute of Healing Arts, a private college for holistic healthcare and continuing education, and the New School for the Arts and Academics, which offers middle- and high school curricula focused on the visual and performing arts. These important educational institutions contribute to the active environment around the Dorsey station area (refer to Figure 11: Civic and Community Destinations, Dorsey Station Area).

Hudson Park and neighborhood

Except for the parcels fronting onto Apache Boulevard, the station area east of Dorsey Lane consist mostly of single family residential houses. Hudson Park is a valuable community amenity. Currently the park has a children's play area and basketball court. It is the largest park within the four walkable station areas and planning and design are underway for improvements that will draw more users.

The Hudson Park Master Plan anticipates significant improvements, including a skate park, volleyball court, water/play area, meditation feature, and street improvements to discourage cut-through traffic (refer to Figure 16: Hudson Park Master Plan). The improvements will enhance the value of this park, the only park in the study area south of Apache Boulevard. Hudson Park is also one of the best connected to a LRT station and could become a destination point.

Hudson Park

Land Use Concept for Station Area

Enhance restaurant/nightlife cluster

The restaurants and nightlife near Rural Road and the historic creamery buildings on 8th Street have the potential to become the core of a unique food service, nightlife, and historic district. Especially with the several new residential developments underway, there will be a need for supporting entertainment and restaurant services.

Encourage professional office uses in mixed use buildings to complement educational/health services uses

The May 2007 economic analysis conducted for Valley Metro found that the feasibility of in-line (non-anchor) neighborhood-serving retail is strongest around the Dorsey Station Area. Following completion of the LRT, it is assumed that the foot traffic associated with LRT ridership and the increase in station area household populations resulting from new development will both contribute to stronger retail demand.

Mixed use projects involving combinations of for-sale multifamily and in-line retail with surface parking formats appear to be feasible in the Dorsey station area. Mixed use projects involving combinations of office and retail are less likely to be feasible than residential projects, while combinations of multifamily over office over in-line retail are more likely feasible, especially where the ratio of multifamily units and in-line retail to office is high, and where the multifamily units are offered for sale rather than as rental units. Developers in the area expressed a desire to build mixed use projects incorporating office uses and suggested that the City explore reducing the amount of parking required for office uses near LRT.

Figure 16: Hudson Park Master Plan (City of Tempe)

Continue revitalization of Jen Tilly Terrace neighborhood

The Jen Tilly Terrace neighborhood, enclosed by the Union Pacific Railroad, Rural Road, Apache Boulevard, and Kenneth Place, has an inconsistent character that ranges from new multi-story apartments to poorly maintained single family homes. Some residential streets are poorly maintained and lack adequate drainage, curb and gutter, and sidewalks. The new infill lofts and single family houses in the neighborhood are starting to improve the quality and character of the area, and public infrastructure has been upgraded in some areas in concert with development. Enhancing this neighborhood will help the residential character become more stable and cohesive as part of the larger station area, which is especially important since Spence Avenue is a key station access route.

Creamery Park

Potential linear park along 8th Street in former rail right of way

The abandoned Union Pacific rail line along 8th Street, which is owned by the City of Tempe, could potentially become a linear park or open space featuring local landscaping and climate-appropriate planting that could demonstrate stormwater best management practices. This would better connect the neighborhood to the historic freight buildings at Dorsey Lane, as well as make 8th Street into a more pleasant pedestrian and bicyclist street. Eighth Street already has many bicycle amenities, including striped bicycle lanes and even a dedicated mid-block left-turn pocket for bicycles turning onto an off-street bike path that connects to Terrace Road. Also, Creamery Park fronts onto 8th Street and could benefit from a linear open space connection to the surrounding neighborhoods, especially since it is just outside the half-mile walking distance boundary from Dorsey and McClintock Stations.

Former rail right of way along 8th Street

Building Height Recommendations

Building heights should be highest in the immediate vicinity of the LRT station (parcels within approximately 800 feet walking distance of the LRT platform). If desired uses such as affordable housing are provided, buildings up to 90 feet in height could be appropriate in these areas, with heights of up to 60 feet in other portions of the study area. The areas west of Dorsey Lane already include many higher-density multifamily residential buildings and a range of building heights. However, portions of the immediate station area, particularly east of Dorsey Lane, are adjacent to single-family homes, which makes taller buildings less appropriate. Stepback provisions should be maintained in these areas, which will have the effect of limiting overall buildings heights, particularly on the shallower parcels on the south side of Dorsey.

Station Access Recommendations

Pedestrian Routes

It is important to supplement the pedestrian improvements along Apache Boulevard by integrating improvements along streets that are key station access routes. The cross-streets that lead to the Dorsey Station are offset, minimizing vehicle through traffic but creating some circulation issues for pedestrians. Redesigning this intersection to avoid the LRT platform would improve connectivity for all modes (refer to Figure 17: Dorsey Station Area Key Pedestrian Routes).

The following streets are key pedestrian connections to and from the Dorsey Station and would benefit from pedestrian enhancements: Terrace Road, Dorsey Lane between 8th Street and Apache Boulevard; Spence Avenue between Rural Road and Apache Boulevard; and Cedar Street between Spence Avenue and Apache Boulevard. These streets link surrounding residents to the Dorsey Station or Apache Boulevard, where their transit, retail/commercial, and service needs can be met. Since the LRT alignment bears north at Terrace Road, Spence Avenue will be an important connection to the south end of the ASU campus.

Bicycle Routes

The northern portion of the study area is well equipped with bicycle amenities. However, the existing routes and connections are focused mainly on linking riders to and from ASU via University Drive, 8th Street, Terrace Road, and Lemon Street, rather than to the LRT station.

Dorsey Lane is a key station route that should include bicycle accommodations to the station. It is currently a Class III bikeway, i.e. a route indicated only by signage, and ends at Lemon Street, not connecting to the station. At a minimum the route should extend from University Drive to the platform on Apache Boulevard, closing the minor gap (refer to Figure 18; Dorsey Station Area Key Bicycle Routes).

Hudson Manor residents at the October 2007 charrette pointed out that the configuration of the Cedar/Apache intersection makes it impossible for both motorists and cyclists to make a left turn from northbound Cedar Street to westbound Apache Boulevard, a commonly desired movement given that Apache is the designated bike route from the neighborhood to the ASU campus. Bicyclists' only legal maneuvers are to either dismount and walk their bikes 150 feet west to the crosswalk at Dorsey Lane, at the west edge

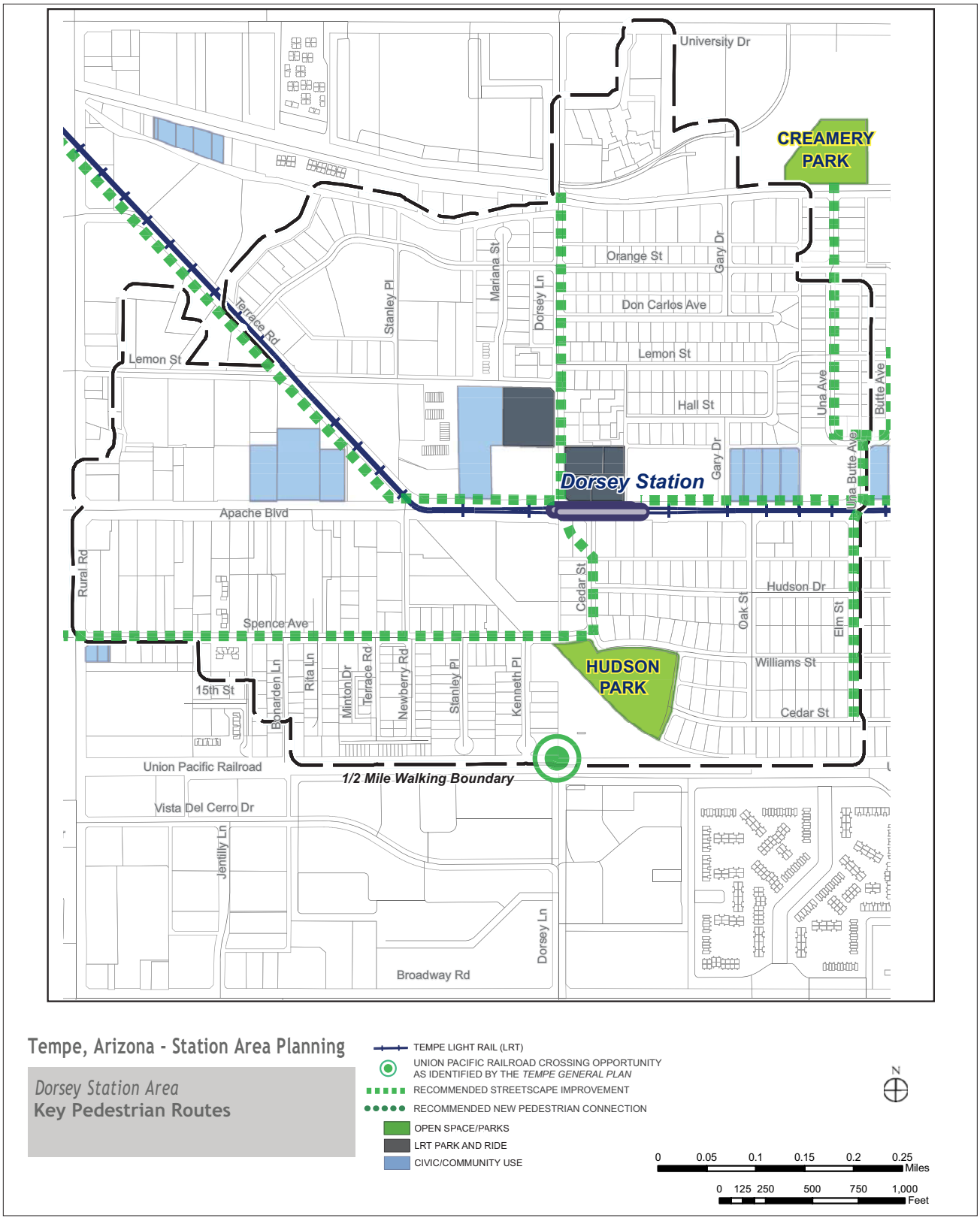

Figure 17: Dorsey Station Area Key Pedestrian Routes

Bicyclist riding on the sidewalk

of the platform, or to make a half-mile detour east to the next legal U-turn opportunity at Una-Butte Avenue. Given these unattractive options, some cyclists may illegally ride the wrong direction in the eastbound bike lane, or ride on the sidewalk – both of which create safety hazards for bicyclists, motorists and pedestrians.

Redesigning this intersection so that Cedar Street forms a four-way intersection with Dorsey Lane and Apache Boulevard would improve bicycling conditions, allowing cyclists to ride in a designated direction toward the station platform from Cedar Street (see "Proposed New Streets" below). If such a redesign is not possible, and space permits, restriping Apache Boulevard to create a westbound bicycle lane on Apache between Cedar and Dorsey (possibly adjacent to the south curb of the median) would close this short gap in the bicycle network. A similar "contra-flow" bike lane was created on Dwight Way, a one-way street in Berkeley, California, in order to close a 100-foot gap at the similarly offset intersection of Hillegass Street.

Bicycle access to the south of Apache Boulevard is nearly non-existent and needs serious consideration. This is especially important since the Union Pacific Railroad acts as a barrier that riders may want to navigate around in order to reach Dorsey Station. The *Tempe General Plan 2030* includes maps showing a proposed new pedestrian/bicycle rail crossing at Dorsey Lane, as well as a multi-use path along the rail line, although the expense of such a crossing has deterred further planning to date.

Feeder Bus

As part of Tempe in Motion's Orbit shuttle service, the Mercury line travels roughly parallel to Apache Boulevard, between downtown Tempe and the Escalante Center via 8th Street, Hayden Lane and Lemon Street. Operating from 6 a.m. to 10 p.m. seven days a week with a 15 minute headway, this shuttle provides neighborhood-oriented service that could be rerouted to crisscross the Apache corridor near station areas, acting as a feeder bus for the LRT.

Park & Ride Lots

The two planned park and ride surface lots at this station, including one at the northeast corner of Dorsey and Apache, will need careful planning and landscaping to ensure that pedestrian access is evident, direct and unimpeded. A pedestrian-friendly

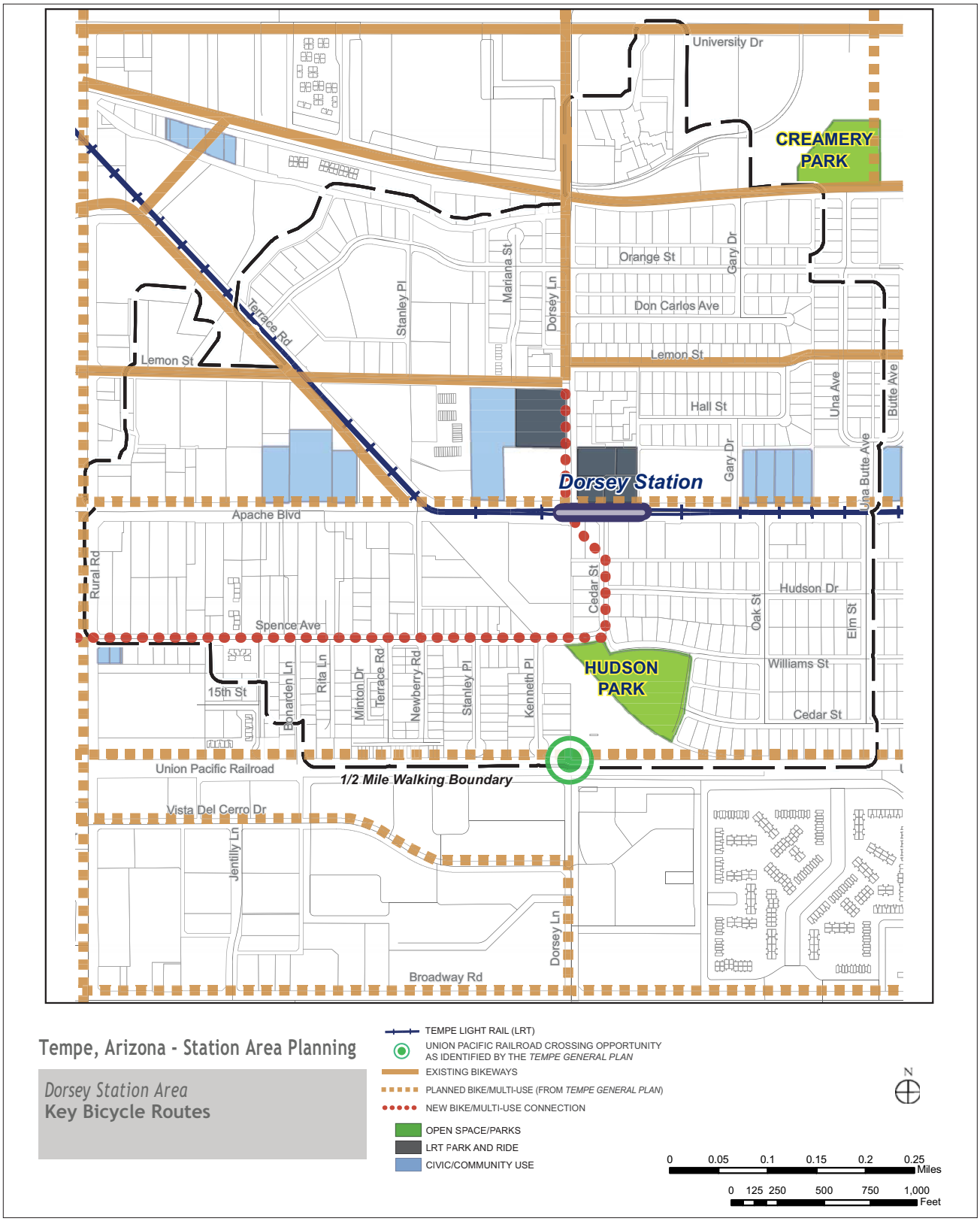

Figure 18: Dorsey Station Area Key Bicycle Routes

environment will encourage those who access the Dorsey station by car to link trips to retail, employment, service and entertainment uses within the station area.

The visual impact of surface parking lots should be minimized at the street frontage by trees and other screening vegetation, until the sites are incorporated into mixed use developments. Pedestrian walkways in parking lots should give direct access to the street without jogs or offsets, allowing pedestrians to move freely between the LRT, shops along the sidewalk, and parking areas.

Proposed New Streets

In its current configuration, the intersection of Cedar Street, Apache Boulevard, and Dorsey Lane limits connectivity across Apache Boulevard. The City of Tempe has recently acquired land to the west of Cedar Street, along Apache Boulevard, which provides the opportunity to improve the connectivity of this intersection by aligning Cedar Street with Dorsey Lane (refer to Figure 19: Dorsey Station Area Proposed New Streets). Such a configuration would provide access benefits for vehicles, bicyclists, and pedestrians.

A before and after simulation shows proposed land use changes and streetscape improvements along Cedar Street looking north towards Apache Boulevard (refer to Figure 20 and Figure 21). (The simulation does not show the proposed realignment of Cedar Street because it was prepared prior to the City's acquisition of the properties needed for the realignment.)

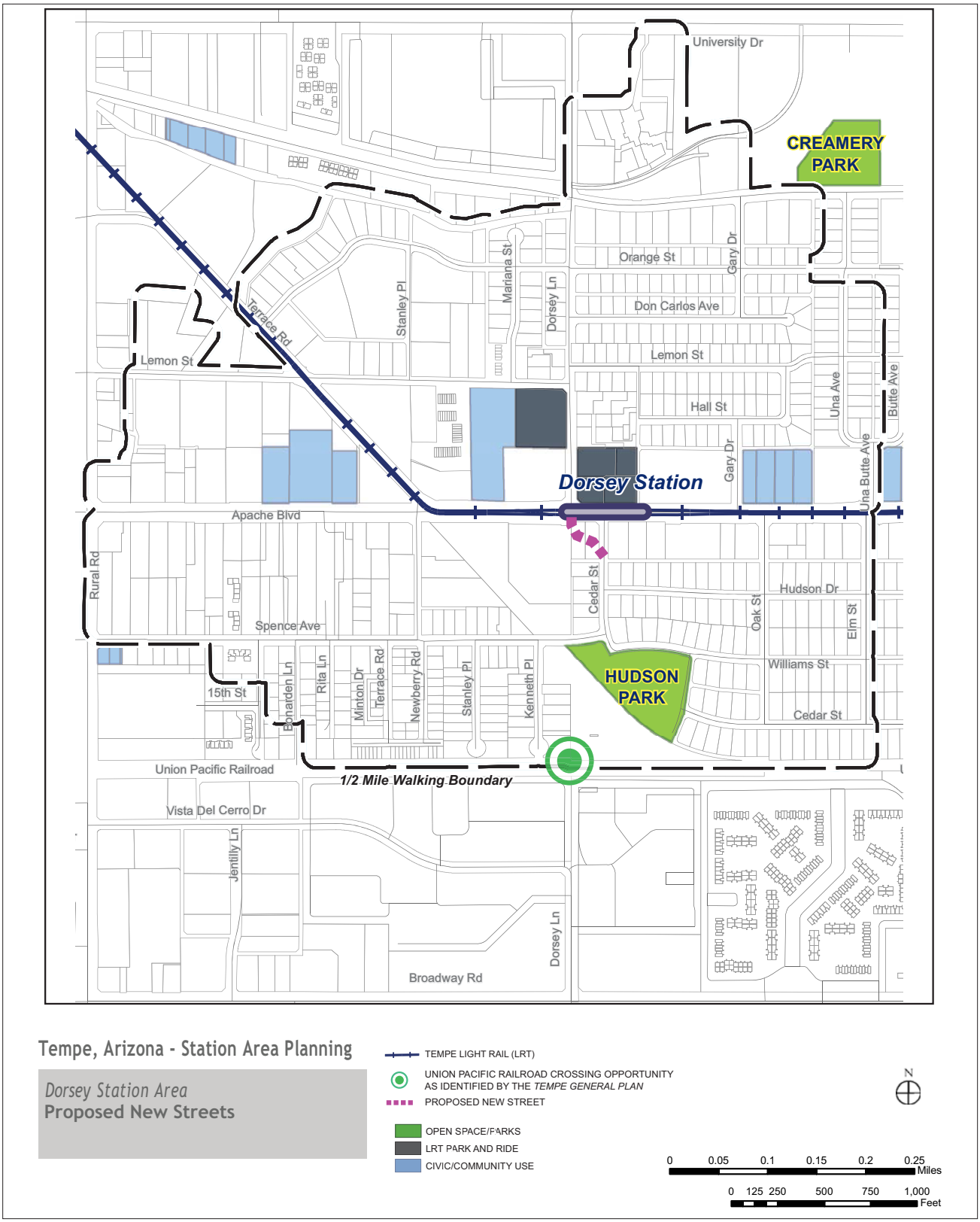

Figure 19: Dorsey Station Area Proposed New Streets

Figure 20: Existing conditions on Cedar Street looking north towards Apache Boulevard

Figure 21: Proposed conditions on Cedar Street looking north towards Apache Boulevard

McClintock Station Area Plan

The McClintock station area is roughly bounded by University Drive to the north, Una Butte Avenue to the west, Broadway Road to the south, and Stratton Lane to the east. (Refer to Figure 22: McClintock Station Area.) Key civic destinations in this area include Creamery Park and the Tempe Police Apache Substation. (Refer to Figure 23: Civic and Community Destinations, McClintock Station Area.)

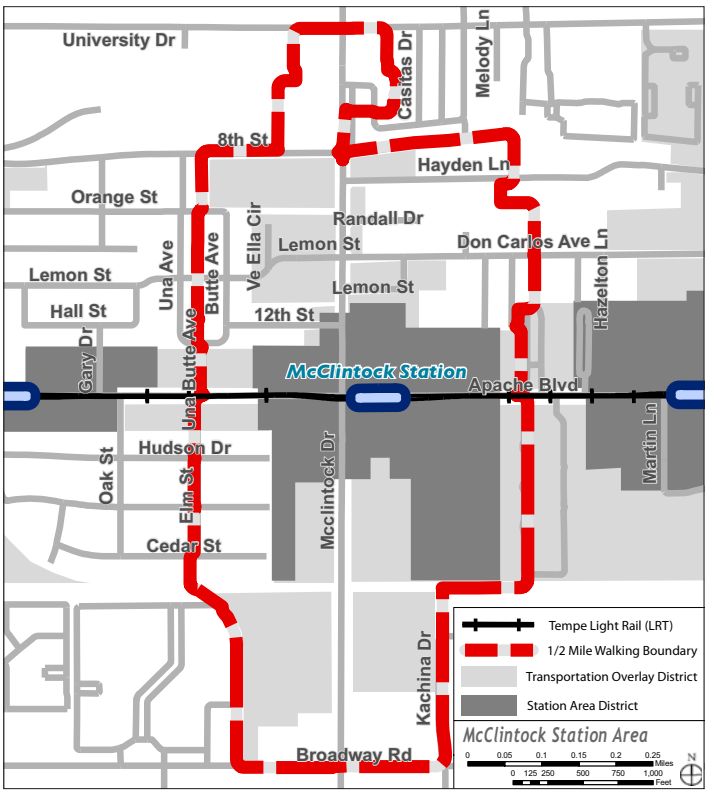

Figure 22: McClintock Station Area

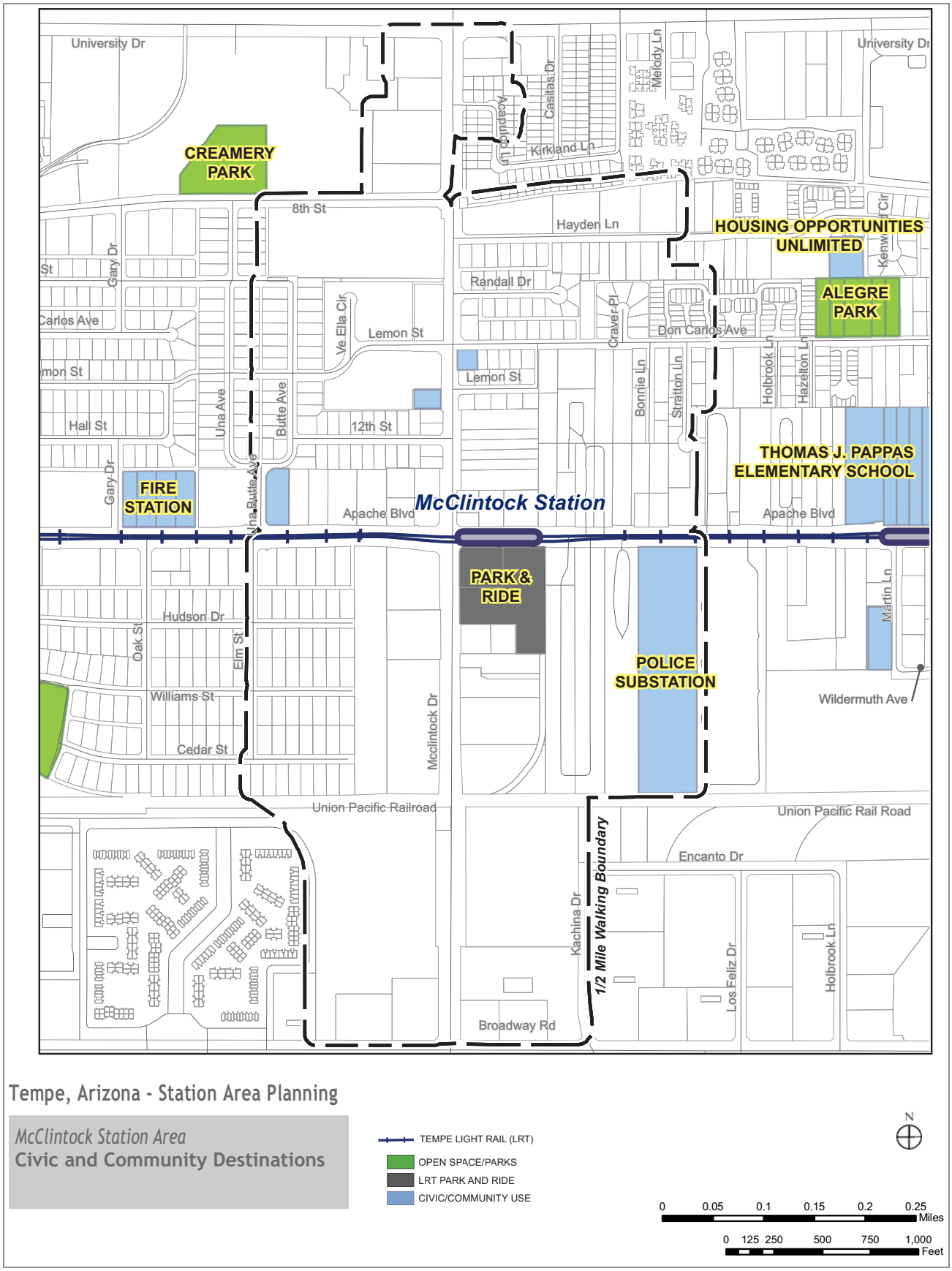

Figure 23: McClintock Station Area Civic and Community Destinations

Existing Conditions

Demographics

In relation to the City of Tempe, the McClintock area is more racially diverse, with a greater concentration of Hispanic or Latino inhabitants representing almost half of the population. However, its predominant demographic group is white, representing slightly more than half the area's population. There is a slightly higher ratio of individuals in the age range of 18 to 34 than the City, but the station area's age range is generally representative of the greater Phoenix region.

The area shows a higher number of unmarried people, likely due to the slightly younger population, while the average household income is significantly lower than the City's. The proximity to ASU, similar to the Dorsey area, likely contributes to these deviations from the City of Tempe as a whole. With regard to transportation, the proportion of commute trips made by transit, bicycling, or walking is similar to the City's, around 10 percent.[5]

Table 2 provides a summary of demographic information for the McClintock station area.

Existing and Planned Land Use

This station area has the highest ratio of trailer or mobile home parks and auto-oriented uses of the four Apache Boulevard stations. The overall land use configuration of the McClintock Station area includes a broad range of residential types with other varied land uses.

The pie chart indicates the ratio of land uses across the parcels within the McClintock Station half-mile walking boundary (refer to Figure 24: McClintock Station Area Land Use Summary and Figure 25: McClintock Station Area Existing and Proposed Land Use).

[5] Claritas Inc. "Pop-Facts: Demographic Snapshot Report," Trade Area: E. Apache Blvd. at McClintock Dr., Tempe, AZ, 2006. Data represents the half-mile radius from the Trade Area intersection.

Table 2
Station Specific Market Data: McClintock Drive and Apache Blvd., Tempe (2006)
Valley Metro LRT Market Study Update; EPS# 16027

Item	Station Area Radii 1/2 mile	Station Area Radii 1 mile	Station Area Radii 5 mile	Tempe	Maricopa
Population	8,149	26,929	329,142	160,111	3,638,112
Projected Population (2011)	8,508	27,900	339,085	165,133	4,125,250
Population Percentage Increase (2006-2011)	4.4%	3.6%	3.0%	3.1%	13.4%
Population Growth (2006 - 2011)	0.9%	0.7%	0.6%	0.6%	2.5%
Population Density/ Sq. Mile	10,381	8,576	4,193	4,054	394
Avg. Household Size	2.50	2.28	2.43	2.38	2.71
Avg. Age	28.1	28.6	33.7	33.8	34.1
Avg. Household Income	$34,733	$43,999	$53,608	$61,412	$69,814
Bachelors Degree+	25.8%	37.0%	29.1%	39.8%	25.8%
% Owner Occupied HH	20.2%	19.0%	48.6%	50.4%	69.4%
Average Home Value (1)	$255,059	N/A	N/A	$286,023	$270,697
Housing Unit Types - Detailed					
1 Unit Attached	4%	6%	9%	9%	6%
1 Unit Detached	19%	14%	41%	45%	62%
2 Units	2%	1%	1%	1%	1%
3 to 19 Units	26%	27%	23%	20%	12%
20 to 49 units	16%	15%	6%	6%	3%
50 or More Units	23%	31%	16%	15%	8%
Mobile Home or Trailer	8%	4%	5%	4%	7%
Boat, RV, Van, etc.	2%	1%	0%	0%	1%
Housing Unit Types - Summary					
% Units Single Family- attached or detached	22.6%	20.3%	49.5%	54.3%	67.5%
% Units - Multi-family	67.5%	74.7%	45.6%	41.9%	24.4%
% Units - Mobile Home or Trailer	7.9%	4.2%	4.8%	3.7%	7.5%

(1) Average home value was derived from a sample of median home prices from Zillow.com.

Sources: Claritas, Inc.; Zillow.com; Economic & Planning Systems

Destinations in the Station Area

The nearby fire station, police station and post office, between the Dorsey and Smith-Martin Station, provide civic anchors for the McClintock Station (refer to Figure 23: Civic and Community Destinations, McClintock Station Area). These important and relatively new civic amenities could characterize the McClintock Station as a civic and community district, which could be an important and valuable identity to strengthen and build upon.

Creamery Park is just outside the Dorsey and McClintock half-mile walking boundary. Given the need for open space, this park is a valuable feature and should have better connections to and from it. McClintock Drive is a key access route for this park.

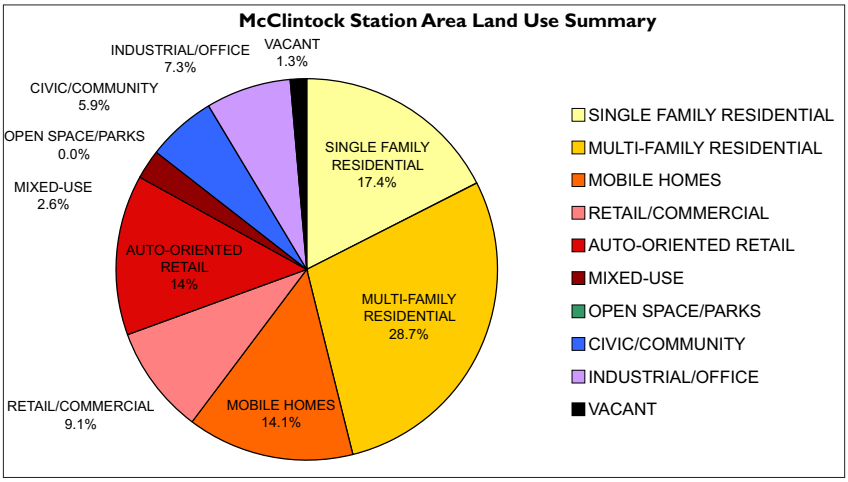

Figure 24: McClintock Station Area Land Use Summary

Equinox, a mixed use development and structured 300-space park-and-ride facility, is planned just south of the McClintock LRT station. The project will feature 408 residential units and 16,000 square feet of retail space in a 5 story building. Structured parking for the development will be include park-and-ride spaces for LRT patrons. Several other developments are underway in the area, including a mixed use retail and residential projects (refer to Figure 26: McClintock Station Area Proposed Development Projects).

Opportunity Sites

Opportunity sites are defined as parcels or groups of contiguous parcels that are currently vacant or contain uses that underutilize the development potential of the property, demonstrate fairly low investment, or whose use is incompatible with transit and pedestrian activity. The auto-oriented uses in the immediate vicinity of the station, specifically along McClintock Drive south of Apache Boulevard, should be considered candidates for relocation. These uses do not support transit ridership and are prime parcels for redevelopment. Other uses would be more applicable for these parcels given their proximity to the park and ride facility and station platform.

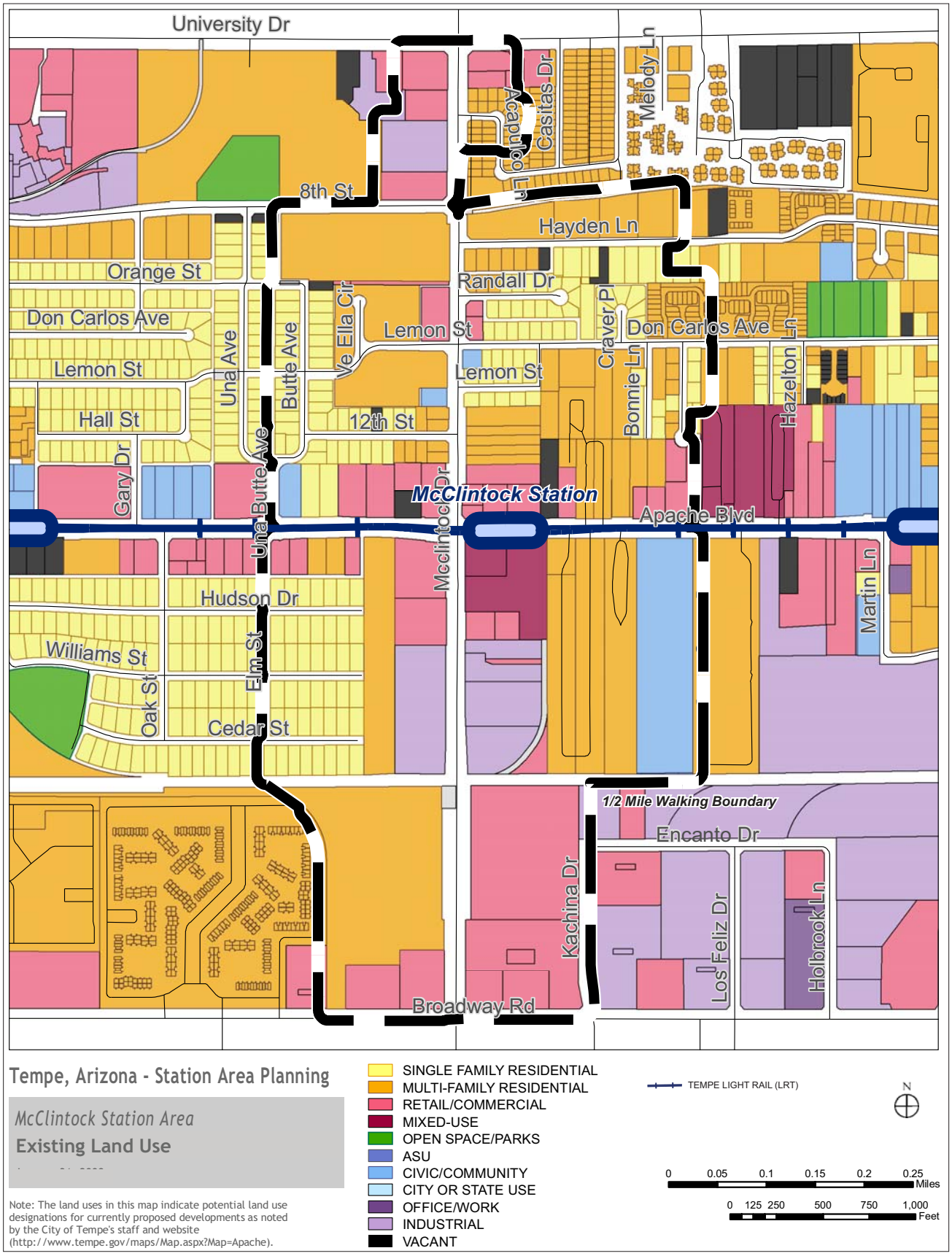

Figure 25: McClintock Station Area Existing Land Use

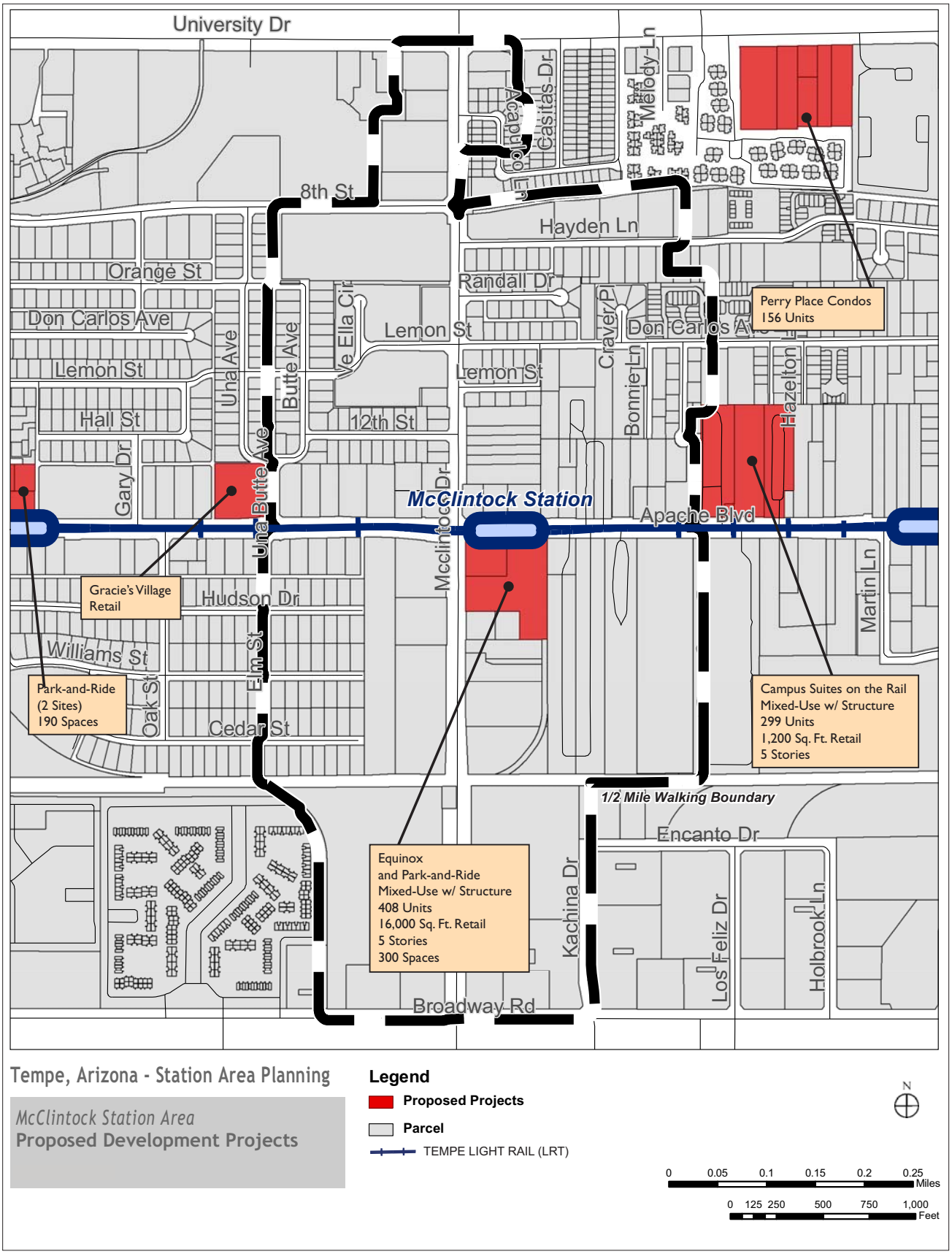

Figure 26: McClintock Station Area Proposed Development Projects

At this station area, the quality and type of commercial sites begins to degrade, mostly along the north side of Apache Boulevard. The presence of student-serving uses is weaker. Revitalization of these marginal commercial sites would begin to create a retail identity along Apache Boulevard that could draw more local residents.

The larger size, accessible location, and configuration of the opportunity sites within this station area indicate considerable potential for large-scale redevelopment. This station area does not have many vacant parcels, but does have some underutilized or non-transit supportive uses. As the Dorsey station area begins to build to capacity, these underutilized and non-transit supportive parcels will become prime opportunity sites (refer to Figure 27: McClintock Station Area Potential Opportunity Sites).

These larger parcels are concentrated along McClintock Drive and Apache Boulevard, the main routes that would most benefit from such redevelopment. The depth and size of the parcels better allows for development to achieve densities and uses that are supportive of TOD. However, many of these parcels are currently trailer or mobile home parks. If the private owners decide to change the use to take advantage of the greater density allowed under the TOD overlay, the issues of affordable housing and displacement will be major challenges to address.

The strong commercial viability and many prime opportunity sites of this station area are major redevelopment opportunities. This is especially important as residents in close proximity could develop a more local affinity with the McClintock Drive area that is separate from that of the student population near Rural Road and Dorsey Lane.

McClintock Station is located along one of the few roads that connects south of the rail right-of-way. It is not only an important road for access to and from Apache Boulevard, but it is also critical in supporting local retail. McClintock Drive provides the needed amount of traffic to helps retail thrive along Apache Boulevard and McClintock Drive.

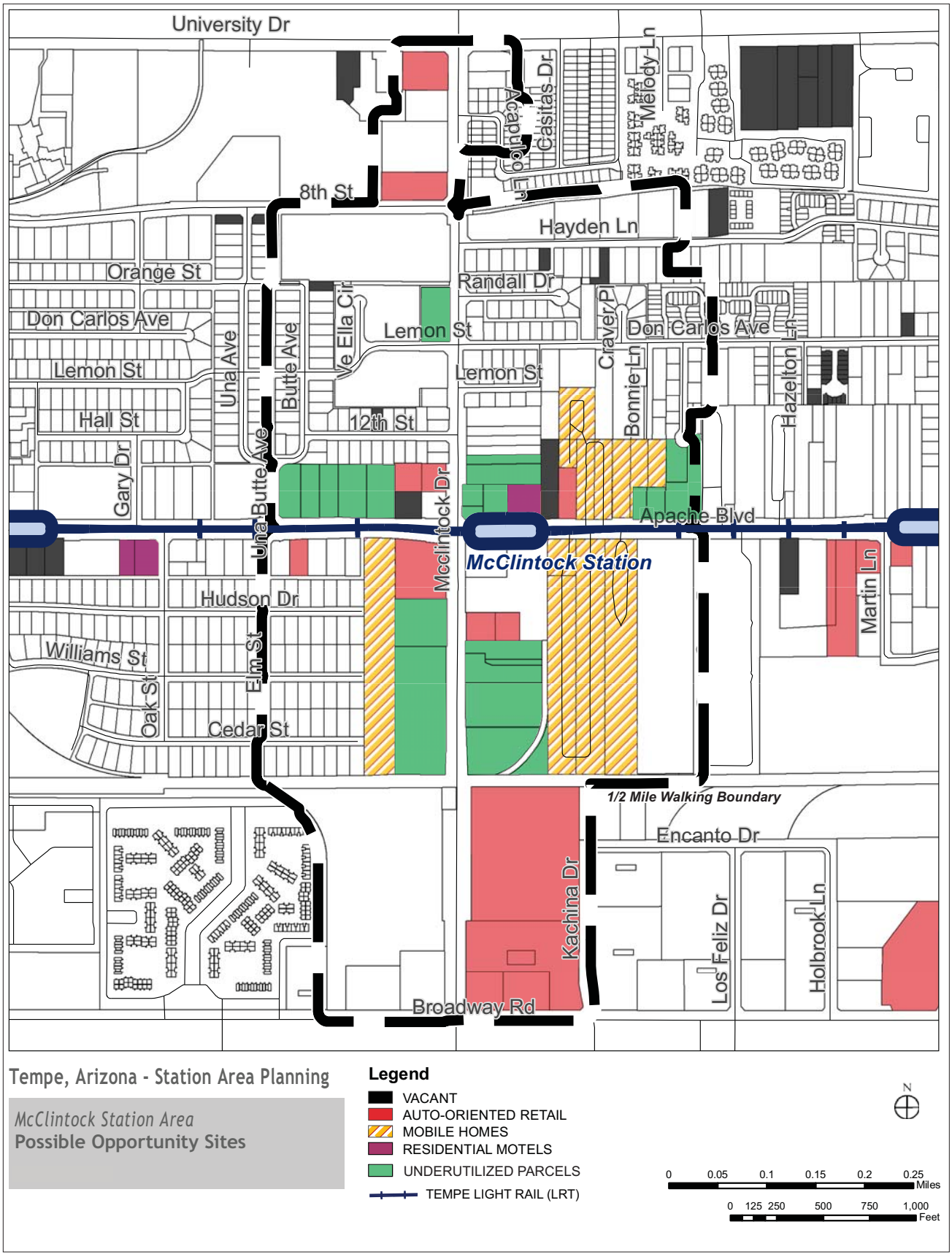

Figure 27: McClintock Station Area Possible Opportunity Sites

Multi-family housing over office and retail

Land Use and Urban Design Recommendations

Land use Concept for Station Area

The May 2007 economic analysis performed for Valley Metro found that in the McClintock station area, development combining multifamily housing above office above in-line retail is likely to be feasible. This is especially the case where the ratio of multifamily units and in-line retail to office is high, and where the multifamily units are offered for sale rather than as rental units. Office use is a valuable contributor to the life of the McClintock station area, supporting the retail sector through mid-day errands and activities, creating eyes on the street, and helping to establish the station area as a desirable business location and destination.

Developers at the charrette in October 2007 expressed interest in developing office use in the area, but believed that the station area's TOD zoning provided greater bonuses for mixed use projects that feature retail and residential uses, and lesser incentives for projects combining retail and office. Offering enhanced height bonuses and reduced or shared parking incentives could encourage more mixed use office development along the corridor. A before and after simulation shows proposed land use changes and streetscape improvements along Apache Boulevard looking west towards McClintock Drive (refer to Figure 28 and Figure 29).

Building Height Recommendations

Building heights should be highest in the immediate vicinity of the LRT station (parcels within approximately 800 feet walking distance of the LRT platform). If desired uses such as affordable housing are provided, buildings up to 90 feet in height could be appropriate in these areas, with heights of up to 60 feet in other portions of the study area. The areas south of Apache Boulevard along McClintock Drive, particularly to the south and east of the Equinox project, would be most appropriate for taller buildings, since there are no single-family areas in that quadrant of the station area. Other portions of the immediate station area, such as the parcels along the west side of McClintock south of Apache Boulevard and the areas to the northeast of the station, are adjacent to single-family homes, which makes taller buildings less appropriate. Stepback provisions should be maintained in these areas, which will have the effect of limiting overall buildings heights, particularly in the northwest quadrant of the station area, where single-family homes are closest to the Apache Boulevard opportunity sites.

Figure 28: Existing conditions along Apache Boulevard looking west towards McClintock Drive

Figure 29: Proposed conditions along Apache Boulevard looking west towards McClintock Drive

Good pedestrian access buffered from vehicles

Station Access Recommendations

Pedestrian Routes

It is important to supplement the pedestrian improvements along Apache Boulevard by integrating improvements along streets that are key pedestrian routes to the station. Pedestrian improvements along McClintock Drive, between 8th Street and Broadway Road, would help make it a good major connector for all modes of transportation, not just vehicles. Improving Una-Butte and Una Avenue would make Creamery Park more accessible for users outside its immediate area. Similarly, Elm Street could better connect the Hudson Park neighborhood to the station area. These are also key routes for residents of the single family neighborhoods to Apache Boulevard and McClintock Station (refer to Figure 30: McClintock Station Area Key Pedestrian Routes).

Hudson Manor pedestrian connection(s) to McClintock

If the properties at the southeast corner of McClintock and Apache are redeveloped, community members expressed support for one or more pedestrian, but not vehicular, connections from Hudson Drive or Williams Street to McClintock, in order to increase the neighborhood's walkability without attracting "cut-through" vehicular traffic to the neighborhood. Such connections would shorten walk distances to the McClintock station and other Apache Boulevard destinations by up to one-quarter mile. Using Crime Prevention Through Environmental Design (CPTED) techniques, such as locating building entrances on the walkway, will help increase activity, and thus safety, by encouraging "eyes on the street." Pedestrian-only pathways should be direct, with clear visibility from end to end, appropriately lit, and well signed in order to maximize pedestrian safety.

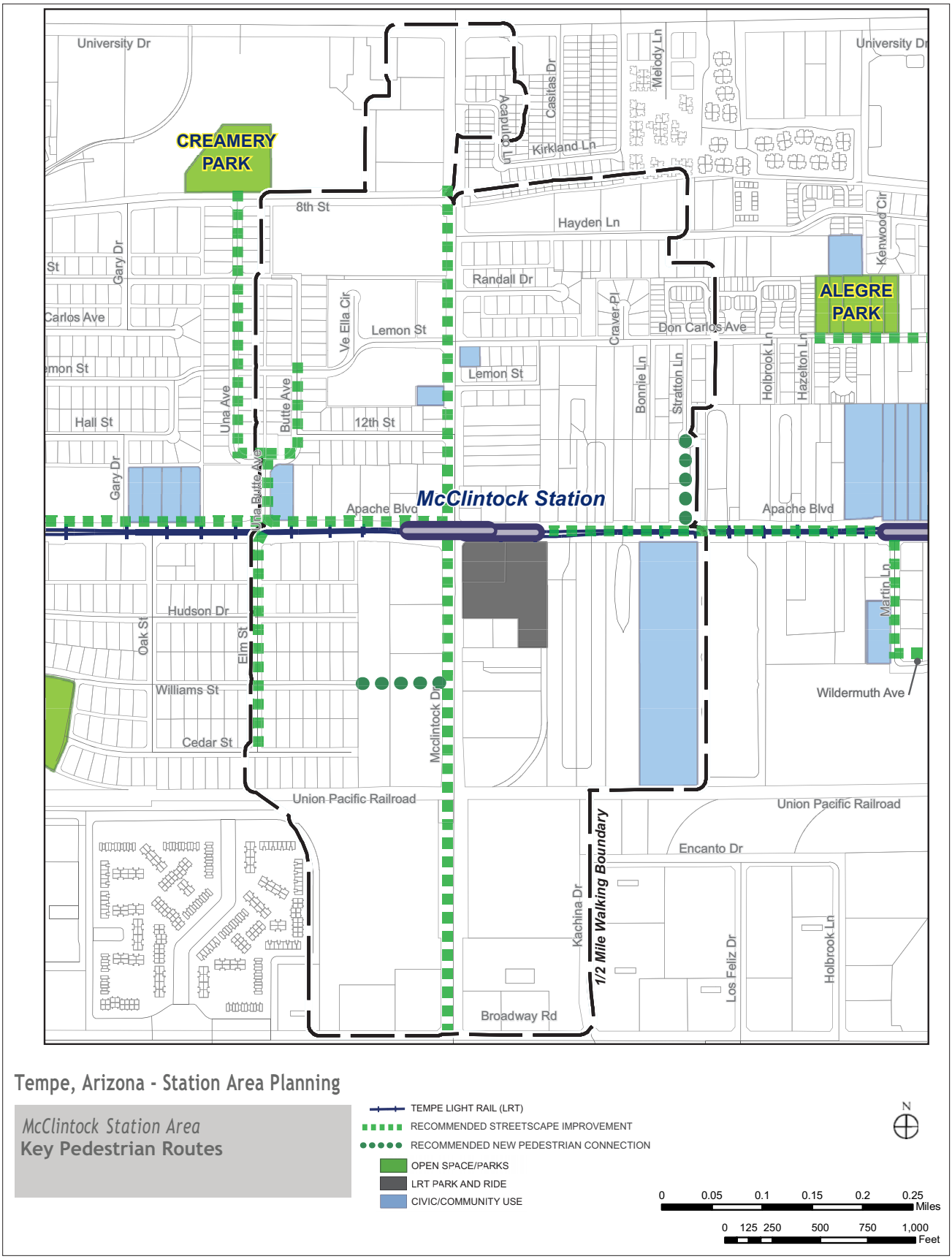

Figure 30: McClintock Station Area Key Pedestrian Routes

McClintock Drive railroad underpass

Bicycle Routes

McClintock Station needs bicycle connections. As a main circulation access route for all modes of transportation, McClintock Drive links the areas north and south areas of Apache Boulevard (refer to Figure 31: McClintock Station Area Key Bicycle Routes). The bike routes and lanes that extend east from ASU on University Drive, 8th Street, Terrace Road, and Lemon Street begin to diminish by McClintock Drive. The existing bike network could easily be connected to the LRT by extending bikeways along McClintock Drive from University Drive to Apache Boulevard.

Furthermore, making improvements to the railroad underpass that included bicycle amenities would link the area south of the Union Pacific Railroad to Apache Boulevard and the LRT. The current constricted pedestrian and bicyclist condition of the underpass require riders to dismount and walk their bicycle several hundred feet. This physical condition does not support usage of various modes of transportation, an undesirable situation for a critical connective route. The configuration of the underpass does not easily lend itself to the creation of wider pathways suitable for bicycling, and the creation of on-street bicycle lanes on McClintock would require the removal one or more travel lanes, making this option unlikely to occur. If major reconstruction of McClintock or the underpass occurs in the future, bicycle accommodation should be included in the project.

Feeder Bus

Valley Metro 81 bus on McClintock

The McClintock station is served by Valley Metro's Route 81 bus line. Major destinations on the 81 line include Downtown Tempe and Tempe Marketplace, ASU main campus, ASU Research Park, McClintock High School, Chandler Regional Hospital, and Costco shopping complex.

Park & Ride

300 space park and ride under construction in Equinox project

This station will have a 300-space park-and-ride facility on the southeast corner of Apache Boulevard and McClintock Drive as part of a new development, which will help accommodate driving patrons. Since this station is accessible from the south by car, it is important for this station to serve drivers as well as pedestrians or bicyclists.

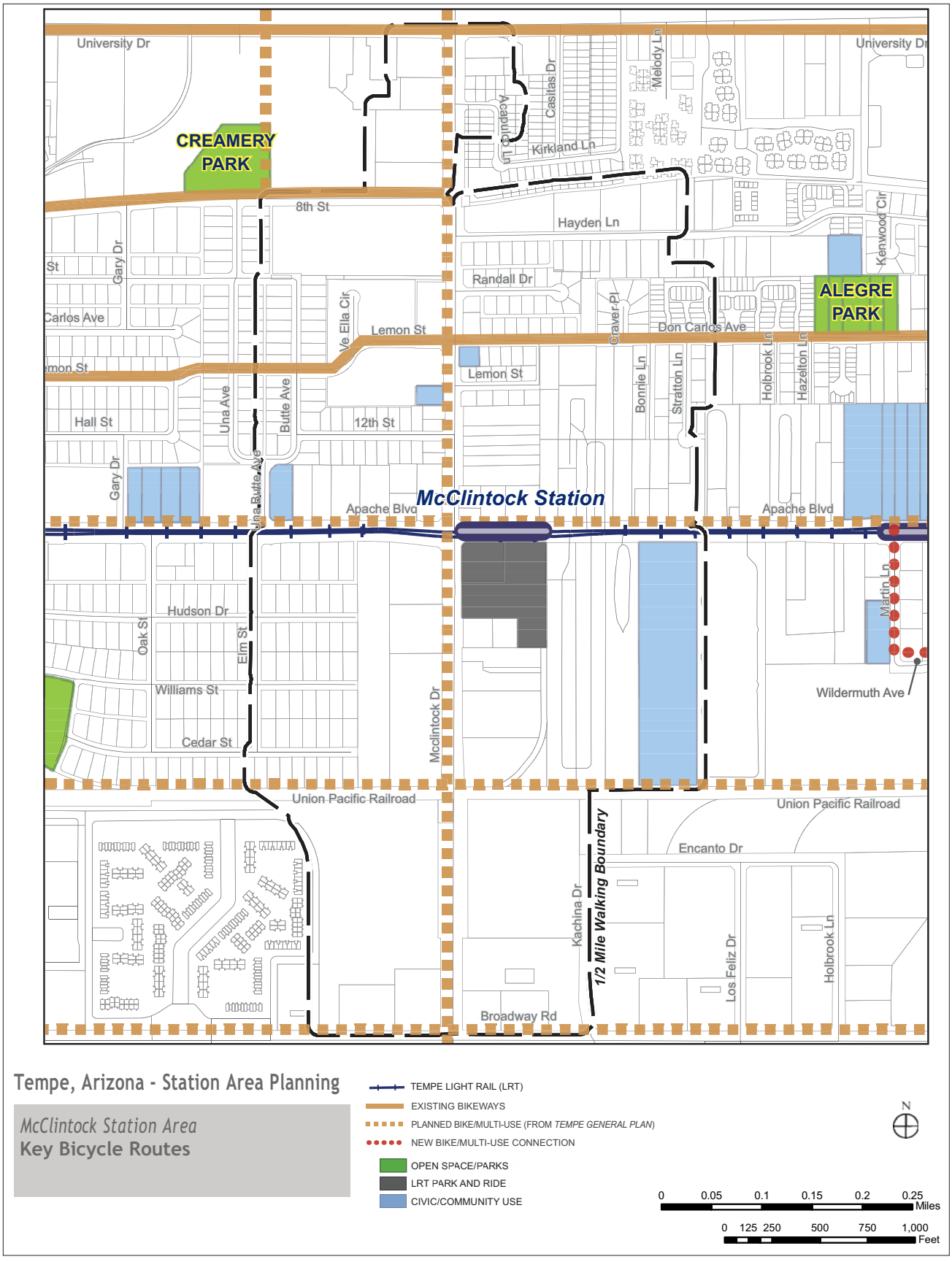

Figure 31: McClintock Station Area Key Bicycle Routes

Proposed New Streets

Apache to McClintock connection

Given the many opportunity sites in this station area, additional access routes could be integrated into their redevelopment. The parcels south of Apache Boulevard and on either side of McClintock Drive are very large and deep, forming barriers to surrounding uses and areas. Making a secondary vehicular connection from Apache Boulevard to McClintock would break up these large parcels and add more developable frontage, making this station area much more accessible and TOD supportive (refer to Figure 32: McClintock Station Area Proposed New Streets). In addition, if feasible from a police perspective, creating a secured exit from the police station to this new street connection could potentially improve police response times by providing a second means of egress from the police station.

Stratton Lane street connection to Apache

Extending Stratton Lane through to Apache Boulevard would greatly increase pedestrian and vehicular connectivity from McClintock station to the neighborhoods around Alegre Park to the north. Both pedestrian and vehicular trips would be greatly shortened by this connection, which could take advantage of the traffic signal already present at the police station entrance.

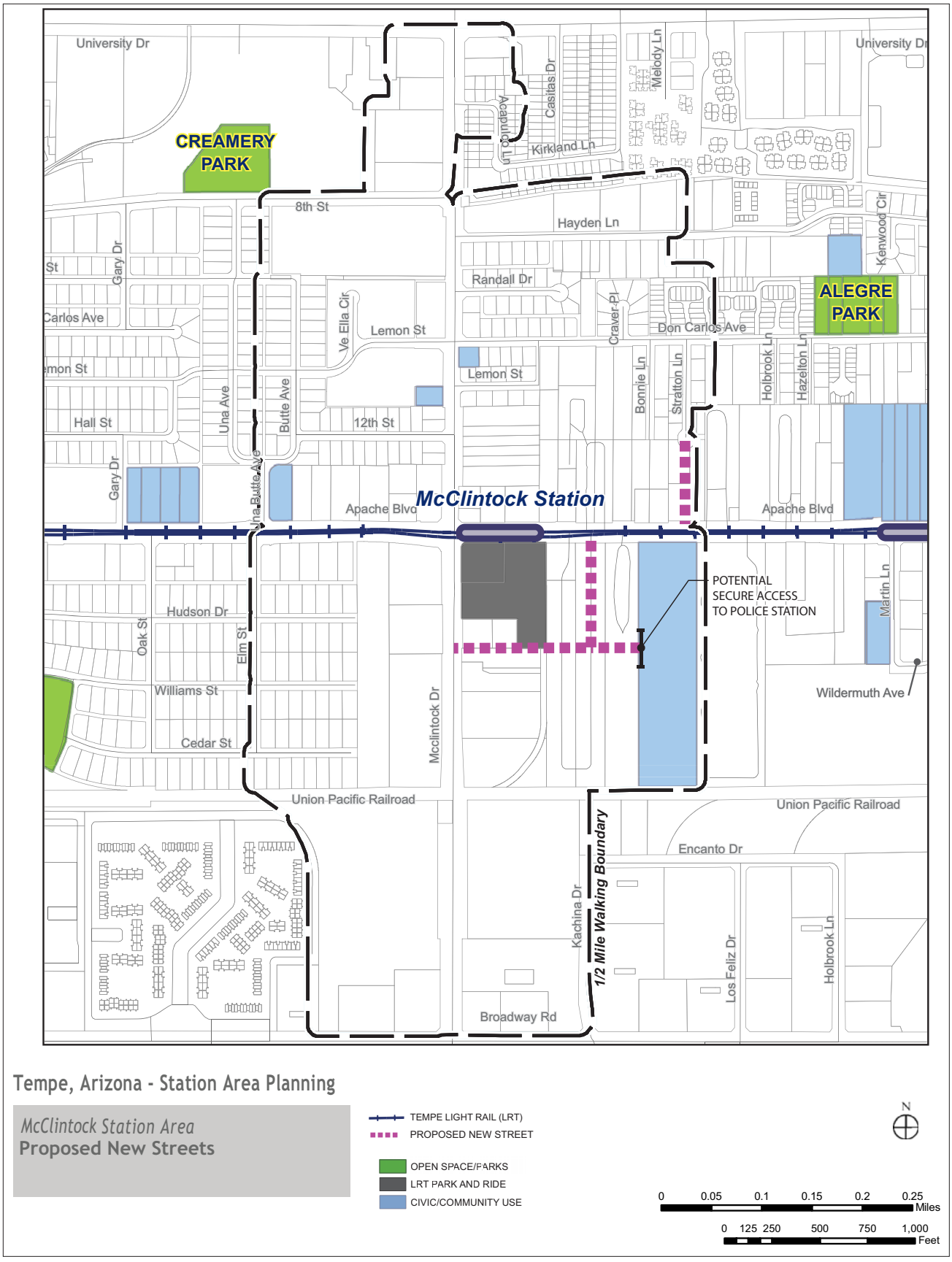

Figure 32: McClintock Station Area Proposed New Streets

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Smith-Martin Station Area Plan

The Smith-Martin station area is roughly bounded by University Drive to the north, Stratton Lane to the west, the Union Pacific Railroad to the south, and Siesta Lane to the east (refer to Figure 33: Smith-Martin Station Area). Key civic destinations in this area include Alegre Park, Escalante Park, the Escalante community center, Thomas J. Pappas and Flora Thew elementary schools, and a post office. (Refer to Figure 34, Civic and Community Destinations, Smith-Martin Station Area.)

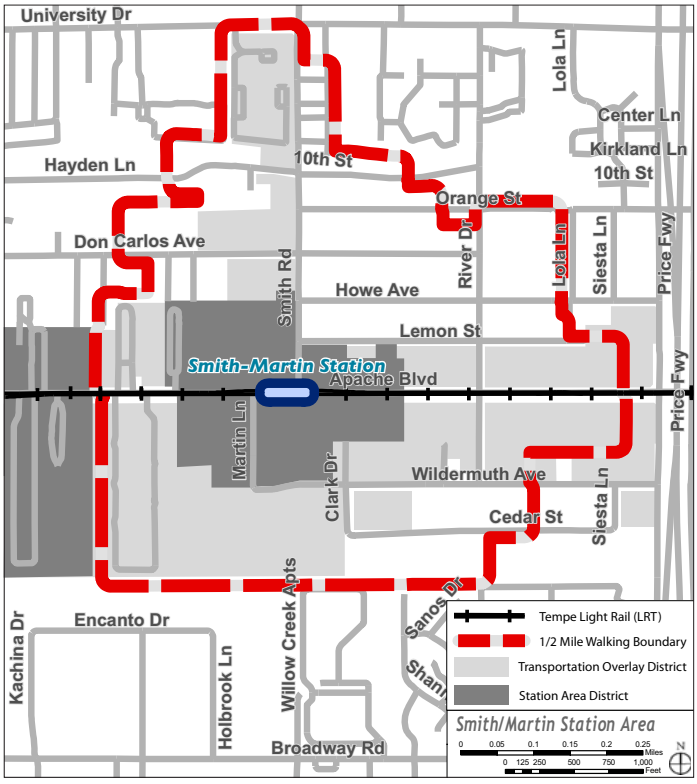

Figure 33: Smith-Martin Station Area

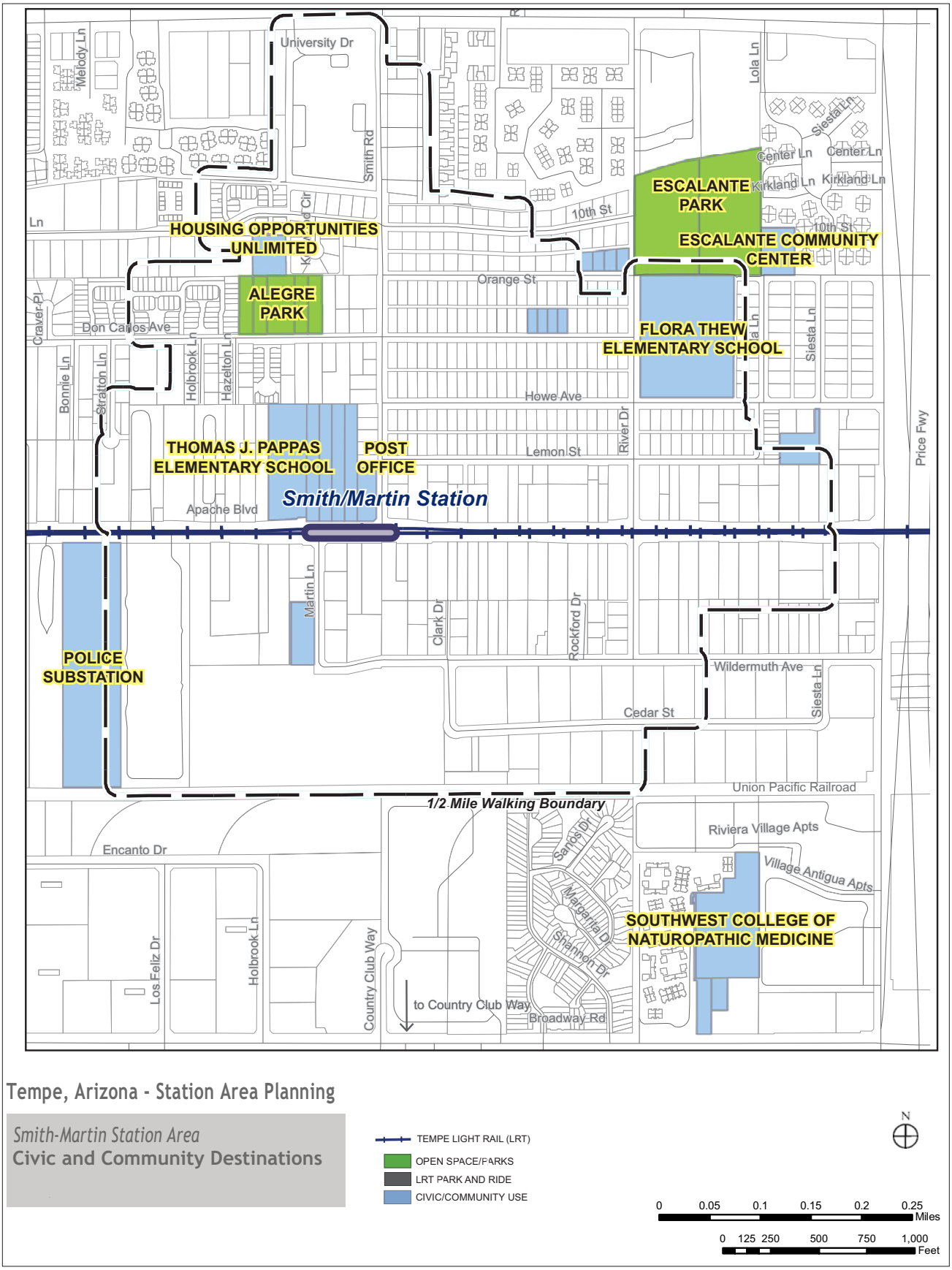

Figure 34: Smith-Martin Station Area Civic and Community Destinations

Existing Conditions

Demographics

The population of the Smith-Martin area is predominantly Latino, with individuals of Hispanic or Latino origin representing more than half the population. The age ratios are generally representative of the greater region, with most people ranging between 21 and 44 years of age. The area shows a higher number of unmarried individuals and lower number of family households than the citywide average. The average household income is significantly lower than the City's average. With regard to transportation, the ratio of commute trips made by transit, bicycling, or walking is similar to the City's, around 10 percent.[6]

Table 3 provides a summary of demographic information for the Smith-Martin station area.

[6] Claritas Inc. "Pop-Facts: Demographic Snapshot Report," Trade Area: E. Apache Blvd. at Smith Rd. Ln., Tempe, AZ, 2006. Data represents the half-mile radius from the Trade Area intersection.

Table 3
Station Specific Market Data: Smith Road/Martin Lane and Apache Blvd., Tempe (2006)
Valley Metro LRT Market Study Update; EPS# 16027

Item	Station Area Radii 1/2 mile	Station Area Radii 1 mile	Station Area Radii 5 mile	Tempe	Maricopa
Population	7,546	22,772	342,106	160,111	3,638,112
Projected Population (2011)	7,887	23,887	352,148	165,133	4,125,250
Population Percentage Increase (2006-2011)	4.5%	4.9%	2.9%	3.1%	13.4%
Population Growth (2006 - 2011)	0.9%	1.0%	0.6%	0.6%	2.5%
Population Density/ Sq. Mile	9,613	7,252	4,358	4,054	394
Avg. Household Size	2.45	2.37	2.45	2.38	2.71
Avg. Age	29.0	29.3	32.5	33.8	34.1
Avg. Household Income	$44,085	$50,751	$65,439	$61,412	$69,814
Bachelors Degree+	24.2%	30.6%	28.4%	39.8%	25.8%
% Owner Occupied HH	25.9%	26.5%	48.9%	50.4%	69.4%
Average Home Value (1)	$219,391	N/A	N/A	$286,023	$270,697
Housing Unit Types - Detailed					
1 Unit Attached	9%	9%	9%	9%	6%
1 Unit Detached	14%	18%	41%	45%	62%
2 Units	2%	1%	1%	1%	1%
3 to 19 Units	28%	27%	23%	20%	12%
20 to 49 units	9%	12%	5%	6%	3%
50 or More Units	25%	26%	16%	15%	8%
Mobile Home or Trailer	10%	7%	5%	4%	7%
Boat, RV, Van, etc.	3%	1%	0%	0%	1%
Housing Unit Types - Summary					
% Units Single Family- attached or detached	22.6%	26.6%	49.5%	54.3%	67.5%
% Units - Multi-family	64.4%	65.4%	45.3%	41.9%	24.4%
% Units - Mobile Home or Trailer	10.2%	6.9%	5.1%	3.7%	7.5%

(1) Average home value was derived from a sample of median home prices from Zillow.com.

Sources: Claritas, Inc.; Zillow.com; Economic & Planning Systems

Existing and Planned Land Use

The pie chart indicates the land use acreage ratio of parcels within the Smith-Martin Station half-mile walking boundary (refer to Figure 35: Smith-Martin Station Area Land Use Summary).

The Smith-Martin station area has the highest ratio of industrial uses, as well as vacant land. The ratio of trailer or mobile home parks and civic or community related uses are also significant (refer to Figure 36: Smith-Martin Station Area Existing and Proposed Land Use).

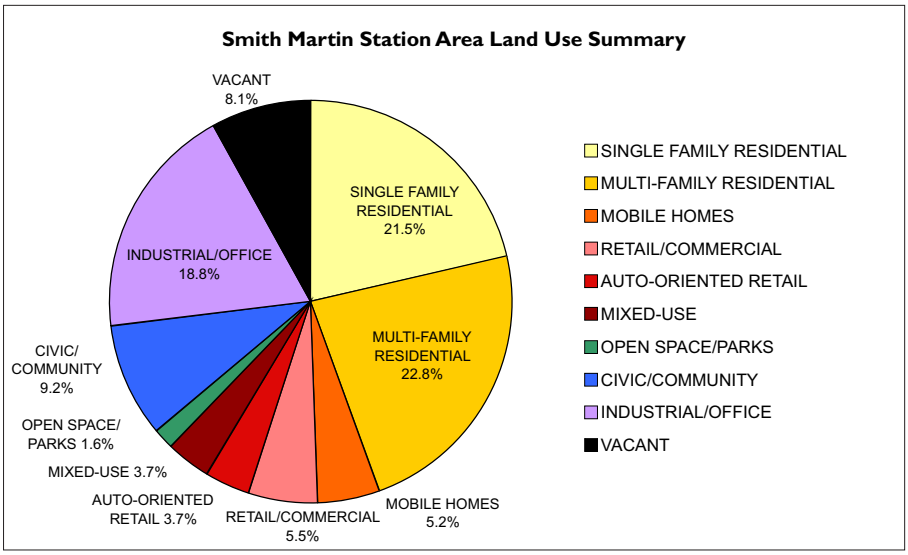

Figure 35: Smith-Martin Station Area Land Use Summary

There is generally a lack of commercial or retail uses. The overall land use configuration of the Smith-Martin Station area is discontinuous and varied across all land uses, with little cohesive character, especially along Apache Boulevard. With the exception of the Campus Suites on the Rail project, there has been relatively little development activity in the Smith-Martin station area in recent years, in contrast to the Dorsey and McClintock station areas (refer to Figure 37: Smith-Martin Station Area Proposed Development Projects).

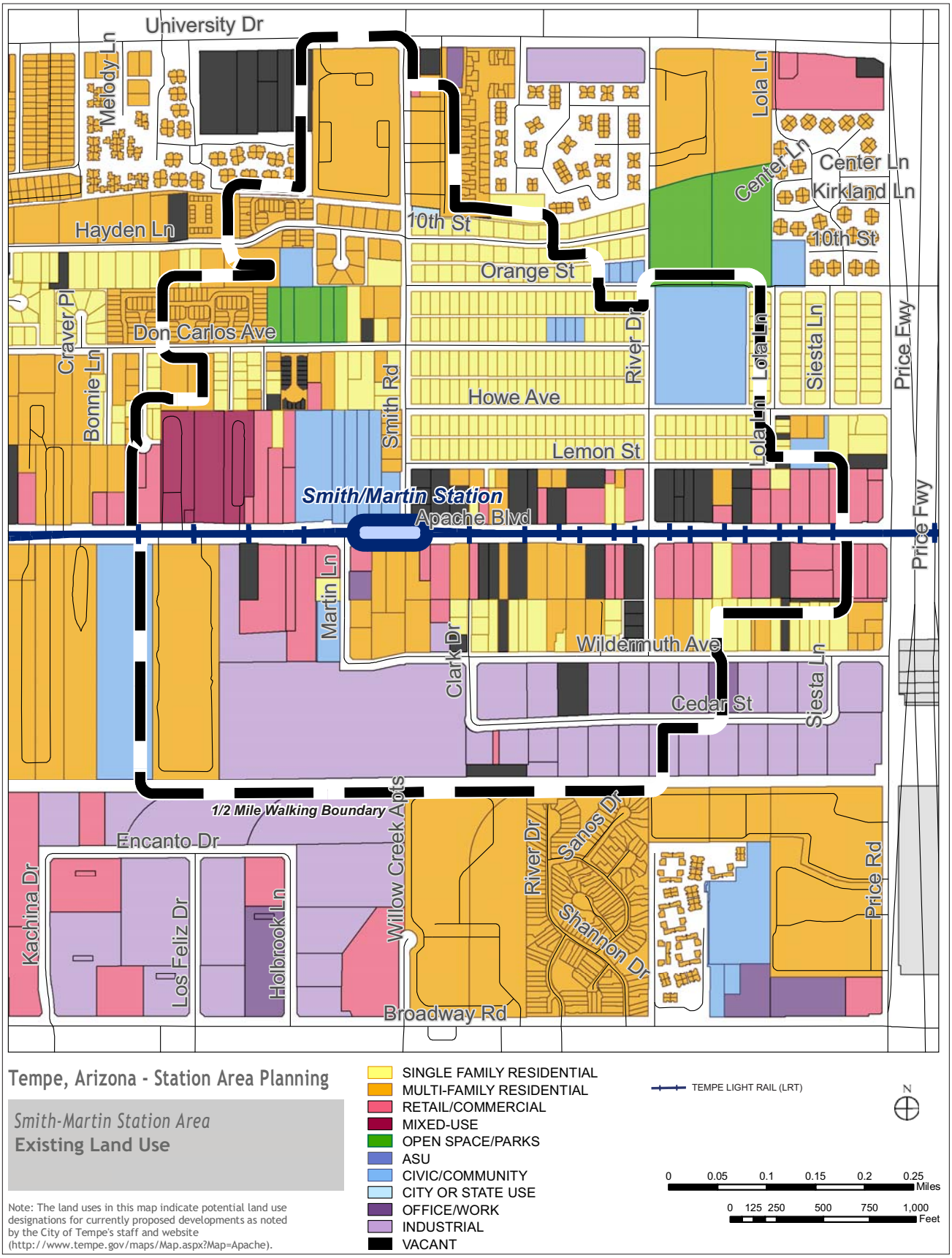

Figure 36: Smith-Martin Station Area Existing Land Use

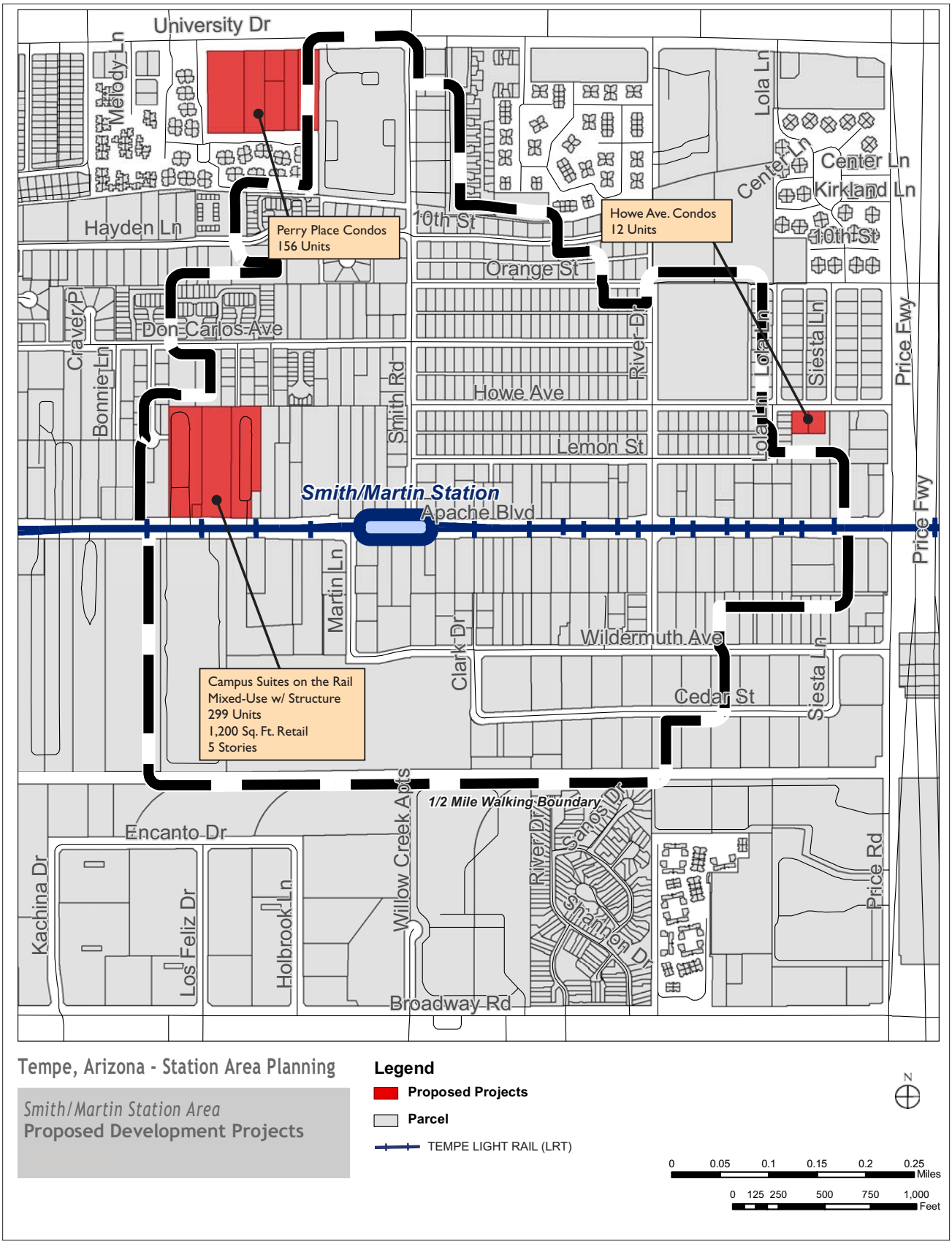

Figure 37: Smith-Martin Station Area Proposed Development Projects

Guerrero's Mexican Food Restaurant

Destinations in the Station Area

Community amenities

The Escalante neighborhood is a stable single-family neighborhood. Similar to the Hudson Manor and University Heights neighborhood, it contributes to the area's identity. Alegre and Escalante Parks are major public open space amenities. Furthermore, this area includes valuable community services and amenities, such as the Escalante Community Center, and Flora Thew Elementary School. Escalante Park falls just outside the ½ mile walking distance boundary, but it has substantial facilities, including a pool, indoor basketball gym, senior center, fitness center, youth center, and an education room. Escalante Park is the largest and best equipped park in the study area.

Guerrero's Mexican Food at 2148 East Apache Boulevard is a popular neighborhood restaurant that also attracts visitors to the station area. Although located on a block with many underutilized parcels, valued local businesses like Guerrero's should be retained, either on-site or in new space created as part of a new development.

There are three religious institutions in or near the station area: Evangelical Formosan, New Calvary Baptist, and Al Manai Community Center. The northern side of the Smith-Martin station area has a strong focus on family life and community (refer to Figure 34: Civic and Community Amenities, Smith-Martin Station Area).

Employment node

Development momentum is evident in the employment node south of Apache Boulevard. These are newer industrial or business park buildings that house a variety of employment uses. Most of the uses are light industrial or other lower-intensity production, distribution and repair enterprises. UPS is the largest user in the area. There appears to be a low vacancy rate in the employment node.

Opportunity Sites

Opportunity sites are defined as parcels or groups of contiguous parcels that are currently vacant or contain uses that underutilize the development potential of the property, demonstrate fairly low investment, or whose use is incompatible with transit and pedestrian activity. The Smith-Martin station area contains several vacant parcels along Apache Boulevard and substandard residential and commercial parcels along Apache Boulevard east of Smith Road. These parcels provide considerable potential for large-scale redevelopment, and their location near a station and physical configuration makes them prime opportunity sites. Their configuration allows for potential consolidation, creating opportunities to design more comprehensively and to incorporate new street connections. Several blocks that front Apache Boulevard could be improved in their entirety, maximizing the potential for successful TOD (refer to Figure 38: Smith-Martin Station Area Potential Opportunity Sites).

Thomas J. Pappas Regional Elementary School, which serves under-privileged children, and the post office act as civic anchors for the Smith-Martin Station, but 2008 will be the last year of operation for Pappas School and it is unclear what the site's future use will be. The site's prominent location near the LRT platform is a major asset; an active ground-floor use that would draw residents and visitors to the location, such as a restaurant, community or civic use, would be appropriate.

Figure 38: Smith-Martin Station Area Possible Opportunity Sites

Land Use and Urban Design Recommendations

Land Use Concept for Station Area

The economic analysis conducted for Valley Metro in May 2007 recommended a development program that includes mixed use for-sale multi-family and ground floor retail, either 2-3 stories or 4-6 stories, with structured parking. Significant parcel assembly will be necessary for such development in this station area, and such development might benefit from the City of Tempe's encouraging joint development, by engaging surrounding property owners in planning and assembly efforts and sponsoring request for proposals (RFPs) for development.

Multi-family residential over ground floor retail

Anticipate and plan for eventual residential/mixed use development

The residential area between Apache Boulevard and Wildermuth Avenue has a very inconsistent and substandard quality and contains many vacant or underutilized sites. This residential area should be considered for revitalization. Some of these parcels are trailer or mobile home parks that are in considerably worse condition than those in the McClintock station area. Improving the character of these residential blocks will strengthen the family- and community-oriented identity of the north side of the Smith-Martin station area.

A relatively recent multi-family development east of Smith Road and north of Don Carlos Avenue, just west of Alegre Park, creates a dramatic contrast greatly in quality with the older residential parcels across the street on the south side of Don Carlos Avenue. Although the Smith-Martin station area has fewer proposed developments than the Dorsey and McClintock station areas, this recently built project and the planned Campus Suites on the Rail development both indicate that residential development can be viable in the station area.

In addition to residential revitalization, the businesses and hotels along Apache Boulevard are also in need of improvement. There are a few auto-oriented uses located along Apache Boulevard that could be relocated to allow for TOD supportive uses. East of the station platform there is a cluster of affordable residential motels that are mostly of poor quality. This cluster has brought about some safety concerns. As discussed above, should these properties' owners choose to redevelop them, providing replacement affordable housing is a major challenge that will need to be addressed as changes occur along Apache Boulevard. A before and after simulation shows proposed land use changes and streetscape improvements along Apache Boulevard looking east towards Smith Road (refer to Figure 39 and Figure 40).

Figure 39: Existing conditions along Apache Boulevard looking east toward Smith Road

Figure 40: Proposed conditions along Apache Boulevard looking east toward Smith Road

Encourage transit-supportive employment in employment node

Over time, the proximity to the LRT station may attract more intensive employment uses to the employment node, such as research and development or office users. Land use regulations for the employment node may need to be reviewed to ensure that these more transit-supportive forms of employment are encouraged, rather than discouraged. New north-south street connections from Apache to Wildermuth, discussed below, would make the employment node more accessible to transit.

A grade-separated pedestrian crossing

Increase connectivity to schools with railroad crossing

The Smith-Martin station area is relatively isolated from middle and high schools and neighborhood services, which limits its attractiveness to families and discourages or prevents middle and high school students from walking or bicycling to school. Creating a grade-separated pedestrian and bicycle crossing of the railroad line, as discussed below, would make the Escalante neighborhood much more accessible to Connolly Middle School, which is only two-thirds of a mile south of Apache as the crow flies, as well as to McClintock High School. This connection could stimulate market interest in family housing in the station area.

Building Height Recommendations

Building heights should be highest in the immediate vicinity of the LRT station (parcels within approximately 800 feet walking distance of the LRT platform). If desired uses such as affordable housing are provided, buildings up to 90 feet in height could be appropriate in these areas, with heights of up to 60 feet in other portions of the study area. The opportunity sites between Apache Boulevard and Wildermuth Avenue would be most appropriate for taller buildings, since there are very few owner-occupied single-family homes in that quadrant of the station area. Other portions of the immediate station area, such as the parcels between Apache Boulevard and Lemon Street and the commercial sites west of the Pappas School site, are adjacent to single-family homes, which makes taller buildings less appropriate. Stepback provisions should be maintained in these areas, which will have the effect of limiting overall buildings heights, particularly in the northeast quadrant of the station area, where single-family homes are closest to the Apache Boulevard opportunity sites. Developments in these areas should include townhouses or other low-rise residential uses on the south side of Lemon Street that are similar in scale to the existing neighborhood and could transition to higher mixed use buildings on the Apache Boulevard frontage.

Station Access Recommendations

Pedestrian Routes

Because the Smith-Martin station area has no park and ride facility, few destinations, and only limited connections to outlying areas, it will attract riders mainly from the surrounding neighborhood. To increase ridership, capital improvements should emphasize and improve the pedestrian environment to help make the LRT accessible to the surrounding area (refer to Figure 41: Smith-Martin Station Area Key Pedestrian Connections).

Pedestrian improvements on Smith Road from University Drive to Apache Boulevard would help to connect the neighborhoods north of Apache Boulevard to the station. River Drive, between Wildermuth Avenue and Escalante Park, is an important connection to a major community amenity and should be enhanced. Martin Lane and Wildermuth Avenue between Martin Lane and River Drive should be improved to make a more pleasant and safe route between the employment node and the station.

Bicycle Routes

Bike access is limited at Smith-Martin station. In the station catchment area, the existing bicycle amenities consist of a bike lane on University Drive and a signed route on Don Carlos Avenue and Orange Street. The residential neighborhoods to the north could benefit from bike improvements along Smith Road between University Drive and Apache Boulevard (refer to Figure 42: Smith-Martin Station Area Key Bicycle Connections).

In the portion of the station area south of Apache Boulevard, the existing large blocks and the lack of any connection to the south greatly limit bicycle connectivity. Creating a connection to the area south of the rail line would enlarge the accessible boundary to the LRT and create important connections to the schools located south of the rail line. Making this connection, ideally from Wildermuth Avenue to Country Club Way, would require a grade-separated rail crossing. The *Tempe General Plan 2030* includes maps showing a proposed new pedestrian/bicycle rail crossing at Country Club Way, as well as a multi-use path along the rail line; planned bicycle routes are also shown along Smith Road, Don Carlos and Howe Avenues and Price Road.

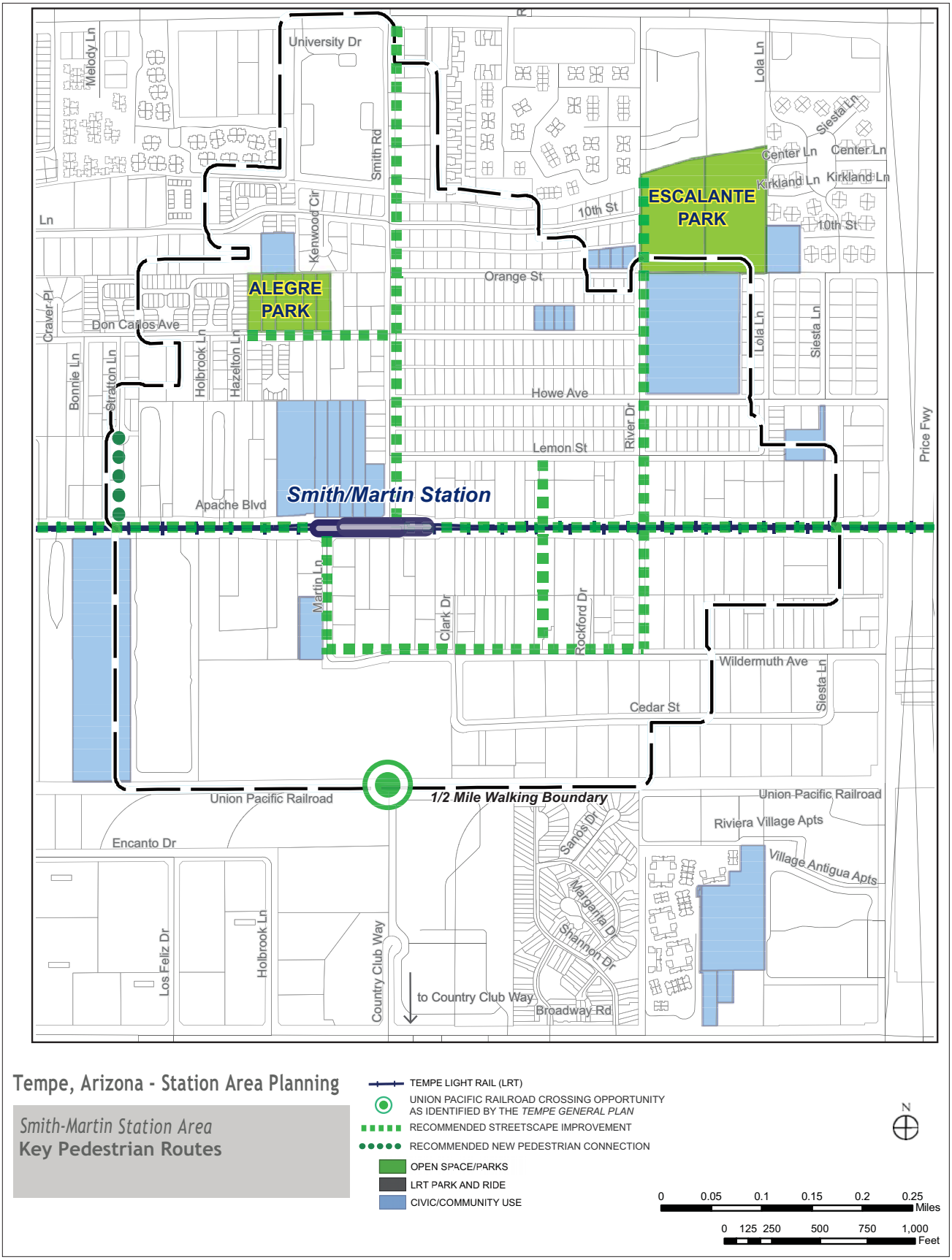

Figure 41: Smith-Martin Station Area Key Pedestrian Routes

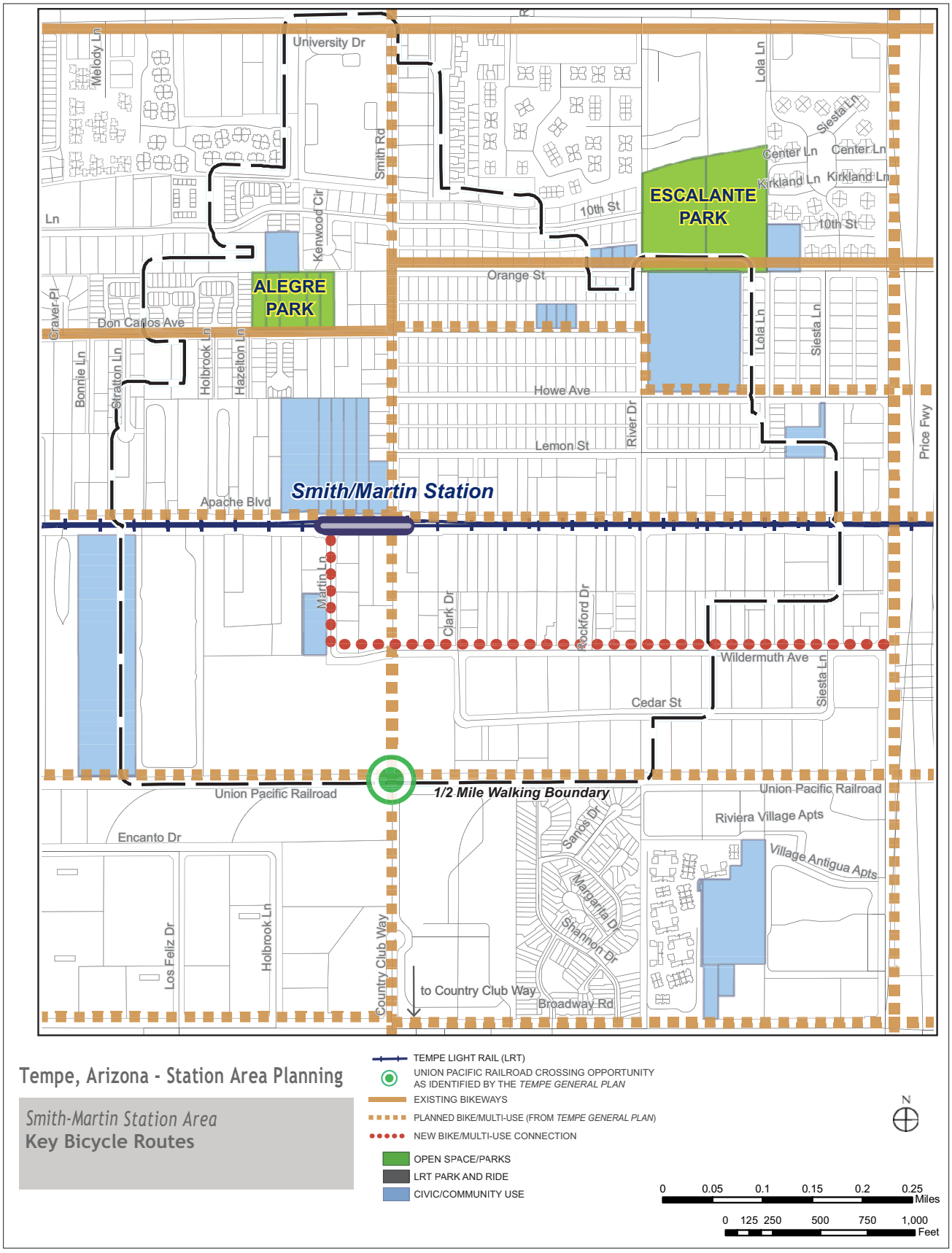

Figure 42: Smith-Martin Station Area Key Bicycle Routes

Feeder Bus

As part of Tempe in Motion's Orbit shuttle service, the Mercury line travels roughly parallel to Apache Boulevard, between downtown Tempe and the Escalante Center via 8th Street, Hayden Lane and Lemon Street. Operating from 6 a.m. to 10 p.m. seven days a week with a 15 minute headway, this shuttle provides service that could be rerouted to crisscross the Apache corridor near station areas, acting as a feeder bus for the LRT. As the route currently operates, riders can access the Smith/Martin station from the corner of Smith Road and Lemon Street.

Proposed New Streets

As redevelopment occurs, there is also opportunity to create new street connections through the long blocks between Lemon Street and Apache Boulevard, as well as between Wildermuth Avenue and Apache Boulevard (refer to Figure 43: Smith-Martin Station Area Proposed New Streets). These would help make the employment node much more accessible as well as breaking up the lengths of the blocks. Although the LRT improvements and median would not permit a full movement intersection across Apache Boulevard, these new streets could be aligned north and south of Apache Boulevard to provide visual connectivity. With the additional connectivity created by these new streets, commercial and retail uses along Apache would be better linked not only to the residential uses but to the existing employment and industrial node as well.

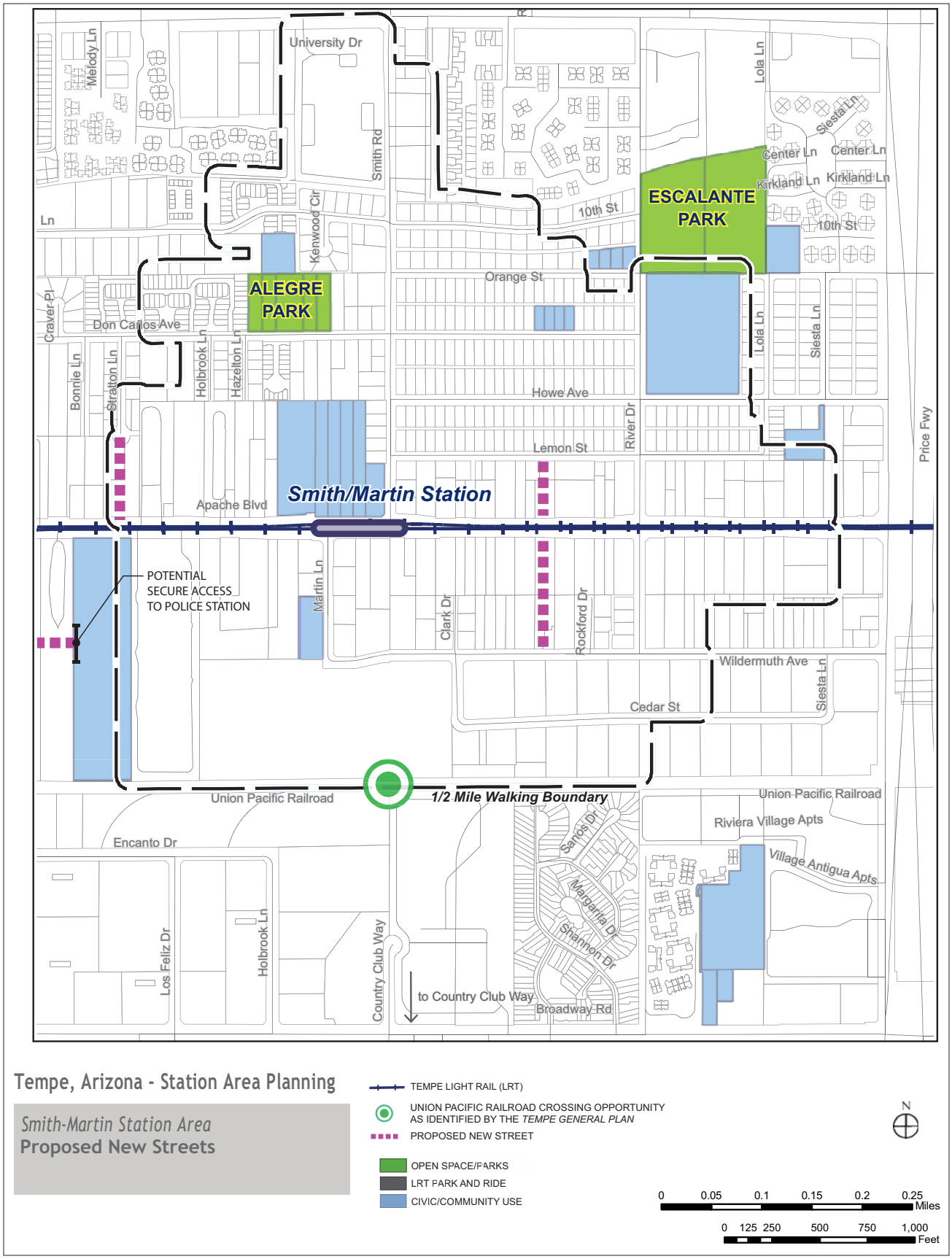

Figure 43: Smith-Martin Station Area Proposed New Streets

Price Freeway Station Area Plan

The Price Freeway station area is roughly bounded by Laird Street to the north, Lola Lane to the west, Birchwood Avenue to the south, and May Street to the east. The freeway forms a major barrier to east-west vehicular and pedestrian movement within the station area (refer to Figure 44: Price Freeway Station Area). Key civic destinations in this area include the Tempe Canal Path and the new Esquer Park along MacArthur Drive at George Drive, on which the City began construction in 2007. (Refer to Figure 45: Civic and Community Destinations, Price Freeway Station Area.)

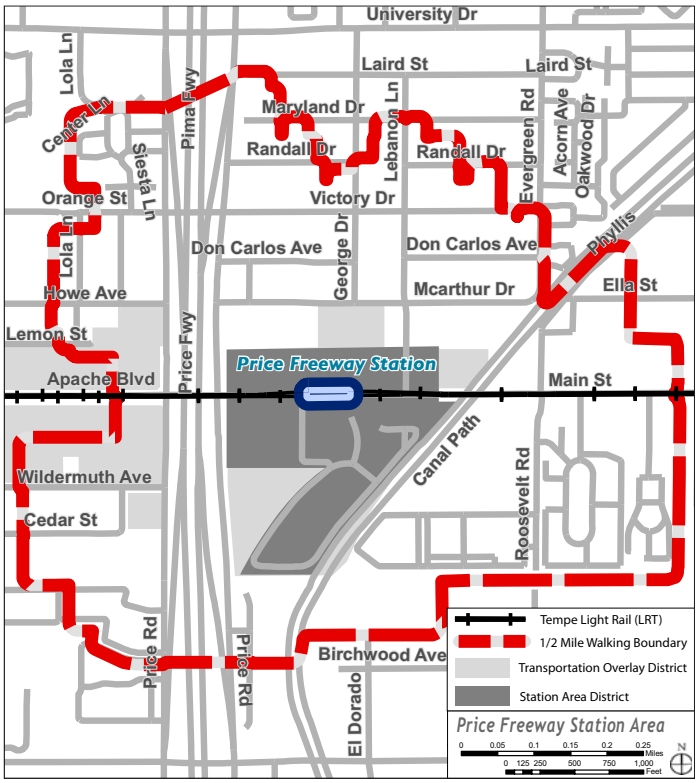

Figure 44: Price Freeway Station Area

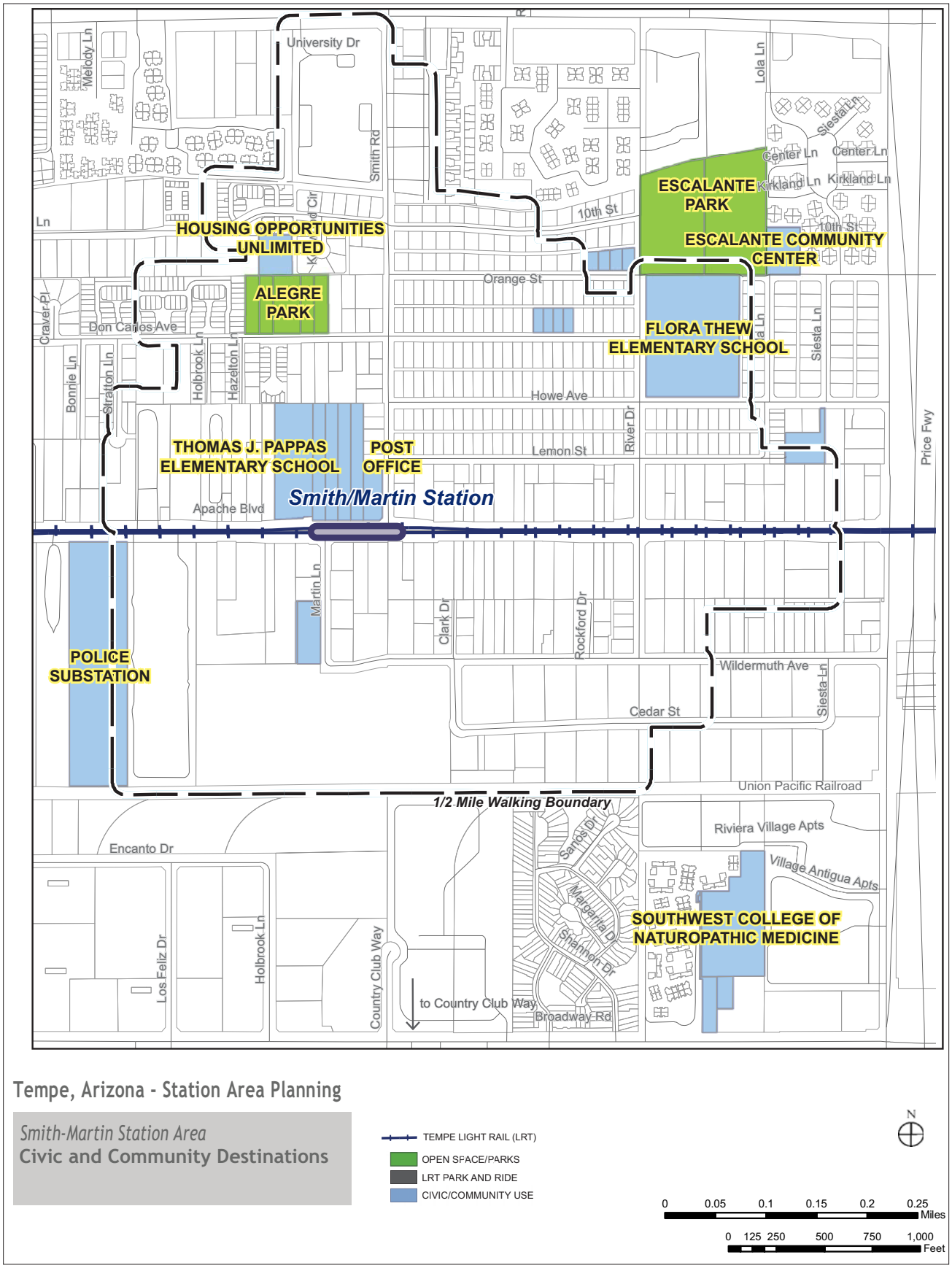

Figure 45: Price Freeway Station Area Civic and Community Destinations

Existing Conditions

Demographics

In relation to the City of Tempe, the Price Freeway area is more racially diverse, with a greater concentration of Hispanic or Latino inhabitants, who represent almost half of the station area population. The white demographic group is still very prominent here, also representing nearly half the area's population. The age ratios are generally representative of the greater region, with most people ranging between 21 and 44 years of age. The area shows a slightly higher number of unmarried individuals and a lower number of family households, but the difference is not as extreme as the ratios of the Dorsey area. Average household income is significantly lower than the City's. With regard to transportation, the ratio of commute trips made by transit, bicycling, or walking is similar to the City's average of around 10 percent.[7]

Table 4 provides a summary of demographic information for the Price Freeway station area.

[7] Claritas Inc. "Pop-Facts: Demographic Snapshot Report," Trade Area: E. Apache Blvd. at Price Freeway, Tempe, AZ, 2006. Data represents the half-mile radius from the Trade Area intersection.

Table 4
Station Specific Market Data: Price Freeway and Apache Blvd., Tempe (2006)
Valley Metro LRT Market Study Update; EPS# 16027

Item	Station Area Radii 1/2 mile	Station Area Radii 1 mile	Station Area Radii 5 mile	Tempe	Maricopa
Population	5,470	21,665	345,872	160,111	3,638,112
Projected Population (2011)	5,894	22,763	356,366	165,133	4,125,250
Population Percentage Increase (2006-2011)	7.8%	5.1%	3.0%	3.1%	13.4%
Population Growth (2006 - 2011)	1.5%	1.0%	0.6%	0.6%	2.5%
Population Density/ Sq. Mile	6,968	6,900	4,406	4,054	394
Avg. Household Size	2.36	2.45	2.48	2.38	2.71
Avg. Age	29.8	30.1	33.3	33.8	34.1
Avg. Household Income	$39,164	$43,107	$54,082	$61,412	$69,814
Bachelors Degree+	22.5%	24.6%	28.0%	39.8%	25.8%
% Owner Occupied HH	30.5%	35.8%	49.9%	50.4%	69.4%
Average Home Value (1)	$214,603	N/A	N/A	$286,023	$270,697
Housing Unit Types - Detailed					
1 Unit Attached	13%	11%	8%	9%	6%
1 Unit Detached	15%	20%	42%	45%	62%
2 Units	0%	1%	2%	1%	1%
3 to 19 Units	28%	27%	22%	20%	12%
20 to 49 units	6%	7%	5%	6%	3%
50 or More Units	27%	22%	15%	15%	8%
Mobile Home or Trailer	10%	10%	5%	4%	7%
Boat, RV, Van, etc.	2%	2%	0%	0%	1%
Housing Unit Types					
% Units Single Family- attached or detached	27.7%	31.3%	50.5%	54.3%	67.5%
% Units - Multi-family	60.3%	57.5%	44.2%	41.9%	24.4%
% Units - Mobile Home or Trailer	10.5%	9.7%	5.1%	3.7%	7.5%

(1) Average home value was derived from a sample of median home prices from Zillow.com.

Sources: Claritas, Inc.; Zillow.com; Economic & Planning Systems

Existing and Planned Land Use

The pie chart below indicates the land use acreage ratio of parcels within the City of Tempe portion of the Price Freeway Station half-mile walking boundary (refer to Figure 46: Price Freeway Station Area Land Use Summary).

Residential and civic uses predominate in the Price Freeway station area, with the mostly single-family Victory Acres neighborhood accounting for the largest single portion of the land use (refer to Figure 47: Price Freeway Station Area Existing and Proposed Land Use). (The smaller portion of the station area in the City of Mesa has predominantly multifamily housing.) The high ratio of civic and community use is exaggerated due to inconsistencies in parcel data, but still indicates the significance of the park and ride located here.

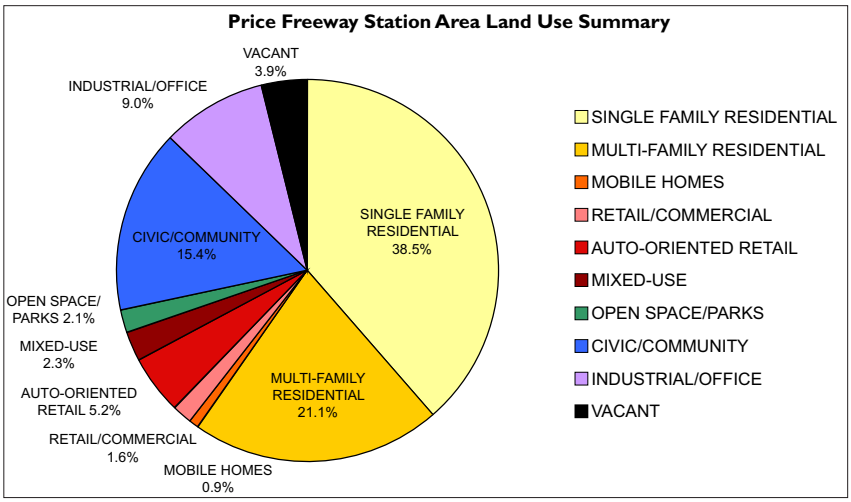

Figure 46: Price Freeway Station Area Land Use Summary

Destinations in the Station Area

The Victory Acres neighborhood and cluster of single family houses just east of Flora Thew Elementary School are designated cultural resource areas that are significant to the character of Tempe (refer to Figure 45: Civic and Community Destinations, Price Freeway Station Area). These parcels will not exceed densities or uses more intense than their original adopted zoning. The Victory Acres Neighborhood includes two religious institutions, Saint Margaret Church/Iglesia Santa Margarita and Apostolic Assembly of Tempe. For open space, the residents will be served by the new Esquer Park. The northwest area of Victory Acres neighborhood includes the Tempe Adult Health Care Center and Shared Living Village for the Elderly. Similar to the Escalante neighborhood, Victory Acres neighborhood is a stable single family residential area with a focus on family and community life.

This station area is enclosed by physical barriers such as the Price Freeway and the Tempe Canal, but there are plans to construct multi-use-paths to help make this area less confined. The Tempe Canal Multi-Use Path is under construction from Price Freeway to University Drive and will not only be an additional connection but will provide a local open space amenity. Future extensions of the multi-use-path to the north and south will further connect the station area.

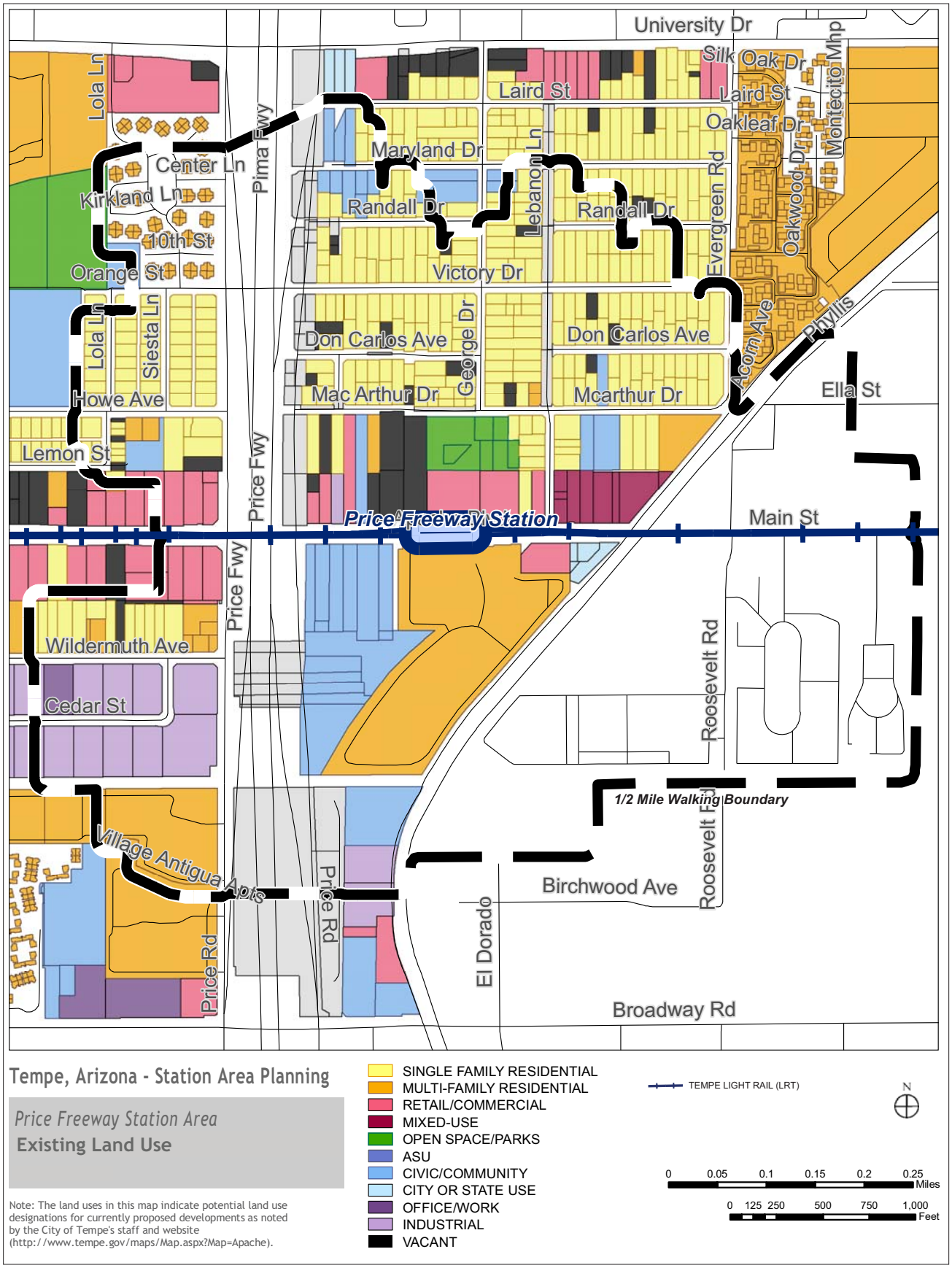

Figure 47: Price Freeway Station Area Existing Land Use

The frontage road along the Price Freeway, Price Road, is well-equipped with pedestrian amenities and is an important connection north and south, similar to McClintock Drive. Given the existing land uses and one-way travel condition on either side of the freeway, Price Road is not supportive of commercial or activity-oriented uses, but still serves as a connective route.

Tempe Canal Path

Opportunity Sites

Opportunity sites are defined as parcels or groups of contiguous parcels that are currently vacant or contain uses that underutilize the development potential of the property, demonstrate fairly low investment, or whose use is incompatible with transit and pedestrian activity. North of Apache Boulevard and east of the Price Freeway, there are a few vacant and underutilized parcels that could be consolidated and become potential redevelopment opportunity sites. These parcels are very close to the LRT station and Esquer Park, making them prime opportunity sites (refer to Figure 48: Price Freeway Station Area Potential Opportunity Sites). Redevelopment on these blocks would create a more consistent character and development area, given the new park and ride facility and Alexan Tempe Apartments to the south. Furthermore, the park and ride site is City owned and should be considered for long-term joint development when there is sufficient market support.

LRT service in combination with nearby and direct freeway accessibility is expected to increase market viability of existing multi-family developments. The new park will also add value to nearby properties and make the neighborhood a more desirable place to live. Just south of the station are the Alexan Tempe Apartments which provide student housing (refer to Figure 49: Price Freeway Station Area Proposed Development Projects). The density of this development is moderately high. Its adjacency to the station provides good accessibility to transit for students to commute to the ASU campus and Phoenix.

Apache ASL Trails, a three- to four-story mixed use development containing 50 condominiums, 75 rental apartments, and 10,000 square feet of commercial space, is another one of the few new developments planned in the Price Freeway station area. Situated on the north side of Apache Boulevard just west of the Tempe Canal, this infill development will benefit from its close proximity to the LRT station and the new Esquer Park.

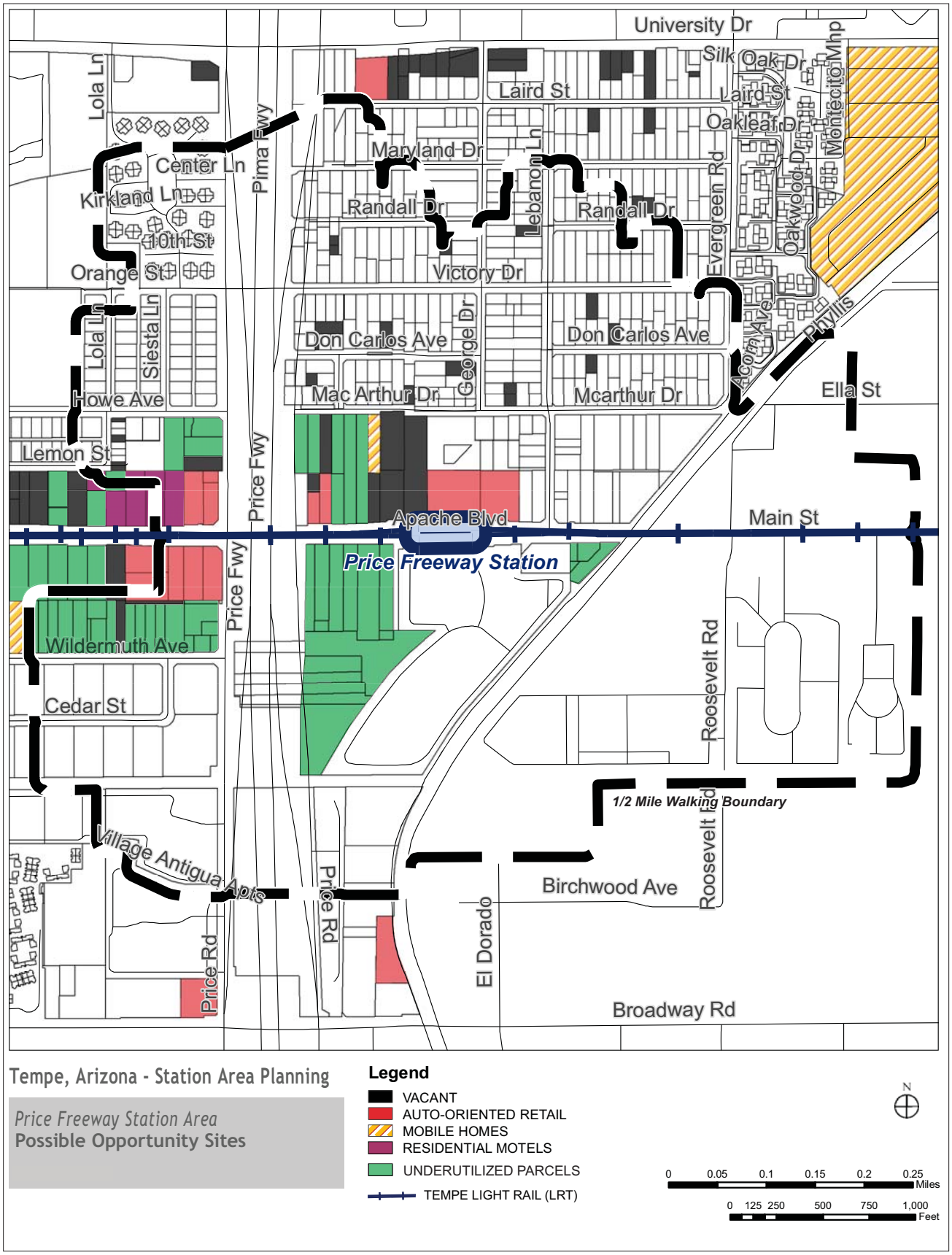

Figure 48: Price Freeway Station Area Possible Opportunity Sites

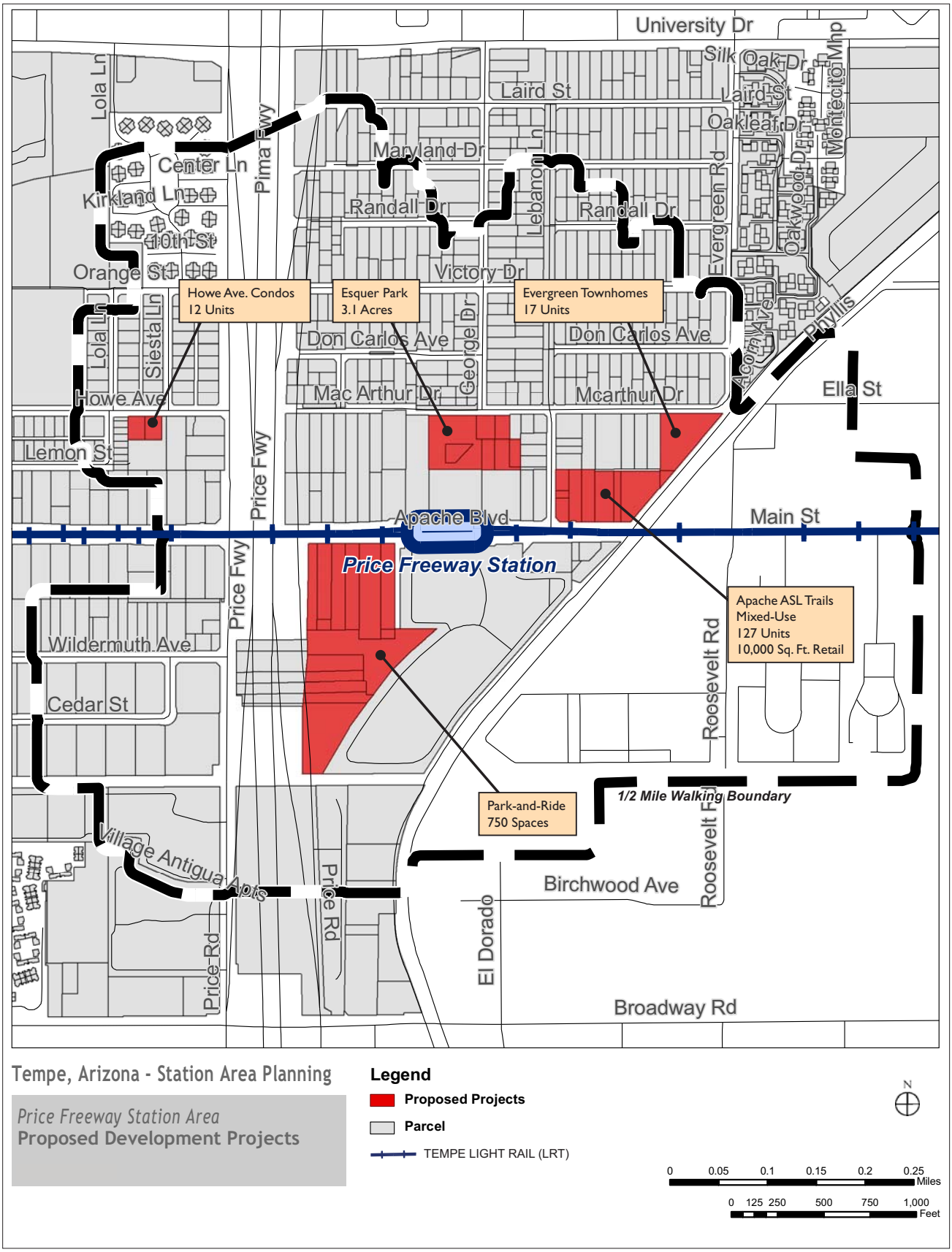

Figure 49: Price Freeway Station Area Proposed Development Projects

Land Use and Urban Design Recommendations

Land Use Concept for Station Area

Because of the station area's proximity to Price Freeway, office space could be considered. While office product types have not illustrated feasibility in the near-term, sustained recovery of the office market and the completion of the LRT corridor could improve overall feasibility of this product type into the medium-to-longer term future. The development community's desire for increased density and height bonuses for office use would also serve to encourage such development in the Price Freeway station area. Also, due to the presence of nearby freeway access, and because of the limited supply of grocery retail within a 1- to 1.5-mile radius, a grocery-anchored mixed use development has been identified as a possibility for this station area.

Affordable housing opportunities

Because of its lower land values, lower-income demographics and greater distance from the ASU campus, the Price Freeway station area is particularly well suited to the provision of affordable housing. Developers at the October 2007 charrette indicated that stand-alone affordable housing developments, such as townhouses, could be viable east of the Price Freeway, and the underutilized sites between Apache Boulevard and MacArthur Drive could provide affordable housing opportunities in keeping with the scale of the adjacent Victory Acres neighborhood.

Long-term potential for joint development on city-owned Park and Ride site

The city-owned park-and-ride site in this station area offers long-term potential for joint development. Such a development could include a combination of mixed use for-sale multifamily housing, as well as some office uses, above ground floor retail with structured parking for both, and structured parking for 750 LRT park-and-ride spaces, and 400 City of Tempe employee parking spaces.

Building Height Recommendations

Several factors, including the lower prevailing land values east of the Price Freeway and the close proximity of single-family homes to the station, make higher buildings less appropriate in the Price Freeway station area than around the other Apache Boulevard LRT stations. Building heights should be highest in the immediate vicinity of the LRT station (parcels within approximately 800 feet walking distance of the LRT platform, except where adjacent to single-family homes). If desired uses such as affordable housing are provided, buildings up to 90 feet in height could be appropriate in some of these areas, with heights of up to 60 feet in other portions of the study area.

The City-owned park and ride site would be most appropriate for taller buildings, since there are no single-family homes in that quadrant of the station area. Other portions of the immediate station area, such as the parcels between Apache Boulevard and MacArthur Drive, are adjacent to single-family homes, which makes taller buildings less appropriate. Stepback provisions should be maintained in these areas, which will have the effect of limiting overall buildings heights, particularly in the northern half of the station area, where single-family homes are closest to the Apache Boulevard opportunity sites. Developments in these areas should include townhouses or other low-rise residential uses on the south side of MacArthur Drive that are similar in scale to the existing neighborhood and could transition to higher mixed use buildings on the Apache Boulevard frontage.

LRT construction on Apache near Price Road

Station Access Recommendations

Pedestrian Routes

To connect Victory Acres to the LRT station, pedestrian improvements would be appropriate along the length of George Drive and Lebanon Lane. Neither of these streets connects directly from University Drive to Apache Boulevard, making it important to use pedestrian wayfinding and improvements to effectively direct people to the LRT station (refer to Figure 50: Price Freeway Station Area Key Pedestrian Routes).

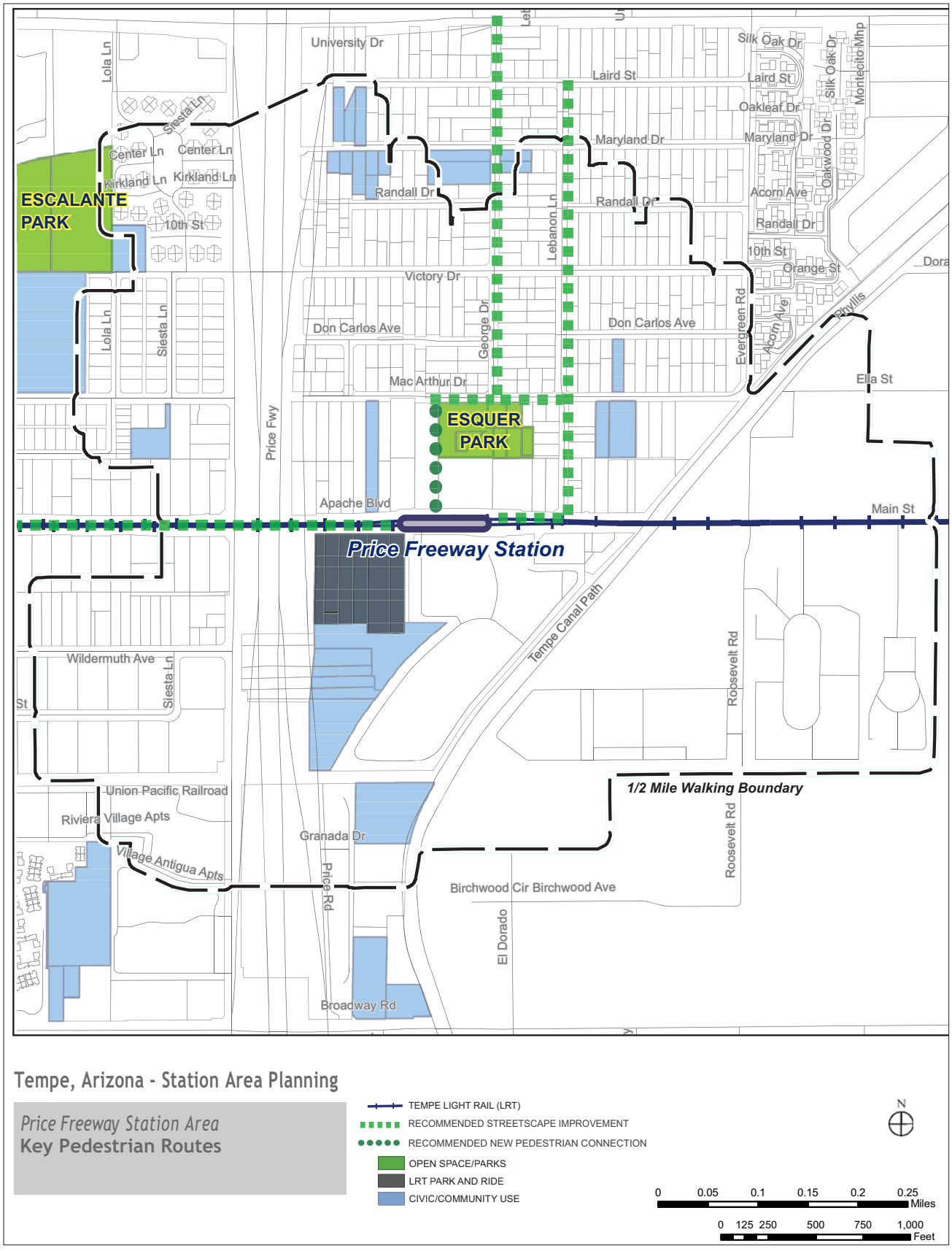

Figure 50: Price Freeway Station Area Key Pedestrian Routes

Bicycle Routes

Similar to Smith-Martin, bike access to Price Freeway station is limited. Extending the bike amenities on Evergreen Road and the Tempe Canal from University Drive to Apache Boulevard would better link bicyclists to the station (refer to Figure 51: Price Freeway Station Area Key Bicycle Routes). The multi-use path that is planned along the Tempe Canal will not only connect people to and from Apache Boulevard, but will add to the neighborhood a valuable outdoor amenity. This dedicated path has the potential to link bicyclists at a longer range of distance. Such future bike connections should be supported with adequate bicycle amenities at the Price Freeway Station, potentially including bike lockers and/locks and a bike station.

Feeder Bus

As part of Tempe in Motion's Orbit shuttle service, the Mercury line travels roughly parallel to Apache Boulevard, between downtown Tempe and the Escalante Center via 8th Street, Hayden Lane and Lemon Street. Operating from 6 a.m. to 10 p.m. seven days a week with a 15 minute headway, this shuttle provides service that could be rerouted to crisscross the Apache corridor near station areas, acting as a Feeder bus for the LRT. As the route currently operates, riders can access the Price Freeway station from the corner of Price Road and Apache Boulevard.

Park & Ride

The Price Freeway Station is easily accessible and visible from the freeway itself. Furthermore, this station will include a 750 space park and ride facility southwest of the platform. These conveniences will draw many local and regional residents to the station. Further discussion and consideration will need to be applied to the concept of dedicated parking within the park-and-ride lots for students and other "shuttled" users. This concept will help alleviate additional vehicle trips on Apache Boulevard, but also is unclear in terms of capacity needed. It is not desirable to under-serve local residents while accommodating the student population. A balance of parking that serves residential transit patrons as well as student transit patrons needs to be met.

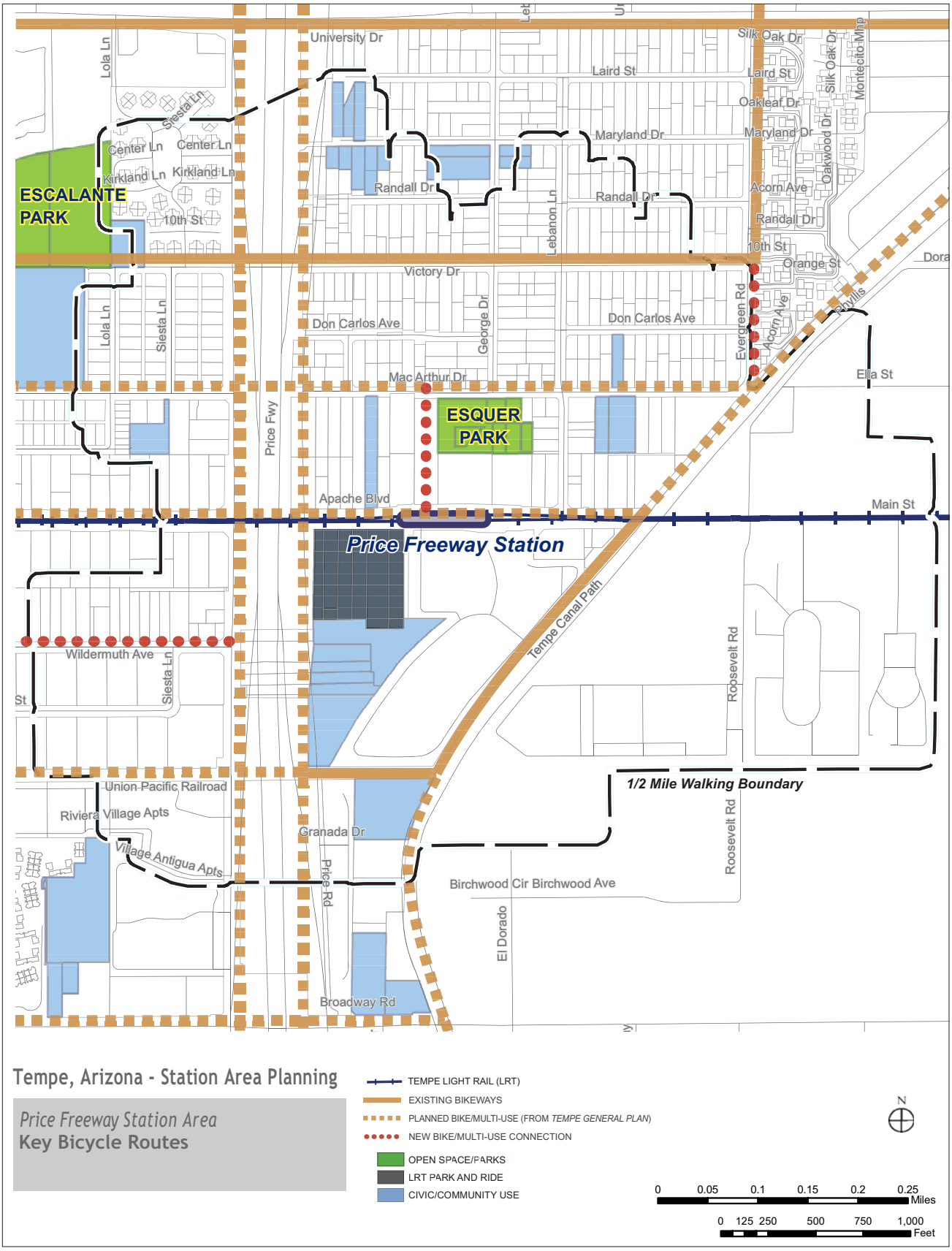

Figure 51: Price Freeway Station Area Key Bicycle Routes

Proposed New Streets

MacArthur to Apache at or near Esquer Park

The community has expressed a strong desire for good pedestrian links to the new Esquer Park. A new street connection from Apache Boulevard through the block to MacArthur Drive would make the park more accessible to all the residents in the area as well as transit riders. One of the vacant parcels west of the park could become such a connection to Apache Boulevard, including a secondary roadway with enhanced pedestrian and bike connection (refer to Figure 52: Price Freeway Station Area Proposed New Streets). Creating such a connection is critical to making the new park accessible to a larger area of users, rather than just the adjacent concentration of single family residents. A simulation shows the existing and proposed conditions along the proposed new street, looking south toward Apache Boulevard (refer to Figure 53 and Figure 54).

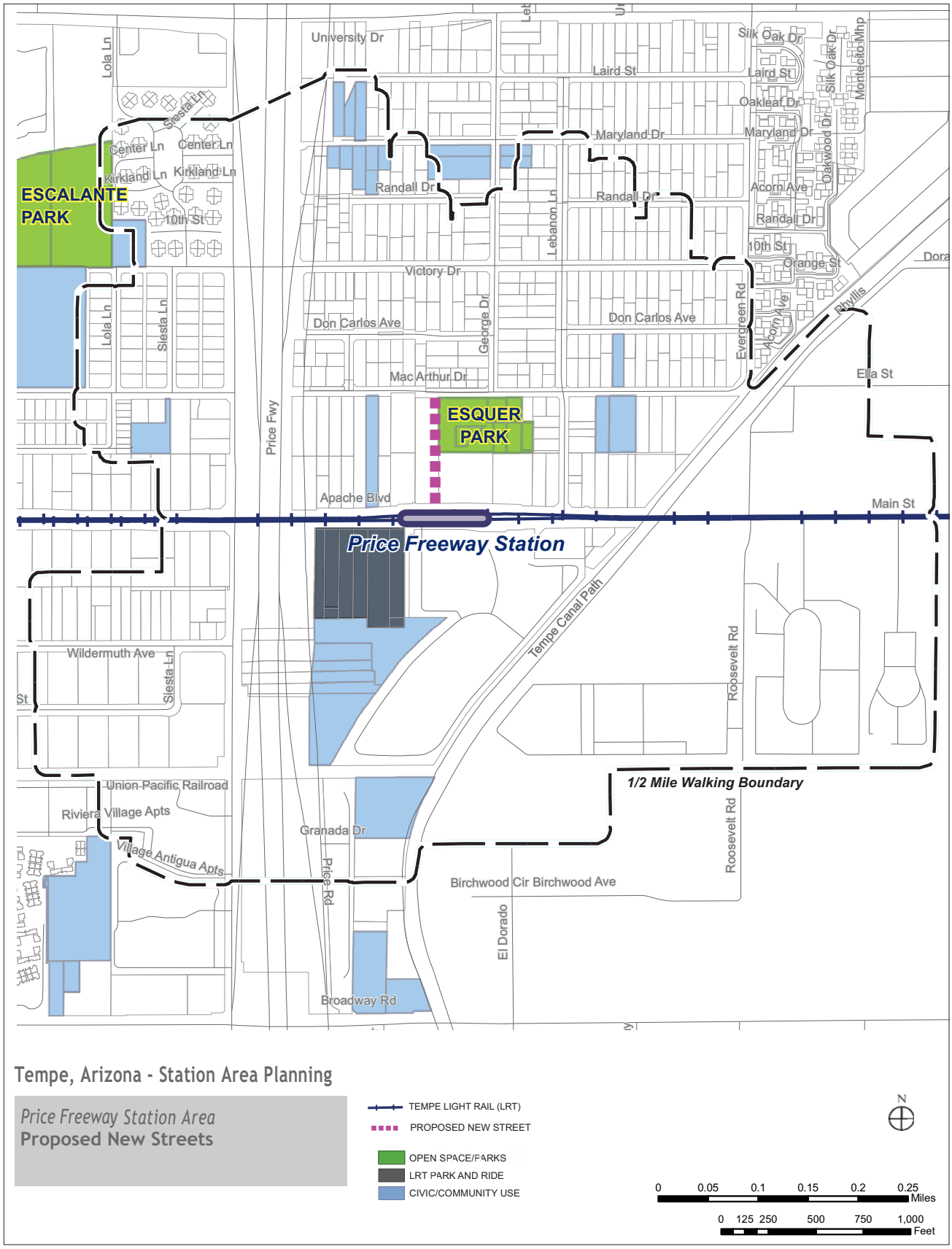

Figure 52: Price Freeway Station Area Proposed New Streets

Figure 53: Existing conditions west of Esquer Park looking south toward Price Freeway Light Rail Station

Figure 54: Proposed conditions west of Esquer Park looking south toward Price Freeway Light Rail Station

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Implementation

This section provides a framework for implementing the Station Area Plans. It includes a variety of specific capital improvements and ongoing programs, known as catalyst projects or catalyst actions, that will help the City of Tempe achieve the goals and policies of the Plans.

Real estate development

Several catalyst capital improvement projects require action and attention to ensure the effectiveness of the strategies outlined in the Station Area Plans. The catalyst projects/actions fall into four categories, depending on the level of public involvement needed to execute them:

- The first category includes **publicly-funded improvements**, or specific one-time infrastructure costs that require a significant level of City involvement and public financing to complete. Such improvements are generally on publicly-owned land or within a public right-of-way. The costs of public improvements ultimately will be borne equally by all residents of Tempe by allocating public funds to pay for these

Bicycle route

New development

improvements. Alternately, if a benefit assessment district or other special district were to be created, the cost of these upgrades could be shared equally by property owners within the Apache Boulevard corridor.

- The second category includes **development exactions or set-asides,** such as new street dedications, sidewalk and landscape improvements, or utility upgrades, that the City requires, or could require, from private developers as a condition of development approvals for key sites. Depending on the cost and type of improvement, the City may need to participate in funding or financing the capital improvements, and the City will generally be responsible for maintenance of many of these improvements once they are dedicated.

- The third category includes **ongoing programs,** such as business recruitment or additional affordable housing programs, that can either be administered by a public or private agency. The costs to the City of these catalyst projects vary depending on the financing sources that the City can secure. These projects are often categorized as "public-private partnerships."

- The fourth category includes **policy-level changes,** such as refinements to the Transportation Overlay District and other land use regulations, that require a low relative cost on the part of the City, but that could potentially stimulate a high level of investment from property owners or developers within the corridor.

Recommended Capital Improvements

The majority of the capital improvements recommended for each of the Apache Boulevard station areas (shown in Tables 5 through 8) are designed to increase the pedestrian, bicycle and vehicular connectivity in the station areas. New street connections will create more direct routes from the surrounding neighborhoods to the stations, increasing the likelihood that residents will walk to the train, as well as shortening vehicle trips by reducing the need for out-of-direction travel. Streetscape and crosswalk improvements on key station access routes will improve pedestrian access to stations, as well as to Apache Boulevard businesses. Wayfinding signage will encourage casual walking trips between LRT stations and neighborhood destinations and help to build patronage for the transit system as well as station-area businesses located off Apache Boulevard, such as the restaurant/bar cluster along Eighth Street. Bicycle improvements will likely increase the number of utilitarian and recreational cycling trips in the corridor and the City of Tempe as a whole, as well as making cycling a more viable option for station access trips, thereby helping to reduce the demand for park-and-ride spaces. Together, these public improvements will support transit ridership as well as create an inviting public realm that will stimulate private investment in the corridor.

Pedestrian crossing

Bicycle lanes, sidewalks, pedestrian furnishings

Table 5
Capital Improvement Project Implementation Recommendations
Dorsey Station Area Plan

Capital Improvement Project	Location
New Street Connections (See Fig. 19)	- Realignment of Cedar Street to intersect with Dorsey Lane at Apache Boulevard
Sidewalks and Streetscape on Station Access Routes (See Fig. 17)	- Apache Boulevard along entire length - Dorsey Lane between 8th Street and Apache Boulevard - Spence Avenue between Rural Road and Cedar Street - Cedar Street between Spence Avenue and Apache Boulevard - Terrace Road from Rural Road to Apache Boulevard - Elm Street from Cedar Street to Apache Boulevard
Crossing Improvements on Station Access Routes (See Fig. 17)	- Dorsey Lane between 8th Street and Apache Boulevard - Spence Avenue between Rural Road and Cedar Street - Cedar Street between Spence Avenue and Apache Boulevard - Terrace Road from Rural Road to Apache Boulevard - Elm Street from Cedar Street to Apache Boulevard
Pedestrian/Bicycle Crossings of Railroad (See Fig. 17)	- Dorsey Lane east of Kenneth Place
Bicycle Lanes on Station Access Routes (See Fig. 18)	- Dorsey Lane between University Drive and Apache Boulevard - Spence Avenue from Rural Road to Cedar Street - Cedar Street from Spence Avenue to Apache Boulevard - Broadway Road along entire length - Rural Road from Broadway Road to University Drive - Vista Del Cerro from Rural Road to Dorsey Lane - Dorsey Lane from Vista Del Cerro to Broadway Road
Wayfinding signage	On Apache Boulevard and on Station Access Routes from interior blocks
Other:	- Multi-use path along the Union Pacific Railroad - Multi-use path / linear park along 8th Street

Sources: City of Tempe; Community Design + Architecture; Economic & Planning Systems, Inc.

Agency	Funding Source	Phasing
Private developers as part of redevelopment of sites	Private developers; possible City Capital Improvement Program	Developers install as part of redevelopment of surrounding properties, or City can initiate in absence of redevelopment
Adjacent property owners per City of Tempe Development Services guidance through TOD and station area design requirements	Adjacent property owners	Concurrent with redevelopment of properties
City of Tempe Public Works; private developers on newly installed street	City Capital Improvement Program; state funding; private developers	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP, Federal Funding	As funding available and properties can be brought into compliance
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works, Union Pacific	City CIP, Federal Funding	As funding available
City of Tempe Public Works, developers of adjacent properties	City CIP, Federal Funding, private developers	As funding available and properties can be brought into compliance

Table 6
Capital Improvement Project Implementation Recommendations
McClintock Station Area Plan

Capital Improvement Project	Location
New Street Connections (See Fig. 32)	- New street connecting McClintock to Apache Blvd to south and east of Equinox project - Extension of Stratton Lane cul-de-sac to connect Don Carlos Avenue to Apache Boulevard
Sidewalks and Streetscape on Station Access Routes (See Fig. 30)	- Apache Boulevard along entire length - McClintock Drive between 8th Street and Broadway Road - Extension of Williams Street to McClintock Drive (pedestrian connection) - Una-Butte Avenue, Una Avenue, and Butte Avenue between Creamery Park and Apache Boulevard - Elm Street between Cedar Street and Apache Blvd.
Crossing Improvements on Station Access Routes (See Fig. 30)	- McClintock Drive between 8th Street and Broadway Road - Extension of Stratton Lane to Apache Boulevard - Una-Butte Avenue, Una Avenue, and Butte Avenue between Creamery Park and Apache Boulevard - Elm Street between Cedar Street and Apache Blvd.
Pedestrian/Bicycle Crossings of Railroad (See Fig. 30)	- Railroad underpass improvements including wider pedestrian zone and new bicycle amenities
Bicycle Lanes on Station Access Routes (See Fig. 31)	- McClintock Drive from University Drive to Apache Boulevard - Broadway Road along entire length - Connection through Creamery Park from University Drive to 8th Street
Wayfinding signage	On Apache Boulevard and on Station Access Routes from interior blocks
Other:	- Multi-use path along the Union Pacific Railroad

Sources: City of Tempe; Community Design + Architecture; Economic & Planning Systems, Inc.

Agency	Funding Source	Phasing
Private developers as part of redevelopment of sites; possible long-term cooperation with City of Tempe in re-orientation of police facilities	Private developers; possible City Capital Improvement Program	Developers install as part of redevelopment of surrounding properties, or City can initiate in absence of redevelopment
Adjacent property owners per City of Tempe Development Services guidance through TOD and station area design requirements	Adjacent property owners	Concurrent with redevelopment of properties
City of Tempe Public Works; private developers on newly installed street	City Capital Improvement Program; state funding; private developers	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP, Federal Funding	As funding available or as railroad overpass reconstruction is required
City of Tempe Public Works; private developers of sites through which new street/route would travel	City CIP; Federal Funding; private developers	As funding available and as access route streets receive maintenance or reconstruction; as redevelopment occurs on
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works, Union Pacific	City CIP, Federal Funding	As funding available

Table 7
Capital Improvement Project Implementation Recommendations
Smith/Martin Station Area Plan

Capital Improvement Project	Location
New Street Connections (See Fig. 43)	- New north-south street(s) connecting Lemon Street to Apache Boulevard and Wildermuth Avenue to Apache Boulevard, between Smith Road and River Drive (no through movement across Apache due to LRT median)
Sidewalks and Streetscape on Station Access Routes (See Fig. 41)	- Apache Boulevard for entire length - Smith Road from 10th Street to Apache Boulevard - River Drive from Wildermuth Avenue to Escalante Park - Wildermuth Avenue between Martin Lane and River Drive - Martin Lane from Wildermuth Avenue to Apache Boulevard - New north-south street connecting Lemon Street to Wildermuth Avenue across Apache Boulevard, between Smith Road and River Drive - Don Carlos Avenue from Alegre Park to Smith Road
Crossing Improvements on Station Access Routes (See Fig. 41)	- Smith Road from 10th Street to Apache Boulevard - River Drive from Wildermuth Avenue to Escalante Park - Wildermuth Avenue between Martin Lane and River Drive - Martin Lane from Wildermuth Avenue to Apache Boulevard - New north-south street connecting Lemon Street to Wildermuth Avenue across Apache Boulevard, between Smith Road and River Drive - Don Carlos Avenue from Alegre Park to Smith Road
Pedestrian/Bicycle Crossings of Railroad (See Fig. 41)	- Extend Smith Road south from Apache Boulevard across tracks to Country Club Way
Bicycle Lanes on Station Access Routes (See Fig. 42)	- Smith Road from University Drive to Apache Boulevard - Don Carlos Avenue from Smith Road to River Drive - Howe Avenue from River Drive to Loop 101 - Wildermuth Avenue from Martin Lane to Loop 101 - Martin Lane from Wildermuth Avenue to Apache Boulevard - Broadway Road along entire length - Apache Boulevard along entire length
Wayfinding signage	On Apache Boulevard and on Station Access Routes from interior blocks
Other:	- Multi-use path along the Union Pacific Railroad

Sources: City of Tempe; Community Design + Architecture; Economic & Planning Systems, Inc.

Agency	Funding Source	Phasing
Private developers as part of redevelopment of sites	Private developers; possible City Capital Improvement Program	Developers install as part of redevelopment of surrounding properties, or City can initiate in absence of redevelopment
Adjacent property owners per City of Tempe Development Services guidance through TOD and station area design requirements	Adjacent property owners	Concurrent with redevelopment of properties
City of Tempe Public Works; private developers on newly installed street	City Capital Improvement Program; state funding; private developers	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP; Federal Funding	As funding available and properties can be brought into compliance
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works, Union Pacific	City CIP, Federal Funding	As funding available

Table 8
Capital Improvement Project Implementation Recommendations
Price Freeway Station Area Plan

Capital Improvement Project	Location
New Street Connections (See Fig. 52)	- New street connection from Apache Boulevard through the block to MacArthur Drive and Esquer Park
Sidewalks and Streetscape on Station Access Routes (See Fig. 50)	- Apache Boulevard for entire length - Lebanon Lane from Laird Street to Apache Boulevard - George Drive from University Drive to MacArthur Drive - MacArthur Drive from new street west of Esquer Park to Lebanon Lane - New street west of Esquer Park from MacArthur Drive to Apache Boulevard
Crossing Improvements on Station Access Routes (See Fig. 50)	- Lebanon Lane from Laird Street to Apache Boulevard - George Drive from University Drive to MacArthur Drive - MacArthur Drive from new street west of Esquer Park to Lebanon Lane - New street west of Esquer Park from MacArthur Drive to Apache Boulevard
Pedestrian/Bicycle Crossings of Railroad (See Fig. 50)	- Provide grade separated railroad crossing(s) to replace at-grade railroad crossings at Price Road and Tempe Canal Path
Bicycle Lanes on Station Access Routes (See Fig. 51)	- Price Freeway access roads (east and west of freeway) from University Drive to Broadway Road - MacArthur Drive from Price Freeway access roads to Evergreen Road - On new street from Apache Boulevard to MacArthur Drive west of Esquer Park - Apache Boulevard along entire length - Along Evergreen Road and the Tempe Canal from University Drive to Apache Boulevard
Wayfinding signage	On Apache Boulevard and on Station Access Routes from interior blocks
Shared Paths	- Multi-use path along the Union Pacific Railroad - Extend Tempe Canal Path north of Apache Boulevard and south of railroad tracks

Sources: City of Tempe; Community Design + Architecture; Economic & Planning Systems, Inc.

Agency	Funding Source	Phasing
Private developers as part of redevelopment on site	Private developer; possible City Capital Improvement Program	Developer installs as part of redevelopment of underlying property, or City can initiate in absence of redevelopment
Adjacent property owners per City of Tempe Development Services guidance through TOD and station area design requirements	Adjacent property owners	Concurrent with redevelopment of properties
City of Tempe Public Works; private developers on newly installed street	City Capital Improvement Program; state funding; private developers	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP; Federal Funding	As funding available and properties can be brought into compliance
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works	City CIP, Federal Funding	As funding available and as access route streets receive maintenance or reconstruction
City of Tempe Public Works, Union Pacific	City CIP, Federal Funding	As funding available

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Recommended Policies and Programs

These Station Area Plans identify and describe certain recommended changes to the land use regulations in the LRT corridor and station areas. The proposed refinements to the land use regulations serve many purposes, but in part are intended to catalyze positive economic and physical change in the Apache Corridor through private development activity. Specific requirements to implement these refinements would be developed by City of Tempe staff with review and input from the Development Review Commission and other policy-making bodies.

Following final approval of these Station Area Plans, these land use policy changes would be among the first catalyst projects to be implemented by the City. Future financial burdens to the City as a result of changing land use regulations will be in the form of review and approval of private development, but these relatively minor costs will likely be compensated for by increased development and permit fees. In addition, this catalyst action will likely enhance the City's overall property and sales tax revenue through private reinvestment.

Table 9 describes recommended policies and on-going programs for the Apache Boulevard corridor and station areas. Unless otherwise indicated, references to height or density bonuses or reduced parking requirements are intended to apply to the immediate area surrounding each station or corridor, as delineated in the Transportation Overlay District (i.e. parcels with frontage within 800 feet of a station platform as measured along a public street). This will help to ensure that higher-intensity transit-oriented development creates a series of discrete "nodes" in each of the station areas, rather than a continuous corridor of uniform height – a key concern voiced by attendees at the pubic meetings and stakeholder session participants.

Table 9
Policy and Implementation Recommendations
Apache Boulevard LRT Corridor and Station Areas

Policy	Location
Encourage the provision of car-sharing spaces in parking facilities	Dorsey, McClintock, Smith-Martin and Price Freeway station areas
Enhance transit access to LRT stations for patrons with limited mobility	Dorsey, McClintock, Smith-Martin and Price Freeway station areas
Encourage affordable housing near light rail	Dorsey, McClintock, Smith-Martin and Price Freeway station areas
Encourage professional office uses in mixed-use buildings to complement educational/health services uses	Dorsey and McClintock station areas
Encourage coordinated development on clusters of adjacent vacant/underutilized properties	Smith-Martin station area
Encourage the development of more employment-intensive uses in employment node	Smith-Martin station area
Encourage the provision of a grocery store in new development	Price Freeway station area
Increase public sidewalk shade requirement from 33 percent to 50 percent	All

Sources: City of Tempe; Community Design + Architecture; Economic & Planning Systems, Inc.

Potential Implementation Tools	Agency
- Provide a credit against the parking requirement of 5-10 required spaces for each car-sharing space, to a maximum of 10-20% of the required number of spaces	City of Tempe, Planning
- Reconfigure Orbit Shuttle's Mercury route to feed LRT stations	City of Tempe, Tempe in Motion
- Establish base zoning in station areas per recommendations on page 15 - Provide a density bonus for development with at least 10% affordable units - Provide a height bonus for development with at least 10% affordable units - Unbundle residential parking from units	City of Tempe, Planning/Community Development
- Reduce parking requirement for office uses in mixed-use buildings - Provide a height bonus for mixed-use buildings containing office	City of Tempe, Planning
- Engage property owners in planning and assembly efforts - Sponsor RFPs for development	City of Tempe
- Review land use regulations for employment node - Provide incentives for more employment-intensive uses - Recruit more employment-intensive uses	City of Tempe, Community Development
- Provide a height bonus for mixed-use development that includes a grocery store - Provide a density bonus for mixed-use development that includes a grocery store	City of Tempe, Planning
- Modify zoning to require 50 percent shade on public sidewalks	City of Tempe, Planning

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Appendix A: Community Outreach Memoranda

Tempe

Minutes
Light Rail Station Area Planning Public Meeting
6/5/07

Minutes of the Light Rail Station Area planning public meeting held on Tuesday, June 5, 2007, 6:00 p.m., at the Tempe Police Substation Community Conference Room 1855 E. Apache Boulevard, Tempe, Arizona.

Project staff Present:
Phil Eriksson, Tim Rood, Danielle Wong, Bryan Copp, Carla Kahn
City Staff Present:
Jyme Sue McLaren, Amanda Nelson, Dilanna Willstead, Heidi Graham, Robert Yabes

Guests Present:
Catherine Mayorga (Tempe Chamber of Commerce), Gretchen Reinhardt, Colleen Wilder, Carl Fisher, Irma & Carols Aguilar, Esther Morales, Dan Mayer, Florentino Martinez, Jeff Hansen, Daphne, John Cozad, Ray Humbert (ASU), Judi Nelson (ASU), Phil Amorosi Paul C. Johnson, Cathy Marshall, Ed Andrews, Victor & Norma Guerrero, Stephen Zank, Pen Johnson, Brian Martin, Mary Ann Miller (Tempe Chamber of Commerce) Estela Vasquez, Pedro Priego Saledad, Maria Nunez, Maria Gonzalez, Aracely Gonzalez, Katie Nelson, Norma Vega, Francisca Reyes, Mary Nutter, Gregory Hanna, Karen Ciszczon

Opening Remarks Jyme Sue McLaren welcomed the public and gave brief opening remarks about the station area planning process.

Presentation given by Tim Rood, Introduction to the Station Area Plan Effort and Transit – Oriented Development.

Question and Answers

Q=question, A=answer, C=comment

Q: Will RV Parks be pushed out as land value increases, if so, will affordable housing be incorporated into development?

A: Mobile home parks not to be displaced by the City.

Q: How will the traffic signals and safety be coordinated at stations and on light rail tracks?

A: There are traffic signals for left turns (restricted left arrow) and they are synchronized with the light rail train. Pedestrian safety very important. Safety campaign is being initiated by METRO as the train is tested on completed track.

Q: Where can you make left hand turns and u-turns?

A: There will be 18 signalized intersection and u-turns at 1/8 mile along corridor. Consider integrating a defined walkway space before development occurs at Smith/Martin and Price Road areas.

Committee Name
Date 2

Q: College students could potentially inundate neighborhoods in order to not pay for parking and ride to their destinations, how will you resolve impacts on neighborhoods?
A: Park & Ride lots to be monitored carefully for demand; Arizona Station University has plans to shuttle people from other campuses to end of rail lines so that students can park there and not encroach on residential neighborhoods.
C: Plants and landscape materials are very important.
Q: How will LRT affect the bus system on Apache Boulevard?
A: Buses will be maintained on Apache Blvd however it will be more limited.
Q: Will green building techniques be used?
A: Yes they will be incorporated.
Q: What is the ultimate outcome of all this information that will be gathered?
A: The information will be prioritized for public improvements
C: With density increase, there needs to be sensitivity to the existing context.
C: Shade needs to be a priority.
Q: Will there be bike paths along light rail?
A: Yes, they will be built in both directions along the alignment
Q: How fast will the light rail train travel?
A: The train has the ability to travel 55mph however it will travel at the posted speed signs
Q: How many stories is representative of human scale?
A: Not really about number of stories, it's about the design of the building. The massing and articulation inform the scale at the human level.
Q: Will consideration be taken for other developments in Tempe?
A: Yes, EPS will put context into regional and market analysis.
Q: Concern was expressed over the extreme climate conditions of Tempe. Pedestrians are especially sensitive and how will the consultant team address this?
A: It is very important to integrate this into the analysis and design that will take place. This is especially crucial for those who do not have a choice in terms of transportation. Furthermore, the design and analysis will help provide choice for others.
Q: EPS – what additional infrastructure to be studied? Utility Analysis? Concern about being displaced, even in 20 years.
A: First we find what capacity there is. Then, we can see what challenges there are for infrastructure. Economic feasibility and demand will determine what a priority is. The Team will look only at vacant and underutilized land as opportunity. The City cannot displace existing affordable housing.
C: Land value and gentrification concern will be a challenge.
Q: Need long term planning for land value because of proximity of LRT, affordable vs. subsidized affordable.
A: At the next public meeting the Team should bring a city representative for affordable housing. Senior/Student/young vs. family housing.
C: Community land trust – seems to work.
C: Businesses are sensitive during construction – concern over financial challenge.
Q: How to keep existing businesses surviving in new development phases and future growth. Subsidizing program?
A: New building/development could recruit local businesses to take space. How to implement and sustain existing businesses is of great concern for residents and businesses.
C: Bike connection very important at Smith/Martin and 101 freeway

Committee Name
Date 3

C: Suggested a walk-through at the 101 Freeway & Apache Blvd (NE corner). Connect the park at Victory Acres neighborhood

C: For upcoming public outreach, include a broader outreach not just ¼ mile

C: Due to high foreign speaking turnout, a better translation system may need to be explored for upcoming public meetings – headphone technology or separate meeting.

C: Concern on increase in crime, especially during construction due to the abundance of transitioning environments. CPTED "Eyes on the Street" should be incorporated into designs. There is a need to phase crime issues through the transitional times, concern that construction environment becomes welcome to crime.

***Comment card feedback spreadsheet attached**

Prepared by: Carla Kahn

Reviewed by:

_____

Authorized Signature
Position/Title

HDR | S.R. BEARD & ASSOCIATES

MEMORANDUM

December 3, 2007

To: City of Tempe Staff

From: Lisa Procknow

CC: Tin Rood, Danielle Wong, Jonah Chiarenza, Bryan Copp

Subject: Tempe Station Area Planning – *Comment Survey Responses*

The public and stakeholder meetings, which took place on October 24 through October 27, included numerous opportunities for interested parties to submit both written and oral comments. Oral comments were noted by CD+A and documented in a separate memorandums.

A total of nine questionnaires were collected from Wednesday's and Saturday's sessions. Six surveys were submitted from Thursday's meetings. The findings are summarized below.

Public Meeting Questionnaire (October 24 & 27)

Question 1: Of the following areas, which are of major concern regarding your quality of life?

Issue	*Response Total
Other:	5 • Investment Potential • I don't want to see a high rise behind my house • higher density/ less restrictive • absentee slum landlords • against high density condo/apartment
Preservation of Open Space	4
Travel Time to Work	3
Availability of Retail/Commercial Uses	3
Cost of Living	2
Affordable Housing	1

*sorted by popularity

Question 2: If there was one thing that you could change in your neighborhood to make it a better place to live/ work/ do business, what would you change?

- That property owners keep their property looking good. Example, the trailer parks on Apache Boulevard makes the area look like a dump.

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- Clean-up properties and renovate the run-down, abandoned ones.
- Place a four-way stop at the corner of Hudson Drive and Elm and maybe speed bumps.
- Transform Food City to Sprouts (or similar).
- Increase density along the light rail line so that it will make economic sense to operate this first mass transit system. If this is done properly all else will fall into place.
- I would like to see less crime.
- Clean-up the blighted properties. Invite development by offering incentives.
- The City of Tempe needs to make a firm commitment to the Apache Boulevard/ rail artery – focus on major landscaping, code enforcement private/ retail, incentives to improve existing buildings, general improvements of street side appearance for pedestrians, rail rider, or other commuters.
- Stop drugs and prostitution on Apache Boulevard.

Question 3: Which opportunities would you most want to add to Apache Blvd.?

Options	*Response Total
Grocery Store	5
Restaurants/ Outdoor Dining	5
Retail	5
Services (dry cleaner, day care, etc.)	4
Entertainment	3
Medical/ Dental	1
Employment	1
Other:	0

*sorted by popularity

Question 4: In general terms, please describe what you believe the Apache Blvd. station areas should "look and feel" like 10 years from now:

More like downtown Tempe	7
Similar to the way it is today	1
Other	See comments below

- Unique appearance, private business
- Lots of trees, walkways with seating, eclectic retail
- More like Downtown Tempe without the parking problems
- More independent shops and restaurants; buy and support the local economy. Each light rail stop needs to be an epicenter of activity for the commuter with the appropriate services and goods – morning coffee, newspaper and bakery, ethnic grocery stores and restaurants, bookstores, alternative art spaces.

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Question 5: How do you typically travel to destinations along Apache Blvd. and within your neighborhood?

Along Apache Blvd.	*Response
Car	5
Walking	2
Transit	2
Bicycling	1

*sorted by popularity

Within Neighborhood	*Response
Walking	4
Bicycling	3
Car	2
Transit	1

*sorted by popularity

Question 6: How important to you are the following street design elements?

Street Design Element	*High Priority	Medium Priority	Low Priority
Shading Devices	6		
Light Fixtures	6		
Shade Trees	5		
Local Landscaping	5		
Public Art	4	2	
Information Signs	3	1	1
Outdoor Seating	3	2	
Other: Water Fountains		1	

*sorted by high priority

Question 7: Please list additional comments, questions or concerns regarding Station Area Design.

- How about a major public art project for Apache Boulevard or a series of significant projects which dot the Apache light rail line? Each light rail station has public art components; the City of Tempe needs to commit.
- Reduce restrictions on developers.
- Shade is very important; consider the typical bus patron and you will understand the need for the simple comfort of shade and a place to sit.

Stakeholder Meeting Comment Card (October 25, 2007)

Question 1: How important to you are the following street design elements?

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Street Design Element	*High Priority	Medium Priority	Low Priority
Shade Trees	5	1	
Shading Devices	4	2	
Light Fixtures	4	2	
Local Landscaping	3	3	
Information Signs	3	3	
Public Art	2	4	
Outdoor Seating	1	5	
Other: Connectivity over Rail	1		
Other: Affordable Housing	1		

*sorted by high priority

Question 2: Please list additional comments, questions or concerns regarding Station Area Design.

- Number one priority is bicycle connectivity over the rail road. Pedestrian connections from Don Carlos to station and from Esqurer Park to station. Corridors leading up to stations, example Smith-Martin station, from Tempe Marketplace to Connolly Middle School. Need shade and pedestrian amenities.

- People places within developments/niches, things to attract walkers. Corridors leading up to stations. Also need shading to encourage.

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Memorandum

November 05, 2007
To: City of Tempe Staff
From: Tim Rood, Danielle Wong, and Jonah Chiarenza
Total of 10 pages
Re: **Tempe Station Area Planning (CD+A No. 0702) —** *Oct. 25, Stakeholder Session Notes*

This memorandum notes many of the points and issues that rose out of conversations during the stakeholder sessions. Tim Rood facilitated the discussions based on a general list of stakeholder questions tailored to each group's area of interest and experience.

Session 1/9:00 - Apache Boulevard Project Area Committee (APAC)

- Bob – is the goal to create a master plan for development around the light rail stations? Tim Rood – no, individual owners will determine what to develop around the stations, and will use our development guidelines, including standards and priority list of public investments, to support the kind of development people want to see
- Ester Kozinets – private development can expect what from public investment? TR - Bike racks or shelters, for instance, could be provided by city, taking a holistic look at whole area for TOD (e.g. feeder pedestrian / bus routes to Apache) Jyme Sue – when looking at overlay zone, many things came up and there was an agreement to revisit with a visionary planning process, incorporating the vision from businesses, community, and residents to create a tool for the development and entitlement process, preserving the linkage from overlay to development.
- EK - shade is very important.
- APAC created because of blight along Apache, needed city to make into redevelopment area, city wanted neighbor involvement, so encouraged APAC, to have business, restaurateurs, etc. meet regularly, 20 members, started in 1996 officially. 5 neighborhoods exist along Apache.
- Neighborhood associations represented

How can planning process help?

- Gretchen – rail crossings at Smith/Martin are huge, Tempe marketplace carts found far down along Apache, quarter mile is restricting, college has crossing, considering ped network for child and school, Smith/Martin needs to be meaningful with rail crossing! Needs this or will be underutilized station. Both crossings very important, one for ASU and one for neighborhood.
- Phil Amorosi - Potential road connections? – show other identified connections, like the through block connections to Apache
- Irving Kozinets – who pays for shading? If in ROW and part of LRT improvements, in other areas, prop owners need to comply with TOD overlay, when new development occurs, that is when the prop owner, JS – is this a priority? There are diff funding mechanisms, but identify a standard and then ensure we get that through public investment, improvement district possibly? HG – part of entitlement process and review JS – example of Areté, where is the shade, show us the detail, need definition, id what is priority along Apache in this or something else, overhang, shadow study? Did analysis, but can be ambiguous, needs further clarification

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- Palms on bike path
- Pen Johnson – are we doing enough to encourage developers to reduce the number of parking spaces and do true TOD? Developers want to make a sellable product, so hard to find balance; TR – options for reducing parking include regulating the expense of parking spaces, by unbundling parking from unit, spaces could be leased separately from units, which would help w/ housing affordability. The existing ratio of 0.75 parking spaces per bedroom may be too high. Perhaps a cap of 1 or 1.25 parking spaces per unit could be solution, and mandating unbundled parking spaces from unit sales. In SF this is possible, but we don't have Prop 207.
- HG – student housing encourages the space/bedroom metric. With reduced parking availability, where will students park? Neighborhood streets!
- Martin Goohl – If we're really interested in pedestrian environment and supporting LRT, we need to emphasize pedestrian use; parking should reflect this goal and not mimic areas that do not have LRT, that does not help developers. We should reduce parking requirement for developers to encourage people to reduce car ownership, change mode of thought. Pen – housing affordability could be incentive to developers. DS – what are those incentives? There are issues regarding the feasibility of all these ideas, because of Prop 207 (these include risk of reducing the value of property, or requiring affordable housing, over which land owners could sue the city)
- Gretchen – all development should contribute to trust fund towards affordable housing, based on a model of land trusts held by the city, and the affordable units should not be a whole building, but should be distributed with market rate and spread around the study area
- Phil Amorosi – equivalent of one story for affordable housing spread out within each development, offer density bonus, height bonus for complying with this goal
- Dharmesh Ahir– what are price points for affordable housing in Tempe? 215k – 287k work force housing costs, 80% of area median income sounds higher than the people who would be forced out by redeveloping the RV and mobilehome parks.
- Martin – does commercial have the same priority it used to? Developers can increase height of residential use buildings and multi-use buildings, but not commercial. So why should commercial be paying higher taxes and not be allowed same benefits as other uses? Commercial should be made more attractive to developers, and these regulations do not appear to be advantageous for some property owners
- JS – Height increases are possible if developers make a PAD, but Martin does not see that as advantageous, Catch 22, can't get the investors to back a development to plan for a PAD if you can't ensure the height increase.

What do you see as long-term vision for Apache?

- Martin – all kinds of development, however commercial has not been emphasized in the policy enough
- Phil – between stations should be 3 story max, there should be buffers, and sensitive to neighborhoods behind, stations should be intense, and areas around/between less so; Staggering heights rather than uniform

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- Gretchen – blanket standards don't always work, high next to vacant does not work. Take little steps to get there to make a cohesive community fabric of moderate heights (3-5) and then in 20 years allow higher development once vacant lots are all occupied.
- Bob - More density at stations, and buffer between. RV parks next to police station has good opportunity to go higher! No residents nearby, great opportunity!
- TR – transition zones around single family residential neighborhoods
- Dharmesh – will people really take advantage of 5 story? TR – building code requirements mean that cheaper method of building "stick built" is possible up to 5 stories, but above 5 requires more expensive construction, meaning development must be around 9 or 10 stories to pencil out
- Phil – Tempe wants the downtown to be the location of high rise development, above 10 stories, and taper down in other areas, meaning 5 story cap in Apache area makes sense from a big-picture perspective
- Bob – should not have a cap at 5 especially for sites that have space and are main opportunity sites, such as the RV parks adjacent to police station. Allow exceptions where appropriate.

Session 2/10:00 – Developers

- TR- We want to define and possibly revisit zoning including the overlay district zoning, or perhaps the underlying base zoning – is there a need for additional or different standards?
- Jimmy – For the Dorsey station area project sites the optimal development vision is a European model including consistent setback, window heights, and related detailing on facades that run along main boulevards, balconies with flowers; planter boxes to add to facade texture, soften buildings. Credits/bonuses for these types of features.
- Josh – Confusion over zoning overlay district (TOD), "Station Area" as defined in TOD, and underlying Base Zoning – current zoning may allow greater building heights than the TOD overlay – for example, the location near Price, on the south side of Apache
- Larry Schmalz (City) – neighborhoods voice concern about maintaining appropriate building heights adjacent to their single family homes – step back transition from single family neighborhoods is important to maintain separation
- Jimmy – 20 story buildings are not appropriate on Apache – however, 10 story buildings could be appropriate with mixed uses, and a solid 2 story retail or grocery, plus office and 6 stories of residential above
- Darin – how is the commercial market on Apache according to development community?
- Jimmy – local family owned places are common and we want to continue to serve community, so it's prudent for development to accommodate current businesses; Tempe's desire to make Apache a successful downtown area requires policy and design that supports walkability; we need to keep the local type of businesses that couldn't afford the more expensive leases in brand new retail – To facilitate this, perhaps there could be development bonuses and other incentives for developers to accommodate a relocating business within Tempe, even along the corridor, such as a business moving towards the University area from off Apache or down Apache to the East

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- Brad – New development is going to see people squeezed out of retail spaces as they have been on Mill Ave. – We need to avoid the same unintended consequences on Apache; As to building heights – the max should be mid-rise buildings of 6-8 stories; some land owners think their parcels are going to be 20 story towers and are asking far too much for the sale of their property
- Feliciano – Habitat Metro – 6 story buildings cost $300/ sqft just to build the product – Price points are too high for this corridor; Mill Ave leasing rent escalation for retail has killed tons of local retail; We need to help people visualize density, with the same FARs achieved through more efficiently designed floor plans and lower actual height; Going to be consistent demand for sub 300k housing in corridor, which means construction type will be stick built, with an affordability benefit of reducing cost of living because of not having to drive great distances due to location on LRT.
- TR – Is the parking ratio too high? Now 0.75 spaces per BEDROOM
- Feliciano – This is still a transitional point in market, so you still have folks with 1-2 cars per family. Parking is a huge problem from a market perspective – underground or structured parking is far too expensive for this market. The question is, is the market ready for a forced mode split between parking and transit/bike/ped? As we get closer to implementation and construction of actual projects, it could be. Absent incentive for reduced parking we could have pooled car sharing at development sites to give people more incentive to reduce their car ownership
- Jyme Sue – ASU is starting car sharing.
- Brad Grams – closer to ASU, some development can reduce parking requirements because of the large student population
- TR – What about unbundling the parking from unit sales?
- Feliciano –The parking requirement kills projects with retail commercial in mixed use developments
- Brad – Orpheum Lofts, a condo downtown, has tried unbundled parking and had problems
- TR – If developers were not required to build any parking, what would you do? ½ space per unit? (silence) Could you lease retail if there were no on-site parking and the Light Rail was running?
- Jimmy – some businesses yes, if foot traffic is appropriate; but by and large not in this market. Depends on what is being sold. Services? Yes. Large products? No.
- Feliciano – Commercial development require 5 stalls per 1000 sf (?), other retail trends to 4 per 1000 sf; The question is – can you save enough money in not building parking to offer better leases to those retail tenants? Credit tenants (chain stores) will come in with parking and site design standards -we will need to have community development folks advocate for a more urban model with the data to back up the model
- Darin – How has shared parking, as on Mill Avenue worked (with credit tenants)?
- Feliciano – Mill Ave is still having trouble keeping credit tenants – parking is part of the trouble
- Josh – We need flexibility to determine what's appropriate per each use on a case by case basis with regards to parking demands, to help minimize parking overall

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- Feliciano – In terms of flexibility, negotiating development here is much easier than in other Phoenix areas
- Josh – But there are still some inconsistencies between the city and Apache project folks regarding the vision on Apache
- Jimmy – We need to know what would happen to parcels that overlap (straddle) the station area districts; what about adjacent parcels?
- Heidi – We have had some projects petition to join the STA if the parcel is adjacent, but yes-there's no "official process" advertised clearly. [cf. later response from Development Services that there is an identified process for this]
- Darin – Prop 207 frustrates most common approaches to saving local businesses – for example, it is difficult to prevent chains from coming in; but bonuses or incentives could help – so what are they?
- Feliciano – Tempe policy must take the lead – get a vision and maintain that vision – "passive/aggressive" mechanisms are useful to encourage development to comply to this vision: if development proposed fits the vision, then streamline; otherwise, make development process difficult;
- Heidi – And we can leverage the sentiment in neighborhoods to oppose development that doesn't work with local businesses – perhaps using phasing to include onsite businesses that could help bring their land sales prices down – you get neighborhood support (you have a retailer that you know works in the neighborhood, too)
- Feliciano – Focused facilitation is much stronger with Tempe for commercial preservation and vision-appropriate development, including lenders – develop a one stop shopping model to facilitate the right kind of projects. We need to have policy leaders talk to lenders / investment folks to facilitate keeping local retailers on Apache, and get the parking mix right.

Session 3/11:00 – City Staff

- Elizabeth Thomas – Neighborhood Services Office
- Shawna – Housing Services
- Development Services
- Sheri - Current residential trend is student housing, co-ops are a new method where large investor find other investors to own units and rent to students/residents, what is the long-term viability of this? DS – This is a version of a master developer co-op.
- Sheri – 10,000 student housing units to be incorporated on-campus over next 10 years, in 2-3 years, will have 5,000-6,000, there is a mixture of owners and operators of these developments, most are near the Rural Station Area
- Currently $600 to $650/square foot sale price for condos for all other buyers in nearby areas
- Sheri – Opportunity in Apache corridor for MU fun/funky retail. Investors are not looking at Apache, constraints include lot depth, acquisition of parcels, use and access adjacency problems,

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construction costs, perceived lack of a bargain, investors looking at core city as better opportunity, city needs to turn people away from the core, hard to contact owners of Apache parcels to make inquiries. Land assembly – difficult to push land owners to be redevelopment friendly.

- Much of the project study area is part of a Redevelopment Area – south of University to railroad, Rural to 101, reduced permit costs, additional incentives through overlay zoning
- Look at city ownership, mostly small remnant pieces, 15 parcels between Dorsey and 101 – better understand the scope of ownership that the City has in order to best strategize for future development and improvements
- Office is appropriate for investors, but are excluded by overlay requirements that make such developments unrealistic to pursue; parking is a lifestyle issue where requirements could be modified to accommodate/encourage office, DS – opportunities for commercial will be enhanced in future market trends
- TR – 0.75 ratio per bedroom is high compared to other transit-oriented areas. Sheri – but buyers are demanding more parking spaces, making for a difficult balancing act
- Ryan – flexibility in code and ability to work with the City could benefit investors; should look at shared parking in the district. Market demands more parking than what the needs are as seen by developers.
- TR –residents are concerned over trailer parks diminishing, what can be done to address the need for affordable housing?
- Ryan – the City needs to better define low-income/affordable housing. Who is this population, where do they live, do they work and if so, where?
- Craig – Section 8 is closed, some non-profit builders in the area work through tax credit programs, but no major projects in Tempe. Affordable housing should not be 100% affordable – mixed income more feasible; Apache needs mixed housing, not a concentration of affordable
- DS – one to one replacement of displaced affordable housing, federal government policy, depends on funding used, want 5% affordable housing to meet requirement, URA, uniform relocation act, 104(d) program mandates 1 to 1 replacement, applies only to particular project – based on individual families and income levels, mobile homes – hard to meet that requirement due to high existing density of those sites
- Ryan – city underground retention okay, state mandated requirement to retain on-site for 100 year flood, trying to strive for greater flexibility, 2 year flood requirement for unique infrastructure circumstances
- JS – These meetings are to figure out how to incorporate neighborhoods and create a vision to meet expectations, especially on north side of Apache, how do we get the vision through the neighborhood?
- Shawna – processes are in place for public input, any development should be able to get that input, Apache Boulevard may need a Specific Plan process – sit with residents, need to create process and plan that discusses these items such as height

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- TR – How much neighborhood buy-in was there in the overlay?
- Shawna – on Apache Blvd. residential character is different from the uniform single family residential, get pockets, many people are not involved – overlay bonus requests are getting residential kick-back, look carefully at single family residential pockets, some are historic neighborhoods
- Ryan – there is a step back height of 30 feet at 1 to 1 ratio for development adjacent to single family, this can be difficult to meet
- Draw sections that show this [CD+A produced SketchUp model]
- Building height codes are very complex and yet does not result in much variation
- Ryan – should look at projected general plan to get change of zoning, TOD was a compromise since groups could not agree, downtown has 50 feet, but developers need to come in and rezone according to projections and General Plan
- Can we consider changes to the zone requirements? Should City change zoning to make decisions clearer?
- Ryan – MU4 has no standard for height and needs approval through the City
- Shawna – Residential districts (single family neighborhoods) don't like the flexibility in the process, they want to know what to expect.
- What happens to projects that straddle boundaries? Ryan – adjacent or overlapping parcels have the opportunity to join adjacent overlay, otherwise your more intensive area applies, if not touching anything there are no options
- We need clear vision, we need to make sure residents and community are backing the development and businesses, residents and owners need to get to a common vision
- If rezoning is not an option, what else can we do to support the vision? Development review process should remain set up for flexibility and incentives or at least clarify them; affordable housing, traffic calming, not formalized, but the current informal process can work, but is NOT user friendly from a quick and business developer view – certainly not from an investor's point of view

Session 4/1:45 – City Staff

- Engineering, parks and recreation, project engineer for LRT
- Lack of crossings over UP railroad are a problem and a huge barrier, really need them, any further discussion? Some with UP, but no design or formal movement
- Some informal crossings exist today, JS – any new crossings would need to be grade separated, some in the city are at-grade, but new ones would require a grade separated or z-crossing at a minimum
- Esquer Park – adjacent vacant parcel problematic; second parcel to the west that city owns would be more conducive to inserting a new street providing access to Esquer Park – it is now cleared.

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- Esquer Park can take stormwater run-off from almost all surface land to 101 freeway from west of park. As an overall strategy, consider pushing retention/drainage to rear/edge of parcels (away from Apache) and create linear park space retention/detention, pocket parks tied into park & ride locations – infiltration, Esquer is 5-6 feet below grade
- Retention at curb (front of parcel between building and street) works against pedestrian/TOD guidelines, what are other strategies? Jim Bond – 20 ft parking setback made it convenient, no city requirement to put it there, always developers' choice
- Rather than at front of parcel on Apache, put retention at other (primarily rear site) edges which will also act as buffer to adjacent uses, such as single family residential
- To attract developers consider using financial mechanisms, tax credit, open space credit?
- 8th Street railroad ROW as a potential landscape linear park – City does own it, under Rails to Trails: needs to remain pathway of some kind, any form of transportation, City owns to curve at University (could be used for more pooled retention along site of multi-use path?)
- DS – any open space requirement per resident for developers? There is a financial requirement, park impact fee, $480 per DU, recommend $3000 per DU, council has not yet voted on the issue and it is pending
- How are big new developments handling stormwater? Jim – underground, on site, hasn't been a problem
- Street trees – generally required, depends on development setback and width of sidewalk, prefer to see trees with appropriate sidewalk and setback. City overlay requires additional sidewalk width into row as parcel goes through entitlement process. Width of sidewalks limits the choice of street trees. [cf. expanded tree/shrub palette recommended by APAC]
- Jim – 8ft typical sidewalk, if trees are desired he recommends increasing the width by 6 ft, tree at back of curb, avoid awnings and lights, awning in ROW acceptable, but in certain circumstances must be retractable
- Land use should really drive what the sidewalk condition becomes
- Consider north or south side of the street – different treatments are more or less appropriate depending on sun direction
- JS – we want to see some uniform pedestrian environment design suggestions, consistent amenities throughout Apache corridor are needed, minimums can be set and enhanced perhaps, 20 ft in ordinance
- No on-street parking makes for a less comfortable pedestrian environment due to the lack of a buffer to moving traffic, may require more room on sidewalk, bus will be less prominent on Apache (but bike lane and reduced bus service will provide some buffer space for pedestrians on sidewalk)
- 100 year on lot retention 1 hour storm – City requirement
- Jim- Sewer capacity, high density developments have concern – enlargement is happening piecemeal but will only be a benefit when whole corridor does this, water department has a model for how it works and its been okay so far, but east of McClintock is questionable, trying to get

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developers to work together and share cost and coordinate the effort, so what is the incentive? None really. City would need to get easements, but this has never been done before, consider creating an improvement district to address this

- Is there a master plan for where the lines need to go? No there is not, the densities now expected were not foreseen in the past
- Does Prop 207 inhibit any of this? Doesn't seem to.
- Mill Ave. – example where road plan helped with the implementation of needed infrastructure work
- Pre-planning of where and how the infrastructure could go in Apache corridor would make the implementation much more feasible, however city has no experience here
- Underground retention has maintenance issues with future flooding when the equipment wears and degrades
- Consider pooling parcels with retention on one parcel that covers the requirement for all, such as with Esquer Park, consider grouping parcels to satisfy 100 year, how do you decipher what parcel though? Esquer Park - City should use this as leverage and get something in return for City land accommodating other sites' retention
- Unmet park needs? There is a community parks deficit. No capacity for new parks to serve additional planned residents. There is a park impact fee, probably won't search for acquisition opportunities, driven more by marketplace and synergy rather than available parcels, impact fee goes to improvements and acquisition for a focused area and not necessarily the larger region
- Hudson Park Master Plan – should break ground this spring/early summer, 90% plans
- 5 acre minimum is desirable for the City to develop a park, but in this environment such standards can vary, public or private open space is questionable in terms of what is ideal, from City perspective it would be ideal for privately-owned parks to be made available for public use, but this is rare, perhaps City could offer incentives for developers that agree to create and maintain such an open space

Session 5/2:45 – Business and TABA Members (Tempe Area Business Associations)

- Catherine Mayorga - Tempe Chamber of Commerce
- Ester - Assistant manager at apartment complex next door to Police Station
- Ester - Little change since construction began, residents have been retained, some are students but many are seasonal, few families as they are 1 bedroom apartments, students seem to like it, so for apartments this is also good news, everybody wants to know when light rail service will start
- Ester – there are few stores around, so people like the new mall – Marketplace, people are concerned about where to leave their car, most people have one car, but several plan to use light rail

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- Chamber – There is a sense of urgency for businesses to become revitalized, street parking? - west of Rural on Apache, how about east? – yes, to west of Terrace, this is a good thing, need more parking
- Once construction is done how can city help viability of businesses? Chamber – city could announce rebirth/marketing of businesses/developments along corridor, JS – banners and identity/character of stations should be incorporated/conveyed near stations, do Spanish translations too
- Each station will have a system map, but will there be neighborhood maps? None are currently planned.
- There will be wayfinding signs away from the platform.
- Historic markers that talk about the character and history of each site will be on the platforms
- Risk of business being displaced by redevelopment? – Chamber – car wash near Rural has been closed, but no others. How to preserve character of small businesses?
- What challenges and opportunities are there for the businesses? Chamber - if they can survive they will thrive, but right now they are in pure survival mode.
- Lights and road work planned for completion in 60 – 90 days, revival/soft-launch
- DS – have many businesses closed during construction? Not closed, but hanging on a thread, just many fewer customers, there is a sense of hope and excitement for the LRT and what it will bring

Session 6/3:45 – Development Review Committee

- No DRC members participated in the charrette.

Closing/4:00 - Wrap-Up

- Scope review
- Draft station area plan and finalize document
- What should be in the document?
- JS - What are the unique characters that will emerge from each station? We didn't hear much. We could put something out for people to react to, McClintock auto, park and ride, Dorsey pedestrian focused, and restaurant, how can development complement these characters
- HG – four station areas to review on Saturday
- Shade, architectural detailing, specificity of guidelines for sidewalks, consistent pedestrian zone with enhanced varying zone character per station area (market and demographics shift)
- TR – sidewalk width of 12ft – 14ft is generally the width that would well-serve uses on Apache and keep with flexibility
- DS – could incorporate open area/plaza in their own ROW also

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- Shading – needs clarification, applies to the 14 feet, canopy of trees are included in the 33%
- What are the developments and services interpretation on tree requirements? Trees go in as developments come in.
- Must develop under overlay to implement these, if developing under the base zoning you do not have to comply to overlay codes. However, overlay incentives are mostly encouraging developers to comply with the ordinance. Otherwise developers use PAD to accomplish
- Streetscape improvements only occur as development occurs, otherwise limited to light rail improvements.
- DS – Can we accelerate these improvements? Improvement district? Retention/sewer line capacity/streetscape improvements, rather than being contingent on the property owner
- JS - City acquired 14 foot sidewalk all along corridor except where it would cost city money, such compensating owner for as loss of parking or relocating water lines. City has at least identified a unified approach for shade, sidewalk, bicycle, etc.
- DS – Identify locations and needs for affordable housing, landscape or lighting district, look at financial opportunities, once we develop a vision of what we want to happen DS can frame an approach for how that can be paid for, government funding, improvement fees, etc. implementation tools
- TS – clarify and illustrate any confusing or ambiguous items in overlay; Identify voids in overlay ordinance districts (Station Area and TOD Corridor)
- DS - Propose that McClintock receive greater height development to become a higher node, Dorsey can have a neighborhood character and maintain lower heights
- DS - Organized infrastructure easement plan, bike, pedestrian, vehicle, stormwater, and how to implement these public improvements is essential
- Public park issue, lack of public open space, could examine other methods of creating public space such as through plazas or courtyards
- Did not achieve the goal of talking about what each station's identity/character would be, HG - it comes, you don't prescribe it
- Identify uniform public improvement steps and goals
- Include issues of concern that are driven by staff or code, just to identify the items, such as stormwater and sewage
- Additional connections and what improvements can occur here
- Building articulation
- HG – we are lacking in public space - plazas, open space, bike paths; encourage these as appropriate and recommended by charrette and field work

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Memorandum

November 05, 2007
To: City of Tempe Staff
From: Tim Rood, Danielle Wong, and Jonah Chiarenza
Total of 4 pages
Re: **Tempe Station Area Planning (CD+A No. 0702)** — *Oct. 26, Public Charrette Notes*

This memorandum notes many of the points and issues that rose out of conversations during the group breakout session of the Public Charrette. Tim Rood facilitated the discussion. While the notes below are listed according to general headings, this does not suggest that all comments under those headings relate only to that heading topic. Rather, the notes are presented in chronological order as each topic of conversation occurred.

Dorsey Station Area

- Dorsey Station Area - Proximity to commercial/dense residential/retail are major assets.
- Dorsey Station Area - The area is already very accessible and walkable.
- Dorsey Station Area - Has good access to downtown and ASU.
- Terrace Road is already a good view corridor to build from.
- Should look more intensively at spaces in-between stations along the corridor and apply similar level of design including trees, corner shadefoils, and landscaping while addressing the utility constraints.
- Should help developers think about how to create space that is engaging by using courtyards, art (art program should encourage more diversity and creativity of design rather than simply inserting art pieces, there needs to be flexibility in creative applications), etc.
- North and south sides of Apache need differing shade treatments. Shade trees on north side are only effective if between the curb and the walking surface.
- Dorsey Station Area - Existing density is a major asset and is already TOD-supportive.
- Dorsey has a mixed demographic.
- Where Dorsey and Cedar intersect Apache in an offset configuration is an obstacle for bicyclists,. The City owns the parcel adjacent to Cedar on the west and might consider using it as an opportunity to make bike and pedestrian connections that line up better with Dorsey.
- There is a safety concern at Terrace and Apache – southbound vehicles on Terrace often neglect, or do not realize they are required, to yield to traffic in order to turn left onto Apache,

Key Pedestrian Connections

- For key pedestrian routes on and connecting to Apache, consider implementing some set of standards or guidelines to better direct the improvements that should occur in the public realm along the entire length of Apache where the LRT runs.
- Further help and guide developers buy into the concept of making improvements to the public realm adjacent to their projects.

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- The limitations with sewer and other utilities are a major obstacle that needs to be addressed so as to not further limit other improvements and opportunities along Apache.

Railroad Crossings

- Potential RR crossing near Kenneth Place connecting to Dorsey Lane south of Apache.
- Concern that overhead crossing connections may not be feasible due to the major infrastructure that would be necessary for such grade-separated crossings.

New Through-Block Connections

- Local residents expressed that there should be no vehicle connection through Williams Street to McClintock due to concern over through-traffic. A pedestrian connection at this location as part of new development could be an asset.
- Would creating a secondary parallel connection from Williams to Wildermuth reduce emphasis on Apache? Such a connection should be careful to not act as an alternative to Apache.
- Could consider creating a partial connection to/from the Police Station site to McClintock and not all the way through to Williams. This could help with police response time.
- The trailer park adjacent to Hudson Manor is for sale at a relatively affordable cost. The City might consider purchasing this large parcel, but would need to look deeper into the issues of funding and relocation policies.

Zoning and Overlay Requirements

- There are some unintended results that come out of the TOD Zoning Overlay that should be addressed to encourage development and act as an incentive. Some of these issues deal with too high a parking requirement for office uses and height requirements that limit office and commercial uses while encouraging residential.
- Alternatives for height and parking requirements could be revisited to help attract developers and make projects along Apache in the TOD Overlay and Station Areas more feasible.
- Some zoning requirements conflict and do not allow for feasible development projects, such as step-back requirements for R3 and R4 parcels that are adjacent to R1.
- The McClintock undercrossing is not a comfortable or desirable pedestrian or bicyclist connection.
- At-grade rail crossings could easily connect the Light Rail to a larger area south of the rail, but these are extremely difficult to get approval for.

McClintock Undercrossing

- McClintock undercrossing – could potentially shift the road and combine the two sidewalks on either side into one larger sidewalk on one side creating a safer and more pleasant pathway. But the difficulty of crossing McClintock could dissuade pedestrians/bicyclists on the "wrong" side.
- In addition to making an effort to implement rail crossings south of Dorsey and Smith/Martin stations, perhaps lobbying for major improvements to the existing McClintock undercrossing would be more feasible.

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Key Pedestrian Connections

- Lemon is a cul-de-sac on the west end and has no ped/bike connections.
- A new street connecting Stratton Lane through the block to Apache seemed to make sense to people aside from ownership concerns.
- Elm Street is a major pedestrian connection. Improvements should be focused on one side due to extensive power line infrastructure on the other side.
- Una Ave could use improvements on both sides.
- More trees are desirable.
- Improvements should be prioritized on Spence Ave. – it is a major access way to and from campus and could really benefit from any improvements.

Escalante/Victory Acres Neighborhood

- For the Escalante area, the freeway is a major barrier.
- The frontage roads are one-way and act as obstacles for bicyclists who would need to navigate very circuitously in order to cross the freeway.
- The frontage road ROWs are wide enough to incorporate two-way bike paths outside the paved roadway, either adjacent to or near the existing pedestrian path.
- People are excited and anxious for the Tempe Canal Path to be completed and it could have elements that act as a gateway/entry feature.
- The City owns the second parcel to the west of Esquer Park and could potentially use this parcel to make a new road connection through the block from MacArthur to Apache. This connection would greatly benefit people using the park and Light Rail riders.
- The parcel adjacent to the west of Esquer Park (the "U-Haul strip") could be considered for development, perhaps affordable housing in the form of townhomes that line the park, assuming the parcel is available for such future development.

Wrap-up – If you could see one thing happen along the Corridor in the next 10 years, what would it be?

- People friendly.
- Pedestrian friendly tree-lined street that has an active and vibrant streetfront on Apache.
- A cute and quaint community similar to Downtown Berkeley.
- The Corridor is well-used in all ways.
- Connections and good pedestrian access.
- There are neighborhood services that serve the local community without requiring them to drive.
- Retail and residential development is feasible – support this by lifting the height restrictions.
- Help make development projects feasible through zoning. For instance, any parcel that is 4 acres or smaller is very difficult to make financially feasible and marketable
- Thomas J. Pappas Elementary School is in its last year, consider what will happen at this site.

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- There is a balance of services and uses along Apache.
- Maintain the unique character and quality of existing businesses that have a regional draw in order to preserve their larger regional customer base.
- Current marginal uses are diminished and replaced with quality developments and uses.
- Be sensitive to the existing historic single family neighborhoods.
- Some areas have high rental rates and perhaps government programs could be implemented to assist people in buying homes, thereby creating communities where residents take ownership and show commitment to their neighborhoods and houses.
- Materials that are sensitive to Tempe's arid climate that reduce heat capture and address the heat island, areas where this could apply are paving and other applications in the public realm.
- Consider government programs that encourage sustainable and green building and design, Scottsdale could serve as an example of this, density bonus, credit system, etc.

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Appendix B: Recommended Plant Palette

Sweet Acacia

Texas Ebony

Indian Rosewood (sissoo)

Recommended Tree Palette

1. **Sweet Acacia** - Deciduous, moderately fast rate of growth, drought tolerant, requires full sun
2. **Texas Ebony** – Evergreen, slow growing, drought tolerant, requires partial shade to full sun
3. **Indian Rosewood (sissoo)** – Deciduous, fast-growing shade tree
4. **Desert Museum Palo Verde** - Semi-deciduous, dappled shade tree
5. **Palo Brea** - Semi-deciduous, medium sized, with broad canopy
6. **Chilean/Velvet Mesquite** - Evergreen to semi-deciduous, fast-growing
7. **Ironwood (Palo Fiero)** – Evergreen, slow-growing, shade tree with dense canopy

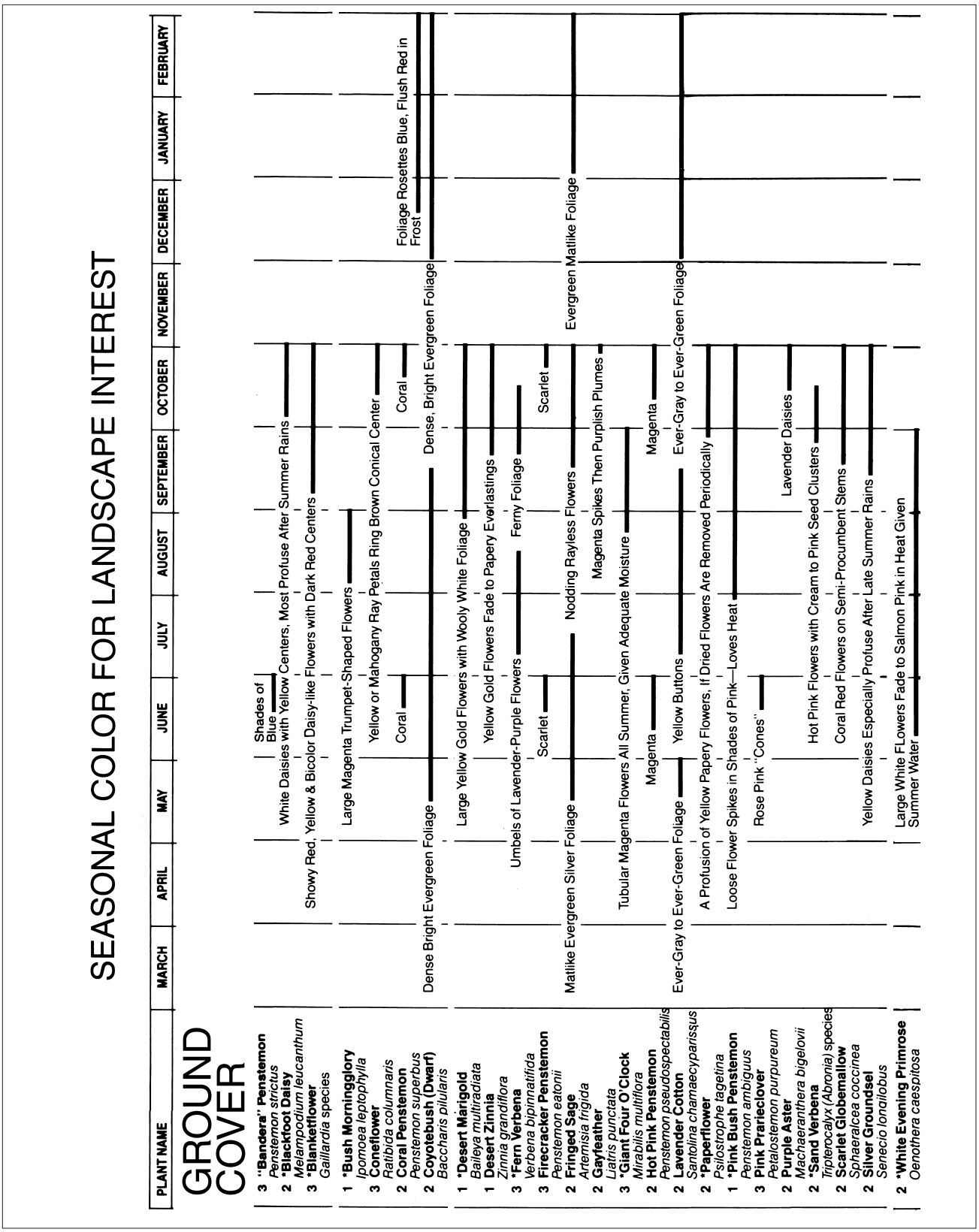
Desert Museum Palo Verde

Palo Brea

Chilean/Velvet Mesquite

Ironwood (Palo Fiero)

Recommended Plant Palette



Source: APAC

the APAC Visioning Sub-Committee
Landscape Overlay Plan
(continued)

These plants are rated on water usage (1,2,3) with 1 being the lowest.

SEASONAL COLOR FOR LANDSCAPE INTEREST

PLANT NAME	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
SHRUBS												
2 ***Apache Plume** *Fallugia paradoxa*	Semi-Evergreen		White Flowers Followed by Pink Plumes Most Prolific May & September							Reddish Cast to Foliage		
2 **Bigleaf Sage** *Artemisia tridentata*	Ever-Gray to Ever-Green Foliage							Ever-Gray to Ever-Green Foliage				
2 **Bird of Paradise** *Caesalpinia gilliesii*			Large Yellow Flowers with Red Stamens									
3 **Broom Baccharis** *Baccharis emoryi*	Bright Green Foliage/Evergreen							White Seed Pappus/Female Plants Only			Bronze Winter Color	
1 **Broom Dalea** *Dalea scoparia*				Light Bloom		Deep Blue Flowers						
2 **Chamisa** *Chrysothamnus nauseosus*	Bright Blue Green Foliage						Yellow Gold Flowers			Downy White Twig		
2 **Cliffrose** *Cowania neomexicana*	Evergreen		Fragrant Creamy White Flowers			Evergreen Foliage					Evergreen Foliage	
1 **Creosote Bush** *Larrea tridentata*	Evergreen Foliage		Intermittent Yellow Flowers Through Summer					Evergreen Foliage				
3 **Fernbush** *Chamaebatiaria millefolium*	Finely Cut Evergreen Foliage				Profuse White Flower Clusters			Finely Cut Evergreen Foliage				
1 **Fourwing Saltbush** *Atriplex canescens*	Semi-Evergreen Foliage					Large Winged Seed Clusters, Green, Curing to Tan Opalescent Blush on Foliage on Some Varieties						
3 **Golden Currant** *Ribes aureum*	Yellow Spicy Flowers			Red Fruit				Brilliant Scarlet Foliage				
2 **Littleleaf Sumac** *Rhus microphylla*	Yellow White Flowers				Red Fruit			Scarlet to Burgundy Leaf Color				
1 **Soaptree Yucca** *Yucca elata*	Evergreen		Creamy White Flowers			Evergreen with Dramatic Form & Textural Interest						
1 **Winterfat** *Ceratoides lanata*	Persistent Wooly White Foliage							White Seed Plumes are Long Lasting				

1 Texas Mountain Laurel which is currently in the median along Apache Boulevard is also acceptable.

Source: APAC

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