An aerial photograph of a city and surrounding landscape. In the foreground, there is a field of green and yellow wildflowers. In the middle ground, a residential development with many small houses is visible. In the background, a city skyline is seen, followed by a range of mountains under a blue sky with scattered white clouds.

WALH

WESTERN ALBUQUERQUE LAND HOLDINGS LLC



SANTOLINA

LEVEL B PLAN

A NEW COMMUNITY FOR
A NEW ECONOMY
JANUARY 2016
REVISED: JULY 2016

THE SANTOLINA LEVEL B PLAN IS THE RESULT OF THE COMBINED EFFORTS OF WESTERN ALBUQUERQUE LAND HOLDINGS LLC AND THE PROFESSIONALS OF ITS DEVELOPMENT CONSULTING TEAM. THE FOLLOWING SUBMITTAL WAS PREPARED BY:

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WESTERN ALBUQUERQUE LAND HOLDINGS LLC

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GARRETT

DEVELOPMENT CORPORATION



Executive Summary

Santolina is a master planned community designed on the mesa west of Albuquerque in Bernalillo County New Mexico. A Level A Master Plan and Zone Map Amendment to the Planned Communities Zone was approved by the Bernalillo County Board of Commissioners on June 16, 2015. The associated Santolina Level A Development Agreement was approved by the Board on June 24, 2015 and recorded in Bernalillo County on August 21, 2015. This Level B Plan is the initial Level B Plan of Santolina and encompasses 4,243.1 acres. The Santolina Level B Plan continues to refine the community vision for Santolina.

SANTOLINA will be a community where:

- Opportunities for jobs and education are plentiful and locally accessible
- Desirable housing responds to current demographic and market preferences
- Open space and quality of life is preserved and enhanced
- A true “live, work, learn and play” community is created for residents.

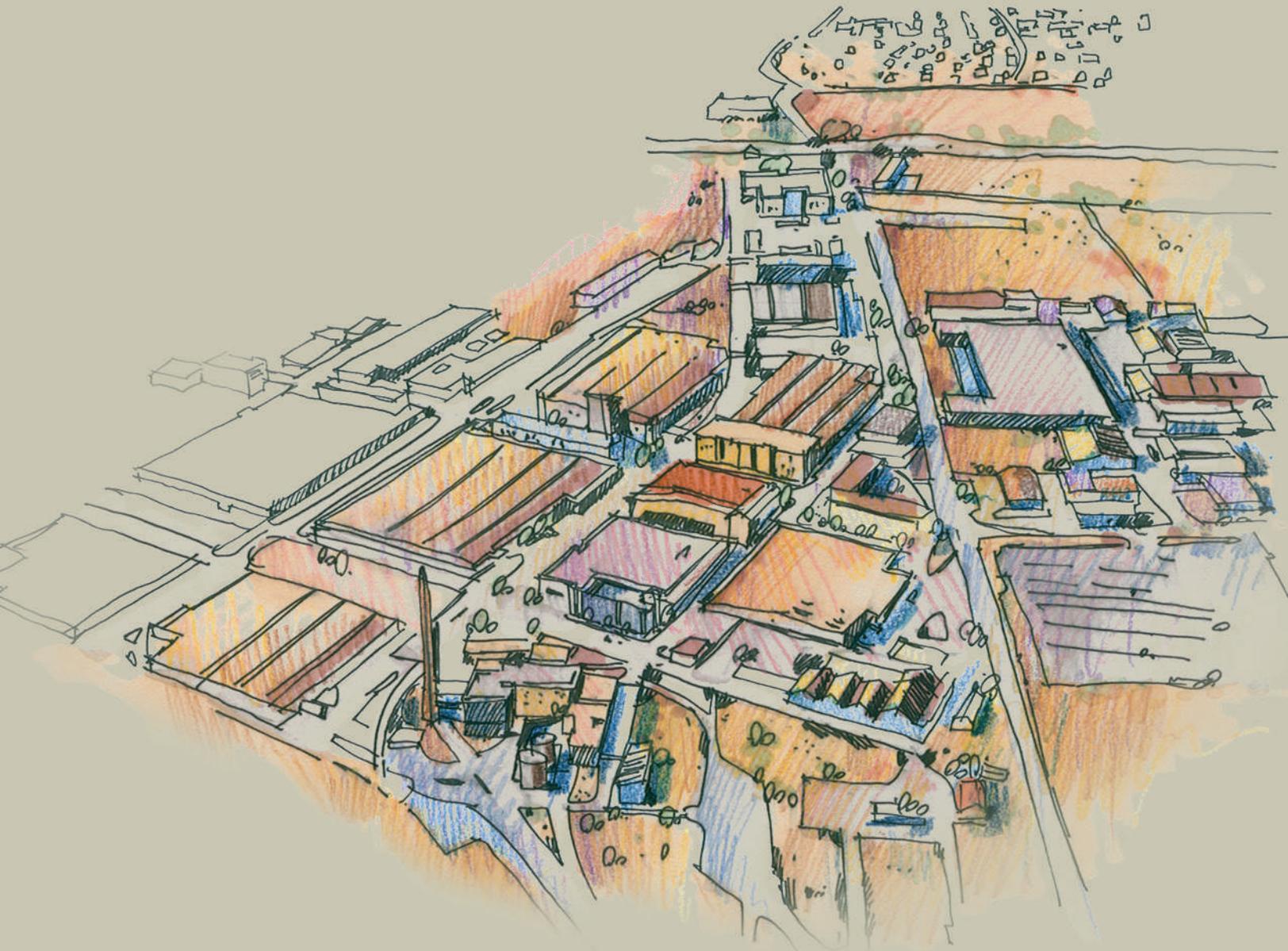


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CHAPTER 1 INTRODUCTION

1.1 OVERVIEW

Santolina is a 13,851 acre master planned community located on the Southwest Mesa in Bernalillo County, west of Albuquerque, New Mexico. The property is currently undeveloped ranchland on a large mesa framed by two escarpments. The mesa offers panoramic views of the Sandia and Mazano Mountains and immediate views of the City of Albuquerque and Bernalillo County’s South Valley. The property is generally bound by approximately six miles of exposure along Interstate 40 (I-40) on the north, 118th Street to the east, the Pajarito Mesa grant boundary to the south and the Rio Puerto Valley to the west.

Santolina is owned by Western Albuquerque Land Holdings LLC (WALH). WALH assembled a team of development experts tasked with the mission to create a master plan for a vibrant mixed use community. The community vision as described in the Santolina Level A Master Plan approvals (defined below) sets the stage for a vibrant mixed used community encompassing a mix of residential, commercial, industrial, institutional, parks and open space uses in conformance with Bernalillo County’s Planned Communities Criteria (PCC).

The Bernalillo County Board of Commissioners (Board) approved the Santolina Level A Master Plan



and a Zone Map Amendment to the Planned Communities (PC) Zone on June 16, 2015. The associated Santolina Level A Development Agreement (Development Agreement) was approved by the Board on June 24, 2015 and recorded in Bernalillo County (County) on August 21, 2015. Master Plan, Zoning and Development Agreement are defined collectively the Santolina Level A Approvals.

The Santolina Level A Master Plan is the first step in the approval process established in the Bernalillo County PCC. The process states that future Level B

Plans and subsequent or concurrent Level C Plans are prepared for sub-areas of the Santolina Level A Plan Area. Each step in the process further refines land uses, zoning details, infrastructure plans, transportation analyses and public facilities.

Per the PCC, this Level B Plan encompassing approximately 4,243 acres is the first Level B Plan within the Approved Santolina Level A Master Plan Area. This Level B Plan adopts the phased development approach established in the Santolina Level A Master Plan by defining boundaries, land uses, transportation systems and vision for the development of Santolina. Subsequent Level B Plan submittals will follow for other lands within the Santolina Level A Master Plan Area.

1.2 RECAPTURING THE SANTOLINA LEVEL A MASTER PLAN VISION

The Santolina Level A Master Plan established a vision for a mixed use community developed over a 40-50 year time frame. Santolina will be a community where:

- Opportunities for jobs and education are plentiful and locally accessible
- Desirable housing responds to current demographic and market preferences
- Open space and quality of life is preserved and enhanced
- A true “live, work, learn and play” community is created for residents.

1.2.1 Market Demand

The Santolina Level A Master Plan anticipates a 40-50 year development timeframe based on market demand and the State and region’s ability to support and attract new jobs and economic opportunities. The Approved Santolina Level A Master Plan and this subsequent Level B Plan have been developed within the context of the Mid-Region Council of Governments of New Mexico (MRCOG) 2040 Metropolitan Transportation Plan (MTP) and the **Geospatial and Population Studies (GPS)** at the University of New Mexico projections. MRCOG and **GPS** projections identify significant regional population growth during the next twenty years. Additionally, MRCOG’s projections identify high



volumes of east-west commutes. The projections suggest that **by 2040**, approximately **44%** of the Albuquerque metropolitan area housing units will be located on the area west of the Rio Grande River (West Side). Yet, employment distribution for the West Side is projected to represent **27%** of the jobs within the Albuquerque metropolitan area. **The anticipated growth highlights the long standing need for new employment centers on the West Side to provide employment options for West Side residents. Such employment center will reduce vehicular river crossings and enable more efficient use of existing transportation infrastructure.**

Due to land constraints, limited areas of the region can accommodate the forecasted population growth **without substantial redevelopment and densification of existing developed areas. Densification of existing developed areas often places a strain on existing infrastructure, increases development costs, reduces affordability and encounters public opposition. Entitled land, such as Santolina, adjacent to existing development and infrastructure is the ideal location to serve forecasted growth. Santolina provides a planned approach**

Exhibit 1: Santolina Context Map



to successfully accommodate future growth. The Plans adopt a holistic, market driven vision for a “live, work, learn and play” community.

The West Side has traditionally focused on residential development and limited commercial development. As a result, the West Side has lacked employment, retail and commercial opportunities. This development pattern has created traffic congestion at the limited river crossings as the population travels to employment and commercial centers located on the east side on a daily basis.

The Santolina Level A Master Plan outlines the creation of job opportunities and benefits within the Santolina Level A Master Plan Area and anticipated West Side, via a mix of non-residential land uses. The non-residential land uses within the Approved Santolina Level A Master Plan range from industrial to corporate office to neighborhood scale employment options. This Level B Plan adopts this framework in its vision. The current jobs to housing ratio up the West Side is .56 jobs per household. The Approved Santolina Level A Master Plan commits to two jobs per household at full build-out of Santolina.

The Santolina development shall achieve a reasonable balance between residential uses and employment uses such that it maintains the characteristics of a self-sustaining community. As stated in the Santolina Level A Master Plan, an approximate jobs to-housing ratio of 2-1 shall be achieved assuming at least 34,000 dwelling units at the time of full build-out of Santolina. A plan for attaining the ratio shall be provided in subsequent Level B Plans, such that the anticipated job development shall occur in relation to residential development.

This Level B Plan Area encompasses approximately 4,243 acres as illustrated on Exhibit 1: Santolina Context Map. Based on the Land Use Plan, the Level B Plan Area may include 9,444 housing units with a projected population of 23,178 residents. Per section 4.4 of the approved Development Agreement, the project shall have a jobs to housing ratio of 1.25 jobs per dwelling units upon complete development of this Level B Plan Area. The large quantity of job producing land within this Level B Plan will serve this Level B Plan and future Level B Plans.

The Level B Plan sets the stage for achieving the jobs to housing ratio set out by the Level A Development Agreement per the following Table from the Level A Development Agreement:

We are anticipating over 9,000 dwelling units for the first Level B Plan, which would commit us to 1.25 jobs per dwelling unit. To the extent this

TABLE 1: Jobs to Households

Dwelling Units Thresholds	Jobs
2,000	300
2,500	700
3,000	2,000
3,500	3,500
4,000	4,500
4,001 to 12,540	1.25 Jobs per Dwelling Unit
12,541 to 25,080	1.30 Jobs per Dwelling Unit
25,081 to 34,000	1.59 Jobs per Dwelling Unit
34,001 to Full Buildout	2.0 Jobs per Dwelling Unit at Full Buildout

Level B Plan exceeds the jobs to household ratio requirement, the surplus shall be applied to subsequent Level B Plans provided the overall Level A jobs to housing ratio requirements are met.

Meeting the needs of America’s changing demographics, Santolina is designed to appeal to the changing dynamics of the national population. Over the past three census periods, the largest segment of the population has been the 65+ age brackets. Beginning January 1, 2011, the first baby boomers began turning 65. During the next 19 years, boomers will be turning age 65 at a rate of 10,000 people a day (source: AARP, Social Security Administration and Pew Research). At the same time, the generation born between 1983 and 2000, known as the Millennial generation, is “community shopping”. This young generation is beginning to raise families and decide where they will live and work. A cohesive master plan like Santolina is designed to serve these market segments.

Both generations desire services, retail, jobs, education and recreation in close proximity to their residences. The Master Plan seeks the flexibility to provide a variety of residential options and walkable uses within close proximity to meet this demand. The Santolina Planned Community Zone is formulated to accommodate these anticipated demographic and housing trends.



1.3 CONTEXT

1.3.1 Open Space

The two escarpments along with the other significant environmental areas, are designated open space areas within the Approved Santolina Level A Master Plan. Within the Santolina Level A Master Plan open space areas are classified as:

- Major Public Open Space
- Regional Parks
- Open Space

These lands represent approximately 23% of the Santolina Level A Plan Area. Consistent with the Santolina Level A Master Plan, this Level B Plan includes all three categories of open space and designates 23% of the Level B Plan Area as Open Space. In addition to the above, an extensive neighborhood scaled open space and trails system shall be incorporated into the Santolina development districts. The neighborhood open space system provides connections between residential neighborhoods and retail, employment and civic facilities. The development of parks and open space will be phased with surrounding development to ensure residents access to recreational amenities through the Level B Plan Area.

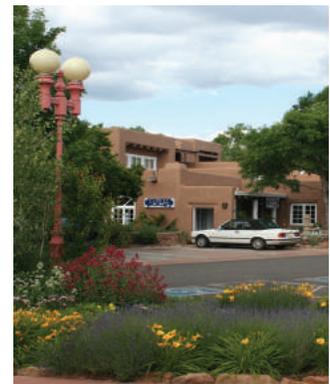
1.3.2 Land Use

The Level B Plan includes 9,444 residential units located within three of the Residential Villages defined in the Approved Santolina Level A Master Plan.

These include:

- Village Amarillo
- Village Oro
- Village Verde

A large quantity of non-residential components are included within the Level B Plan Area. As



defined in the Santolina Level A Master Plan, these include:

- A portion of the Industrial and Business Park
- A portion of the Urban Center
- A portion of the Business Park
- The entire Town Center

The location and mix of land uses within this Level B Plan is designed to concentrate a diversity of community activities at appropriate locations while safely guarding single family residential neighborhoods from higher intensity uses.



1.4 INFRASTRUCTURE AND RESOURCES

1.4.1 Infrastructure Planning

Infrastructure planning for the Level B Plan is based on a systems thinking approach. A comprehensive infrastructure plan has been established to appropriately size required utilities such as water, wastewater, stormwater drainage, dry utilities and solid waste in order to serve the Level B Plan Area and avoid future retrofits.

1.4.2 Water

The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) has provided a 40 Year Water Plan to the State of New Mexico. The water plan addresses regional population growth and the water needs of the current and future Bernalillo County/Albuquerque service area. Water needs

based on projected population growth, of which Santolina's future population was included, were identified within the study. On July 29, 2014, the ABCWUA provided a letter to Bernalillo County indicating the ABCWUA has the capability and capacity to serve the Santolina Level A Master Plan as currently approved. Santolina will comply with all adopted water consumption and usage policies of the ABCWUA and the County. Additionally, WALH will pay the ABCWUA a Water Supply Charge (WSC). The ABCWUA will use the WSC to develop additional/new water sources.

The Santolina Level A Plan provides specific enforcement language necessary to support all applicable water conservation codes. As part of the research conducted for the Approved Santolina Level A Master Plan and this subsequent Level B Plan, a Santolina Water Master Plan Technical Report was developed. The report outlined the analysis and data related to how the proposed water system can provide water service to this Level B Plan Area as well as the entire Santolina Level A Plan Area.

1.4.3 Wastewater

Santolina will receive service from the ABCWUA for sanitary sewer collection and treatment. A conceptual level Wastewater Master Plan was developed in support of the Santolina Level A Master Plan. The Wastewater Plan identifies nearby wastewater systems that can serve Santolina. As part of this Level B Plan, a technical report has been developed. The report outlines methods to serve the Santolina Level A Master Plan Area as well as the Level B Plan Area wastewater treatment and collection requirements.

1.4.4 Stormwater

It is anticipated that the County will own and operate the majority of public stormwater infrastructure within Santolina. These systems will be located within public right of way to accommodate public ownership, operation and maintenance. In accordance with general Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) policy, AMAFCA will own, operate and maintain the major drainage channels and ponds (or dams) required in those drainage basins discharging stormwater to the south and east of Santolina. These systems shall be subject to AMAFCA approval of concept, design, and construction.

1.4.5 Dry Utilities

The Level B Plan identifies the location of existing dry utilities along with schematic designs for improved major systems. Dry utilities will be installed in coordination with the phased developed of Santolina. This Level B Plan establishes the general planning for required utility service. Additional development specific service studies and design will occur within the utilities as development progresses.

1.4.6 Electric

Public Service Company of New Mexico (PNM®) is the electric services provider for the Albuquerque/Bernalillo County area. The utility provider has electric facilities located near the Level B Plan Area. The routing of electric transmission lines and the location of associated stations required to provide electric power at Santolina will be determined by PNM® and WALH. Additional substation locations will be identified based on Santolina's buildout load demand.

1.4.7 Natural Gas

The New Mexico Gas Company (NMGCO) is the local natural gas distribution utility company. Natural gas lines currently exist within the Santolina Level A Plan Area. A conceptual natural gas supply system has been prepared to support the Approved Santolina Level A Master Plan.

1.4.8 Telecommunications

CenturyLink™ (Qwest) and XFINITY® (Comcast) provide telecommunication services within the Master Plan Area. It is anticipated that telecommunication lines will piggyback on the design and expansion of dry utility services within Santolina. XFINITY® is considering extending fiber optic service to serve Santolina. This utility will likely locate service lines underground within a public utility easement or public right of way. Telecommunication lines may also co-locate on overhead power poles where proposed.

1.4.9 Solid Waste

Santolina will comply with County solid waste management regulations, as outlined in Chapter 70 of the Bernalillo County Code. As stated, the County's reason for providing solid waste management rules is to preserve and protect the health, safety and

quality of life of County residents. These regulations require that solid waste collection services be provided by the County or an authorized contractor. At this time, solid waste collection services are supplied by Waste Management, Inc.

1.5 TRANSPORTATION

The mix of land uses within Santolina is designed to provide residents, workers and visitors, a vibrant community. Key to this goal is the transportation system. The Santolina Master Plan Area, while primarily undeveloped range land, is accessed by an existing road network including Atrisco Vista Boulevard, Dennis Chavez Boulevard, 118th Street, Central Avenue and Shelly Road. Additionally, Santolina enjoys approximately six miles of exposure along I-40 with access from the Atrisco Vista Boulevard/West Central Avenue interchange.

As part of the Santolina Level A Master Plan, a transportation analysis was conducted. The Santolina Level A transportation analysis was based on the 2035 Metropolitan Transportation Plan (MTP). The 2035 MTP was policy at the time of the Santolina Level A Master Plan submittal. The Santolina Level A transportation analysis outline proposed projects that would improve access to the Santolina Level A Planning Area.

The Santolina Transportation Master Plan provided with the Santolina Level A Master Plan was



designed and modeled as a multi-modal transportation system with adequate space for vehicular movement as well as transit and pedestrian and bicycle trails. The roadways within the Santolina Level A Transportation Master Plan are shown four to six lane arterial roadways.

The Applicant will submit a proposed Level B Transportation Plan consistent with the Level A Transportation Master Plan, as revised with the Santolina Level A Master Plan. The Level B Transportation Plan shall be submitted prior to a Level B Plan approval or future development activities such as building permits, that generate 500 or more cumulative peak hour trips, or at a time when the Bernalillo County Public Works Division (BCPWD) and Developer deem it necessary.

As part of this Level B Plan, the Santolina roadway network has been further refined to address comments received during the Santolina Level A approval process. The Level B transportation analysis, documented in the Level B Transportation Technical Report, added additional minor arterial and collector roadways to the roadway network. The necessary right of way as defined in the Level B transportation analysis will be dedicated as a part of the Level C review and approval process.

Construction of roadways, intersections and other elements will be phased as necessary to serve the development.

The Santolina transportation system will provide a mix of transportation options including roadside and off-road trails designed to connect Residential Villages with amenities and retail/employment centers. Additionally, the trails system will also provide links to the regional parks and open space system. The trails system will accommodate a bikeway network to provide a community wide system for both recreational and commuting purposes. The trails system will be designed to link with future bus service stops located within reasonable walking distances of residences. Transit centers are envisioned within the Urban Center, Community Centers, Town Center and employment centers linking these areas to Residential Villages.

The Level B Transportation Plan creates a transportation and circulation system that provides strong connectivity throughout the community with an emphasis on walkability and trails. Additionally, the jobs-housing ratio targets established in the Development Agreement will reduce congestion on the existing transportation system by drawing jobs to the West Side.



1.5.1 Approach and Implementation

This Level B Plan is comprised of two phases with a development timeframe of 2025 and 2040. [Exhibit 2: Land Use Plan](#) outlines the Level B development program. The specific Land Use Districts and the allocation of said districts with the Level B Plan Area are consistent with the Land Use Districts and land allocations established within the Approved Santolina Level A Master Plan.

The Level B Plan Land Use Districts shall be further delineated and refined in Chapter Two of this Level B Plan. The Land Use Districts within this Level B Plan include:

- Residential Villages (including Residential Village Centers)
- Industrial and Business Park
- Major Public Open Space
- Regional Parks
- Open Space
- Urban Centers
- Business Park
- Town Center

This Level B Land Use Plan proposes a variety of land uses that are compatible with Santolina’s regional importance and strategic location on Albuquerque’s growing West Side. A variety of housing densities, commercial and employment centers innovative open spaces establish the framework plan for a cohesive community. In order to further articulate the vision for this Land Use Plan, Zoning Regulations and Design Standards are included within this Level B Plan (see Chapter 3, Zoning). This Level B Plan includes innovative standards for allowed uses, gross densities, lot coverage, floor area ratios, major landscaping features, building massing and flood water management. Additionally, provisions for transportation are provided per the Albuquerque/Bernalillo County Comprehensive Plan (Comprehensive Plan) goals. This Level B Land Use Plan has been designed to appropriately collocate compatible uses and transition features. For example, parks and internal open space provide transitions between low and high density residential uses. The proposed roadway network is utilized as a buffer between institutional and/or commercial

uses and residential uses. The proposed Business Park and Industrial Park have been sited on the west side of Paseo Del Volcan, away from the residential and neighborhood commercial mix of uses.

The Level B Land Use Plan offers a mix of uses that provide the opportunity for future residents of Santolina to live, work, play and shop in one location. The Land Use Plan calls for horizontal mixed-use blocks that may combine single use buildings within distinct parcels with a range of land uses on a block. This design approach offers the efficient and cohesive design and entitlement of mixed use walkable development blocks. An additional benefit is the opportunity to share infrastructure utilities and amenities.

Vertical mixed-use buildings are permissive in the Town Center and Urban Centers zones. Vertical mixed-use allows street level and lower floors of buildings to offer public uses while more private uses are reserved for the upper floors of buildings. For example, the ground floor may offer retail and service offices, the second floor and up offering professional office space while the uppermost floors offer residential.

The mixing of uses serves as a catalyst to create complete, compact and lively neighborhoods, town centers and urban centers.

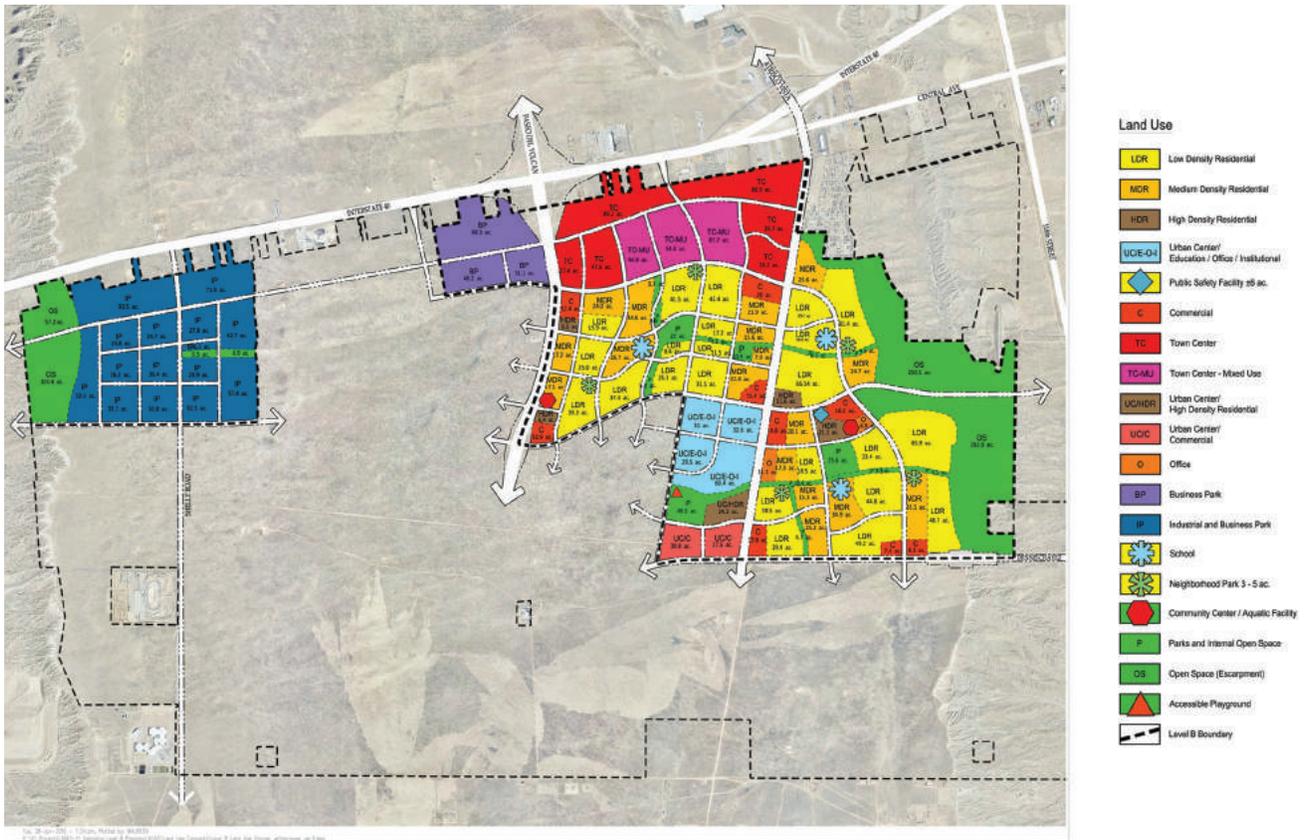
The Land Use Plan and Zoning Code proposed by this Level B Plan allows for horizontal and vertical mixed-use town centers, neighborhood centers and neighborhoods, all by right.

This Level B Plan encompasses 4,243 acres, approximate 31% of the Santolina Level A Master Plan Area. As noted earlier, the PCC provides a built-in framework for phasing a community. The Planned Communities (PC) Zone Regulations for a Master Plan Area include a Santolina Level A Plan, Level B Plans and Level C Plans. The PC zoning established within the Santolina Level A Master Plan is further refined and design guidelines are established within this Level B Plan. In addition to the permissive uses, this Level B Plan provides detailed regulations related to parking, setbacks and landscape. The site characteristics and design standards established in this Level B Plan create a more refined level of development tailored to each development district within the Plan Area. This process creates the opportunity to create distinct places with unique

character to appeal to multiple market segments and populations.

The requirements for Santolina Level A, B and C Plans are based on phased framework for Santolina. This Level B Plan and subsequent Level C Plans shall outline development standards for a phase of Santolina consistent with the overall community vision as presented in the Approved Santolina Level A Master Plan. Development within the Level B Plan Area will develop in such order and at such rate and time as the market dictates.

Exhibit 2: Land Use Plan



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CHAPTER 2 LAND USE

2.1 OVERVIEW

Significant growth is anticipated within the West Side and greater region over the next twenty years. At the same time, the region has the goal to increase the jobs/housing ratio on the West Side to reduce traffic congestion and provide employment opportunities closer to where residents reside. This Santolina Level B Plan has been designed to meet the growth demand and jobs to housing objective. As the future home of approximately 23,178 residents and an estimated 31,457 jobs, this Level B Plan is designed to function as a self-sufficient community unto itself.

The Approved Level A Master Plan identifies eight Land Use Districts within the Level A Master Plan Area. This Level B Plan has been configured to provide an offering from all eight Land Use Districts within Santolina. Consistent with the Santolina Community Vision, this Level B Plan will assure:

- Numerous jobs and educational opportunities are locally accessible
- Desirable housing responds to current demographic and market preferences
- Open space and quality of life is preserved and enhanced

- A true “live, work, learn and play” community is created for residents.

2.2 PROPOSED LAND USE DISTRICTS

TABLE 3: Level B Land Use Summary provides a breakdown of the land uses within this Level B Plan along with anticipated dwelling units, population and jobs. The average residential density is a result of offering a variety of housing options within this Level B Plan to meet anticipated market demand. Residential, commercial and civic centers will serve residents of Santolina and the greater West Side. Large quantities of employment land use opportunities have been included within this Level B Plan to serve this Level B Plan as well as future Level B Plans.

2.2.1 Residential Village

As identified in the Santolina Level A Master Plan, the community shall have five Residential Villages upon completion. Each Residential Village shall provide a wide range of residential housing opportunities to serve the region’s needs for decades to come. Each Residential Village may be designed and developed as a single, cohesive village or separated into a series of neighborhoods offering a range of distinct housing types and characteristics. Consistent with residential phasing within

TABLE 2: Santolina Level B Land Use Plan

Land Use Type	Total Area	Percent of Level B Area
LDR Low Density Residential	914.0 acres	21.5%
MDR Medium Density Residential	422.4 acres	10.0%
HDR High Density Residential	48.4 acres	1.1%
ES Elementary School	43.3 acres	1.0%
UC/PE Urban Center/Primary Education Campus	91.3 acres	2.2%
UC/SE Urban Center/Secondary Education Campus	86.6 acres	2.0%
PS Public Safety Facility	10.8 acres	0.3%
C Commercial	131.6 acres	3.1%
TC Town Center	570.4 acres	13.4%
UC/HDR Urban Center/High Density Residential	26.3 acres	0.6%
UC/C Urban Center/Commercial	66.7 acres	1.6%
O Office	20.6 acres	0.5%
BP Business Park	194.8 acres	4.6%
IP Industrial and Business Park	670.9 acres	15.8%
P/OS Parks and Internal Open Space	183.6 acres	4.3%
OS Open Space (Escarpment)	761.4 acres	17.9%
Level B Total Area	4,243.1 acres	

TABLE 3: Level B Land Use Summary

Land Use	Total Areas	Population (Residents)
Village	1,572.5 acres	21,054 residents
Open Space	183.6 acres	N/A
Major Public Open Space	759.4 acres	N/A
Industrial & Energy Park	670.9 acres	N/A
Town Center	570.4 acres	N/A
Business Park	194.8 acres	N/A
Urban Center	237.8 acres	1,294 residents
Village Center	53.7 acres	830 residents
Level B Area Total	4,243.1 acres	23,178 residents

the Approved Level A Master Plan, this Level B Plan includes a portion of three Residential Villages: 1) Village Amarillo, 2) Village Oro and 3) Village Verde.

The residential housing offering within these three Residential Villages will include a mix of low, medium and high density residential. Low density residential includes a variety of single family detached lot sizes. Medium density residential includes a mix of detached/attached residential products including cluster, zero lot line, townhome and duplex. High density residential includes multi-family apartment style housing. The medium and high density residential have been located along major arterials adjacent to non-residential uses such as neighborhood commercial, civic and parks to create walkable, active destinations.

Chapter 3, Zoning of this Level B Plan establishes maximum densities for low, medium and high density residential uses. While maximum densities are provided as part of the Level B Zoning Code, it is anticipated that all future development within the Level B Plan Area will not be developed to the established maximum densities. This Level B Plan provides the density benchmarks by which future Level C Plans are regulated. County Planning staff shall utilize these benchmarks to ensure future Level C Plans do not exceed the residential unit cap established within this Level B Plan.

This Level B Plan encompasses 4,243 acres of the approved Level A Master Plan. Approximately 1,000 acres of this Level B Plan is located within the Rural Area designation on the Comprehensive Plan. Based on the size of this Level B Plan Area and the underlying Comprehensive Plan designations, the maximum residential cap for this Level B Plan is 10,729 residential units.

TABLE 4: Residential Units

Comp Plan Designation	Area	Density	Units
Reserve Area	3,243 acres	3.0/du/acre	9,729 units
Rural Area	1,000 acres	1.0/du/acre	1,000 units
Total:	4,243 acres	4.0/du/acre	10,729 units

TABLE 5: Residential Land Use Areas provides a summary of the residential land use areas, maximum densities and residential unit caps established within this Level B Plan. The table ensures development remains below the allowable 10,729 units. As noted in Section 1.3.2 Land Use, 9,444 residential unit are located within this Level B Plan's three Residential Villages. The remaining 1,285 units create the residential component of the Town Center and Urban Center located within this Level B Plan.

TABLE 5: Residential Land Use Areas

Residential Zone	Maximum Density	Land Area	Maximum Limits
Low Density	5.0 du/ac	914.0 acres	4,570 units
Medium Density	9.0 du/ac	422.5 acres	3,803 units
High Density	50.0 du/ac	74.7 acres	2,247 units
Total:	7.5 du/ac	1,411.2 acres	10,620 units

Parks and open space are instrumental to the Santolina community vision. Approximately 139 acres of neighborhood parks, open space and trails have been incorporated into the Residential Villages. The open space system will provide pedestrian and bicycle connectivity while also providing definition for and buffer between neighborhoods.

Civic service facilities are an important element within a community. They create a sense of place and offer safety and services to the community. The following civic facilities will be accommodated within the Residential Villages:

- One Fire Station within Village Verde
- One Sheriff Station within Village Verde

- Three Elementary Schools (one within each Residential Village)

At this time the fire station is located within the Village Center while the sheriff station is located south of the Village Center. Each elementary school is located to provide adequate coverage for the residents within each Residential Village. The locations of these civic facilities is subject to change.

2.2.2 Residential Village Centers

As outlined in the Approved Level A Master Plan, Residential Village Centers will be located within each Residential Village. They are envisioned to include a variety of uses including, but not limited to, higher density residential, neighborhood commercial and local office or healthcare uses. The Residential Village Centers are envisioned as areas located and sized to provide convenient neighborhood scaled services, supported by more dense residential lifestyles.

The first of the Residential Village Centers is



included within this Level B Plan. The Village Verde Residential Village Center is approximately 54 acres with a concentration of high intensity uses along Gibson Boulevard. Uses within the Residential Village Center include high density residential, office, neighborhood commercial and public service areas. Additionally, the western escarpment open space is adjacent to the Village Center. This relationship provides recreational opportunities as well as pedestrian and bicycle connections to the Village Center.

While this Level B Plan has identified and described the Village Center within Village Verde, it is important to note that a mix of uses is envisioned

within each Residential Village included in this Plan Area. Exhibit 2: Land Use Plan illustrates a mix of commercial, institutional schools and parks distributed throughout the Residential Villages. The distribution of these uses ensures a wide range of residential options are located in close proximity to employment, commercial and educational offerings with this Level B Plan.



2.2.3 Urban Center

The Urban Center is centrally located within the overall Santolina community. The Urban Center is envisioned as a destination with a concentration of community activities to draw local and regional residents. Approximately 238 acres of the Urban Center is within this Level B Plan. The boundaries of the Level B Plan Urban Center are defined by Atrisco Vista Boulevard to the east, Dennis Chavez Boulevard to the south and Gibson Boulevard to the north. All of these roadways are existing or future principal arterials.

Land uses within the Urban Center include education campuses, commercial, high density residential and a central park. This mix of land uses will create a dynamic, high density community core where residents can “live, work, learn and play.”

The goal of the Urban Center is to create a vibrant destination within Santolina. Following is a summary of the land uses designed within the Urban Center to create this setting:

Educational. Two educational campuses are located within the Urban Center. The first is a 91 acre parcel is anticipated to be allocated towards an Albuquerque Public Schools (APS) kindergarten through 12th grade campus. The second parcel is an 87 acre tract allocated towards a Central New Mexico community college (CNM) campus. Both education campuses enjoy frontage along Atrisco



Vista and Gibson Boulevards, providing excellent access and public transit use. This access will enable those traveling within Santolina, the West Side and the metropolitan area, to enjoy the campuses.

Commercial. Approximately 17 acres of the Urban Center has been allocated to commercial. The commercial tract is located along Dennis Chavez Boulevard to create strong access for the West Side.

Residential. High density residential is located within the Urban Center to create live/work opportunities and an active hub within Santolina. Adding a mix of residential to the Urban Center creates evening and weekend activity and energy.

Parkland. A central park is incorporated into the Urban Center. The 44 acre park will complete the Urban Center by providing a recreational and gathering area within the urban setting. Additionally, the park will provide pedestrian and bicycle access for residents of the community.

2.2.4 Town Center

The Town Center, approximately 570 acres, is located between two I-40 interchanges (Atrisco Vista Boulevard at the future Paseo del Volcan). These interchanges conveniently connect the site to existing regional roadways. The Town Center has the potential to provide several million square feet of retail, lodging, hotels and related services as well



as medium to high density, multi-family residential living. The site is expected to attract large retail stores, power centers, lifestyle centers, malls, car dealership clusters and other high Gross Receipts Tax (GRT) generators and service providers for the region.

2.2.5 Business Park

Critical to achieving the jobs/employment goals established in the Development Agreement are the two Business Parks located within Santolina. The Business Park located adjacent to I-40 west of Paseo del Volcan is included within this Level B Plan. The 194 acre Business Park will be home to emerging technologies, research and development operations, healthcare industries and corporate users. The Business Park is designed to concentrate job generation in a cluster, campus-like setting with easy access to I-40 and existing roadways. Additionally, the Business Park is strategically located adjacent to the Town Center, providing employees with convenient access to commercial uses and needs such as restaurants and other services.



2.2.6 Industrial and Business Park

A 671 acre Industrial and Business Park is located on the western edge of the Level B Plan Area. The Industrial and Business Park is intended for large manufacturing, warehouse, distribution, energy production and large individual uses. The area also provides opportunities for a solar energy farm and/or other alternative fuel powered facilities. Furthermore, the large acreage provides unique opportunities for industrial symbiosis or an industrial ecology where businesses share resources and make use of the waste/by-products of other businesses.

While the end users described above create jobs, tax revenue and excitement for a region, they are also intensive uses. As a result, the Industrial and Business Park is ideally located remote from residential and high visibility non-residential areas. The Santolina Level B Plan Industrial and Business Park addresses this concern by locating the Industrial and Business Park remotely and buffering it with a wide regional open space.

2.2.7 Open Space

Public Open Space as identified by this Level B Plan is the area that corresponds with Open Space identified in the:

- Albuquerque Bernalillo County Comprehensive Plan
- City of Albuquerque Major Public Open Space Facilities Plan
- Bernalillo County Parks, Open Space and Trails Master Plan
- Southwest Area Plan

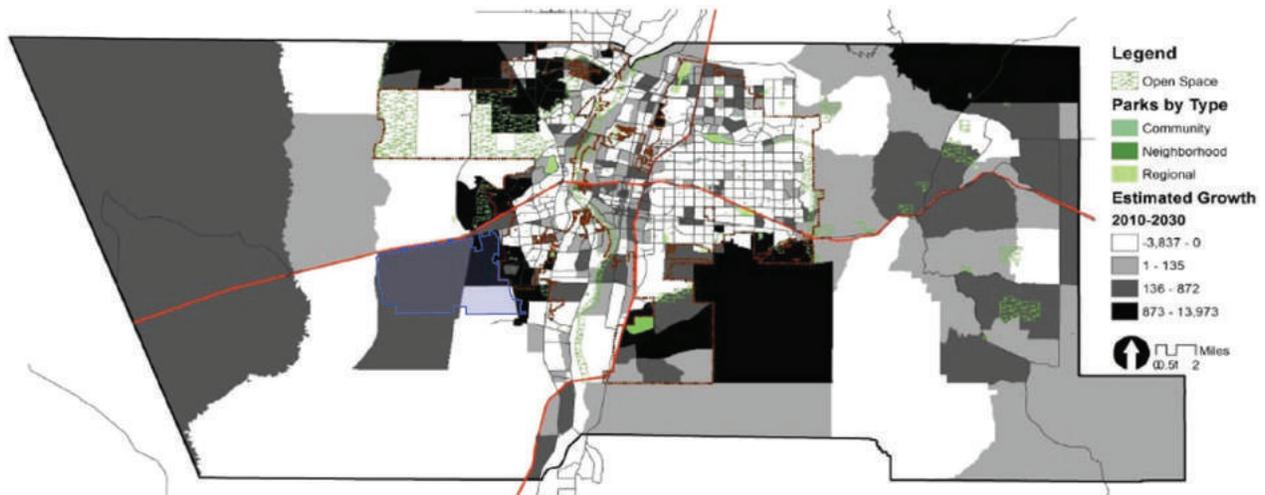
These areas, as identified by the above referenced plans, are referred to as the Eastern Ceja and the Western Ceja, and/or the Rio Puerco or the eastern and western escarpments. The eastern and western escarpment areas are identified as open space in this Level B Plan. The open space in this Level B Plan Area makes up approximately 701 acres, or 17.9% of the total Level B Plan Area and will serve to meet the open space requirements for all land uses and



parcels within this Level B Plan. Open space located on the west side of the Level B Plan Area adjacent to Industrial and Business Park makes up approximately 167 acres, while the open space on the east side of the Level B Plan Area adjacent to the Villages encompasses the remaining estimated 593 acres. This area is appropriate for recreational and educational uses as well as appropriate public utilities and infrastructure. Uses in these open space areas include trails, visitor centers, water storage and drainage facilities, roadway and transportation, utility rights-of-way and easement corridors.

This land use is included as part of this Level B Plan to ensure that residents are provided access to trails and open space early in the Santolina construction schedule. The Level B Plan Area open spaces are linked to adjacent land uses, such as the Industrial and Business Park on the west and the Residential Village on the east, through roadways and pedestrian access. Preserving this amenity will provide a quality of life for future residents of Santolina, the West Side and Bernalillo County.

Exhibit 3: County Projected Population Growth Overlay



The Board adopted the Parks, Recreation and Open Space Facilities Master Plan for 2015-2030 (PROS) in October 2015. The Santolina Level A Master Plan was adopted by the Board prior to the adoption of the PROS Master Plan in June 2015. The PROS Plan provides a needs assessment of parks, recreation and open space facilities based on projected County population growth through 2030. These projections are based on MRCOG growth projections as illustrated on [Exhibit 3: County Projected Population Growth Overlay](#). The Santolina Level A Master Plan Area has been identified in blue on the exhibit.

TABLE 6: PROS Plan Level-of-Service

PROS Plan LOS Standards	
Open Space	20.00 acres / 1,000 people
Regional Park	3.00 acres / 1,000 people
Community Park	2.00 acres / 1,000 people
Neighborhood Park	1.00 acre / 1,000 people
Community Center	1.00 each / 15,000 people
Aquatics Facility	1.00 each / 15,000 people
Fully-Inclusive Playground	1.00 each / 50,000 people

The PROS Plan calls for adequate facilities planning in future high-growth areas. Planning for future parks, open space, and recreation facilities within Bernalillo County is based on the Level-of-Service (LOS) standards identified in **TABLE 6: PROS PLAN LEVEL-OF-SERVICE**:

Based on these PROS Plan LOS and facility benchmarks, an analysis of standards for the Level A Master and Level B Plan Areas been conducted. The findings are illustrated in Tables 7 and 8.

TABLE 7: Level B Facility Requirements

Level B Facility Requirements (assuming 23,178 people)	
Open Space	464.00 acres
Regional Park	70.00 acres
Community Park	46.00 acres
Neighborhood Park	23.00 acres
Total Required Acreage	603.00 acres
Community Center	1.50 each
Aquatics Facility	1.50 each
Fully-Inclusive Playground	0.50 each

TABLE 8: Level B Level-of-Service

Level B Level-of-Service	
Open Space	761.00 acres
Regional Park	*0 acres
Community Park	183.60 acres
Neighborhood Park	23.00 acres
Total Required Acreage	967.60 acres
Community Center	2.00 each
Aquatics Facility	2.00 each
Fully-Inclusive Playground	** each

**Regional Parks are identified in the Level A Master Plan and shall be developed with future Level B Plans.*

***Future Level B Plans will identify/accommodate Aquatic Facilities, Community Centers, and Fully-Inclusive Playgrounds.*

Note: *It is anticipated that additional private/pocket parks will be located within residential neighborhoods. Such parks have not been identified at this time.*

Per the PROS Plan LOS standards, this Santolina Level B Plan is expected to provide a total of 603 acres of Parks and Open Space. Based on the Level B Land Use Plan and population projection, the Land Use Plan provides a total of 945 acres of Parks and Open Space. PROS Plan standards also recommend providing one community center and one aquatics based on projected population counts for the Level B Plan Area. A community center and aquatics facility is anticipated as part of the Level B Village Center, as identified by the Land Use Map. Overall, this Level B Plan meets the intent of the PROS Plan and significantly exceeds the LOS standards.

2.2.8 Parks and Recreation Implementation Strategy

Neighborhood Parks. The first Level C residential subdivision shall designate land for a 3 to 5 acre neighborhood park. The final plat for said Level C Plan shall dedicate to the County the land for the neighborhood park. As the first Level C residential neighborhood is developed, the Developer shall coordinate the programming, design and construction of the park with County Parks staff. The park will be designed and built as “Project Infrastructure” pursuant to the definition in the

Level A Development Agreement. Future neighborhood parks shall be designated via the Level C process and dedicated to the County via the final plat process as the population thresholds for neighborhood parks defined in the Level A Master Plan are reached. This process ensures neighborhood parks are designed and constructed as residential development occurs.

Community and Regional Parks. As these facilities serve a much larger population and typically contain more extensive improvements, these facilities will be developed over time as residential development takes place. This timing will be consistent with the population thresholds identified in the Level A Master Plan. These parks are conceptually located on this Level B Land Use Plan. As development progresses in the residential areas surrounding these parks, the Developer shall work with County parks staff to finalize the size and location of the Community and Regional Park, plat and dedicate the land for such park to the County via the final plat process. The Developer shall coordinate the programming, design, and construction of the Community and Regional Park with County Parks staff. The design and construction of the Community Regional Park will be phased. Parks which will solely serve the project will be “Project Infrastructure” and parks which will serve the project as well as other real property will be “System Infrastructure” pursuant to the Level A Development Agreement.

Aquatic Facilities and Community Centers. As these facilities serve a much larger population and typically contain more extensive improvements, these facilities will be developed over time as residential development takes place consistent with the population thresholds identified in the Level A Master Plan. These parks are conceptually located on the Level B Land Use Plan. As development progresses in the residential areas surrounding these parks, the Developer shall work with County Parks staff to finalize the size and location of the Community and Regional Park, plat and dedicate the land for such park to the County via the final plat process. The Developer shall coordinate the programming, design, and construction of the Community and Regional Park with Community Parks staff. The design and construction will be phased. Facilities which solely serve the project will be considered “Project Infrastructure”. Facilities which will serve the project as well as other real property will be “System Infrastructure” pursuant to the Level A Development Agreement.

Accessible Playground. The County anticipates the need for an accessible playground within the Level B Plan Area. This facility has been conceptually located in the Regional Park area within the Urban Center. The Developer shall coordinate with County Parks on the programming, design and construction. The design and construction of this facility will be phased. Accessible playgrounds will attract users from the region and shall be considered “System Infrastructure” pursuant to the Level A Development Agreement.



CHAPTER 3 ZONING

3.1 HOW TO USE THIS PLAN

Achieving the Santolina Vision

The vision of the Santolina Master Plan is to be a community in which jobs and educational opportunities are plentiful and locally accessible; where desirable housing responds to changing demographics and market preferences; where open space and quality of life are preserved and enhanced; and where a true “live, work, learn and play” community is created for residents.

In order to implement the broad vision themes in the Level A Master Plan, the Level B Plan introduces zoning. The regulatory framework provided in this chapter is intended to be flexible, allow creativity through design, while also being firm in other criteria requiring standards be followed in order to achieve the overall Master Plan vision.

Relationship between Land Use and Zoning

Each zone in this chapter, identifies which land uses are allowed to be built by right, which land uses may require a special or conditional use permit and which land uses may require a special exception. Zone district regulations also specify the minimum lot size, minimum setbacks from property lines, maximum building height, maximum building floor-area-ratio (FAR), maximum impervious area and minimum off-street parking. Additionally, this chapter also regulates signs, site design, landscaping and architectural standards.

Horizontal versus Vertical Mixed-Use

Santolina, like many other communities, embraces the need to allow for walkable neighborhoods as represented in the vision. Allowing mixed uses is an essential component for achieving walkability because compatible land uses, public amenities and utilities can be layered at various scales and intensities. The variety of uses allows for people to live, work, learn, play and shop in one general area achieved through adjacency. However, mixed-use can take on many forms.

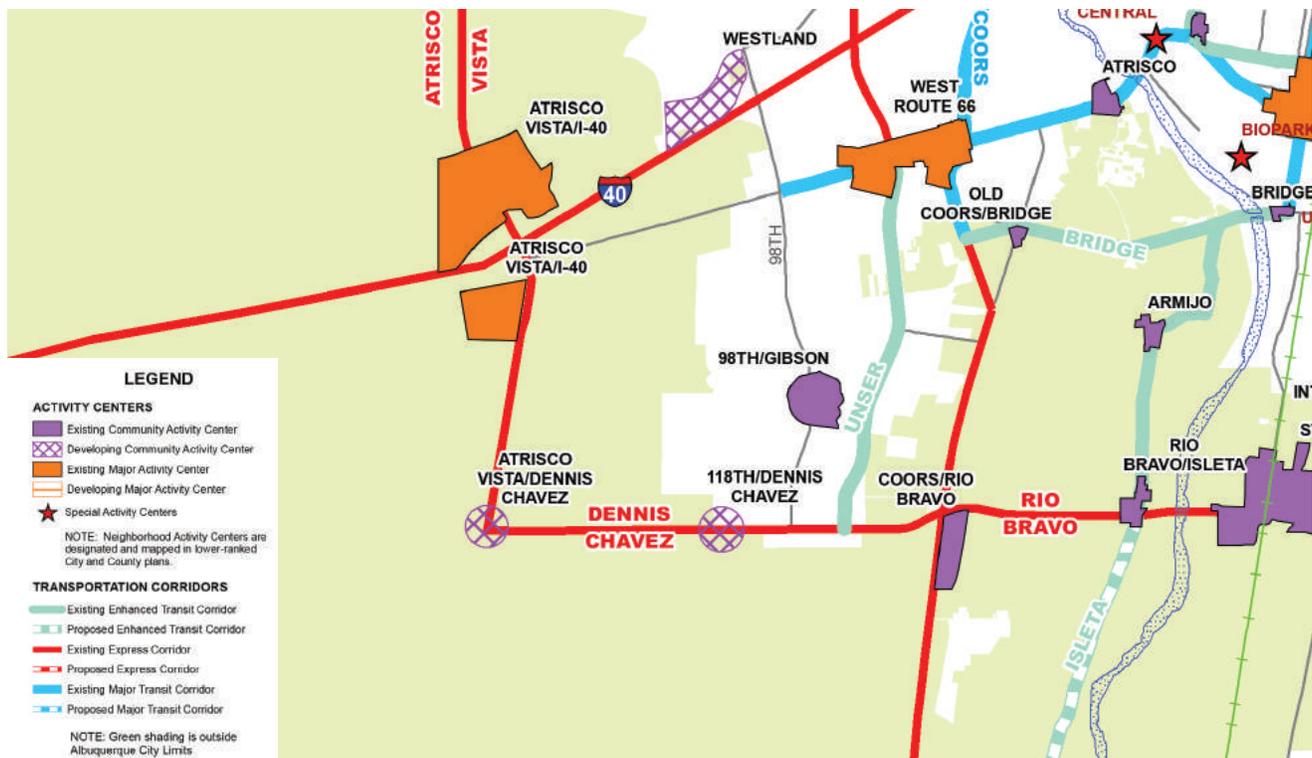
Two mixed-use categories are used in this plan (1) vertical mixed-use buildings and (2) horizontal mixed-use blocks or neighborhoods. A vertical mixed-use building combines different uses in the same building. Lower floors should have more public uses with more private uses on the upper floors. Horizontal mixed-use blocks or neighborhoods combine single-use buildings on distinct parcels in a range of land uses within one block. The Santolina Level B Zoning chapter refers to both types of mixed-use. For clarity, if a single zone, such as the Urban Center Zone, allows mixed-use as a permissive use, then this zone allows vertical mixed-use. In general, the Santolina Level B Plan is a mixed-use community because it allows horizontal mixed use such as the Residential Village Center Zone which allows both retail and high density uses within one neighborhood or block.

Relationship to Other Plans and Codes

The Zoning Chapter of this Level B Plan makes references to the Bernalillo County Zoning Ordinance. This provides for a streamlined zoning for this Planned Community with modifications, as necessary, to ensure compatibility with existing County regulations. Should a discrepancy exist between the zoning proposed in this Chapter and the Bernalillo County Zoning Ordinance, the text of this Level B Plan Zoning Chapter shall govern. Where the Santolina zoning regulations are silent, the Bernalillo County Zoning Code shall be enforced.

Albuquerque/Bernalillo County Comprehensive Plan

The City of Albuquerque and Bernalillo County Comprehensive Plan is the Rank I governing plan for all long-range and current development in the City of Albuquerque and Bernalillo County. The Santolina Master Plan Level A Plan is the guiding Rank II plan in this area of the County and complies with the Comprehensive Plan. Santolina Level B Plan area is inside the Comprehensive Plan designated Reserve area. The Reserve area in the southwest mesa includes one Developing Activity Center and one Developing Employment Center. The Developing Employment Center, located west of Atrisco Vista Boulevard and near Interstate 40, corresponds with the Santolina Town Center Zone,



allowing large retail commercial, highway commercial, neighborhood commercial and some high density residential uses. The Developing Activity Center, located at the intersection of Atrisco Vista Boulevard and Dennis Chavez Boulevard, corresponds with the Urban Center Zone allowing neighborhood commercial, office and institutional and high density residential uses. The City of Albuquerque and Bernalillo County are currently working to update their Comprehensive Plan. This update will include the activity and employment centers provided in the Approved Santolina Level A Master Plan.

Bernalillo County Zoning Ordinance

Santolina Level B zoning is administered, regulated and enforced by the Bernalillo County Planning and Development Department. Zones in this Chapter are structured in such a way that the most closely related Bernalillo County zone is used as a foundation and customized to implement specific Santolina Level A intent and vision. There are several references in this Chapter to the Bernalillo County Zoning Ordinance.

Requests to change the zoning of a parcel within the Santolina Master Plan area to follow standard procedures for County Rank III Sector Plan amendments. Applicants will be expected to address any applicable goals and policies of this Plan in their justification for rezoning.

Development Process

Process and procedures for future Level C Plans will follow Section 19.5(B)(3) of the Bernalillo County Zoning Code – PC Planned Communities Zone. As stated in this section of the Planned Communities Zone, “Adoption and amendment of the Level C subdivision and site development plans is by the County Development Review Authority subject to appeal to the Planning Commission.” Please refer to the provisions of the Bernalillo County Code of Ordinances for procedural requirements concerning Special Use Permits (Section 18) as well as Conditional Uses and Variance Applications (see Appendix A, Section 24(A) – Zoning Administrator).

In addition to the County Code requirements, non-residential and multi-family development over 5 acres will require Site Plan review by the County Development Review Authority (CDRA).

3.2 DEFINITIONS

CHURCH. A church or other place of worship, including the usual incidental facilities. Incidental uses allowed include, but are not limited to an emergency shelter or day care facility operated by the church on the church's principal premises which is used regularly for public worship.

CLUSTER HOUSING. Allows homes to be grouped together while the remaining land is reserved for open space. Such siting of homes allows for preservation of views and open space. The pattern may allow for growth but also preserves land as well as infrastructure. Developers are allowed to develop at a higher density as an incentive to develop cluster communities. Clustering also allows the Developer and Bernalillo County to save on the cost of streets, water and sewer lines and other infrastructure because of the reduced distances between structures and lots. Cluster housing may require formation of a homeowners association or other strategies to manage the open space or other areas owned in common.

COURTYARD HOUSING. Housing that includes a clearly defined courtyard open space provided to serve as the focus for the housing units.

FOOD CART/TRUCK/TRAILER. Any wagon, truck, push cart or vehicle self-propelled or otherwise movable from place to place from which any person sells, offers for sale, or gives away, beverages, food or any food product for human consumption.

GRADE. Means the average of the approved ground level immediately adjacent to each facade of a building, considered separately; where an earth embankment is placed against the side of a building or a retaining wall supporting a terrace is placed close to a building, grade shall be measured from the toe or bottom of the embankment or retaining wall; building floor level is irrelevant. As used herein, approved grade shall be no higher than the specified elevation on the grading plan approved by the County in conjunction with subdivision or site development plan approval; in the absence of such approved plans, original natural grade applies.

HEIGHT. When applied to a building, means the vertical distance above the grade at each façade of the building, considered separately, to the highest point of the coping of a flat roof; to the deck line of a mansard roof; or to the average height between the plate and the ridge of a gable, hip, or gambrel roof. The height of a stepped or sloped building means the maximum height above grade of any distinct segment of the building, which segment constitutes at least 10% of the gross floor area of the building.

HOME OCCUPATION. An activity carried on for profit or for philanthropic purposes, where all or part of the activity takes place on a residentially-used lot and the activity is not being legally conducted as another permissive or conditional principal use and is clearly incidental and secondary to use of the premises for a dwelling.

INCIDENTAL SIGN. An "incidental sign" (hereinafter "such sign or signs" or "the sign" or "a sign") is any sign, handbill, or poster which is placed to advertise or announce a specific event, or which pertains to a particular event or occurrence, or which is not designed or intended to be placed permanently, or which relates to such events or occurrence that are not taking place on the premises on which the sign is located. Examples of such signs include, but are not limited to, signs, handbills, or posters relating to real estate, garage sales, political candidates or ballot measures, concerts, "swap meets" and the like.

LARGE RETAIL STORES AND DISTRIBUTION FACILITIES. A single tenant structure with at least 75,000 square feet of net leasable area for the purpose of retailing. A shopping center site with a main single tenant structure of 75,000 square feet or more is a LARGE RETAIL FACILITY.

MOTOR COURT HOUSING. Housing with up to eight single dwellings may share a single drive lane access to a public street through the use of a motor court layout.

PREMISES. Any lot or combination of contiguous lots held in single ownership, together with the development thereon and controlled by a site development plan; there may be multiple occupancy.

SECONDARY DWELLING UNITS. Living quarters with an accessory building containing a kitchen. The Secondary Dwelling Unit is clearly located in a separate structure and incidental to the primary dwelling unit.

SENIOR HOUSING PROJECT. Housing designed specifically for seniors that may include different levels of care: independent living, assisted living, memory care, or skilled nursing, or any combination of the above. These projects may be designed as continuing care communities that allow residents to transfer to higher levels of care as needed. Support services typically include commercial level kitchens with shared dining facilities for residents; medical services with personnel that provide assistance with medication, administration, dressing, bathing and social activities; activity rooms; indoor recreational amenities; gift shops; hair salons; administrative offices; laundry services; worship space; etc. Projects may be designed with all levels of care within one or more buildings on a site. Independent living units may be designed and constructed as part of a central building along with other levels of care or be designed and constructed as single family attached or detached units that include their own kitchen. Projects may also include overnight guest units to accommodate short term visitors.

SIGN, ELECTRONIC DISPLAY/BOARD PANEL. A sign which presents information that is transmitted in various visual forms and includes types such as: flat screen, active display matrix, or any electronic display capable of displaying multiple communications, images, graphics in mono, tri and/or full color. Such displays include but are not limited to current and future technology such as: Light Emitting Diodes (LED), Liquid Crystal Display (LCD), Plasma Display Panels (PDP), 3D Holography, pixel or sub-pixel technology, other fiber optics or illumination devices within the display area. The electronic control allows for programmable, electronic changing messages used primarily for the purpose of advertising, marketing messages, display of time-sensitive and other updatable information.

TOWNHOUSE. One of a group of two to eight attached dwelling units divided from each other by common walls, each having a separate entrance leading directly to the outdoors at ground level and each having at least 15% of its heated and unheated floor area approximately at grade.

For additional Definitions reference the Bernalillo County Zoning Ordinance.

3.3 SPECIAL USE PERMIT REGULATIONS. See *Bernalillo County Zoning Ordinance Section 18* Special Use Permits may authorize uses with the exception of:

A. Prohibited Uses.

1. Airport.
2. Amusement Park.
3. Auction Yard.
4. Cemetery.
5. Drive-in theater.
6. Feedlot.
7. Foster group home; penal, correctional or mental institution.
8. Mining, excavating, removing, processing, stockpiling, or distribution of rock, sand gravel, clay, pumice, scoria, decomposed granite, or similar materials, or batching plant.
9. Mobile home/manufactured home park.
10. Ore reduction, smelting.
11. Overnight Campground.
12. Pet Cemetery.
13. Racetrack for Autos.
14. Storage facility for hazardous waste materials.

B. Permissive Uses.

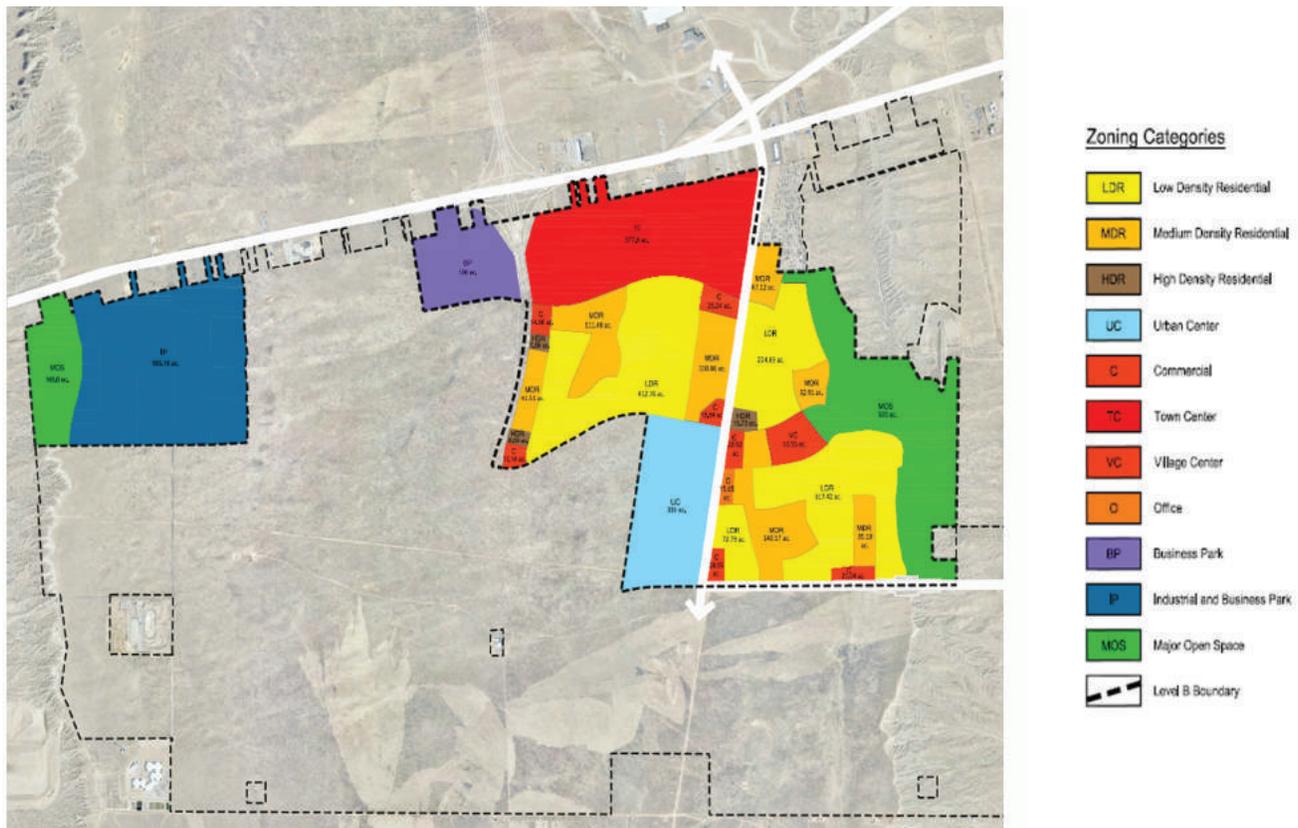
1. Senior Housing Project.
2. Large retail stores and distribution facilities.
 - a. Location and Access of Large Retail Facility. The following regulations manage the location and design of large retail facilities. These regulations are necessary for the proper functioning and enjoyment of the community. They protect the quality of life within surrounding residential areas, support efficient traffic flows and provide consistent regulations for such facilities. Large retail facilities shall be located to secure adequate street capacity to transport pedestrians and vehicles to and from large retail facilities and discourage traffic from cutting through residential neighborhoods. The regulations result in efficient and safe access for both vehicles and pedestrians from roadways in the Metropolitan Transportation Plan to neighborhoods in the vicinity of large retail facilities.
 - b. Premises with large retail facilities containing 75,000 to 90,000 sq. ft. net leasable area are:
 - (1) Required to be located adjacent to and have primary and full access to a street designated as at least a collector in the Mid-Region Council of Governments' Metropolitan Transportation Plan and having at least two through traffic lanes, one in either direction.
 - c. Premises with large retail facilities containing 90,001 to 124,999 sq. ft. net leasable area are:
 - (1) Required to be located adjacent to and have primary and full access to a street designated as at least a collector in the Mid-Region Council of Governments' Metropolitan Transportation Plan and having at least four through traffic lanes, two in either direction.
 - d. Premises with large retail facilities containing 125,000 square feet or greater of net leasable area are:
 - (1) Required to be located within 1,200 feet (1/4 mile) of the intersection of two roadways, both of which are designated as at least a collector street in the Mid-Region Council of Governments' Metropolitan Transportation Plan and shall have full access to these roadways. One of the adjacent roadways shall have at least four through traffic lanes, 2 in either direction and the other adjacent roadway shall have at least six through traffic lanes, 3 in either direction, or is designated a limited access principal arterial in the Mid-Region Council of Governments' Metropolitan Transportation Plan and have a minimum of four lanes.
 - (2) If an arterial or collector street has yet to be built to its full cross-section and does not have the required number of lanes, the large retail facility may have access onto the roadway if the roadway is identified on the Metropolitan Transportation Plan as having the required number of lanes at full build-out.
 - (3) If access control policies prohibit access onto one of the adjacent roadways, a local road may be used as access if it has direct access to at least two roadways that are identified on the Long Range Metropolitan Transportation Plan, does not pass directly through a residential subdivision and at least one of the intersections is signalized.
 - (4) If access to a location fulfills the criteria of this section but control policies outside the County jurisdiction prohibit access onto one of the adjacent arterial or collector streets, the remaining arterial or collector street may serve as the sole access if it has direct access to two intersections with an arterial and the intersections are signalized.
 - (5) If warrants are met, the intersection of the primary driveway and the arterial street shall be signalized, unless prohibited by the Public Works Department for safety reasons, at the expense of the applicant. The applicant may place the name of the development on the mast-arm of the signal.

3.4 ZONING

The Approved Santolina Level A Master Plan established a PC Zoning framework for future Level B Plans. The Level A Master Plan established seven zoning districts that have been revised and expanded in this Level B Plan to establish eleven zoning districts including:

- 1) **PC-S-LDR** Low Density Residential Zone
- 2) **PC-S-MDR** Medium Density Residential Zone
- 3) **PC-S-HDR** High Density Residential Zone
- 4) **PC-S-O** Office Zone
- 5) **PC-S-C** Commercial Zone
- 6) **PC-S-VC** Village Center Zone
- 7) **PC-S-UC** Urban Center Zone
- 8) **PC-S-TC** Town Center Zone
- 9) **PC-S-BP** Business Park Zone
- 10) **PC-S-IP** Industrial and Business Park Zone
- 11) **PC-S-MPOS** Major Public Open Space

Exhibit 4: Zoning Districts



This Level B Plan provides more detail concerning specific uses and standards. The permissive uses within these zones fall within the identified general permissive uses as specified within the Level A Master Plan. Unless otherwise specified, terms shall be as defined in the Bernalillo County Zoning Ordinance in effect at the time of approval of this Level B Plan.

This Level B Plan has been designed to be consistent with the intent and framework established by the Approved Santolina Level A Master Plan. As envisioned by the PCC, the Level B Plan is a refinement to the Level A Master

Plan providing more detail concerning land uses, transportation, zoning and other design elements. This Level B Plan sets the stage for future Level C Plans that are the implementation of these plans in the form of subdivisions, site plans and ultimately the construction of structures. Ensuring flexibility in the implementation of these plans is critical to the success of the Santolina Master Planned Community.

Residential Zones

The Level B Plan includes portions of three Residential Villages as identified in the Level A Master Plan. This Level B Plan defines the specific land uses within the Residential Villages. These uses are consistent with the Site Characteristic section of the approved Santolina PC Zone. The Santolina PC Zone set more intense uses along major roadway corridors and less intense uses interior to the Residential Villages. At this time, the Residential Villages within this Level B Plan include the following **Residential Village Zones** and their prohibited permissive and conditional uses as well as sign, height and area regulations uses:

- 1) Low Density Residential Zone
- 2) Medium Density Residential Zone
- 3) High Density Residential Zone

1) PC-S-LDR LOW DENSITY RESIDENTIAL ZONE

This zone provides suitable sites for detached housing, cluster housing and incidental uses.

A. Prohibited Uses:

1. All uses in Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.1. Prohibited Uses, in addition to the following uses:
 - a. Agricultural activity
 - b. Section 3.I. One Mobile Home for a three-year period in addition to an existing single-family dwelling or mobile home on a lot.

B. Permissive Uses:

1. All uses in Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.2 Permissive Uses with the exception of uses listed above under Prohibited Uses.
2. Accessory living quarters.
3. Public or private Park.
4. Public or private school.
5. Public utility structure.
6. Real estate office and an incidental sign in connection with a specific development, provided it is not used as living quarters during the time it is used as an office and further provided that it is limited to a period of one year. After one year refer to Bernalillo County Zoning Code Section 9.B.3.h.
7. Recreational facility (non-profit), such as community center, swimming pool, tennis club.
8. Sign, wall mounted and monument signage shall be permitted for individual neighborhoods and shall be approved as part of the subdivision plat.

C. Conditional Uses:

1. All uses in Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.3. Conditional Uses with the exception of uses listed above under Prohibited Uses.
2. Cluster Housing Development (CHD).
 - a. Allowed for lots with a minimum of 2 acres.
 - b. Minimum lot size requirements for CHD shall be the same as the underlying zone.
 - c. The number of dwelling units permitted in a CHD is determined by dividing the site area by the minimum lot size permitted rounded to the nearest whole number.
 - d. The dwelling units may be houses or townhouses or any combination thereof.
 - e. The minimum setbacks are as follows in all residential zones:

- (1) Front – 15 feet except driveways shall not be less than 20 feet long.
 - (2) Rear – 15 feet for houses and townhouses unless adjoining another residential zone.
 - (3) Side – 10 feet minimum setback required between houses and for all side yards contiguous with the CHD boundary.
 - (4) Townhome - No required side-yard setback.
 - f. Height. Height shall be regulated by the base zone.
 - g. Open space CHDOS.
 - (1) A minimum of 30% of the gross area of a CHD shall be set aside as Open Space.
 - (2) No buildings or structures are permitted in the open space for CHD except those necessary for the operation and maintenance of the CHDOS and buildings used as a community room or other recreational activity and will not require a new Conditional Use approval.
 - h. The CHDOS may be used for agriculture, landscaping, recreation, open space or any combination thereof. It may be composed of separate tracts but each shall have a minimum length and width of 35 feet and shall be visible from a public right-of-way. Land used for streets, driveways, parking, sidewalks and private yards may not be counted as part of a CHDOS. No buildings or structures are permitted in a CHDOS except those necessary for the operation and maintenance of the CHDOS. The CHDOS shall be set aside by the Developer either as a Private or Public CHDOS. A Private CHDOS shall be created, subject to a finding of suitability by the Zoning Administrator, through a land use easement acceptable to the Zoning Administrator. A Public CHDOS may be created by dedication of land to the County.
3. Secondary Dwelling Units. An accessory living quarters containing a kitchen, provided:
- a. In no case can the Secondary Dwelling Unit be larger than 75% of the primary dwelling unit and no larger than 1,000 square feet.
 - b. There shall be no more than either one Secondary Dwelling Unit or one Accessory Living Quarters per premise. In no case shall both be allowed on one premise.
 - c. Occupancy: The property owner or beneficiary of an ownership trust described in a deed to the property must occupy either the primary or secondary dwelling unit. Upon request by the County, the property owner or beneficiary of an ownership trust shall provide proof of occupancy. A current government-issued photo identification with an address matching the property shall constitute proof of residency for purposes of this ordinance.
 - d. If such use is approved, the Zoning Administrator shall record the terms of the approved Conditional Use Permit, together with a signed acceptance of such terms prior to occupancy of the SDU.
 - e. Size. The footprint of a Secondary Dwelling Unit shall not exceed:
 - (1) Maximum 650 net square feet for lots 5,000 square feet or less.
 - (2) Maximum 800 net square feet for lots greater than 5,000 square feet but not greater than 10,000 square feet.
 - (3) Maximum 1,000 net square feet for lots greater than 10,000 square feet.
 - (4) A garage or shed attached to the Secondary Dwelling Unit shall not count towards the square footage limitation. The garage or shed shall not exceed 50% of the size of the secondary dwelling unit.
 - (5) All accessory buildings, including Secondary Dwelling Units, must comply with County height and area requirements for low density residential zones
 - f. Setbacks: Secondary dwelling units shall be located to the rear of the primary dwelling unit except on irregularly-shaped lots where side yards are larger than rear yards, in which case a secondary dwelling unit may be located in the side yard provided required setbacks are met. The following minimum setbacks from the property line shall apply:
 - (1) There shall be a minimum of 10 feet separation between the primary dwelling unit and the secondary dwelling unit.

- (2) Front: 20 feet
- (3) Side: 5 feet
- (4) Rear: 5 feet
- (5) On corner lots, the street side setback shall be a minimum of 10 feet.
- g. Height: Secondary dwelling units shall not exceed one story and 18 feet in height, with the following exception:
 - (1) Where a property is accessed by an alley, a Secondary Dwelling Unit may be built over a garage, provided the garage is accessed only from the alley and the total height of the structure does not exceed 22 feet or the height of the primary dwelling unit, whichever is shorter.
- h. Parking: One off-street parking space.
- i. Design: The design of the secondary dwelling unit shall relate to the design of the primary dwelling unit by use of similar exterior wall materials or finishes, architectural style and elements, including but not limited to roofing materials and roof pitch.
- j. Usable Open Space.
 - (1) Usable open space shall be provided on-site in an amount equal to 200 square feet for each efficiency or one-bedroom dwelling unit, 250 square feet for each two-bedroom dwelling unit and 300 square feet for each dwelling unit containing three or more bedrooms.

D. Signage Regulations.

- 1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.2.f.

E. Height Regulations. *See Section 3.2 Definitions above for how to measure height.*

- 1. Structures may exceed 26 feet in height.
- 2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

- 1. Lot Size.
 - a. Minimum lot area of 5,000 square feet and a minimum lot width of 50 feet.
- 2. Setback.
 - a. There shall be a front yard setback of not less than 15 feet except driveways shall be not less than 20 feet long.
 - b. On a corner lot, the side yard setback adjacent to the side of the street shall be as follows:
 - (1) If the rear yard abuts the front yard of a residential zoned lot, not less than 15 feet.
 - (2) In no case shall it be less than 10 feet.
 - c. Side yard setbacks which are interior, i.e., measured from side lot lines which are not adjacent to streets, shall be not less than five feet on each side.
 - d. There shall be a rear yard setback of not less than 15 feet for the primary dwelling unit.
 - e. There shall be no less than 10 feet between dwelling units.
- 3. Off-Street Parking.
 - a. Off-street parking shall be as provided in the Bernalillo County Zoning Ordinance with the following exceptions:
 - (1) Maximum front yard setback area that can be an improved parking and maneuvering area: 60%, but no more than 30 feet wide or the width of the front of the garage, whichever is wider.

- (2) Parking on any portion of a front yard setback area, other than the improved parking and maneuvering areas, is prohibited.

2) PC-S-MDR MEDIUM DENSITY RESIDENTIAL ZONE

This zone provides suitable sites for detached housing, cluster housing and townhouses and incidental uses.

A. Prohibited Uses:

1. All uses prohibited in the Low Density Residential Zone, in addition to the following uses:
 - a. Apartments
 - b. Multiple single family detached dwellings on one lot.

B. Permissive Uses:

1. All uses permissive in the PC-S-LDR Zone.
2. All uses in Bernalillo County Zoning Ordinance Section 10 for R-2 Apartment Zone B.2 Permissive uses with the exception of uses listed above under Prohibited uses.
3. Secondary Dwelling Units as Regulated in the PC-S-LDR zone.

C. Conditional Uses:

1. All uses conditional in the PC-S-LDR Zone.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.2.f.

E. Height. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 26 feet in height with a maximum height of 50 feet, any portion of a structure which exceeds 26 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to Low Density Residential zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. Lot Size.
 - a. For a townhouse, minimum lot area shall be 2,200 square feet per dwelling unit; minimum lot width shall be 22 feet per dwelling unit.
 - b. For a house, minimum lot area shall be 3,600 square feet per dwelling unit; minimum lot width shall be 36 feet.
2. Setback.
 - a. There shall be a front yard setback of not less than 15 feet except driveways shall be not less than 20 feet long.
 - b. On a corner lot, the side yard setback adjacent to the side of the street shall be as follows:
 - (1) In no case shall it be less than 10 feet.
 - c. Side yard setbacks which are interior, i.e., measured from side lot lines which are not adjacent to streets, shall be either:
 - (1) Not less than five feet on each side.
 - (2) There shall be no required side yard setback for Townhouses.
 - d. There shall be a rear yard setback of not less than 15 feet for the primary dwelling unit.
 - e. There shall be no less than 10 feet between dwelling units.

3. Off-Street Parking.
 - a. Off-street parking shall be as provided in the Bernalillo County Zoning Ordinance with the following exceptions:
 - (1) Maximum front yard setback area that can be an improved parking and maneuvering area: 85%, but no more than 22 feet wide or the width of the front of the garage, whichever is wider.
 - (2) Parking on any portion of a front yard setback area, other than the improved parking and maneuvering areas, is prohibited.
4. Usable Open Space.
 - a. Usable open space shall be provided on-site at 550 square feet per townhouse dwelling unit and 360 square feet per townhouse dwelling unit on a lot with vehicle access only to the rear yard from an alley.

3) PC-S-HDR HIGH DENSITY RESIDENTIAL ZONE

This zone provides suitable sites for the highest density housing including apartments outside of Urban Centers. It is most appropriately mapped adjacent to commercial, office, or employment centers, where primary access to a major street is available.

A. Prohibited Uses:

1. All uses prohibited in the PC-S-MDR Zone.

B. Permissive Uses:

1. Uses permissive in the PC-S-MDR Zone, provided there are not over 30 dwelling units per net acre, unless the property is located on a collector or arterial where the density may increase to not over 50 du/acre.
2. Apartments and uses incidental to an apartment such as day care center, news, cigar, or candy stand, delicatessen, personal-service shop and the like, are permitted with an apartment development.
3. Senior Housing Project as defined and regulated in Section 3.2 Special Use Permit Regulations. Any uses auxiliary to and related to the running of a senior housing project.

C. Conditional Uses:

1. All uses conditional in the PC-S-MDR Zone.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 9 for R-1 Single Family Residential Zone B.2.f.

E. Height. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 26 feet in height with a maximum height of 78 feet, any portion of a structure which exceeds 26 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to Low and Medium Density Residential zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. Lot Size.
 - a. Minimum lot width and depth shall be 150 feet for apartments.
 - b. For all other development, refer to PC-S-MDR Zone for lot size requirements.
2. Setback. Refer to PC-S-MDR Zone for setback requirements.

3. Off-Street Parking.
 - a. Off-street parking shall be as provided in the Bernalillo County Zoning Ordinance with the following exceptions:
 - (1) For Apartments, each dwelling unit, one space per bath but not less than one and one-fourth spaces.
 - (2) For Townhomes, refer to PC-S-MDR Zone.
4. Usable Open Space.
 - a. For Apartments, usable open space shall be provided on-site in an amount equal to 200 square feet for each efficiency or one-bedroom dwelling unit, 250 square feet for each two-bedroom dwelling unit and 300 square feet for each dwelling unit containing three or more bedrooms.
 - b. For Townhomes, refer to PC-S-MDR Zone.

4) PC-S-O OFFICE ZONE

The purpose of this zone is to provide sites suitable for office, business, service and institutional uses.

Use Regulations. A building or premises shall be used only for the following purposes. All uses customarily incidental to the building or premises shall be maintained on site:

A. Prohibited Uses:

1. All uses prohibited in Bernalillo County Zoning Ordinance Section 12 of the O-1 Office and Institutional Zone B.1 Prohibited Uses with the exception of residential uses as regulated in the PC-S-HDR zone.

B. Permissive Uses:

1. All uses permissive in Bernalillo County Zoning Ordinance Section 12 of the O-1 Office and Institutional Zone B.2 Permissive Uses with the exception of the following:
 - a. Residential uses as regulated in the PC-S-HDR zone, provided that it has a minimum density of 20 du/acre and a maximum density of 30 du/acre.
2. Public and Private Parks.
3. Recreational facility (non-profit), such as community center, swimming pool, tennis club.
4. Senior Housing (independent or assisted living).

C. Conditional Uses:

The following uses may be permitted if approved by the Zoning Administrator in accordance with the procedures and under the conditions set forth in the Administration Section of the Bernalillo County Zoning Ordinance with additional requirements deemed necessary to safeguard the best interest of the adjoining property, neighborhood and community.

1. All uses conditional in Bernalillo County Zoning Ordinance Section 12 of the O-1 Office and Institutional Zone B.3 Conditional Uses with the exception of residential uses as regulated in the PC-S-HDR zone.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 14 for C-1 Neighborhood Commercial Zone B.2.a.(17).

E. Height Regulations. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 50 feet in height with a maximum height of 78 feet, any portion of a structure which exceeds 50 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to Low and Medium Density Residential zones.

2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. For residential, refer to PC-S-HDR Zone.
2. Front Yard. There shall be a front yard having a depth of not less than 10 feet.
3. Side Yard. A side yard is required only on the side of a lot abutting a PC-S-LDR or PC-S-MDR Zone, in which case there shall be a side yard of not less than six feet.
4. Rear Yard. There shall be a rear yard having a depth of not less than 15 feet.
5. Off-Street Parking Spaces, Loading and Unloading Spaces. Off-street parking spaces and loading and unloading spaces shall be provided in accordance with the requirements for specific uses set forth in the Bernalillo County Zoning Ordinance.

5) PC-S-C COMMERCIAL ZONE

The regulations set forth in this section, or set forth elsewhere in this ordinance, when referred to in this section, are the regulations in the C-1: Neighborhood Commercial Zone. The purpose of this zone is to provide suitable sites for office, service, institutional, civic, education, recreation and limited commercial uses to satisfy the day-to-day needs of nearby residential areas and to minimize any adverse effect on nearby residential development for those commercial properties located outside of a village center.

Use Regulations. A building or premises shall be used only for the following purposes. All uses customarily incidental to the building or premises shall be maintained on site.

A. Prohibited Uses:

1. All uses prohibited in Bernalillo County Zoning Ordinance Section 14 for C-1 Neighborhood Commercial Zone B.1 Prohibited Uses with the exception of residential uses as regulated in the PC-S-HDR zone.

B. Permissive Uses:

1. All uses permissive in Bernalillo County Zoning Code Section 14 for C-1 Neighborhood Commercial Zone B.2 Permissive Uses with the exception of the following:
 - a. Residential uses as regulated in the PC-S-HDR zone, provided that it has a minimum density of 20 du/acre and a maximum density of 30 du/acre.
2. Farmers Market, provided the event is issued a Special Event's permit by Bernalillo County.
3. Food Carts/Trucks/Trailers are permitted to operate on private non-residential property, provided:
 - a. Any associated tables, chairs, displays, umbrellas, or the like, must not physically occupy or obstruct access to any parking stalls necessary to meet the minimum parking requirements for the on premise land uses (if any), except that this requirement does not apply if the mobile food unit is operating outside of the hours of operation of the on premise uses.
 - b. Any associated tables, chairs, displays, umbrellas, or the like, must not obstruct any designated ingress or egress from the property, or any designated drive-aisle.
 - c. Has written permission from the property owner for use of the site, a copy of which shall be kept and maintained in the mobile food unit and made available for review by any County inspector at all times during operation of the mobile food unit at the site.
 - d. Operator must provide receptacles for disposal of all food truck generated refuse.
 - e. Are permitted to operate on private developed residential property in conjunction with a Special Event Permit, provided:
 - (1) The Food Carts/Trucks/Trailers has written permission from the property owner for use of the site, a copy of which shall be kept and maintained in the

Mobile Food Unit and made available for review by any City inspector at all times during the operation of the Mobile Food Unit at the site.

- (2) Food Carts/Trucks/Trailers may not operate on the same residential property more than 12 days per year.
 - f. The Food Carts/Trucks/Trailers operator must provide receptacles for disposal of all food truck generated refuse.
6. Mixed use development both horizontal or vertical with residential and non-residential uses combined in the same building or buildings. The non-residential uses are limited to those allowed as permissive or conditional in the PC-S-VC Zone, plus incidental activities such as the creation of arts and craft items for resale or similar activities.

C. Conditional Uses:

The following uses may be permitted if approved by the Zoning Administrator in accordance with the procedures and under the conditions set forth in the Administration Section of the **Bernalillo County Zoning Ordinance** with additional requirements deemed necessary to safeguard the best interest of the adjoining property, neighborhood and the community.

1. All uses conditional in Bernalillo County Zoning Ordinance Section 14 for C-1 Neighborhood Commercial Zone B.3 Commercial Uses with the exception of residential uses as regulated in the PC-S-HDR zone.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 14 for C-1 Neighborhood Commercial Zone B.2.a.(17).

E. Height Regulations. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 26 feet in height, any portion of a structure which exceeds 26 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR or PC-S-MDR zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. For residential, refer to PC-S-HDR Zone.
2. Front Yard. There shall be a front yard having a depth of not less than 5 feet.
3. Side Yard. No side yard is required except for buildings or parts of buildings hereafter erected or structurally altered for residential use, in which case, the side yard regulations of the PC-S-LDR zone shall apply. In all other cases, a side yard is required only on the side of a lot abutting an PC-S-LDR, PC-S-MDR, PC-S-HDR Zones, in which case there shall be a side yard of not less than six feet.
4. Rear Yard. Except as hereinafter provided in the Supplementary Height and Area Regulations Section of this ordinance, there shall be a rear yard having a depth of not less than 15 feet.
5. Off-Street Parking Spaces, Loading and Unloading Spaces. Off-street parking spaces and loading and unloading spaces shall be provided in accordance with requirements for specific uses set forth in the Off-Street Parking, Loading and Unloading Regulations Section of Bernalillo County Zoning Ordinance.

6) PC-S-VC VILLAGE CENTER ZONE

At this time, the Level B Plan includes portions of three of the Residential Villages identified in the Level A Master Plan. As an important component of the Residential Villages, small neighborhood commercial and public

facilities are needed. These neighborhood services are located within Residential Village Centers. At this time, this Level B Plan defines the specific land uses allowable within the Residential Village Centers. These uses are consistent with the Site Characteristic section of the PC zone that proposed more intense land uses along the major roadway corridors and at major intersections.

A. Prohibited Uses:

1. All uses prohibited in the PC-S-C Zone, in addition to the following uses:
 - a. Automobile, motorcycle, bicycle, motorized bicycle (moped), all terrain vehicle and small engine repairing, including emissions testing and body work.
 - b. Hospital for animals, and kennel, provided it is in a completely enclosed building
 - c. Hospitals for human beings or sanatorium nursing home, provided traffic and ambulance noise will not have an adverse effect on residences in the neighborhood
 - d. Mortuary

B. Permissive Uses:

1. All uses permissive in PC-S-C Zone with the exception of those listed in Prohibited Uses.
2. Gas Station, including the sale of liquefied petroleum gas for consumption but not for resale.

C. Conditional Uses:

The following uses may be permitted if approved by the Zoning Administrator in accordance with the procedures and under the conditions set forth in the Bernalillo County Zoning Ordinance.

1. All uses conditional in PC-S-C Zone with the exception of those listed in Prohibited Uses.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 15 for C-2 Community Commercial Zone B.2.a.(9).

E. Height. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 50 feet in height, any portion of a structure which exceeds 50 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

7) PC-S-UC URBAN CENTER ZONE

The Level B Plan includes the eastern half of the Urban Center as identified in the Level A Master Plan. The Urban Center is a dynamic, high-density core where office, recreation, commercial, civic, educational, multi-family residential, retail and entertainment uses come together and serves as a destination for residents to “live, work, shop and play”. The eastern portion of the Urban Center is anticipated to have an education focus.

A. Prohibited Uses:

1. All uses prohibited in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.1 in addition to the following uses.
2. All uses prohibited in the PC-S-HDR Zone.
3. Automobile, truck, trailer, recreational vehicle, motorcycle and all-terrain vehicle sales, provided that any such area be surfaced with higher-type paving and a solid wall or fence six feet high shall be maintained along any side of such area abutting or contiguous to any residential zone.

4. Auto, trailer, recreational vehicle, motorcycle and all-terrain vehicle and truck rental, service, or storage, provided the lot is graded and surfaced.
 5. Lumberyard and building material sales (retail) provided all storage is within a building or enclosed by a six-foot solid wall or fence on all sides and provided further that products, items or materials stored on the site are not stacked to a height above the height of the required wall or fence.
 6. Rental or sale of household, yard and garden equipment, provided all storage is contained within an enclosed building or enclosed by a six-foot high solid wall or fence on all sides abutting residential property.
- B. Permissive Uses:
1. All uses permissive in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.2. with the exception of uses listed above under Prohibited uses and the addition of:
 - a. Residential uses as regulated in the PC-S-HDR zone, provided that it has a minimum density of 20 du/acre and a maximum density of 30 du/acre, unless the property is located on an arterial where the density may increase to not over 50 du/acre.
- C. Conditional Uses:
1. All uses conditional in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.3.
- D. Signage Regulations.
1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 14 for C-1 Neighborhood Commercial Zone B.2.a.(17).
- E. Height. *See Section 3.2 Definitions above for how to measure height.*
1. Structures may exceed 78 feet in height, any portion of a structure which exceeds 78 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR or PC-S-MDR zones.
 2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.
- F. Area Regulations. See Commercial Zone for Area Regulations

8) PC-S-TC TOWN CENTER ZONE

The Town Center has excellent access off Interstate 40 and is anticipated to facilitate large retail facilities, entertainment, hotels, office, auto sales, lodging, hospitals, office, mixed-use and high density residential.

The regulations set forth in this section, or set forth elsewhere in this ordinance, when referred to in this section, are the regulations in the Town Center Commercial **Zone**. The purpose of this **zone** is to provide for commercial uses and to regulate such uses in such a manner as to provide for appropriate community commercial uses.

Use Regulations. A building or premises shall be used only for the following purposes. All uses customarily incidental to the building and premises shall be maintained on site.

- A. Prohibited Uses.
1. All uses prohibited in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.1 in addition to the following uses.
 2. All uses prohibited in the PC-S-HDR Zone.

3. Low Density Residential.
 4. Medium Density Residential.
- B. Permissive Uses:
1. All uses permissive in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.2. with the exception of uses listed above under Prohibited uses and the addition of:
 2. Residential uses as regulated in the PC-S-HDR Zone, provided there are not over 20 dwelling units per net acre, unless the property is located on a collector or arterial where the density may increase to not over 50 du/acre.
 3. Large Retail Store or Distribution Facility as regulated in Section 3.2 Special Use Permit Regulations.
- C. Conditional Uses.
1. All uses conditional in Bernalillo County Zoning Ordinance Section 15 of the C-2 Community Commercial Zone B.3.
- D. Signage Regulations.
1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 14 for C-2 Community Commercial Zone B.2.a.(9).
- E. Height Regulations Non-residential. *See Section 3.2 Definitions above for how to measure height.*
1. Structures may exceed 100 feet in height, any portion of a structure which exceeds 100 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR or PC-S-MDR zones.
 2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.
- F. Area Regulations:
1. Front Yard. There shall be a front yard **setback** having a depth of not less than 10 feet.
 2. Side Yard. No side yard **setback** is required.
 3. Rear Yard. There shall be a rear yard **setback** having a depth of not less than 15 feet.
 4. Off-Street Parking Spaces, Loading and Unloading Spaces. Off-street parking spaces and loading and unloading spaces shall be provided in accordance with requirements for specific uses set forth in the Off-Street Parking, Loading and Unloading Regulations Section of the Bernalillo County Zoning Ordinance.
- G. Landscape and Buffer Landscaping. As required by the Landscaping and Buffer Landscaping Section of the Bernalillo County Zoning Ordinance.

9) PC-S-BP BUSINESS PARK ZONE

The Level B Plan includes the eastern portion of the Business Park as identified in the Level A Master Plan. It is envisioned to house large job generators such as emerging technologies, research and development, light manufacturing, educational campuses and/or healthcare industries.

The regulations set forth in this section, or set forth elsewhere in this ordinance, when referred to in this section are the regulations in the Business Park Zone. The purpose of this zone is primarily for community commercial uses, light manufacturing, light fabricating, warehousing and wholesale distribution, general office and business uses, research and development and educational uses, with off-street loading and off-street parking for employees, with ready access to arterial roadways and highways. The regulations in this zone provide for the health, safety and welfare of the residents.

A. Prohibited Uses:

1. All uses prohibited in Bernalillo County Zoning Ordinance Section 15.5 of the C-LI Commercial/Light Industrial Zone B.1 Prohibited Uses.

B. Permissive Uses:

A building or premises shall be used only for the following purposes. All uses customarily incidental to the building or premises shall be maintained on site.

1. All uses permissive in Bernalillo County Zoning Ordinance Section 15.5 of the C-LI Commercial/Light Industrial Zone B.2 Permissive Uses.
2. Manufacturing, assembling, treating, repairing, or rebuilding articles except those conditional or otherwise limited in this zone and the M-1 zone or specifically listed as permissive or conditional in the M-2 zone, provided manufacturing is conducted within a completely enclosed building.

C. Conditional Uses:

The following uses may be permitted, if approved by the Zoning Administrator, in accordance with the procedures and under the conditions set out in the Administration Section of this ordinance with additional requirements deemed necessary to safeguard the best interest of the adjoining property, neighborhood and community.

1. All uses permissive in Bernalillo County Zoning Ordinance Section 15.5 of the C-LI Commercial/Light Industrial Zone B.3 Conditional Uses.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 15 for C-2 Community Commercial Zone B.2.a.(9)

E. Height Regulations. *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 100 feet in height, any portion of a structure which exceeds 100 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR or PC-S-MDR zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. Front Yard. There shall be a front yard setback having a depth of not less than 10 feet.
2. Side Yard. None required except on the side of a lot abutting a PC-S-LDR or PC-S-MDR Zone, in which case there shall be a side yard setback of not less than five feet in width.
3. Rear Yard. There shall be a rear yard setback of 15 feet.

- G. Off-Street Parking and Loading and Unloading Spaces:** Off-street parking spaces and loading and unloading spaces, shall be provided in accordance with requirements for specific uses set forth in the Off-Street Parking, Loading and Unloading Regulation Section of the Bernalillo County Zoning Ordinance.

10) PC-S-IP INDUSTRIAL & BUSINESS PARK ZONE

The Industrial and Business Park is ideally situated to provide sites for large industrial users, power generating and heavy industrial users not suitable for smaller business park or in close proximity to the residential neighborhoods. The northern portion of this area is included in the Level B Plan.

At this time, the purpose of this zone is primarily for light manufacturing, light fabricating, warehousing and wholesale distribution with off-street loading and off-street parking for employees and with access to arterial highways or railroads.

A. Prohibited Uses:

1. All uses prohibited in the PC-S-BP Zone.
2. All uses prohibited in Bernalillo County Zoning Ordinance Section 17 of the M-2 Heavy Manufacturing Zone B. 1 Prohibited Uses.

B. Permissive Uses:

A building or premises shall be used only for the following purposes. All uses customarily incidental to the building or premises shall be maintained on site:

1. All permissive uses listed and as regulated in the PC-S-BP Zone with the exception of those listed above under Prohibited Uses.
2. All uses permissive in Bernalillo County Zoning Ordinance Section 17 of the M-2 Heavy Manufacturing Zone B.2 Permissive Uses.

C. Conditional Uses.

1. All conditional uses listed and as regulated in the PC-S-BP Zone with the exception of those listed above under Prohibited Uses.
2. All uses conditional in Bernalillo County Zoning Ordinance Section 17 of the M-2 Heavy Manufacturing Zone B.3 Conditional Uses.

D. Signage Regulations.

1. Signage requirements as specified in the Bernalillo County Zoning Ordinance Section 17 for M-2 Heavy Manufacturing Zone.

E. Height Regulations: *See Section 3.2 Definitions above for how to measure height.*

1. Structures may exceed 150 feet in height, any portion of a structure which exceeds 150 feet may not exceed the northern boundary of the 45° plane, but may be sited in any other direction within planes drawn at a 60° angle from the same boundaries or centerline when adjacent to PC-S-LDR or PC-S-MDR zones.
2. For Supplementary Height Regulations refer to Bernalillo County Zoning Ordinance Section 22. Supplementary Height and Area Regulations.

F. Area Regulations:

1. Front Yard. There shall be a front yard having a depth of not less than 20 feet.
2. Side Yard. None required except on the side of a lot abutting a Low or Medium Density Residential Zone, in which case there shall be a side yard of not less than five feet in width.
3. Rear Yard. There shall be a rear yard having a depth of 15 feet.
4. Off-Street Parking and Loading and Unloading Spaces. Off-street parking spaces and loading and unloading spaces shall be provided in accordance with requirements for specific uses set forth in the Off-Street Parking, Loading and Unloading Regulation Section of the Bernalillo County Zoning Ordinance.

11) PC-S-MPOS Major Public Open Space Zone

The purpose of the MPOS Zone is to protect the major public open space land on which development is indefinitely set aside. Preserving the Santolina Master Plan area's natural landscape and its character is contingent on assuring the intent of this zone is executed. This zone should be used for recreation and natural areas only. The Bernalillo County Zoning Administrator, Parks and Recreation and Public Works Departments shall review and approve all developments that occur within the MPOS zone.

A. Permissive uses.

1. Passive recreation
2. Kiosks and trail signage
 - a. Size. Kiosks and signage shall be a maximum of 6 feet tall, 8 square feet of sign face area.
 - b. Frequency. One per ¼ mile radius maximum.
 - c. Illumination. Allowed to be illuminated so long as the sign or kiosk is a minimum 25 foot distance from residential zoned property and only the lettering on the sign is illuminated.
 - d. Free-standing signs shall not contain any external bracing, angle-iron supports, guy wires or similar devices.
 - e. No signage is allowed that uses moving parts, makes audible sounds, or has blinking or flashing lights.
 - f. Off-premise signs. Signs with reader boards and electronic signs are prohibited.
 - g. Signs shall not overhang into the public right-of-way or extend above any structure roof line.
3. Trails (soft and hard surfaced)
 - a. Wherever possible, trails shall be designed for multi-use and accommodate pedestrians, runners and bicyclists, except, where due to soil conditions and erosion potential, multi-use trails are not allowed.
 - b. Connections shall be made from individual neighborhoods to the community trail system via trails and/or sidewalks as determined in the subdivision phase.
 - c. Trails shall use Barrier-Free Design to accommodate physically challenged individuals as trail users, where feasible.
 - d. All private trails shall be concrete, asphalt, or stabilized crusher fines and have a minimum width of 8 feet.
 - e. Pedestrian crossings shall be clearly demarcated with colored, textured paving where crossing vehicular entrances and streets.

B. Area Regulations

1. The edge treatment adjacent to the Major Open Space is intended to minimize the development impact to the escarpment and to preserve public and private views into the escarpment from above.
 - a. Residential lots shall not abut more than 30% of the sensitive area boundary.
 - b. The typical sensitive area road section will include a 10-foot meandering trail within a landscaped area adjacent to the MOS and a single-loaded paved roadway.
 - c. The MOS shall be designed to connect with adjacent public or private open space and to be visually integrated with the open space system.
 - d. No grade change is allowed within the sensitive area other than that which is required for roads, trails and other utilities.
 - e. Lighting. Applicable to adjacent single-loaded streets and adjacent residential development.
 - (1) Height of luminaries shall not exceed 20'0".
 - (2) Light fixtures shall throw light downward and have baffles, hoods or diffusers so that any light point source is not directly visible from a distance greater than 1000 feet.
 - f. Landscaping. Native vegetation adjacent to the open space is required.

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CHAPTER 4 TRANSPORTATION

4.1 OVERVIEW

The mix of land uses within Santolina is designed to provide residents, workers and visitors a vibrant community. Key to this is the transportation system which forms the structure and framework of the community. The Transportation Master Plan includes facilities and right of way corridors for motor vehicles, bus rapid transit (BRT) services, on street pedestrian and bicycle accommodations as well as an extensive off road trails systems. The Transportation Master Plan within the Approved Santolina Level A Master Plan has been further studied and detailed within this Level B Plan. The supporting technical appendices outline the transportation network, street characteristics and sections, key intersections, local access control policies and the phasing of roadway construction. Additionally, the implementation of transit and transit facilities, along with the development of the pedestrian and bicycle network is described.

Additional refinement of the entire Level A Plan Area has occurred during the design of this Level B Plan. Refinements to the transportation system include:

1. A more gridded street network within the Level B Plan Area for a more even distribution of traffic, less dependent on Atrisco Vista Boulevard and Paseo del Volcan
2. Additional street connections to the external roadway network to provide additional travel corridors within the Level B Plan Area.

Travel demand modeling performed for the Level A Plan Area as well as the Level B Plan Area found traffic volumes are more evenly distributed throughout the roadway network. The results also reflect the jobs/housing balance with this Level B Plan, illustrating a counter commute increase in westbound morning traffic and eastbound afternoon traffic as motorists



travel to/from the Santolina employment centers. The number of morning peak hour west-to-east and evening east-to-west river crossings are reduced by 3.5% and 5%, as compared to the latest MRCOG 2025 MTP forecast and is slightly lower (0.1% - 0.5% lower) when compared to the 2040 MTP forecast.

The Transportation Master Plan provides right-of-way and on-street provision for bus rapid transit and bus service, as well as anticipated transit centers and park and ride facilities. The roadway



sections match the MRCOG Long Range Transportation System Guidelines and provide dedicated bus lanes on principal arterials. Preliminary bus routes and bus stops have been identified, resulting in a robust transit system to serve the employment and residential areas of Santolina. As a substantial transit market is required prior to providing service, transit is anticipated to begin as commuter route extensions from existing City of Albuquerque ABQ Ride Routes, expanding to additional service and ultimately BRT and local circulation bus service as Santolina emerges.

An extensive network of pedestrian and bicycle trails has been designed within the Level B Plan Area. The trails will serve both recreational and transportation purposes within the community. The trail system will link to the bus stops described above and provide connections to the MRCOG long range bikeway network designed for commuting to the metropolitan area. In addition to the network of open space trails, all collector and greater roadways shall provide a six foot (6') on-street bike lane, with principal arterials providing a three foot (3') buffer from vehicular travel lanes. The design's goal is to make roadside bicycle travel more comfortable, thereby increasing the appeal of bicycle commuting

and recreational use within Santolina. Lastly, six foot (6') to ten foot (10') wide sidewalks have been incorporated along collector and greater roadways to enhance and promote pedestrian activity.

4.1.1 Conformity with the Level A Transportation Master Plan



The concepts within the Santolina Level A Transportation Master Plan, November 2014, remain as guidelines for the creation of the Level B Transportation Plan. The roadway function class and typical sections contained in the Level A Master Plan provide the foundation for the Level B Plan roadway network and sections. The analysis performed in the Level A technical analysis remain valid. The methodology and process used to conduct the travel demand modeling within the Level A Transportation Master Plan also remains valid, although the results of the Level B Plan documents reflect refinement of land uses and the roadway network within this Level B Plan.

This Level B Transportation Master Plan and appendices include the traffic analyses prepared in accordance with the requirements of the PC Submittal Requirements. These analyses update the Level A Master Plan and present a greater level of detail to the features described in the Level A Master Plan. The following items presented in the Level A Transportation Master Plan have been revised in this Level B Plan and appendices:

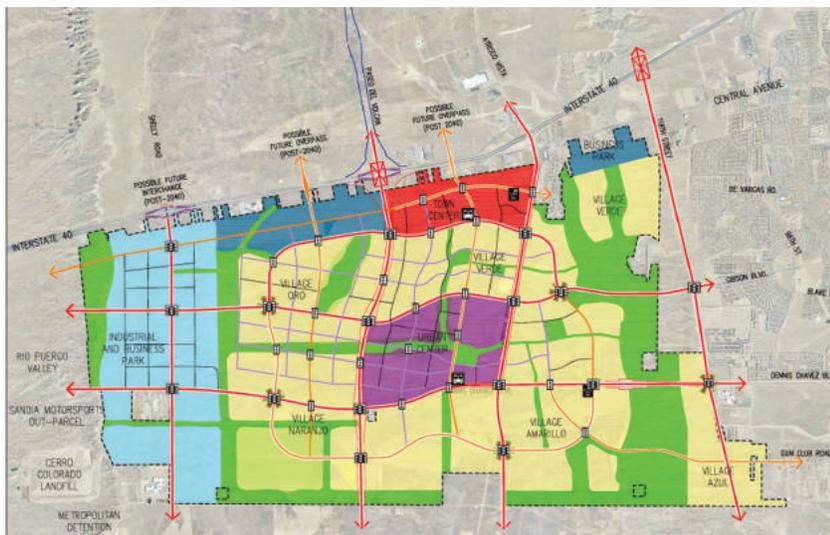
- Transportation Network and Traffic Analysis for Full Buildout
- Phasing Plan for Development of Transportation System for 2025 and 2040
- Phasing Plan for Roadways and Intersections in 2025 and 2040
- Off-Site Impacts for 2025 and 2040.

4.2 PROPOSED STREET NETWORK

4.2.1 Connections to Off-Site Transportation Network at Buildout

The Santolina Level A Master Plan and Zoning Map Amendment was approved by the Board on June 16, 2015. The preparation of an updated Level A Transportation Master Plan Traffic Analysis was required as a condition of the Approved Level A Master Plan. The updated Traffic Analysis has been submitted to Bernalillo County Public Works.

Exhibit 5: Auto Transit Circulation, Full Buildout Network



During the preparation of this Level B Plan, minor refinements were made to specific land uses and the road network. These adjustments result in a plan conforming to County comments received related to the Level A Transportation Master Plan.

Exhibit 5: Auto Transit Circulation, Full Buildout Network reflects the further refined roadway network. The overall design assumptions within the Level A Master Plan related to the scale of development, mix/location of land uses, general roadway network and the overall methodology for performing the



travel demand modeling remain consistent with the Level A Transportation Master Plan Traffic Analysis submittal. It is important to note the original Level A Transportation Master Plan was prepared utilizing the MRCOG 2035 MTP socio-economic forecasts, as those were the available forecasts at the time. The forecasts have been updated in the current 2040 MTP Forecasts. The 2035 MTP Forecast estimated greater projections for population and employment as well as different population growth locations and type of employment forecasts. Although the forecast population and employment for the Santolina Plan Area is the same in the updated Level A Plan as previously submitted and this Level B Plan, the changes in the underlying MRCOG Forecasts have been incorporated into the updated Traffic Analysis.

The development of the Santolina Level A Master Plan anticipates a 40-50 year development timeframe. The proposed roadway network for full buildout of Santolina will connect the Santolina roadway network to the existing roadway network at multiple locations, including:

- I-40 and the I-40 Frontage Road
- Atrisco Vista Boulevard
- Dennis Chavez Boulevard
- 118th Street
- Gun Club Road
- Paseo del Volcan (future)

The Santolina Level A Master Plan Area is limited to connecting to the regional transportation network by I-40 to the north and the escarpment along the east. I-40 overpasses are proposed to promote connectivity north of the interstate as the West Mesa north of I-40 develops in the future. Environmental

and open space concerns limit access across the Ceja to Santolina. As a result, two new roadways are proposed. These are the Gibson Boulevard and Gun Club Road extensions. It is worth noting the MRCOG long range roadway system outlines extensions of Grant Road, Pajarito Road and the extension of the proposed road parallel to the frontage road after 2040 with connections to 118th Street, Atrisco Vista Boulevard and Paseo del Volcan. The Level A Transportation Plan provides roadways extending to the southern boundary of the Master Plan Area, providing opportunities for these future connections, as well as possible long-term alternate routes to Interstate 25, in the event Pajarito Mesa and Isleta Pueblo express interest in additional access. Roadway connections to the west and Laguna Pueblo are also available. Due to the limitations described above, access is primarily to the east and north, with a balance of connections to distribute traffic on as many roadways as possible.

The major roadways that will serve Santolina at full buildout are Atrisco Vista Boulevard, Dennis Chavez Boulevard, the Loop Road, the Gibson Boulevard extension, Paseo del Volcan, Shelly Road, the Gun Club Road extension and a parallel road to the I-40 Frontage Road.

The MRCOG 2040 MTP currently anticipates an interchange at I-40 and Paseo del Volcan as well as an interchange at 118th Street between 2025 and 2040. The New Mexico Department of Transpor-



tation (NMDOT) has begun right-of-way acquisition for the property required for the Paseo del Volcan interchange. These interchanges will be required to adhere to the NMDOT Location Study Procedures and gain approval from the Federal Highway Administration (FHWA) for an Interstate Access Change

Request prior to construction. Although not required by the traffic analysis performed for the Santolina Level A Master Plan, it is likely an interchange may also be required at I-40 and Shelly Road post-2040 once Development occurs north of the interstate. For long term planning purposes, it is recommended that any studies of I-40, including the Paseo del Volcan and 118th Street interchange studies, consider the possibility of a future interchange at I-40 and Shelly Road.

4.2.2 Connections to Off-Site Transportation Network in 2040

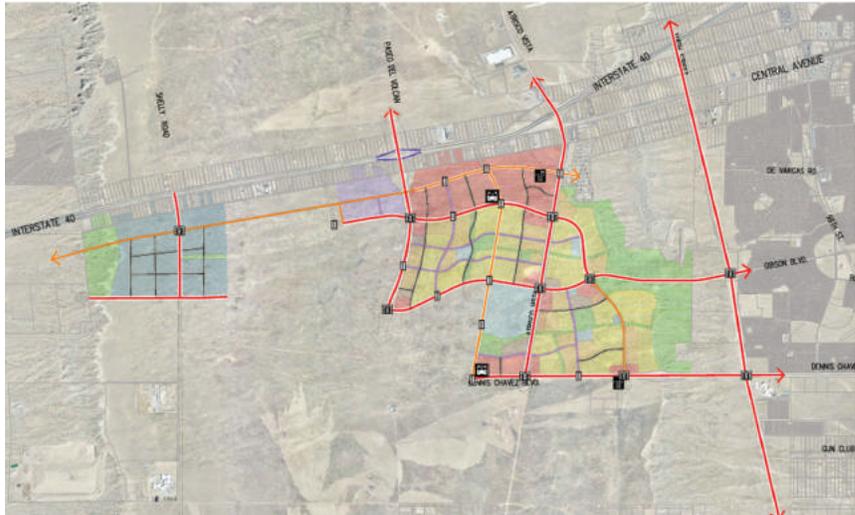
This Level B Plan Area is generally located in the center of the Santolina Level A Plan Area. The Level B Plan is accessed via existing Atrisco Vista Boulevard and Dennis Chavez Boulevards. The Level B Plan Area and the existing roadways are illustrated on [Exhibit 6: Auto Transit Circulation, Level B Network](#).

Atrisco Vista Boulevard and Dennis Chavez Boulevards are existing two (2) lane vehicular roadways with wide shoulders. These roadways do not have curb and gutter or bicycle lanes. It is anticipated that both roadways will require widening during the development of this Level B Plan and subsequent Santolina Level B Plans. Widening will include vehicular lanes, bicycle lanes, curbs and gutters as well as pedestrian sidewalks. The roadway widening is anticipated to occur in phases as development occurs and the additional capacity is required and defined by future Level C Plan analysis.

In addition to Atrisco Vista Boulevard and Dennis Chavez Boulevards, Santolina will also be served by



Exhibit 6: Auto Transit Circulation, Level B Network



Paseo del Volcan from the north, south to Gibson Boulevard. Initially to the north, Paseo del Volcan will terminate at the south I-40 Frontage Road. However, the 2040 MTP anticipates construction of an interchange at the junction of Paseo del Volcan and I-40 prior to 2040. The traffic analysis performed for the Level B Plan indicates the interchange is not required to serve the expected development in Santolina by 2025. However, potential development north of I-40 may also contribute to the necessity for this interchange prior to 2040. When the initial development within the Level B Plan Area is known, future analyses will be required to determine the timing of the Paseo del Volcan and I-40 interchange. The NMDOT Location Studies Procedures process, in accordance with NMDOT and FHWA requirements, will be followed to determine when this interchange is constructed. This new interchange will provide direct access from I-40 to Paseo del Volcan. The interchange will serve to relieve traffic from Atrisco Vista Boulevard, while providing access to potential employment areas north and south of I-40.

Another key addition to the existing roadway network will be a parallel road to the I-40 Frontage Road between Atrisco Vista Boulevard and Paseo del Volcan. This roadway was requested by the County and NMDOT to provide Santolina traffic with an alternative to the I-40 Frontage Road. By doing so will ensure that the Frontage Road can maintain its current function as the NMDOT Frontage Road.

Another connection to the off-site transportation network is Gibson Boulevard. Initially, Gibson Boulevard will only access Atrisco Vista Boulevard between Paseo del Volcan and the escarpment. By the completion of the Level B Plan Area, the Gibson extension will be constructed to 118th Street. This Gibson extension will divert traffic volume from Dennis Chavez Boulevard, Central Avenue and I-40 and more evenly distribute Santolina traffic throughout the available roadways serving the Santolina Master Plan Area.

4.2.3 Connections to the Remainder of the Level A Plan Area

The Santolina Level A Transportation Plan considers development of the entire plan area consistent with the Level A Master Plan. Exhibit 5: Auto Transit Circulation, Full Buildout Network. The following is a description of the phasing.

As development expands beyond the boundary of this Level B Plan Area, it is anticipated that residential development will grow east towards 118th Street to complete Village Verde south of Central Avenue and west of 118th Street. Additionally, Village Azul will be developed. Development of Village Azul will require the extension of 118th Street south of Dennis Chavez Boulevard, consistent with the MRCOG long range roadway system. During this time the Town Center, Urban Center and Business Park will continue to develop and expand employment opportunities within Santolina. This expansion will utilize and expand the infrastructure built within this Level B Plan Area.

The next development to occur is anticipated to be in Village Amarillo, south of Dennis Chavez Boulevard and west of the escarpment. Devel-



of infrastructure built during development of this Level B Plan while also extending the Loop Road to the southeast quadrant of the Level A Plan Area. As the balance of the Urban Center develops, Dennis Chavez Boulevard will be extended and improved from Atrisco Vista Boulevard, west towards Paseo del Volcan.

The last residential areas likely to be developed, post-2040, will be Villages Oro and Naranjo, west of Paseo del Volcan. These areas will require Paseo del Volcan, Gibson Boulevard, Dennis Chavez Boulevard, the Loop Road and the road parallel to the Frontage Road to be extended to the west to serve this area of the Level A Plan Area.

During the post-2040 timeframe, the Industrial and Business Park will continue to expand southward, requiring the improvement of Shelly Road and construction of associated collector streets. As the western portions of the Business Park and the Villages Oro and Naranjo come online, Dennis Chavez Boulevard, Gibson Boulevard and the road parallel to the Frontage Road will be extended to connect the Industrial and Business Park with the gridded network of the balance of the Level A Plan Area.

As needed, right-of-way will be preserved for overpasses across I-40 to provide connections as the lands north of I-40 develop. These overpasses will provide additional connectivity and also help distribute traffic away from Atrisco Vista Boulevard and Paseo del Volcan. Additionally, master planning efforts have identified the right-of-way requirements and interchange spacing for Paseo del Volcan south of I-40 to match what is designed north of I-40.

4.2.4 Street Location and Characteristics

In addition to the roadways discussed above, additional collector roadways are proposed to complete the gridded network for the Level B Plan Area. The gridded collector streets are generally spread one-quarter mile apart. These roads are designed to distribute traffic throughout the Level B Plan Area and serve to reduce the traffic volumes on the arterials. As these areas are further defined

and designed, local streets will be identified to distribute the traffic to individual developments. Exhibit 6: Auto Transit Circulation, Level B Network shows the streets and segments of streets that serve the Level B Plan Area. The Level B Transportation Master Plan Technical Appendix contains graphics that details these roadways within this Level B Plan transportation modeling area.

Typical cross sections of the principal and minor arterials for the Santolina Level A Master Plan Area were included in the Level A Transportation Master Plan Technical Appendix. These typical sections remain valid for this Level B Plan, with minor adjustments made to conform to the recently adopted MRCOG Long Range Transportation System Guidelines. These revised typical sections are also included in the Level B Transportation Master Plan Technical Appendix. Due to the anticipated need to further refine details during subsequent Level C Plans, the typical sections should be considered as illustrative and subject to change during future Level C planning and design efforts.

4.3 TRAFFIC ANALYSIS

Consistent with the Level A Transportation Master Plan, the MRCOG regional travel demand model was utilized to estimate future traffic volumes for the Level B Plan Area. The travel demand forecast used the MRCOG travel software known as The Cube. MRCOG recently completed the 2040 update to the MTP in April 2015. This Level B transportation analysis utilized the most recent travel demand model and forecasted socioeconomic data within the 2040 MTP, **modified to reflect development of the Santolina Master Plan Area. This resulted in an alternate travel demand model scenario that was consistent with the anticipated development of the MTP 2040 overall regional control totals for employment and population. The model was representative of the region if Santolina were to develop. All model results discussed in this Level B Plan were derived from this “Santolina Scenario” travel demand model.** Traffic volume forecasts for this Level B Plan are based on these assumptions of land use and corresponding population along with employment projections for the Albuquerque



Metropolitan Planned Area (AMPA). Detailed discussion of the traffic analysis is included within the Level B Transportation Master Plan Technical Appendix.

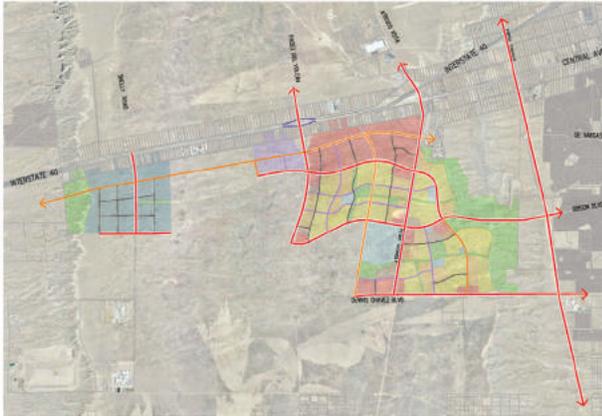
4.3.1 Transportation Phasing Plan

A Transportation Phase Plan has been developed for years 2025 and 2040 based on estimated traffic volumes generated by this Level B Plan Area. Exhibit 7: Roadway Phasing, Roads Required by 2025 and Exhibit 8: Roadway Phasing, Roads Required by 2040 illustrate the primary roadways required within this Level B Plan Area and immediate vicinity to serve this Level B Plan Area as well as regional forecasted traffic volumes in 2025 and 2040. The phasing plan Exhibits illustrate the roadways and associated laneage requirements for 2025 and 2040. Additional information on roadway phasing and lane requirements is included within the Level B Transportation Master Plan Technical Appendix.

Exhibit 7: Roadway Phasing Required by 2025



Exhibit 8: Roadway Phasing, Roads required by 2040



4.3.2 On-Site Transportation Network Requirements

As illustrated on [Exhibit 5: Auto Transit Circulation, Full Buildout Network](#) and [Exhibit 6: Auto Transit Circulation, Level B Network](#), the Santolina circulation system **as build-out** is defined as a system of collectors and arterials in a gridded pattern and an internal loop road to provide additional circulation within the Level A Plan Area. Initial roadway projects within the Level B Plan Area will emphasize collectors and arterials within the Plan Area and will include improving existing roadways such as Atrisco Vista Boulevard to meet urban roadway standards and closely match the Level B Transportation Master Plan typical cross sections. Additionally, the phased construction of new Level B roadways will occur. In some instances it may be more desirable to construct the entire ultimate roadway to limit future impacts to adjoining residential and business corridors. The collector and local street network will be constructed as necessary to serve ongoing development.

As outlined in the Level B Transportation Master Plan, it is anticipated that many intersections within this Level B Plan Area will require traffic signalization. The traffic signals will be installed at the time of construction of the roadway or when warranted by a traffic signal study. Typically these intersections appear at the intersection of minor and principal arterials such as the Loop Road and Atrisco Vista Boulevard. At other locations where traffic signals are anticipated to be warranted in the future, again underground conduits will be installed

in conjunction with the roadway construction. Traffic signals will not be installed until traffic demand necessitates installation of such facilities. **Traffic signal installation will be conducted in coordination with the County or appropriate agency staff, conform to applicable standards and be consistent with regional Intelligent Transportation System (ITS) plans as required.**

4.3.3 Off-Site Transportation Impacts

The transportation modeling analysis, documented in the Level B Transportation Master Plan Technical Appendix, evaluated the forecasted traffic volumes for the years 2025 and 2040 and conducted reflecting the latest MRCOG 2040 MTP update. These analyses were developed in close coordination with MRCOG to ensure consistency with MRCOG procedures and methods.

Population and employment forecasts were developed for Santolina based on anticipated market demand for the Level B and Master Plan Areas. These Santolina development forecasts were integrated into and normalized with the adopted MRCOG 2025 and 2040 regional population and employment forecasts in order to maintain regional socioeconomic control totals established by MRCOG. Additionally, the MRCOG 2025 and 2040 roadway networks were used as proposed by MRCOG, with the expected Santolina road network added to serve the anticipated 2025 and 2040 Santolina development. This ensures that the forecasts can be compared directly to the MRCOG 2025 and 2040 MTP forecasted results, to assess the differences in forecast traffic congestion between the MRCOG Trend growth scenario and the Santolina growth scenario. Details regarding the development of the Santolina travel demand model, forecast traffic volumes, level of service and comparisons with the MRCOG MTP model are included in the Level B Transportation Master Plan Technical Appendix.

4.4 ACCESS

4.4.1 Roadway Functional Classification

The roadways within the Level B Plan Area consist of typical roadway functional classifications. The classifications form a hierarchy of roadways that

will serve varying functions based on traffic needs and accessibility to development tracts. Higher level roadways generally provide greater through movement for higher traffic volume at slightly higher speeds. Lower level roadways provide greater access to adjacent development tracts with lower traffic volumes at lower speeds. See prototype roadway sections on [Exhibits 9 through 13: Roadways](#). The roadway types are further described as follows:

Principal Arterials. Principal arterials are roadways of regional significance, intended to serve high traffic volumes generally traveling long distances. A principal arterial is primarily intended to serve through-traffic with limited access. Full access, signalized intersections are generally limited to one-half mile (2,640 feet) intervals within the Santolina Access Management Plan (SAMP). Full access, un-signalized intersections are limited to one-quarter mile (1,320 feet) intervals within the SAMP.

The proposed typical sections for principal arterials within the Level B Plan Area match those suggested by the MRCOG Long Range Transportation System Guidelines. The right-of-way accommodates vehicular travel lanes, dedicated bus lanes, on-street bicycle lanes with buffers as well as pedestrian

sidewalks with a street side buffer separating the travel way and sidewalk.

As the Urban Center is bound on all sides by Principal Arterials, additional multi-way boulevard roadway typical sections have been developed to provide additional access opportunities, as well as slower speeds adjacent to pedestrian and bicyclists in vicinity of the Urban Center. These typical sections may also be used in other locations, such as the Village Centers, if considered appropriate.

Minor Arterials. Minor arterials are similar in function to principal arterials. However, this classification of roadway operates under lower traffic volumes, serves shorter trip distances and also provides a higher degree of property access to adjacent development parcels. In the SAMP, full access signalized intersections are generally limited to one-third mile (1,760 feet) intervals. Full access, un-signalized intersections are limited to one-eighth mile (660 feet) intervals.

The proposed typical cross sections for minor arterials within the Level B Plan Area match those suggested by the MRCOG Long Range Transportation System Guidelines. The right-of-way accommodates vehicular travel lanes, on-street

Exhibit 9: Roadways - 6 Lane Principal Arterial, Principal Arterial



bicycle lanes with buffer and pedestrian sidewalks with streetside buffer separating a travel way and sidewalk.

Collectors. Collector roadways provide for traffic movements between local streets. This roadway category is designed to carry moderate traffic volumes over moderate distances. Collectors may

Exhibit 10: Roadways - 4 Lane Minor Arterial, 4 Lane Collector with Parking

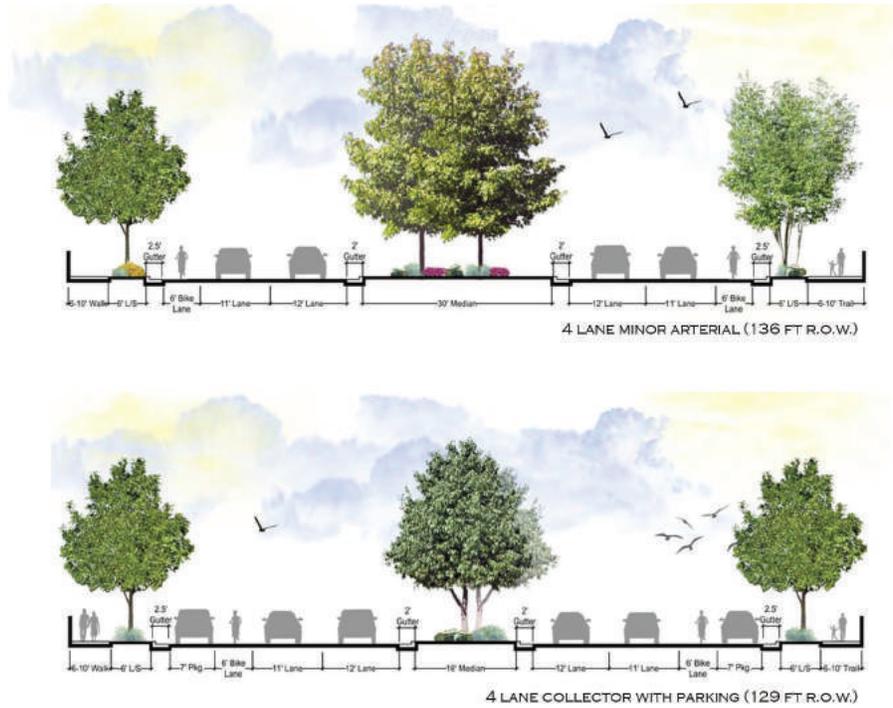
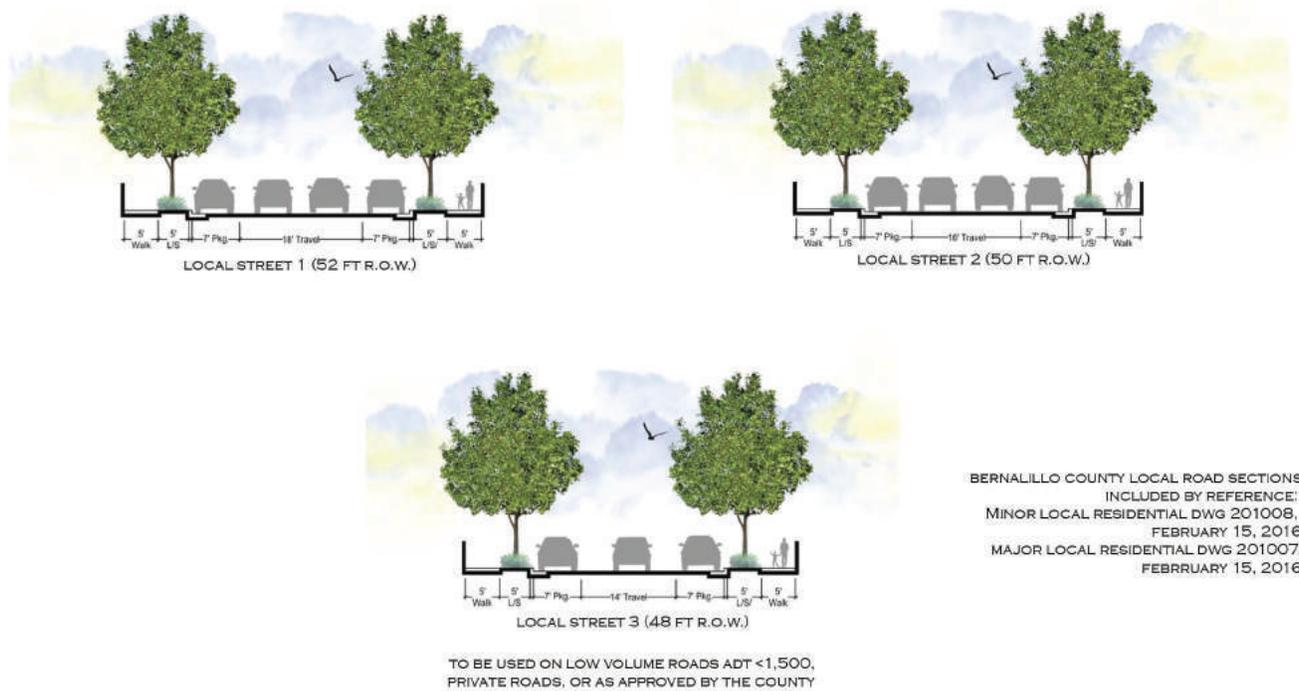


Exhibit 11: Roadways - 4 Lane Collector w/out Parking, 2 Lane Collector w/ Parking



Exhibit 12: Roadways - Local Streets



also provide direct access to adjacent properties but generally not to individual residences. In the SAMP, full access signalized intersections are generally limited to one-quarter mile (1,320 feet) intervals. Full access un-signalized intersections are limited to 330 feet intervals.

The typical cross sections for collectors within the Level B Plan Area match those suggested by the MRCOG Long Range Transportation System Guidelines. The right-of-way accommodates vehicular travel lanes, on-street bicycle lanes as well as a streetside buffer between the traveled way and pedestrian sidewalk.

Local Streets. Local streets provide for local traffic movement. This roadway category is designed to carry low traffic volumes over shorter distances to and from collector streets. Local streets provide direct access to adjacent properties, including residences.

The typical local street cross section within the Level B Plan Area accommodates vehicular travel lanes, vehicular parking and pedestrian sidewalks. To promote safer streets for pedestrians and lower

vehicular speeds, local street typical sections may have less right-of-way than current County standards subject to County review.

All roadway typical sections will, to the extent possible, incorporate green infrastructure approaches to reduce and treat stormwater runoff.

Additionally, ITS technology and techniques, such as adaptive signals timing will be implemented along major roadways, consistent with the regional ITS plan.

4.4.2 Access Control Policy

The Santolina Level A Transportation Master Plan Technical Appendix established an access control policy within the Level A Plan Area. The approved control policy will govern access within the Level B Plan Area. SAMP is identical to the NMDOT State Access Management Manual (SAMM) Table 18.C-1 “Access Spacing Standards for Intersections and Driveways” for urban principal arterials, urban minor arterials and urban connectors.

The SAMP also establishes criteria that recognizes and addresses when temporary conditions may occur that do not warrant full compliance with the SAMP. For example, many arterial roadways within the Level A Plan Area may be constructed in a phased manner, such that two lanes (one in each direction) are initially constructed. In this scenario, raised medians will not exist in the two lane roadway to prohibit access. Accordingly, temporary access conditions may be permitted by the County on a case-by-case basis at the sole discretion of the County. Traffic Impact Studies (TIS) specifically performed for the proposed site developments will address the feasibility of temporary access modifications. Such TIS situations must demonstrate the temporary access condition meets all typical traffic design and safety conditions.



Existing Access Control Policies

MRCOG also established roadway access limitation for Atrisco Vista Boulevard and Dennis Chavez Boulevard within the Level A Plan Area as well as Paseo del Volcan north of I-40.

The MRCOG access policy for Atrisco Vista Boulevard south of I-40 currently permits two full intersections. The first intersection is at Dennis Chavez Boulevard and the second at Terra West Estates Road. The MRCOG Access Policy provides full access intersections along Atrisco Vista Boulevard between Tierra West Estates Road and Dennis Chavez Boulevard at one-half mile (2,640 feet) intervals as well as T-intersection and right-in/right-out driveways at approximately one-quarter mile (1,320 feet) intervals.

NMDOT also established access control along Atrisco Vista Boulevard at the following three locations:

- Tierra West Estates Road
- Approximately one mile (5,280 feet) north of Dennis Chavez Boulevard
- Dennis Chavez Boulevard

The access proposed is comparable to the MRCOG access plan with the modification to provide the parallel roadway to the frontage road. This additional connection was added at the County and NMDOT's request. This parallel roadway is located approximately 2,760 feet south of the Atrisco Vista Boulevard intersection with the frontage road/Central Avenue. This distance satisfies the MRCOG access spacing guidelines south to Dennis Chavez Boulevard. The Level A Master Plan approved development on both the east and west side of Atrisco Vista Boulevard. The un-signalized intersections along this roadway are proposed as left-in/right-in/right-out intersections at no less than one-quarter mile (1,320 feet) intervals. Any modifications to NMDOT access control along Atrisco Vista Boulevard will be requested by WALH and the County through the NMDOT access control procedures outlined by the SAMM and the MRCOG Roadway Access Committee.

Future access limitations along Paseo del Volcan south of I-40 have not been established by MRCOG and NMDOT. The roadway network established with the Level A Plan Area provides access spacing consistent with the ultimate access policy for Paseo del Volcan north of I-40. Paseo del Volcan is planned to be ultimately designed to freeway standards north of I-40. These standards provide interchanges at approximately one mile (5,280 feet) intervals. Paseo del Volcan right-of-way will be reserved within the Level A Plan Area for future





freeway requirements consistent with the standards established north of I-40.

MRCOG policy states “prior to ultimate development, at-grade intersections with median openings other than one-mile intervals may be permitted.” The intersection spacing proposed along Paseo del Volcan, south of I-40, provides one-half mile signalized intersection spacing in the interim, prior to ultimate development of the freeway facility. These signalized intersections, consistent with the SAMP and SAMM spacing for urban principal arterials, would become underpasses in the event the freeway facility is constructed. The proposed un-signalized intersections shown with the interim Paseo del Volcan, consistent with the SAMP and SAMM one-quarter mile spacing for urban principal arterials, will terminate at the frontage roads constructed with the freeway facility. This design is similar to the roadway design north of I-40. Consistent with MRCOG policy, the above proposes an initial access control plan for adjacent and intersecting streets that will be further developed through location corridor studies.

4.5 TRANSIT

The community vision for Santolina includes a vibrant mixed-use community where people “live, work, learn and play.” Key to achieving this vision is the creation of a well-designed multi-modal travel system with an emphasis on transit and walkability. This goal will be met through the operation of a transportation system that links activity centers and the Residential Villages via transit, bicycle and pedestrian links.

Transit must be frequent, fast and reliable in order to effectively reduce regional traffic congestion. Transit service within the County areas is provided on a contract basis with ABQ Ride. This is due to the fact these service areas are outside the City of Albuquerque’s ABQ Ride jurisdictional area. As Santolina grows, the available market for transit ridership is expected to grow. This growth will promote the possible consideration of transit service by the County, ABQ Ride and Rio Metro Regional Transit District (RTD). It is expected these discussions will occur once the transit market develops within the development of Santolina. It is anticipated that transit service with limited commuter routes and service in peak transit hours will expand to fixed routes with shorter headways, ultimately leading to bus rapid transit system once demand is generated. The goal is to provide systems to distribute Santolina residents and employees to and from other regional employment and residential hubs while providing service to Santolina’s employment centers.

Consideration has also been given to the bicycle and pedestrian links within the transit system. The roadside and extensive off-road trails system will be



designed in a coordinated effort with the location of bus stops and other transit facilities with the goal of locating bus stops within reasonable walking distance of residential development. The system will be designed to encourage transit use and bicycle commuting within Santolina and the greater vicinity.

4.5.1 Proposed Transit Concept

The conceptual transit network for Santolina was established in the Level A Master Plan. The backbone of the network is the proposed bus rapid transit system routes. The Level A Master Plan has been designed to accommodate Residential Villages as well as clusters of significant employment centers. As a result of the land use mix and transportation system, opportunities will exist to transport citizens from within Santolina to other regional employment centers as well as Santolina employment centers.

The transit network as illustrated extends Rapid Ride Route 766, the Green Line, from the current terminus at Central & Unser Transit Center into the Santolina Town Center. The route is extended west on Central Avenue to Atrisco Vista Boulevard, south to the road paralleling the Frontage Road, then west into the Town Center. A Transit Center is proposed within the Level B Town Center. The facility will serve as a Park and Ride and as well as a hub for future commuter or local circulation bus routes.



A second major transit route is along Dennis Chavez Boulevard, providing access to the Urban Center. Dennis Chavez Boulevard is identified as a secondary transit route in the 2040 MTP, and the Rio Bravo Rail Runner Station just west of the river is a prime candidate for use as a bus rapid transit or commuter route into Santolina. Additionally, as a principal arterial, Dennis Chavez Boulevard has been identified as a roadway segment with a potential dedicated bus lane. This roadway design



would remove buses from general purpose traffic as they enter the Urban Center. The facility will be located in close proximity to the post-secondary education facilities and offer Park and Ride lots as well as stops for other local or commuter bus routes.

A goal of the Residential Village, Urban Center and Town Center design standards is to locate transit stops/stations within a one-quarter mile walking distance from origins or destinations. This is a comfortable walking distance to encourage the use of transit facilities. Design standards will enhance the walking experience and safety, encouraging walkability with the community.

Gibson Boulevard shall service as a third potential transit route into Santolina, allowing a connection to the Bridge/Westgate Route 54 path.

The transit plan also illustrates possible circulation routes within Santolina. These routes will offer opportunities for transit between residential, employment, commercial, education and recreation areas without the use of automobiles.

4.5.2 Transit Ridership

No specific estimate of future transit use has been developed for this Level B Plan. However, the large number of job centers located along major roadways within the Level B Plan suggests the increased visibility, ease and use of transit. Additionally, the extensive trails system from residential neighborhoods to transit corridors further promotes alternative modes of travel.

4.5.3 Interface with Inter-Model Connections

The Santolina Transportation Master Plan envisions an extensive transit system for local circulation along with commuter or BRT service for regional travel. The Santolina transit centers, combined with regional service, provide the opportunity to connect other transit routes such as the Central & Unser Transit Center, the Alvarado Center and the New Mexico Rail Runner Express. The intercon-



nectivity will enable transit users within Santolina to enjoy the entire transit system available in the metropolitan region.

4.5.4 Transit-Facilitating Features

The Santolina Level A Master Plan includes an extensive network of sidewalks, trails and on-street bicycle lanes. This system has been designed to create extensive connectivity within the Level A Plan Area, promoting the use of transportation modes between residential neighborhoods and employment centers. Also critical to promoting transit ridership is the provision of transit stop aesthetics. Fixtures such as shelters, seating and lighting must be considered to create an inviting and safe environment for transit users.

4.5.5 School Bus Considerations

It is anticipated that school bus routes may use the Principal and Minor Arterials for travel. However, school bus stops will not be located along such roadways. School bus stops shall be located on

Collector or Local Street roadways to increase public safety and limit impacts to the traveling public. As specific school bus routes will not be developed until school locations have been identified, Local Streets within Santolina shall be designed to sufficiently accommodate potential school bus activity.

4.6 PEDESTRIAN AND BICYCLE FACILITIES

4.6.1 Sidewalks and Pedestrian Accommodations

The proposed Pedestrian and Bicycle Circulation Plan combined with the typical roadway sections, provide complete pedestrian coverage throughout Santolina. The Open Space trails system provides opportunities for walking and biking apart from roadways and vehicular traffic. This system connects the residential and commercial areas, allowing for commuting or recreational use.

Supporting Santolina's goals of walkability requires making walking convenient, enjoyable and safe. The interconnected sidewalks throughout Santolina enable short walking trips to bus stops, schools, parks and other neighborhood amenities, as well as employment centers. Walking within Village Centers will be encouraged through land use and site layout design combined with pedestrian facilities. The goal is to encourage a "park-once" concept in the Village Center.

Marked at grade crosswalks, pedestrian activated phases for street crossing shall be provided at all signalized intersections. Additionally, consideration will be given to the safe location of mid-block pedestrian crossings through the use of pedestrian hybrid beacon systems.

4.6.2 Bike Lanes and Trails

The bicycle network provides complete coverage of the Level A Master Plan through on-street bicycle lanes and the proposed Open Space and trails system. The bikeway network will be more extensive than shown in the Bikeways Master Plan, as proposed typical roadway sections also include bike lanes on all future identified arterials and collector streets. This design element will allow

recreational bicyclists the opportunity to bicycle out of travel lanes. The relatively flat topography of much of the Level A Plan Area is well suited to bicycle travel, while the ample Open Space trail network provides opportunities for recreational biking.

The proposed bicycle network conforms to, and is integrated into, the MRCOG Long Range Bikeways System Map. The map envisions extending bikeway facilities on Dennis Chavez Boulevard, Atrisco Vista Boulevard, 118th Street, Gun Club Road, Gibson Boulevard, Paseo del Volcan and Central Avenue. This system will provide direct access to the extensive network of existing and proposed bikeways in the metropolitan area, providing opportunities for long-range cycling or commuting for those so inclined.

4.7 TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a combination of approaches that provide travelers



with alternatives to the use of the single occupancy vehicle when choosing their transportation mode. Through the provisions of options in travel mode, travel demand management seeks to influence travel decisions with the goal of more efficient use of the transportation system.

Several TDM strategies are accomplished through the Santolina Level A Land Use Plan. These include the extensive system of pedestrian and bicycle facilities that allow for travelers to choose to walk or ride their bicycle to their destination. Other land use elements supporting TDM are the close proximity and high level of connectivity of major employment centers to residential neighborhoods. The connectivity between residential areas and employment centers is expected to increase the share of pedestrian and bicycle commuting, thereby reducing

the number of single occupancy vehicles on the roadways during peak hours.

The roadway typical sections in Santolina also provide dedicated on-street transit lanes, wide sidewalks, appropriate street lighting and safe roadway crossings. The roadway network, when combined with the extensive pedestrian and bike network, as well as transit amenities, make transit use more attractive and easier to use. Increased attractiveness of transit and greater transit use will also reduce the number of vehicles on roadways, improve traffic operations and reduce congestion.

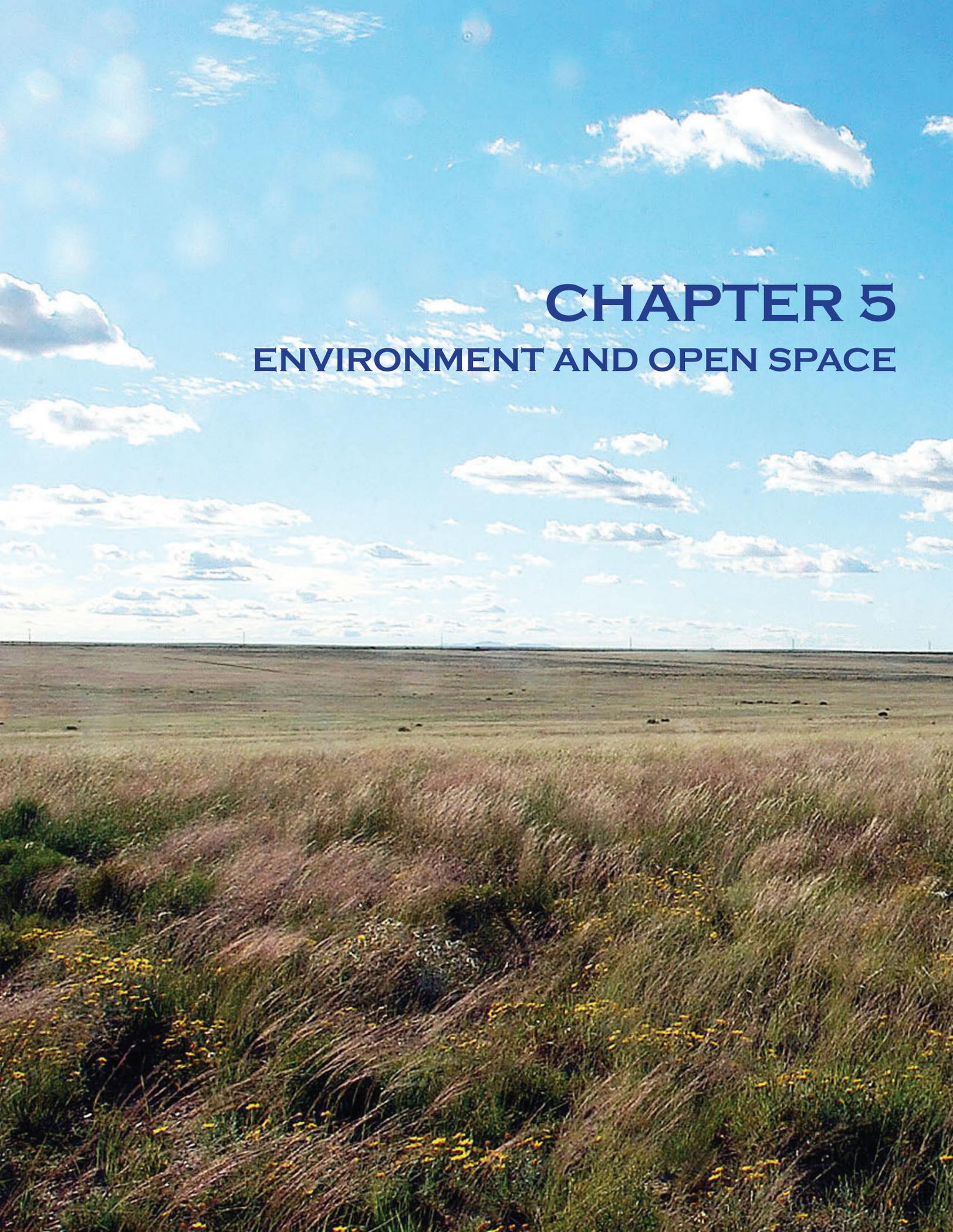
The large employment centers in Santolina also provide opportunities for employers to use public service announcements and outreach to educate employees and residents on the benefits of walking, biking, carpooling and transit use. Transit will be a key component of the TDM strategy as transit service becomes available and expands as the market increases with population and employment growth.

The design of employment centers should focus on promoting alternative modes of travel, through the incorporation of pedestrian and bicycle accommodations. Employment and commercial site designs will be encouraged to locate buildings close to transit routes to limit walking distances from the transit stops to the buildings. Doing so will increase transit use by minimizing travel distances once the traveler exits the transit system.

Employers will be encouraged to provide variable work schedules to the maximum extent possible to disburse traffic over longer periods to reduce the amount of traffic on the roadway during peak hours. Coordinated education campaigns by employers and retail/commercial development to promote transit and walking/biking will also be considered in concert with Bernalillo County and ABQ Ride/Rio Metro.

In the event voluntary measures do not result in sufficient changes in driver behavior to maintain acceptable levels of service, other incentives and disincentives can be employed to encourage changes in travel behavior. These may include

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CHAPTER 5

ENVIRONMENT AND OPEN SPACE

5.1 OVERVIEW

Overview of site specific environmental characteristics and the physical and environmental characteristics provide the structure for land use locations, transportation systems and natural open spaces within the Level A Master Plan along with this Level B Plan. The Level B Plan Area is characterized by a large mesa, framed by two escarpments. The western edge of the mesa area features a series of dunes overlooking the Rio Puerto Valley, partially vegetated parallel swales that run roughly east-west and a group of natural depressions in the north central portion of the Plan Area.



As a result of the existing topography, much of the Level B Plan Area enjoys views toward the Sandia and Manzano Mountains, the South Valley, the Bosque and the City of Albuquerque. Elevations descend from 6,100 feet at the top the western escarpment near the community’s western boundary to approximately 5,575 feet at the top of the eastern escarpment. The topography then descends to 5,100 feet at the south eastern boundary near Gun Club Road. Planning within the Level B Plan Area was conducted in a manner to preserve and enhance the unique local and regional views.

Much of this Level B Plan Area consists of flat lands on the mesa with slopes in the 0-5% range. As a result, the land within these portions of the Level B Plan Area is highly suitable for development. The Level B Plan also includes major public open space and additional open space characterized as parks and internal open space. The open space network respects the existing topography, escarpments and

land forms to create separation from surrounding neighborhoods while also creating pedestrian links to future neighborhoods, job centers and amenities.

5.2 BIOLOGICAL RESOURCES

The following is a summary of biological resources within this Level B Plan Area:

5.2.1 Vegetation

Grasses, wildflowers, cacti and brush form the vegetative groundcover of the Level B Plan Area. Several varieties of native grasses are found including mesa dropseed, Indian ricegrass, giant dropseed, spike dropseed, black grama, blue grama, sand dropseed, bush muhly, sacaton and galleta. Brush include sand sagebrush, broom snakeweed, four-wing saltbrush, yucca, cholla, prickly pear, Mormon tea and winterfat. Wildflower species include chamisa, purple astor, butterfly weed, paperflower, gum weed, globe mallow, bush penstemon and desert zinnia.

5.2.2 Wildlife



Wildlife found in the Level B Plan Area is common to the Southwest Mesa grasslands and includes scaled quail, morning dove, jackrabbits, cottontail, rats, prairie dogs, deer mice along with a variety of reptiles and invertebrates. No listed or endangered species have been identified in this Level B Plan Area.



5.3 ARCHEOLOGY

As part of the Santolina Level A Master Plan, a Class I records search was conducted in May 2005. The report included a review of the New Mexico Cultural Resources System (NMCRIS) files. The review did not find any nominated properties within the Santolina Level A Plan Area. As a part of this study a brief archeological on-site reconnaissance was completed for the reconnaissance of 12 transect miles and resulted in the identification of 14 potential additional cultural properties. The reconnaissance confirmed that the majority of the Level A Plan Area's resources are located in the Rio Puerco and Rio Grande escarpment areas. As previously stated the escarpment areas are being designated as permanent open space areas within this Level B Plan. Another resource discussed during the Level A Master Plan approval process was the existing FAA arrow located just south of the existing Bisque Durango Mobile Home Park. This resource is located within the Level B Plan Town Center.

Consistent with the PCC for Level B Plans, WALH contracted with Marron & Associates for a Class II survey for the Level B Plan Area. This survey will include the development of a representative sample (approximately 20 percent of the Level B Plan Area) to be surveyed. The survey will focus on utility, road corridors and landforms where resources are likely to be found. Due to the sensitive nature of this information, access to this report will be limited to County Planning and Open Space staff for their review.

The results of the Class II survey will be used to provide additional guidance for the location and to determine the probability of cultural resources in each area. As a part of future Level C Plans, the identified potential sites will be surveyed and



any cultural resources will be addressed at that time. The information will also be crucial in the final design and alignments of roadway and utility corridors anticipated to cross the escarpment areas.

5.4 AIR QUALITY

The Santolina Level B Plan maximizes the opportunity to achieve high performance standards for air quality. The opportunity arises because the Master Plan characteristics address the most significant air quality factors in the region; carbon monoxide and airborne particulate matter (typically industrial emissions, fugitive dust and pollen). Santolina's emphasis on job creation is a primary driver of the ability to achieve high air quality performance. The creation of significant local jobs within industry and business districts reduce vehicular trip generation, the main producer of the carbon monoxide and other oxides that are so problematic. Santolina also incorporates strategies to directly address the particulates matter.

An Air Quality Impact Analysis report was prepared to compare the "Santolina Scenario" development to the MRCOG MTP Trend scenario. This analysis used the data from the MRCOG MTP travel demand model and the Environmental Protection Agency's (EPA) current Motor Vehicles Emission Simulator (MOVES) model, developed with local data from the City of Albuquerque's Environmental Health Department (EHD). To evaluate carbon monoxide (CO) dispersion at localized locations, microscale CO Hot Spot analysis, the EPA-approved CAL3QHC model was used.

The last regional CO violation was in 1991. CO levels have been in steady decline since that time. Current levels measure less than 30% of the National Ambient Air Quality Standards (NAAQS).

The regional analysis found a slight reduction in peak hour CO emissions under the "Santolina Scenario" (-0.5%) and a negligible increase in CO emissions on a daily basis. Both of these level changes are considered of little significance, given that the region is well under NAAQS thresholds.

CO Hot Spot analysis of the four highest traffic volume intersections (two Regional, one near

Santolina and one future internal) detects low CO levels that remain below NAAQS standards and are equivalent to levels anticipated in the MTP scenario.

Overall, the analysis found the development of Santolina is not a significant influence on regional deterioration of air quality or localized Hot Spots due to the regional characteristics being well within NAAQS thresholds.

5.4.1 Carbon Monoxide

At this time, all other air quality standards, as established by the National Ambient Air Quality Standards, are not in exceedance of carbon monoxide standards. Vehicle emissions are sources of carbon monoxide, volatile organic compounds and oxide



of nitrogen. Air quality levels are managed closely and tied directly to the Vehicle Miles Traveled (VMT) within the region. Vehicle emissions are evaluated by the quantity of VMT within the regional transportation system. The current and projected values for VMT are fully evaluated and approved under the Future 2040 MTP which is developed by MRCOG.

Compliance with local, state and federal regulations associated with vehicular emissions is associated with the approval of the Future 2040 MTP. MRCOG is responsible for making a conformity determination on the MTP for the region in accordance with the Clean Air Act and EPA regulations. The MTP must also be approved by the Federal Highway Administration and must conform to the State Implementation Plan Revision: Limited Maintenance Plan for Carbon Monoxide for Albuquerque/Bernalillo County, New Mexico. Lastly, the MTP must conform to the regulations administered by the Albuquerque Bernalillo County Air Quality Board (Board). The Board is the federally-delegated air authority for Albuquerque and Bernalillo County

and ensures compliance with the Federal Clean Air Act and the New Mexico Air Quality Control Act.

With regard to specific impacts from the transportation system developed for the Santolina Level B Plan, it is important to establish that the expected employment and population growth associated with the Santolina Level A Master Plan is incorporated in the approved 2040 MTP. The MTP approves projected VMT for the region, through 2040, based on expected land use and travel patterns. While growth has been modified as a result of the Santolina Level A Master Plan, the overall regional parameters for population growth have been maintained. As a result, on a regional basis all VMT associated with the Level A Master Plan development have already been considered in the regional air quality conformity analysis. The findings of the analysis align with all local, state and federal air quality policies.

Travel demand modeling performed in the Level B Plan indicates no regional increase in vehicle emissions or air quality impacts. The Level B Plan provides for a gridded street network (minimizing time on the street when driving is necessary), transit accommodation design features in its neighborhoods and commercial areas, trails and bikeways which encourage non-vehicular (non-emission) transportation modes and mixed use development concepts. These land use features, combined with advances in automobile technology such as increased adoption of hybrid and electric cars, are likely to lead to additional air quality improvements. The 2025 modeling results indicate, when compared to the 2040 MTP roadway network in the critical PM peak hour, a 1.8% reduction in VMT, an 8.6% reduction in Vehicle Hours of Travel (VHT), a 21.6% reduction in Vehicle Hours of Delay (VHD) as well as a 7.4% increase in average speed.



While the 2040 Santolina Level B Plan PM peak hour forecasts a 2.5% increase in VMT, other critical parameters for air quality evaluation were markedly improved, offsetting the increase in VMT. For example, the 2040 Santolina VHT forecasts 2.9% reduction and a 4.2% decrease in vehicle delay. Average vehicular speeds also increase by 5.6% when compared to the 2040 MTP roadway network. There is also a 9.5% reduction in Santolina VMT on roadway links that are over capacity ($v/c > 1.0$) because Santolina employment center traffic utilizes under capacity roadways as employees travel in counter-commute. This is achieved through morning west bound movement to Santolina and eastbound traffic movement in the evening. This traffic pattern translates into an 11.7% reduction in the percentage of PM peak hour VMT on roadway links that are over capacity. A primary contributor to air quality impacts associated with vehicle emissions is vehicle delay (VHD). The modeling results also indicate a 21.6% decrease in VHD in 2025 and 4.2% decrease in 2040. These results indicate the Santolina Level B Plan should result in air quality beneficial to the region.

Of particular note in the efforts to reduce carbon monoxides is the current regional programs such as:

- Oxygenated Fuels Regulations
- Vehicle Emissions Testing
- Municipal Clean Fuels Fleets

5.4.2 Particulate Matter

Generally, the particulate matter components of the most interest are fugitive dust, woodburning activities, industrial emissions and pollen. Fugitive dust control is a significant concern in the County, often the result of construction activities and the use of dirt roads. Roads, trails and parking lots will be paved or appropriately surfaced in Santolina to minimize dust generation. Low Impact Development (LID) practices, governing grading and ground disturbance approaches to development, will also be utilized. Vehicular access to and use of open space areas will be strictly enforced.

Woodburning activities will comply with applicable codes and rules, including the current woodburning restrictions typically enforced during the winter in the County.

Industrial and manufacturing emissions typically from stationary sources are regulated by multiple local, County, state and federal regulations. This type of development in Santolina will be held to a high standard and must comply with all applicable regulations.

Pollen is a significant health issue for many in the region. Santolina will employ careful design of landscaping palettes within the Santolina Level B Plan Area, resulting in greatly reduced airborne pollen. All applicable County or regional regulations for pollen control will be complied with stringently.

5.5 STORMWATER SYSTEM DESIGN APPROACH

The Level B Plan will provide creative and innovative stormwater quality and management practices to complement the mix of land uses. The Level B Plan drainage solutions will incorporate proven management practices such as underground and channelized systems. Additional solutions may incorporate naturalistic surface drainage systems intertwined within the community open space, parks and trails system.

The Level B Plan establishes guidelines for “... conceptual drainage plan for management of watersheds and floodplains and preservation of arroyo corridor multiple use opportunities” as required by the planned communities Level B Plan criteria. More detailed stormwater management will be reviewed with subsequent Level C Plans. Such Level C Plans and applications for development will utilize the greater clarity site specific development plans to prepare immediate vicinity drainage master plans. The stormwater management strategy within



Santolina requires subsequent Level C Plans which will provide:

- Protection of undeveloped and developed property from flooding in 100 year events
- Sustainable infrastructure approaches for the control, conveyance, storage and discharge of stormwater
- Improved stormwater quality by the use of retention and detention facilities (which trap sediment, pollutants and more, in accordance with the recently promulgated Municipal Separate Storm Sewer System (MS4) permit requirements
- **Compliance with MS4 permit requirements, as adopted by the County for all new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.**
- Water harvesting techniques on the mesa for shallow groundwater recharge and landscape irrigation needs
- Recreational active opportunities such as parkland, playground and trails
- Multi-purpose water surface facilities.

All subsequent Level C Plans will provide input and approval from the County and other applicable jurisdictions.

As with any significant stormwater management system, the Santolina public stormwater management system will include many distinct components based on existing ground and basin conditions as well as those components dictated by the Level A drainage plan. These components will require ongoing maintenance and operational attention.

The major components of this Level B Plan drainage management system include:

- Closed basin detention systems, including major/minor retention ponds, water quality facilities and infiltration devices. In this

context, retention describes the permanent storage of collected stormwater within the Level B Plan Area (or other land within the Level A Plan Area) with no off-site discharge to any water bodies.

- For example, this system would be applicable in the northwest portion of this Level B Plan Area (primarily the Industrial and Business Park) and in the far southeast portion. This system would work well in this area due to the existing historical topographic conditions which include depressions with no discharge to a river. In



this area, drainage will be connected and transported to constructed retention pond systems located in the existing depressions. Stormwater will be discharged over time via evaporation, vegetative transpiration and infiltration methods as well as potential reuse for landscape irrigation. Taking into consideration the cyclical nature of stormwater, recreational opportunities are also available for the creative design of these retention ponds. WALH will coordinate with the County and/or AMAFCA to obtain use agreements for any facilities envisioned as parkland within the community.

- Controlled discharge detention facilities include major/minor detention ponds, water quality facilities and infiltration devices. The remainder of the Level B Plan Area (excluding areas defined within the closed basin retention systems above) complements this drainage strategy. With this strategy, limited on-site and public retention occurs as part of stormwater quality/MS4 practices. However, the majority of

the drainage is only detained, or delayed, before being discharged to conveyances that eventually reach the river. As previously discussed, retention facilities and detention facilities also provide ample opportunities for multiple uses.

- Stormwater conveyance systems include variations and combinations of underground pipes and open channels to convey stormwater through and around designated corridors within the Level B Plan Area. These corridors will typically be located in preserved, existing arroyos or within easements or right-of-ways required for drainage conveyance. Situations may arise where such easements or right-of-ways are required to remove stormwater in order to preserve an existing arroyo and reduce erosion and maintenance. In these situations the corridors will provide opportunities for the linear parks and links within the community trail system.
- Per the MS4 guidelines, stormwater quality management systems must be employed on all subsequent Level C Plan development sites within this Level B Plan Area. These management systems manage the first flush of stormwater runoff from the developed site. The first flush is the stormwater collected by the development site's impervious areas during smaller but more frequent storm events. These are typically two year storm events. Pervious areas within a development do not create any runoff in such small storm events. LID strategies effectively help maintain high downstream stormwater quality levels. Private and public site development practices will be required



to incorporate LID and other green development practices that improve stormwater quality and harvest stormwater. To a great extent, LID practices mimic the existing pre-development conditions of the land in which most stormwater run-off remains on site.

Typical LID practices may include:

- Depressed landscape bio-retention areas
- Bioswales
- Infiltration trenches
- Pervious pavers
- Landscaped medians
- Floatable captures

These measures will be employed only to the extent they do not violate Rio Grande Compact agreements.

5.5.1 Drainage Systems Management and Operation

Public stormwater infrastructure generally refers to drainage infrastructure owned and maintained



by public agencies such as the County, AMAFCA and NMDOT. Private stormwater infrastructure generally refers to smaller on-site stormwater infrastructure required, owned and maintained by private property owners. Such private facilities, may include those associated with commercial development, private parks and homeowner association facilities.

It is anticipated that much of the public stormwater infrastructure within Santolina’s closed ponding systems will be owned and operated by the County. These infrastructure systems will be sited within public right-of-way to accommodate public ownership, operation and maintenance. It is anticipated AMAFCA will own, operate and maintain the major drainage channels and detention facilities required within those basins discharging stormwater to the south and east (to the river). Both of these agencies have a long history of stormwater and development integration of public and private projects.

5.5.2 Phasing

Stormwater management systems will be phased to match the development progress within the Level B Plan Area. As discussed, this Level B Plan focused on two timeline horizons; 2025 and full buildout in 2040.

5.6 ENERGY EFFICIENCY AND ALTERNATIVE ENERGY SOURCES

This Santolina Level B Plan embraces the design principles of energy conservation within the community with the goals to:

- Evaluate energy use within the community
- Identify renewable energy resources
- Encourage production, recycling and reuse of resources.

Energy costs play a significant role in the home buying process. According to the US Department of Energy’s Building Technologies Program*, the current 2009 International Energy Consumption Code (IECC), saves New Mexico residents an average of 15% on energy costs. This results in an average savings of \$225 per household on energy costs per house with the 2009 IECC.

As part of Santolina’s sustainability program, and in keeping with builder trends towards more energy efficient construction practices and products, all construction within Santolina is encouraged to adhere to the standards of the U.S. Environmental Protection Agency (EPA) Energy Star Certified New Home Program or the National Association of Homebuilders (NAHB) Home Innovation ICC 700

National Green Building Standard (NGBS) Certification Program.

Energy Star certified homes are designed and built to include energy efficient features, materials and equipment that delivers enhanced performance. Home designs consider local conditions, utilize



climate specific energy savings techniques and appropriate energy efficient features to provide energy savings up to 30% compared to standard houses. Single and multi-family houses constructed to the NAHB’s ICC 700 NGBS are designed and constructed to bring a minimum 15% increase in energy efficiency. Each new house is certified to meet established criteria for energy efficiency, water and resource conservation as well as indoor air quality. Residents will realize the cost savings of certified energy efficient homes while enjoying the quality, durability and comfort of well-designed and built houses.

The large industrial and business park within the Level B Plan provides the opportunity for alternative energy production. Potential sources of energy production include solar panel fields, wind generation facilities and other alternative fuel powered facilities. Additionally, opportunities may present themselves for the development of facilities that create construction materials such as masonry material or lumber truss plants. Such facilities would greatly reduce the required distance to transport materials to construction sites within Santolina.

**U.S. Department of Energy Impacts of the 2009 IECC for Residential Buildings at State Level.*

5.7 TERRAIN MANAGEMENT PLAN

Terrain Management Planning in the Santolina Level B Plan is intended to mitigate the effects of stormwater runoff, dust collection, soil erosion (water and wind) and other natural habitat loss that may otherwise result from new development construction. The mitigation goals apply to both new development areas and existing, undisturbed natural terrain within the Level B Plan Area. The primary systems of terrain management include:

- LID practices which seek to mimic natural rainwater systems to reduce runoff volume, increase infiltration and filtration and moderate the rate of runoff from a development site
- Stormwater quality enhancement and protection
- MS4 compliance (EPA).



Often these systems are combined to achieve a more comprehensive and effective site solution.

5.7.1 Low Impact Development

The Santolina Level B Plan shall require that the following site development LID measures (or similar), be considered, addressed and where applicable and practical, implemented in all Level C Plan development submittals:

- Phased site grading requirements that minimize the extent of open grading operations at any time and match grading operations to the actual pace of development
- Site grading plans that minimize the amount and depth of grading cuts on the site, i.e., seek to work with the natural site terrain, where practical
- Revegetation of all disturbed areas, including long term maintenance of the revegetated land surfaces
- Construction practices, such as regular dirt wetting and compaction practices, to control erosion and blowing dust
- Protection of steeper slopes within developed areas through proper landscape design and treatment



- Protection of undeveloped steeper slopes within open space areas with attention toward promoting native plant growth if appropriate, along with thoughtful design of trails through open spaces with slope and native vegetation protection and prohibition of off-road vehicle travel (except for construction activity, emergencies, operation and maintenance needs)
- Combined LID and traditional engineered solutions to achieve the objectives of stormwater management, such as LID and flood control goals
- Exercise extreme care in design to reduce bottom and side erosion, headcutting and aesthetic damage. Available techniques include runoff dispersion, distributed subsurface storage, energy dissipation solutions, connections at the flowline of the receiving natural arroyo, check structures along systems where discharge of runoff is to existing natural arroyos. Consider induced meandering of existing natural arroyo systems when these arroyos will receive developed site runoff. This technique will reduce headcutting and severe erosion
- Encourage builders to employ best practices in the manner described above.
- Compact site design which strives to reduce the scale and extent of impervious areas, i.e., reduce rooftops, parking lots, roads, etc.
- Water harvesting through infiltration of stormwater using pervious swales, pervious pavements, green roofs, subsurface stormwater detention/infiltration, rain gardens, depressed landscape/bio-retention areas, bioswale and biofilters, landscape conveyances and infiltration trenches
- Site paving, pedestrian and trails. May include such measures as pervious pavers, open-cell structures with gravel, pervious concrete or asphalt, gravel parking lots, underground cisterns, planter boxes, etc.
- Adequate landscape/open space buffers between developed areas, to capture the first flush
- Limit modifications and disturbance to natural drainageways.

Common site planning guidelines and practices which address stormwater quality from local regulations may be employed within this Level B Plan:

- To the extent possible, maximize area dedicated to stormwater treatment.

5.7.2 Stormwater Quality Enhancement and Protection

New development sites shall be required to manage the first flush of storm events as described in Section 5.5. The first flush is the stormwater runoff from small storm events and the first stages of runoff from larger storms. The first flush volume is generally defined as the runoff from a two year storm (approximately one-half inch rainfall). Since there will be little to no runoff from pervious areas from a two year storm, only runoff from impervious areas is considered in the required treatment volume.

In addition to LID techniques, stormwater quality enhancement and/or protection practices will be required in the Santolina Level B Plan Area to manage the first flush of storm events. Typical such site design practices may include:



Spreading runoff over a larger portion of the site can help reduce less desirable treatment strategies that rely on underground capture along with deep basins that can be difficult to maintain

- Reduce runoff to the maximum extent practical to more closely match natural conditions. Drain impervious areas to landscape areas and minimize directly connected impervious areas. Reduce the amount of impervious areas, i.e., use porous pavement or gravel for low-use or emergency access. Additionally, select treatment techniques that promote infiltration
- Integrate stormwater quality management and flood control, when practical. If the site is to detain runoff for flood control purposes, the facility can be modified for stormwater quality by raising the overflow elevation above the first flush volume
- Landscape stormwater management facilities. A stormwater management facility may be an attractive addition to the site, rather than just a depressed dirt area. Additionally, landscaping will minimize the potential for erosion reducing long term maintenance concerns
- Consider surface conveyance as an alternative to pipes
- Design facilities for easier maintenance. Fine soils may clog void spaces over time. Designs may consider a capture area for fine soils where stormwater enters the facility that can be easily replaced or maintained.
- Amend the soil to allow for improved infiltration.

5.7.3 Municipal Separate Storm Sewer System (MS4)

Protection of the Rio Grande and improving regional stormwater quality is of paramount importance to the County and Santolina. As requested in the Level A Master Plan conditions of approval, this Level B Plan commits to conformance with EPA-issued MS4 permit provisions or other requirements that may be issued for the County urbanized area.

MS4 permit requirements generally include the following:

- Find and eliminate non-stormwater discharges that are sources of pollution that are harmful to the Rio Grande habitat
- Monitor and minimize the release of pollutants, sediment, trash and debris from construction sites during construction activities
- Implement LID practices in an effort to reduce the amount of stormwater runoff that can leave a site and enter the County/ AMAFCA/City storm drainage systems
- Ensure that stormwater controls are maintained and inspected on a regular basis.

5.8 SOILS

In order to investigate and evaluate the site-specific soil conditions of Santolina in the Level B Plan Area, professional geotechnical services were engaged. Furthermore, existing governmental publications (NCRS) were reviewed for additional data and soil guidance.

The analysis and results from the site-specific soils investigations concluded there are no geotechnical conditions underlying the Level B Plan Area which would significantly and adversely impact the construction of infrastructure expected with development activities. The subsurface soil conditions across the Level B Plan Area are relatively uniform, consisting predominantly of silty and/or clayey sands and relatively clean sands which extend the full length of boring depths. These soils range from low plasticity to non-plastic and are generally medium dense to very dense. No bedrock or free groundwater was encountered in any of the borings. The geotechnical analysis also provides preliminary recommendations regarding foundation design and slab support, allowable slopes and general site grading.

The Level B Plan Area soil profiles are presented in governmental NCRS publications. As shown on Survey map, [Exhibit 14: Soil Survey Map](#), the escarpment areas of the Level B Plan Area consist of Bluepoint-Kokan soils, while the Level B Plan Area mesa top consists primarily of Madurer loamy fine

sands and Madurer-Wink association with pockets of Pajarito loamy fine sands, Wink fine sandy loam and Bluepoint loamy fine sands.

The NCRS publications identify these soils as suitable for community development, with appropriate remediation measures if and where required. All of the soils in the Level B Plan Area are further compatible for stormwater percolation. Compliance with County grading and ground disturbance policies and codes will be strictly enforced during development of this Level B Plan Area. The Santolina Terrain Management Plan addresses these requirements of development in greater detail. In regional context, the Santolina Level B Plan Area soils are very similar to the soils in large, already developed portions of the City and County.

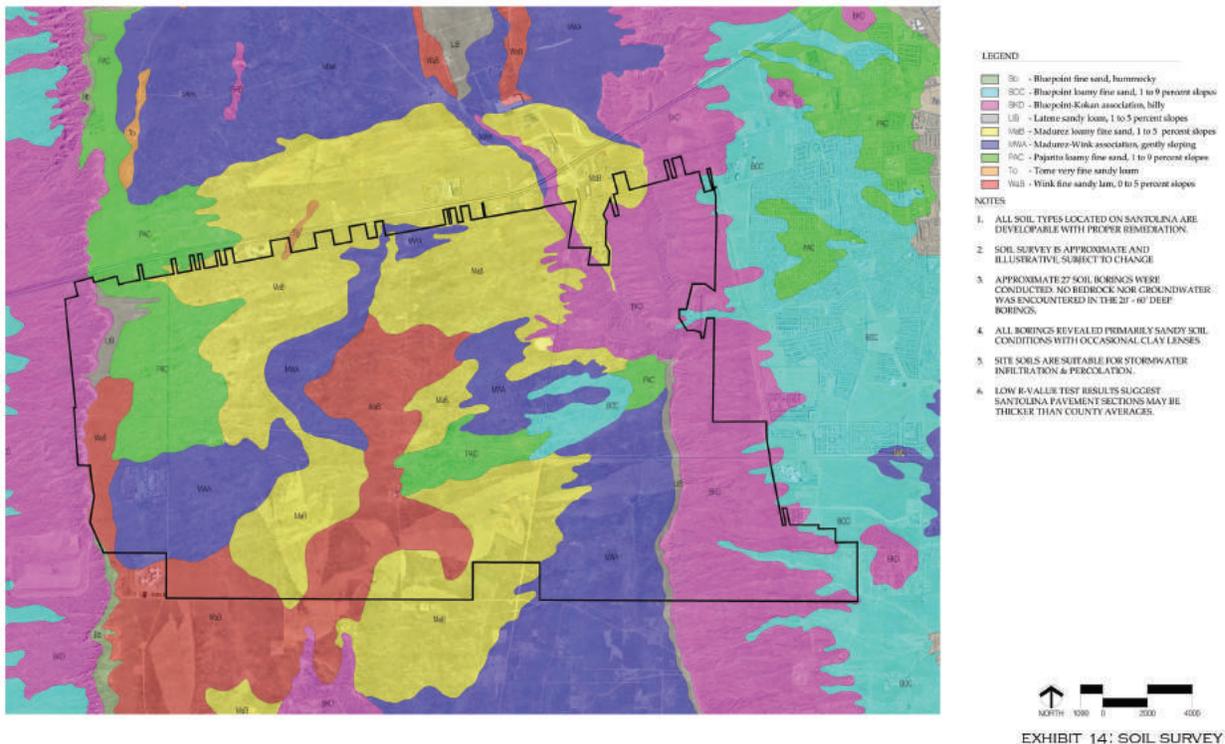
Similar to much of the far west mesa east of the Rio Puerco Valley's east escarpment within the County, Santolina encompasses large areas of dine related soils. These soils are subject to wind and rain erosion. Similar to the general practices employed in LID development, (see Section 5.7.1 Low impact Development) techniques used to prevent excess

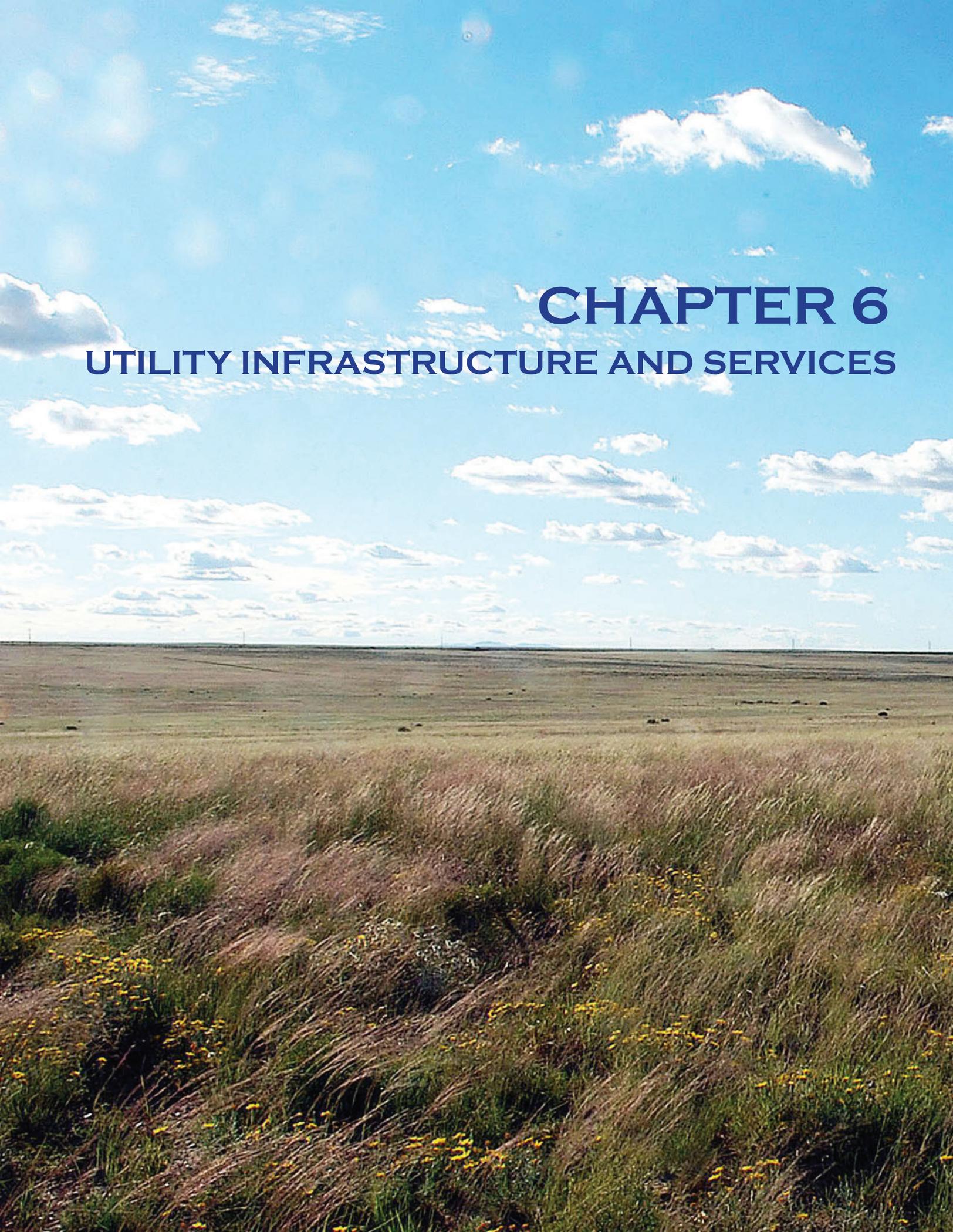
wind erosion during construction and development may include:

- Phased site grading and coordinated grading operations
- Site grading plans that seek to work with the natural site terrain, where practical
- Revegetation of all areas disturbed by construction
- Construction practices to control erosion and blow dust, such as regular dirt wetting and compaction practices, wind fences and windows
- Protection of undeveloped steeper slopes (10% or greater)
- Exercise care in site design to reduce bottom and side erosion, headcutting and aesthetic damage
- Encourage builders to employ best practices in the manner described above.

A more detailed explanation of these and similar practices is provided in Section 5.7.1 Low Impact Development.

Exhibit 14: Soil Survey Map





CHAPTER 6

UTILITY INFRASTRUCTURE AND SERVICES

6.1 WATER SYSTEM

The Santolina Level B Plan will provide a sustainable and reliable water supply to residents and businesses within the Level B Plan Area. The community will employ water conservation practices in accordance with all County and ABCWUA regulations and policies.

The Santolina Level B Plan commits to join the overall community and be responsible stewards of the southwest water heritage. Additionally, Santolina commits to cooperatively work toward local, state and regional goals to reduce water usage and secure new sources of water supply. With this water conservation commitment the encouraging trend of recent years in which water usage reduced from 251 gallons per person per day in 1995 to 135 gallons per person per day today will be continued. Continued success in water conservation in the County is important to help the region manage the effects of long term droughts and climate change expectations. The downward water use trend, even as population increases in the ABCWUA service area, is portrayed by the following prior years' per capita usage and total demand (usage) projections for year 2060:

The reduced water usage in the region's water service area has had significant, beneficial impacts such as rising groundwater aquifers, declines in consumptive water use, opportunity to develop groundwater 'safety reserves' and reduced river depletions from groundwater pumping. Additionally, the 2007 WRMS projected that new water supply may not be required until approximately 2050, based primarily on these conservation efforts. Current water usage data (135 gpcd) suggests that 2050 date may be extended even further.

TABLE 9: 2060 Water Usage Rate and Water Demand (Usage) Projections

1997 WRMS	2007 WRMS	2017 WRMS
175 gpcd	150 gpcd	135 gpcd
204,000 ac-ft	175,000 ac-ft	Appx 170,000 ac-ft

**ABCWUA Figures*

The Santolina Level B Plan recognizes the opportunity to utilize new development building standards and practices to achieve significant water savings

over time. The ABCWUA 2017 WRMS draft states that new construction is expected to use between 25 and 50 percent less water relative to existing residential properties. The report also states that the relatively recent Mesa del Sol residential development uses about 30% less water than the current residential average.

Additionally, the opportunity to potentially utilize water reclamation methodologies such as highly treated wastewater from the proposed onsite wastewater treatment facility in Santolina, could aid in the 'smart growth' aspects of the County ABCWUA to accommodate growth.

This Level B Plan will join the regional water conservation planning strategies that have produced significant benefits for the region including:

- Raising aquifer/groundwater levels
- Increased underground water storage levels (about one million acre-feet since the 1990's)
- Declining consumptive use projections (reduced from 204,000 acre-feet in 2060 as estimated in 1997 to 170,000 acre-feet in 2060 as estimated today)
- Reduced river depletions from groundwater pumping.

On a regional basis, Santolina will continue the conservation practices that have decreased urban (municipal and industrial) uses to approximately 9% of all statewide water usage. In comparison, agricultural uses account for approximately 50-60% of statewide water demand.

Climate change variability has also become a critical factor in the ABCWUA's analysis of future water supply. Current water resources planning is utilizing low, medium and high water demand projections to aid in taking into account the variability of climate change, population and other factors. In other words, the community's investment in renewable river water supply will benefit for years to come.

6.1.1 Serviceability Letter

In July 2014, the ABCWUA provided a letter of serviceability to the County indicating their

capability and capacity to serve the Santolina Level A Master Plan, provided normal approval processes were followed.

6.1.2 ABCWUA Development Agreement

WALH is pursuing a Development Agreement with the ABCWUA regarding water service. The key elements of this Development Agreement include:

- Development commitment that complies with ABCWUA existing guidelines, policies and current levels of service
- Residential, industrial and commercial water conservation provisions, guidelines and standards
- Infrastructure improvements, storage, water supply charges
- Timing, phasing, responsibilities and maintenance of water facilities.

The final Development Agreement’s terms and conditions will comply with the Santolina Level A approvals and the ABCWUA water system standards, guidelines and current Levels of Service (LOS).

6.1.3 Water System Planning

The proposed Santolina Level B Water System remains consistent with the system as proposed with the Level A Master Plan approval. In the Level A Master Plan and in this Level B Plan, a typical baseline service approach and standard level of service for the ABCWUA water system was presented. The service approach utilizes several key system design components to serve the Level B Plan. These components include:

- Water is supplied by extension of existing under-utilized ABCWUA water delivery systems from north of I-40 and the Level B Plan Area.
- Participation in new water supply acquisition by paying a Water Supply Charge. This charge funds the ABCWUA procurement of new water rights and other water supply initiatives
- Provision for the eventual implementation of reclaimed wastewater, made possible by

a new potential water reclamation (waste-water treatment) plant to provide water supply to appropriate land uses.

It is understood by all parties that the current planning of the Santolina Master Plan water system is conceptual only and has not yet been adopted by the ABCWUA.

6.1.4 Water Conservation Plan

Santolina is committed to water conservation. The Level B Plan proposes to comply with, support and cooperate with the ABCWUA’s 2024 Water Conservation Plan (July 2013). This plan proposes a 135 gpcd water usage rate for 2024. However, a per capita water usage of 135 gpcd has already been achieved. As part of the draft 2017 WRMS update process currently underway (updating the current 2007 WRMS), this 135 gpcd goal may be maintained as is for future planning for various strategic reasons. Santolina will participate with all initiatives and goals established by the WRMS update, when made available as applicable and as such initiatives are implemented across the full ABCWUA service area. Achievement of the 135 gpcd, or better, is dependent on application of the codes and policies currently in the ABCWUA service area, which have already achieved an outstanding 135 gpcd usage level.

Further, since 2010, the County has established stringent water conservation requirements for both commercial and residential land uses. The Water Conservation Ordinance requires all new construction in the County meet certain specifications that are designed to reduce water usage. These specifications are applicable to the Level C site development plan or subdivision level of planning and review. The specifications generally include the following requirements:

- Reduction of plumbing fixture water usage by 20% compared to 2006 Building Code
- For larger sites, submittal of a water conservation plan for outdoor uses
- Provide a landscaping plan identifying low-water use plants, no spray irrigation and Smart Irrigation Controllers
- For larger sites, high water use plantings are limited to 10% of the landscape area

- Use of EPA WaterSense fixtures in buildings and structures, or achieving Build Green New Mexico Bronze Certification (residential)
- Water harvesting approaches onsite
- Disclosure Statements, where applicable, that make purchasers aware of the water conservation requirements
- Water Conservation Plans for large and very large users
- Inspection of irrigated landscaping areas and irrigation systems.

- Trunk zones, representing the transfer of water in an east-west direction between reservoirs throughout the water pressure zones.

Santolina will require Developers and builders to comply with the County Water Conservation Ordinance and future updates, as applicable, implemented throughout the County.

The full build out of this Santolina Level B Plan Area spans elevations representing water pressure zones 5WR through 8W. These zones serve customers between elevations of 5,485 and 5,945 feet. Santolina is located primarily within the Atrisco Trunk, but also within the northern reaches of the Pajarito Trunk. The College Trunk, located north of I-40, has been designed and constructed to provide service to Zone 7W north of I-40. This trunk has excess capacity within its infrastructure to serve Santolina (Zones 5W-7W) for an extended time period.

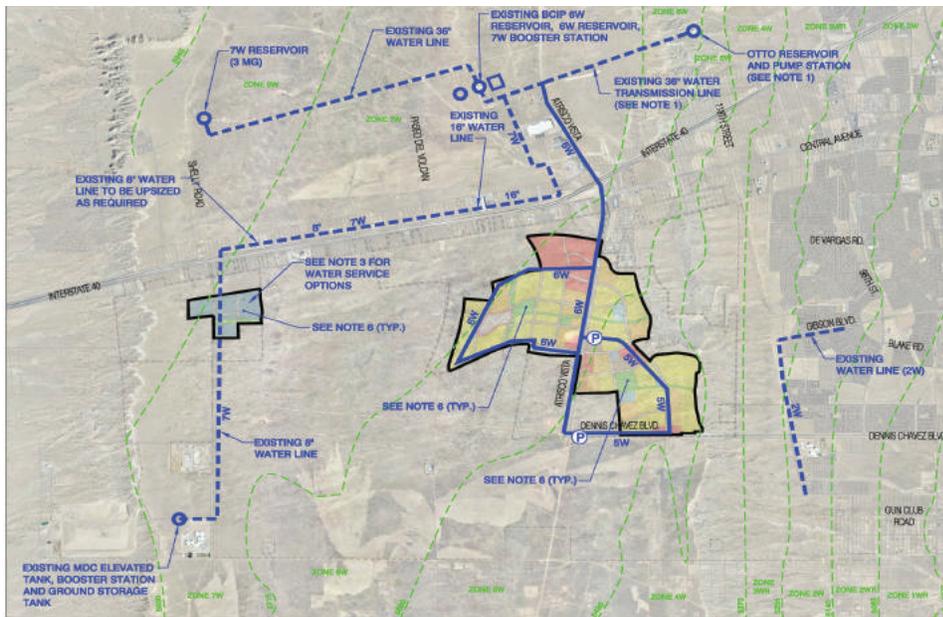
6.1.5 General Water System Elements and Groundwater

The groundwater depth within Santolina is approximately 700'-1000' below the ground surface. Water supply wells are not planned within the Santolina Level B Plan Area at this time. Aquifer recharge utilizing future Santolina treated effluent (reclaimed water) is also not contemplated at this time. Similar to most County and the City areas, water supply will generally come from outside the Level A Plan Area from existing sources.

The typical ABCWUA water system applicable to this Level B Plan is delineated into both:

- Pressure zones, representing ranges of acceptable service pressures based on ground elevations, and

Exhibit 15: Water System, 2025



NOTES:

1. THIS PLAN CONCEPTUALLY SHOWS WATER SUPPLY FROM EXISTING WATER FACILITIES IN THE COLLEGE TRUNK (NORTH OF I-40). THE FINAL WATER SUPPLY APPROACH WILL BE SUBJECT TO AGREEMENTS WITH ABCWUA.
2. THIS PLAN IS CONCEPTUAL ONLY. FINAL WATER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
3. ALL WATER LINE ALIGNMENTS ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
4. THE WESTERN PORTION OF THE INDUSTRIAL & ENERGY PARK LIES ABOVE WATER ZONE 7W. FINAL SERVICE CONFIGURATION SHALL BE BASED ON ACTUAL CIRCUMSTANCES AT THE TIME OF DEVELOPMENT. SERVICE OPTIONS INCLUDE INSTALLATION OF PRIVATE OR PUBLIC BOOSTER STATIONS; SITE GRADING; LAND USES WITH NO WATER USE, OR CONNECTION TO EXISTING LINE IN SHELLY ROAD.
5. INFRASTRUCTURE CAN BE PHASED TO CONFORM TO ACTUAL DEVELOPMENT.
6. LOCALIZED WATER DISTRIBUTION SYSTEM (WATER LINES, VALVES, HYDRANTS, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH AWCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A WATER LINE.

LEGEND

- (P) PRESSURE REDUCING VALVE
- SOLID BLUE LINE: PROPOSED WATER LINE
- DASHED BLUE LINE: EXISTING WATER LINE
- DOTTED BLUE LINE: FUTURE WATER LINE

Scale: 0 1000 2000 4000 feet

6.1.6 Proposed Water System Infrastructure

Santolina Level B planning has reviewed water service in two major phases:

1. The 2025 Phase is a development area that is anticipated to be constructed by 2025
2. Ultimate buildout of the Level B Plan, anticipated in 2040.

The 2025 and full buildout are illustrated on [Exhibit 15: Water System, 2025](#) and [Exhibit 16: Water System, Full Buildout](#). Both the proposed 2025 and 2040 Level B Plan Area water systems are conceptually proposed to be served by supply water from the College Trunk water system infrastructure existing on the north side of I-40. The proposed system includes the following major infrastructure: Zone 6W and 7W water transmission line crossings of I-40, with appropriate pressure reducing valves and water transmission lines.

As depicted on the [Exhibit 17: ABCWUA West Side Water System Trunk Zones](#) the Santolina Level B Plan Area water supply would be conveyed from the appropriate College Trunk facilities southward to the Atrisco Trunk Zone 6W, 7W and 8W water

distribution systems in the Level B Plan Area and to Zone 5W via pressure reducing valves. Water storage at the Otto Reservoir, BCIP and the 7W Reservoir tanks, enhanced as needed to fit the development pace, would then serve the Santolina Level B 2025 and 2040 development.

A small upper portion of the Santolina Level B Plan Area in the Industrial and Energy Park, lying in Zone 8W west of Shelly Road, is preliminarily planned (perhaps beyond 2025) to be served by line extension from the College Trunk elevated 8W reservoir. However, under the 2025 Phase conditions, temporary alternatives for water service to the 8W zone may be allowed.

The proposed Santolina Level B water system, as previously described, is conceptual in nature at this time and subject to change as development occurs in the Level B Plan Area, or as the ABCWUA reviews the water system Master Plans presented herein. As stated previously, the update to the WRMS and the subsequent ABCWUA Santolina Development Agreement, may produce water system changes in the future. Further Water Master planning identifying design parameters, infrastructure, timing, phasing and maintenance responsibility is anticipated but subject to ABCWUA guidance, review and approval of service requirements and agreements.

Exhibit 16: Water System, Full Build

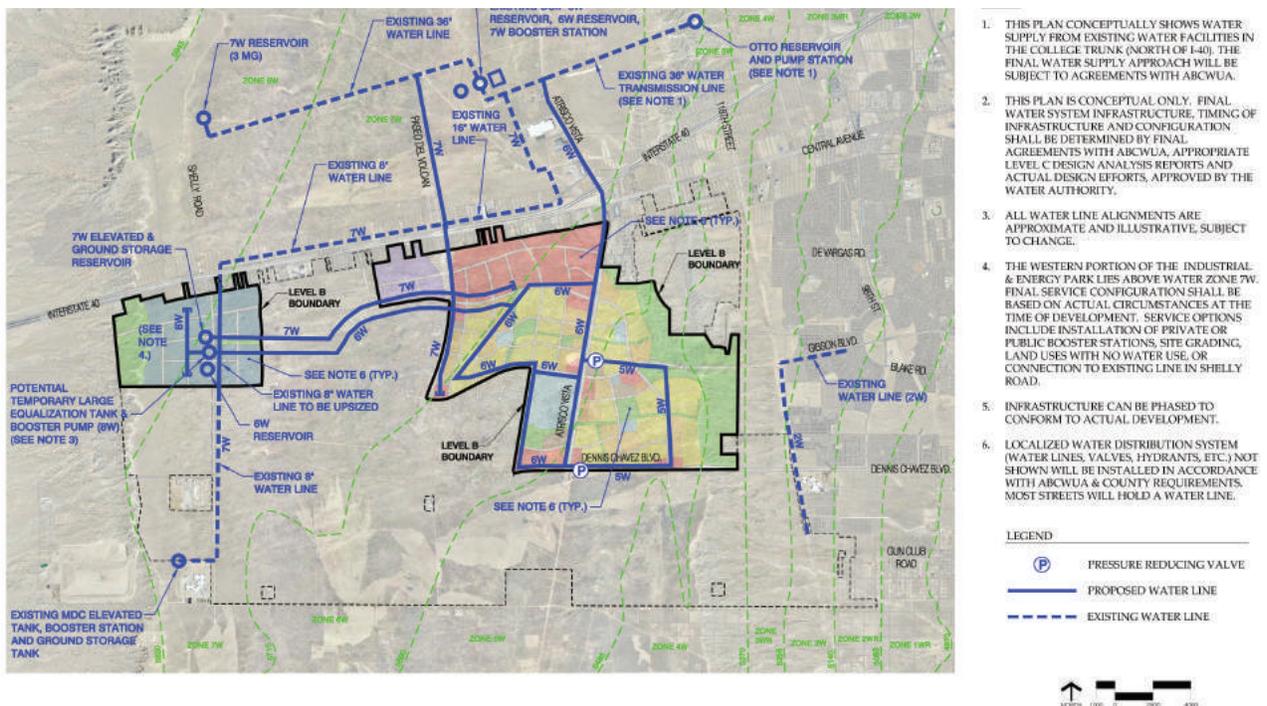
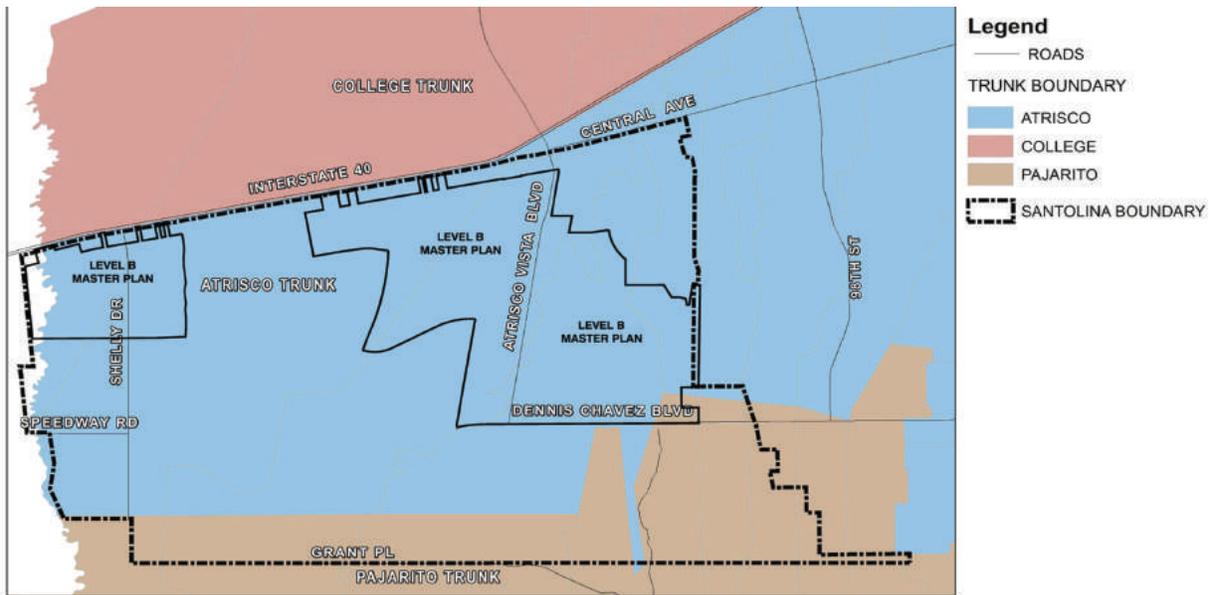


Exhibit 17: ABCWUA West Side Water system Trunk Zones



6.1.7 Projected Water Demand

Utilizing ‘average day’ water demand methodologies from the revised Santolina Level A report, which assumes a current per capita water demand at 135 gallons per capita day (gpcd) and Level B 2025 and 2040 populations, the Santolina Level B Plan projects that ‘average day’ water demand (water usage) will be approximately 2,252 acre-feet annually in 2025 and 3,188 acre-feet annually in 2040. For comparison, in 2015, the ABCWUA provided roughly 110,000 acre-feet to over 600,000 total customers. Accordingly, comparing the 2040 projected water use within the Santolina Level B Plan to the 2015 ABCWUA water service area, it is noted that Santolina Level B Plan projected water usage is but a small fraction of the total usage in the service area.

A large portion of the overall Santolina water demand, perhaps 50-60% of all water used, is expected to be provided to employment generating businesses, industries and institutions.

The Santolina water demand reflects the total water demand by land use. However, it is anticipated that reclaimed (reuse) water may be available to the Santolina Level B Plan Area, either by extension of existing ABCWUA reuse facilities or by the construction of a new potential water reclamation plant. If reclaimed/reuse water becomes available, the portion of the above referenced water demand that is supplied from wells/aquifer or river sources may be reduced by 50% or more. Instead of taking

water from natural water supply sources, reclaimed water would simply be recycled for use as new supply within the Santolina Level B Plan Area.

The ABCWUA also has an administrative policy requiring new planned development, on an individual dwelling unit basis, be designed for a residential unit demand of 180 gallons per day per dwelling unit maximum.

The water and sewer systems herein described will be owned and operated by an independent water utility, anticipated to be the ABCWUA. Accordingly, all of the water Master Plan elements of the above described system are subject to change, as negotiations and design criteria are established.

6.2 SANITARY SEWER

Santolina Level B Plan is located within the operational area of the ABCWUA, but outside the currently adopted service area. Santolina anticipates receiving service from the ABCWUA for sanitary sewer collection and treatment, subject to the Level A Development Agreement, additional system infrastructure studies and appropriate Water Board approvals. Accordingly, the conceptual sanitary sewer system planning is subject to ABCWUA service requirements and agreements, which identify overarching sewer system concepts, specific design parameters, phasing (timing) and construction details.

6.2.1 Serviceability Letter

A serviceability letter, dated July 29, 2014, has been provided by the ABCWUA regarding sanitary sewer service to Santolina. The letter states that sanitary sewer service is available and identifies the necessary procedural steps.

6.2.2 ABCWUA Development Agreement

WALH is pursuing a Level A Development Agreement with the ABCWUA regarding sanitary sewer service. The key elements of this Development Agreement may include the following:

- Development commitments that comply with ABCWUA existing guidelines and policies as amended from time to time
- Address residential, industrial and commercial water conservation provisions, guidelines and standards
- Address major infrastructure improvements
- Address timing, responsibilities and maintenance of water facilities
- Infrastructure phasing plans consistent with ABCWUA policies and the Santolina Level A Master Plan approval conditions.

The Level A Development Agreement may be impacted by the current ABCWUA public hearing process to update the 2007 Water Resources Management Strategy (WRMS). While the update will address many aspects of water and sanitary sewer planning in the overall ABCWUA service area, it is anticipated the strategy will specifically address key overall water resource strategies that may impact Santolina sewer service, including:

- Alternative water supply and storage strategies
- Water reclamation and reuse strategies
- Water conservation goals and related strategies.
- These resource strategies will help guide the preparation of the above described Level A Development Agreement.

6.2.3 Existing Conditions

This Level B Plan Area, currently, is mostly undeveloped land. Therefore, no operational public or private sanitary sewer systems or utility districts are in place. However, there are several wastewater systems in close proximity to the Level B Plan Area.

- The Tierra West residential community, located at Atrisco Vista Boulevard and Central Avenue is served by a 15-inch ABCWUA wastewater line. The line extends to Atrisco Vista Boulevard, then across I-40 to serve Cordero Mesa Business Park and surrounding lands. Downstream of Atrisco Vista Boulevard, this existing sewer line connects to a newly constructed (by WALH) sewer interceptor along the alignment of 118th Street.
- A 10-15 inch ABCWUA wastewater line is located along Dennis Chavez Boulevard to Atrisco Vista Boulevard. This line provides service to the recently completed Atrisco Heritage High School, but is extended westward beyond the high school.

6.2.4 Proposed Sanitary Sewer (Wastewater) Master Plan

The overall Santolina Level B sanitary sewer master plan has envisioned serving Santolina with the following overarching concepts:

- Initial use of existing ABCWUA sewer collection (sewer lines) systems in the vicinity
- Eventual shift to sewer collection systems that discharge to a new Water Reclamation Plant within the Santolina Level B Plan Area, except where site physical constraints prevent reasonable efforts to achieve such a shift
- Treat and reclaim sewage for reuse purposes inside and outside the Level B Plan Area
- Use reclaimed sewer flows for appropriate land uses, primarily on the mesa top lands south and north of I-40

- Comply with the updated ABCWUA Water Resources Management Strategy document.

The sanitary sewer 2025 and Full Buildout Master Plans are illustrated on [Exhibit 18: Sanitary Sewer, 2025](#) and [Exhibit 19: Sanitary Sewer, Full Build](#).

This Level B Plan Area may be serviced from two existing, adjacent ABCWUA sewer systems and from a proposed future Water Reclamation Plant in the following manner:

- Much of the Level B Plan Area sewers south and east toward the Dennis Chavez Boulevard/Atrisco Vista Boulevard intersection. At this location, flows can be directed to an existing interceptor (with enhanced capacity as needed) in Dennis Chavez Boulevard on a temporary basis, as approved by the ABCWUA, or to a potential future satellite Water Reclamation plant in the southern portion of the Santolina Level A Plan Area. A Water Reclamation Plant is the term used for a facility that treats raw sewage from the sewer system. Depending on system goals, the sewage treatment levels can be adjusted to fit various methods of discharge, i.e., to parks, river, storage ponds, etc.
- A small area of Level B Plan Area lying east of Atrisco Vista Boulevard, south of the Tierra West residential community, below the mesa top and escarpment drains south and east into the existing ABCWUA sanitary sewer system.

As stated previously, this preliminary conceptual planning may be modified by coming agreements and planning efforts with the ABCWUA.

6.2.5 System Phasing

The Santolina Level B Plan envisions residential development of Santolina generally moving in a south, west, southwest and southeast direction, from roughly the Atrisco Vista Boulevard and Central Avenue intersection.

The Industrial Park and the Business Park are both identified as being first developed on their

northerly and easterly portions, that is, these parks begin development at points that are nearest the existing sewer systems.

The timing of construction of the Water Reclamation Plant and related infrastructure must correspond to the proposed policies of the WRMS policy document. Usage of the reclaimed (waste) water from this plant must be identified prior to installation of the plant.

6.2.6 Projected Sewer Flows

Sewer flow rates are generally established as a percentage of the water demand. This is often about 70% of the water demand since some water is lost permanently (consumed) at homes, apartments, parks and businesses. As reported in the Water section, Level B 2025 and 2040 'average day' water demand (water usage) will be approximately 2,252 acre-feet annually in 2025 and 3,188 acre-feet annually in 2040. Converting these rates to a more standard sewer flow unit means that years 2025 and 2040 will generate approximately 2 mgd and 2.8 mgd, respectively. Level B sanitary sewer infrastructure systems will be sized to accommodate the actual rate of sewer flow.

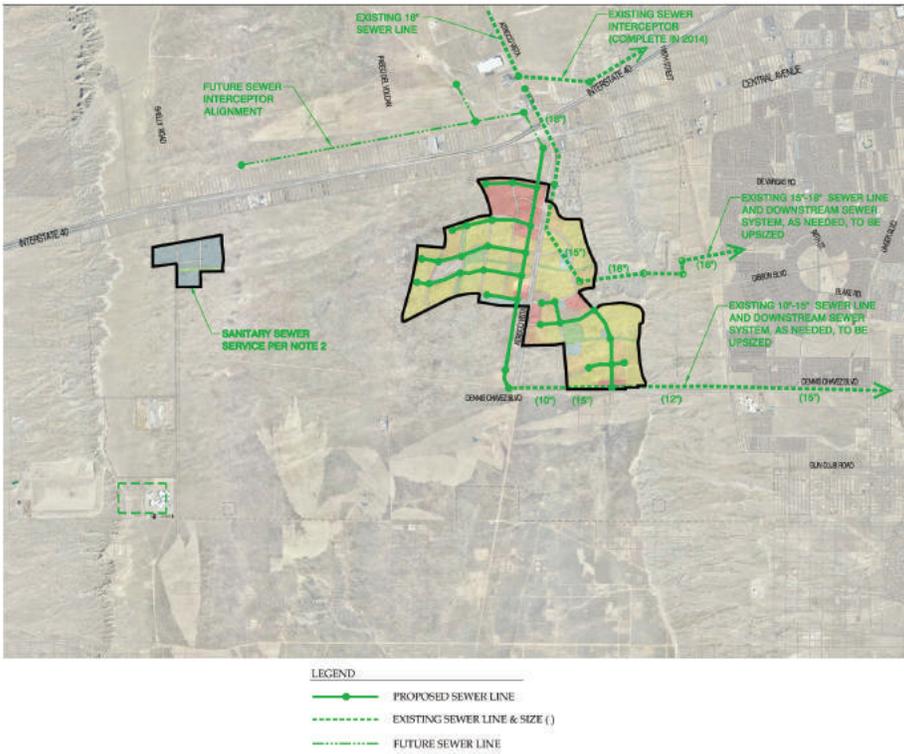
The described sewer flows reflect the total unadjusted sewer flows. However, it is anticipated that reclaimed (reuse) water may be available to the Santolina Level B Plan Area, either by extension of existing ABCWUA reuse facilities or by the construction of a new local Water Reclamation plant. If reclaimed/reuse water becomes available, the portion of the above water demand that is supplied from wells/aquifer or river sources will be reduced, perhaps by 50% or more. Instead, reclaimed water would be recycled within the Santolina Level B Plan Area until more fully consumed.

6.3 DRY UTILITIES

The Level B Plan Area will be served by 'dry utilities', including electric, gas, cable and telecommunications utility systems. [Exhibit 20: Dry Utilities Plan](#) shows the location of existing and proposed dry utility infrastructure at a schematic level.

When possible, the dry utilities will generally share utility corridors with other non-dry utilities such as water and wastewater lines. Santolina anticipates that most major dry utility corridors will be within

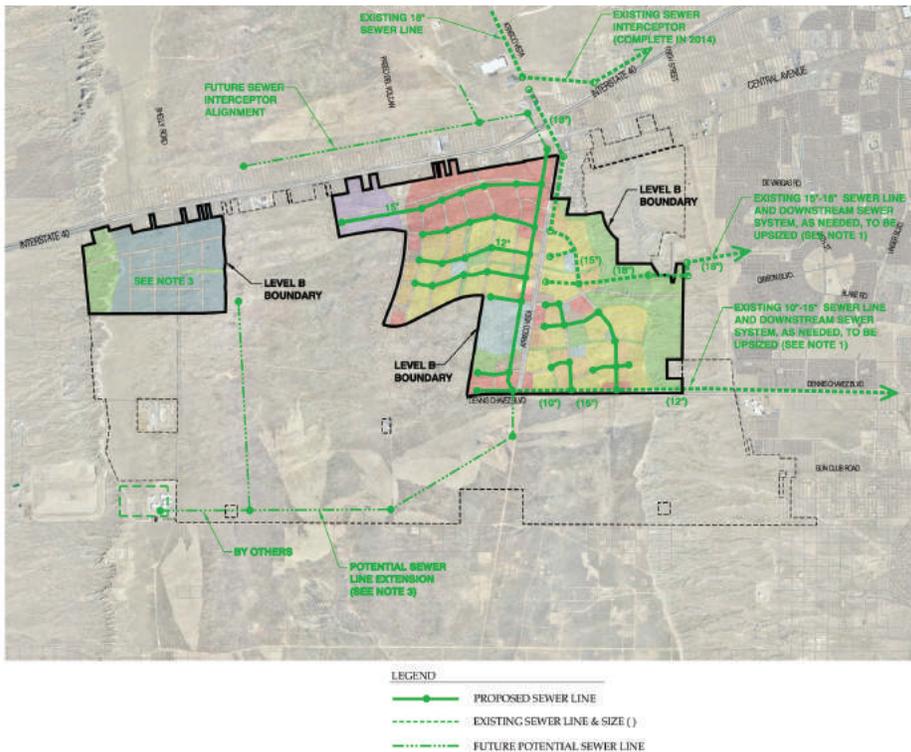
Exhibit 18: Sanitary Sewer, 2025



- NOTES**
1. THIS PLAN IS CONCEPTUAL ONLY. FINAL SEWER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
 2. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
 3. PRIOR TO EXTENSION OF PUBLIC SEWER LINES, THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE: (A) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK) (B) ONSITE TREATMENT & DISPOSAL SYSTEMS. SEE ALSO NOTE 1.
 4. LOCALIZED SANITARY SEWER DISTRIBUTION SYSTEM (SANITARY LINES, MANHOLES, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A SEWER LINE.

EXHIBIT 18: SANITARY SEWER 2025

Exhibit 19: Sanitary Sewer, Full Build



- NOTES**
1. THIS PLAN IS CONCEPTUAL ONLY. FINAL SEWER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
 2. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
 3. PRIOR TO EXTENSION OF PUBLIC SEWER LINES, THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE: (A) CONSTRUCTION OF POTENTIAL SEWER INTERCEPTOR (NEAR SOUTH & WEST BOUNDARY) (B) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK) (C) ONSITE TREATMENT & DISPOSAL SYSTEMS. SEE ALSO NOTE 1.
 4. LOCALIZED SANITARY SEWER DISTRIBUTION SYSTEM (SANITARY LINES, MANHOLES, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A SEWER LINE.

EXHIBIT 19: SANITARY SEWER FULL BUILD

load centers. New transmission lines will require a minimum 75-foot easement or right-of-way corridor. Distribution substation sites will typically occupy parcels of land approximately 1 to 2 acres in size. Transmission-related stations will typically require 5 to 10 acre sites. The station easement or site requires access to a public ROW. This location will be the terminus of a transmission line and therefore will have one incoming and one outgoing line to another substation.

The location of transmission related station(s) and the routing of transmission lines needed to support development will be determined by PNM®, based on Santolina's buildout load requirements along with additional substations brought online.

The PNM® distribution system is built and operated as an interconnected system. The distribution lines of adjacent substations are interconnected to accommodate transferring load between substations.

The electric distribution system will feed out of the substations tying the electric users to the substations. Any 12.47kV or 7.2kV underground facilities, where feasible, will be placed in a joint trench with other dry utilities such as natural gas, telecommunications and cable/internet services.

The existing distribution line within Santolina has limited remaining capacity and will require upgrades to support near-term commercial growth. Further electric services will have to be brought to Santolina to continue with the buildout. The main distribution system requires the following easements for the following typical system facilities:

- Distribution Feeder – Located within a utility easement. PNM® will seek an additional easement behind the right-of-way to secure installation. Distribution lines require a minimum of 10 feet for an easement
- Switch Cabinets – Located within utility easement. Each cabinet is approximately 7' x 7' x 4' and requires at least a 23' x 13' easement or clear space for access to the doors
- Transformer – Located within easement determined by transformer size. Transformers are typically installed on the front

lot line of a given property and require easements for access and feed.

Future Level B and C Plans must be coordinated with PNM® to ensure appropriate electric distribution system planning.

6.3.2 Gas

The New Mexico Gas Company (NMGCO) is the local gas distribution utility company that will serve the Santolina Level B Plan. Currently there is an existing 20" transmission gas line (600-900psi) that runs fully across Santolina from east to west, along the Dennis Chavez Boulevard alignment. There are two existing 'border stations' adjacent to the 20" transmission gas line located near 118th Street and near Shelly Road. An existing 16" very high pressure (VHP) gas line (175psi) runs west along Central Avenue to Atrisco Vista Boulevard and turns south for approximately 2,500 feet before terminating. The existing lines are in good condition with significant cathodic protection maintained throughout the length of the line.

Currently, there are no long range NMGCO plans for the infrastructure system this area.

With the ultimate development of Santolina, conceptual level planning indicates a looped pipe system of 8-12" gas lines will be required. This looped system will tie into the existing 20" VHP gas lines at the border station near Shelly Road as well as a possible future gas border station located near Atrisco Vista Boulevard. This loop system will also tie into the existing 16" VHP gas line near Central Avenue.

Border stations shall be utilized to reduce pressures from the 20" gas transmission line of 600-900psi to HP gas lines i.e., looped system lines of 17 psi. Regulator stations will be utilized to reduce the VHP gas line to a distribution line sized for 60psi.

6.3.3 Telecommunications

Both CenturyLink™ (Qwest) and XFINITY® (Comcast) provide telecommunication services (such as television, internet and voice) in this area.

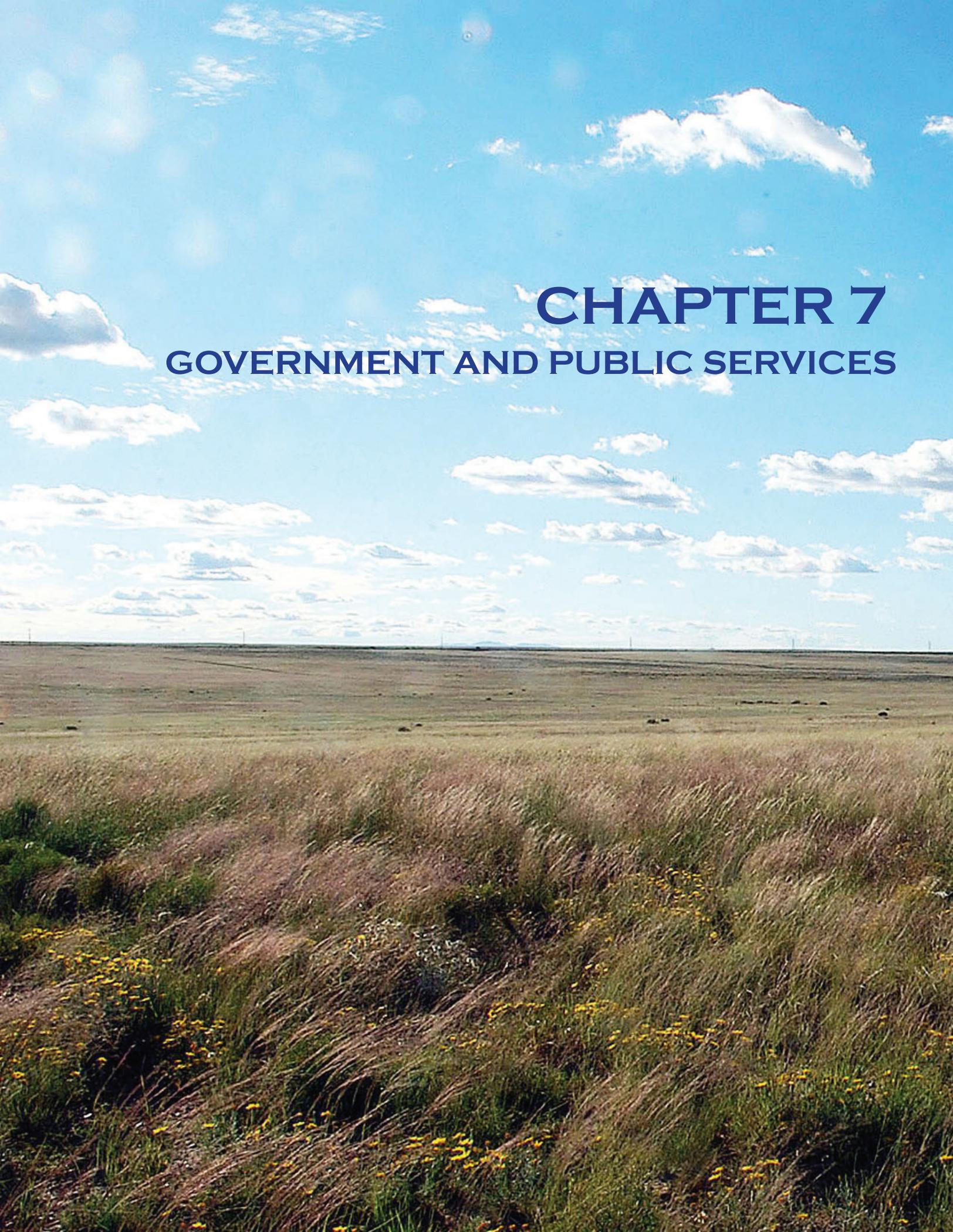
The current municipal western limit for CenturyLink's West Central Office is 118th Street. However, this boundary is likely to be expanded as demand

increases. The Santolina Level B Plan currently falls under two existing district offices. The Southwest Central Office oversees jurisdiction of all territory approximately south of Dennis Chavez Boulevard while the West Central Office oversees the territory approximately north of Dennis Chavez Boulevard. All existing customers outside the current municipal limit are currently served by these two district offices.

Telecommunication services will extend from the east to new F-1 sites and will be placed underground throughout all Residential Villages. Telecommunication lines may also piggyback on overhead electric power poles wherever this installation is proposed.

XFINITY® may extend fiber optic service westward from the Dennis Chavez Boulevard and 118th Street intersection for the southeast Level A Master Plan Area and from 140th Street and Central Avenue for the northeast Level A Master Plan Area. XFINITY® would follow PNM® Electric where possible and most likely locate services underground within a public utility easement or public right-of-way. As with others, telecommunication lines may piggy back on the overhead electric power poles where proposed. XFINITY® will require a 10' x 10' easement located next to typical PNM® switchgears. XFINITY® assumes installation costs (exclusive of underground trenching) assuming an acceptable 60 months buyback credit is determined.





CHAPTER 7

GOVERNMENT AND PUBLIC SERVICES

7.1 OVERVIEW

This chapter discusses planning and design considerations related to public facilities proposed within this Level B Plan Area. These facilities include police, fire, solid waste, recycling, transportation and schools. An objective of the County’s PCC is to ensure that a planned community is developed in a manner that is self-sufficient and sustainable. The Santolina Level A Master Plan is designed as a community for future residents to live, work, educate and play. Santolina is also designed to ensure that infrastructure is developed as an integral part of the community by appropriately planning for services to meet the needs of residents throughout the community’s development. Community facilities ensure that residents can utilize and benefit from these forms of infrastructure that are critical to the creation of a comprehensive community. For example, the plan includes a large, mixed-use Urban Center that will house a variety of land uses, with a focus on education elements, both primary and secondary.

7.1.1 No Net Expense

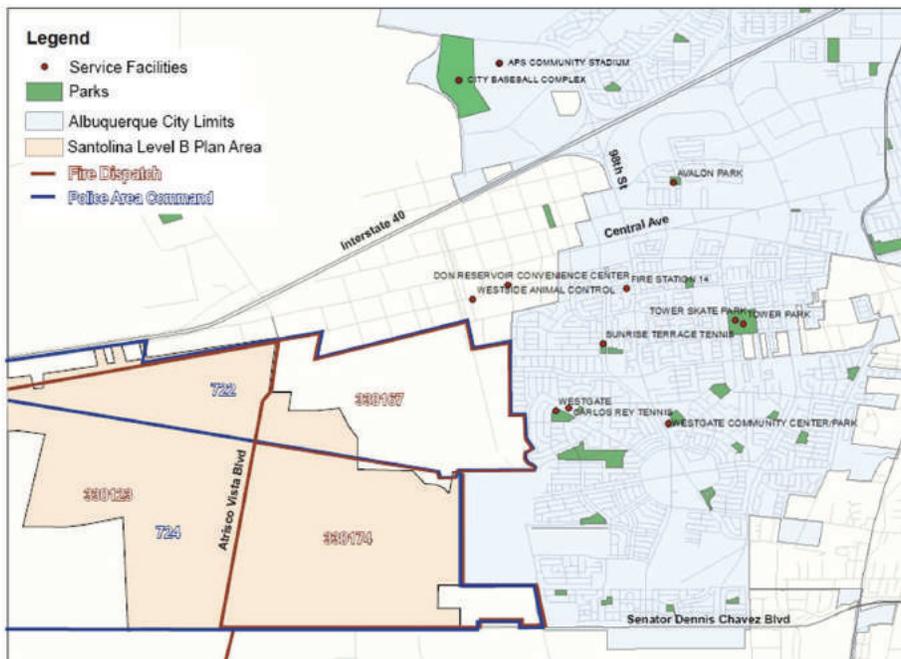
The capital and operating costs for community facilities are addressed within the context of the “no net expense” requirements of the PCC. The Comprehensive Plan provides that planned communities shall not be a net expense to the County. Per the

Development Agreement, the “no net expense” policy is a mutual commitment to achieve the goal of a responsible balance of infrastructure costs, including construction, operation and maintenance, shared between the public and private sectors. The “no net expense” test is satisfied if the County’s on-site public expenditures and off-site public expenditures reasonably allocated to Santolina have been, or will be, offset by revenues and/or economic and fiscal benefits (direct, indirect and induced) from Santolina.

7.2 POLICE FACILITIES

Santolina’s first sheriff substation is planned to serve the three Residential Villages, (Village Verde, Village Oro and Village Amarillo), located within the Level B Plan Area. The sheriff substation is located just outside and to the southeast of the Village Center as shown on Exhibit 21: Service Facilities and Dispatch Boundaries. Acknowledging the importance of the co-location of facilities, a fire station is located adjacent to and within the Village Center. WALH will work with the Bernalillo County Sheriff Department on the phasing and planning of future locations for police service within the remainder of the Level B Plan Area. Timing, along with capital and operating costs associated with the provision of police services will be established as part of this and subsequent Level B Development Agreements

Exhibit 21: Service Facilities and Dispatch Boundaries



between the County and WALH. The location of the sheriff station is proposed to serve the first phase of residential village development. Specifically, this Level B Plan plans for full buildout of Village Verde and partial development of Village Oro and Village Amarillo. Therefore, the location of the first sheriff substation has been strategically located within Village Verde.

The 4.7 acre land parcel reserved within this Level B Plan allocated for the police substation is located along the proposed loop road and between two major arterial roads, Gibson Boulevard and Dennis Chavez Boulevard. It is understood that the service area for the police substation will extend beyond the boundaries of Santolina. Per the approved Development Agreement, the County will provide public services to the project consistent with the level of service provided to the remainder of the unincorporated areas of the County. The requirements for public services within the project will comply with the Master Plan and the applicable level(s)-of-service in the remainder of the unincorporated areas of the County and pursuant to County policies applied in a non-discriminatory manner.

7.3 FIRE PROTECTION

A Bernalillo County fire station is planned within the Level B Plan along Gibson Boulevard. Placement of the station along a major roadway provides high accessibility within the respective service area. As outlined in Chapter 2: Land Use, this Level B Plan includes complete buildout of Village Verde and partial development of Village Amarillo and Village Oro. As a result, the fire station has been strategically located within Village Verde. The 6.1 acre site has been approximately sized and located as a community focal point within the Village Verde Village Center. Consistent with the vision for the Level B Plan police station, this Level B Plan fire station is located in proximity to the mixed-use Village Center and the co-location of other government facilities. Additional potential substation locations will be identified in subsequent Level B and C Plan submittals.

This Level B Plan fire station along with future stations will provide emergency services to other areas of the County as necessary. Costs associated with the provision of fire service for this Level B Plan will be established as part of this and subsequent Level B Development Agreements between



the County and WALH. Primary access for fire apparatus will be provided along streets within the Level B Plan Area. Pursuant to the International Fire Code, the streets within Santolina will serve as fire apparatus access roads. As such, roads within this Level B Plan Area shall extend within 150 feet of all portions of all buildings or facilities and all portions of the exterior walls of the first story of buildings, as measured by an approved route around the entire building. Buildings (or portions thereof) located at distances greater than 150 feet shall be designed with an approved turning radius for fire apparatus, otherwise approved fire sprinkler systems will be installed in subject building.

7.4 SOLID WASTE AND RECYCLING

Solid waste collection in the County is contracted with Waste Management, Inc. The contract includes residential and commercial solid waste collection at individual properties, transfer and disposal of solid waste. Additionally, services include community cleanups, customer service, billing, education, source reduction and recycling programs. WALH will work with Waste Management, Inc. to extend service to the entire Santolina Level A Master Plan Area, including this Level B Plan Area. WALH will also work with the County Manager to establish policies and procedures for the billing and collection of service fees along with the need, location and operation of additional facilities required to recover material from solid waste to achieve resource recovery or the benefit management of solid waste within Santolina.

Per Chapter 70, Article II of the Bernalillo County Code of Ordinances, the Board is responsible for designating areas of the County for phased-in service by mandatory solid waste collection services. Services may include roadside collection,

area solid waste collection or the collection procedures deemed appropriate by the County Manager for residential collection. The Board may also include commercial business in the mandatory collection system.

7.5 TRANSPORTATION SERVICES

One of the underlying principles that forms the Santolina design process is a systems approach to planning with the goal of creating a more sustainable community. Each land use within the Level B Plan has been designed in context to a road network that can be accessed by multi-model transportation options. The intent of this goal is to create a community in which social, civic, education and recreational needs are physically connected. This creates an environment which in turn provides for social connections and a high quality of life.

Santolina and this Level B Plan benefit from the community's existing road network as well as proposed regional roadways. The roadway network within this Level B Plan Area has been designed and modeled to tie into and enhance the regional network with multi-model accommodations. The multi-model accommodations provide adequate space for public transit, bicycles and pedestrians along with vehicular movement. A new loop road forms the key structure of the Level A Master Plan. This loop road moves through the center of this Level B Plan and provides internal circulation to subsequent portions of the Level A Master Plan. Minor arterials and collector roadways branch off the loop road within this Level B Plan to create local access within each Level B Plan Residential Village. These roadways will also include bicycle and pedestrian facilities within the roadway designs.

This Level B Plan provides a community wide pedestrian system of roadside and off-road trails designed to connect the Residential Villages with amenities, commercial, job centers and parks. Similar to the pedestrian trails system, the Level B Plan bikeway network will provide a community wide system of on-street, roadside and off-road trails. The bicycle network conforms to, and will integrate with, the MRCOG Long Range Bikeways System Map. The pedestrian and bicycle trails provide extensive opportunities for recreation and commuter uses. The trails system also considers and incorporates the location of bus stops to be within reasonable walking distance of residences. Short walks and

convenient bus stop locations within the community will encourage bus transit ridership.

This Level B Plan includes two types of open space. The first is the escarpment open space. The escarpment open space areas are typically undisturbed steep slope areas as well as multi-use trail and roadway/utility corridors linking the mesa top development to the surrounding vicinity. The second type of open space includes parks and internal open space typically located within the mesa devel-



opment areas. As illustrated on the Level B Land Use Plan, trail connections are provided from the parks and internal open space to the escarpment open space. This design approach links the community and provides opportunities for access through the community by alternative, non-motorized modes of transportation. Additionally, the trails will serve as recreational destinations by providing jogging, walking and bicycling opportunities.

7.6 SCHOOLS

Educational centers are the anchor of this Level B Plan Urban Center. The Residential Villages and Village Centers have been organized with a focus toward a Kindergarten through 12th Grade proposed Albuquerque Public School (APS) facility and a proposed CNM community college campus. Along with the APS Kindergarten through 12th Grade campus, the Land Use Plan also includes three additional elementary schools within the Level B Plan Area. One school is located within each of the three Residential Villages within this Level B Plan. These schools will serve the projected population of this Level B Plan. Additional school sites shall

be identified and scheduled to meet school and community education needs during the design and approval of subsequent Level B and Level C Plans.

The education land allocation within this Level B Plan is approximately 221.2 acres as follows:

- Three APS Elementary Schools - 43.3 acres
- K-12 APS Campus – 91.3 acres
- CNM Campus – 86.6 acres

The allocation of land dedicated to education facilities within this Level B Plan is consistent with the school projects outlined within the Level A Master Plan.

Conscious of how demand for classrooms on the West Side has resulted in classroom overflow, enrollment anxiety and less than optimal learning conditions, WALH is in discussion with APS and CNM to address needs. Schools within this Level B Plan will be designed to reflect the overall design philosophy of Santolina, neighborhood scaled campuses connected to the surrounding neighborhood via a strong network of roadways and bicycle and pedestrian trails. The three elementary schools within this Level B Plan are approximately 14 acres each. Subject to funding, APS has indicated a willingness to work with WALH to meet the anticipated education facility needs within Santolina. APS understands WALH's desire for the construction of permanent facilities rather than the use of mobile classrooms. Any Developer contributions will be negotiated as part of an overall agreement between APS and WALH. Such agreement will reflect APS's level of participation within Santolina.

7.7 EXISTING SERVICES

This Level B Plan is the first phase of the Santolina Level A Master Plan community. As such, it is important to recognize County and City of Albuquerque facilities that currently exist in close proximity to the boundary of the Level A Master Plan Area. Initial development within this Level B Plan will utilize these existing public facilities.

7.7.1 Existing Police Facilities/Service

The City of Albuquerque Southwest Area Command 134 currently provides service to property east of



this Level B Plan Area, just beyond Unser Boulevard and north of Dennis Chavez Boulevard. Area Command 134 will serve residences, commercial and employment centers within this Level B Plan Area. The closest substation to the Level B Plan is located on Las Volcanes Road, west of Coors Boulevard and south of I-40. This substation is approximately seven miles from the proposed sheriff substation proposed within this Level B Plan. This Level B Plan Area is included within the existing County sheriff dispatch for 724 and 722 Command Areas. The nearest existing County sheriff substation is located on Isleta Boulevard, east of Coors Boulevard. This existing County substation is approximately 12 miles from the proposed sheriff substation with the Level B Plan.

7.7.2 Existing Fire Stations/Service

City Fire Station 14 is located on Eucariz Avenue, south of Central Avenue and west of 98th Street. This station could provide service to the residences and commercial/employment centers within this Level B Plan. Fire Station 14 is located slightly more than two miles from the eastern boundary of this Level B Plan. Fire Station 14 is approximately nine miles from the proposed fire station within this Level B Plan. The County Fire Station 33 is located north of Dennis Chavez Boulevard and west of Coors Boulevard. This station is approximately five miles from the proposed fire station location with this Level B Plan. This Level B Plan Area is within existing County Fire Dispatch Areas 330123, 330167 and 330174.

7.7.3 Existing Trails

De Vargas Trail is a paved, multi-use trail restricted to non-vehicular traffic located along De Vargas Road, East of 114th Street. This trail can be extended to the boundary of Santolina to accommodate bicycle and pedestrian access to and from Santolina.

Coordination with the County may facilitate the extension of existing bicycle lanes along Gibson Boulevard and 118th Street, to the boundary of Santolina.

An existing bicycle facility is located along Dennis Chavez Boulevard. It extends to the boundary of Santolina. This bicycle facility extends west along Dennis Chavez Boulevard, north along Atrisco Vista Boulevard and east along Central Avenue. It is owned and maintained by NMDOT.

7.7.4 Existing Bus Facilities

ABQ Ride Bus Route 198 currently runs north/south along 98th Street, then loops around Dennis Chavez Boulevard, 118th Street and Amole Mesa. The extension of this bus route into this Level B Plan Area is feasible.

7.7.5 Existing Park Facilities

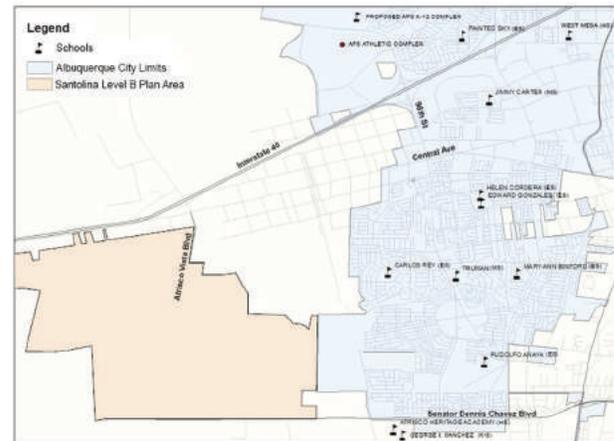
There are a number of public community facilities located in close vicinity east of this Level B Plan. These facilities include the Carlos Rey Community Park and Tennis Courts located along Cerrillos Road as well as the Sunset Terrace Tennis Courts located on 102nd street.

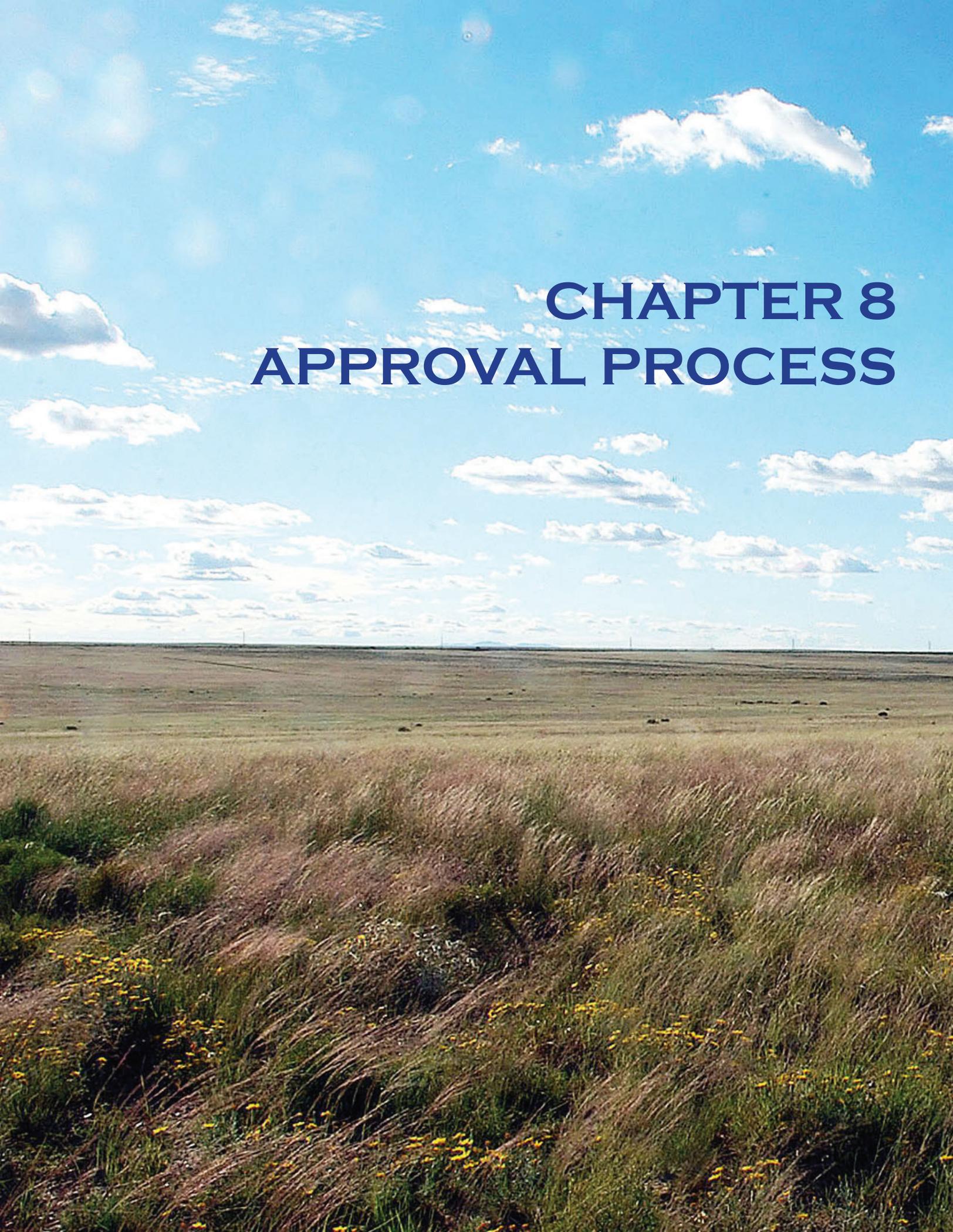
7.7.6 Existing Schools

Two APS elementary schools are located within close proximity of this Level B Plan. Carlos Rey Elementary School is located approximately one mile east of the Level B Plan Area on Cerrillos Road, west of 98th Street. The second elementary school, Rudolfo Anaya Elementary School, is located approximately two miles from the Level B Plan Area boundary on Vermejo Park Drive, east of 98th Street as shown on Exhibit 22: Existing Public School Locations.

Additional APS facilities located in close vicinity include Atrisco Heritage Academy High School and George I. Sanchez K-8 School. Both facilities are located approximately one-half mile east of the Level B Plan Area boundary, just south of Dennis Chavez Boulevard. Jimmy Carter Middle School is located along Bluewater Road, east of 98th Street. These existing APS facilities can temporarily accommodate the initial residential development within the Level B Plan until the APS facilities within the Level B Plan are constructed and open for enrollment.

Exhibit 22: Existing Public School Locations





CHAPTER 8

APPROVAL PROCESS

8.1 OVERVIEW

This Level B Plan is the first Level B Plan to follow approval of the Santolina Level A Master Plan. This Level B Plan regulates development within the defined boundaries of this Level B Plan Area that encompasses approximately 4,243 acres. This Plan is consistent with and supportive of the goals and policies of the Santolina Level A Master Plan, the PCC, the Albuquerque/Bernalillo County Comprehensive Plan, the Santolina PC Zoning, Land Use Plan and Development Agreement.

In the Level B Plan, as required by the PCC, land use districts of the Level A Master Plan have been further defined and design standards are codified for all development within those districts. More general development characteristics are also defined and describe provisions for transportation, drainage, open space, parks, trails and public facilities.

8.1.1 Application of Development Standards

The use, building, and lot standards provide general guidance to assist Applicants, neighborhoods, and County development reviewers. However, it is not the intent of these regulations to limit design creativity or ignore unusual site conditions. As such, the following two levels of modifications to the Level B Plan are allowed:

1. Minor: The Planning Director or his/her designee may approve deviations from non-dimensional standards, or 25% or less from any dimensional standard.
2. Major: Any deviation over 25% from any dimensional standard and deviations to non-dimensional standards deemed to require review shall be reviewed by the County Planning Commission (CPC) via the Level C (subdivision or site development plan) approval process.

Criteria/Process: In order for the Planning Director or the CPC to grant a Deviation, the Applicant must demonstrate that the applicable intent, goals and policies of the Santolina Level B Plan are still met and that the project is of a comparable quality and design, as otherwise required by the Level B Plan, and will enhance the area. In addition, the

Applicant must also demonstrate at least one of the following:

The site is unique in terms of physical characteristics and requires the deviation in order to be developed. This may include, but is not limited to slope, drainage, safety issues or site constraints. The site/project will provide for a compatible use that was not anticipated in the plan and provides a needed service or use for the community. The design of the site/project respects the intent of the plan and implements the plan in a manner that was not anticipated.

Applicants must provide written statement detailing how the deviations meet the intent of the plan.

All Applicants seeking deviations shall attend a Pre-Application Meeting with County staff before submitting the request for deviation.

8.1.2 Approval of the Level B Plan

The authority to approve this Level B Plan is reserved to Bernalillo County Commission.

8.2 DEVELOPMENT PHASING

Based on the approved Level A Development Agreement, the overall Santolina project shall be developed in multiple phases. **The term “phase” and the concept of phased development, shall be defined as follows: ordered sequencing of development based on the provision of services, the establishment of the planned roadway networks and the ABCWUA serviceability agreements that will be finalized in the Level B Development Agreement.** Timing, location and size will be determined by market demand or the landowner. Accordingly, Santolina’s infrastructure improvements shall be installed in phases on an as needed basis and sized to serve the proposed phase of the development.

The Santolina Master Plan and this Level B Plan have been planned to create a livable, complete community through an integrated implementation of transportation facilities, land use areas and design standards. Infrastructure will phased to avoid fragmented, leapfrog development by the thorough consideration of transportation options and connectivity, mixed and efficient uses of land, healthy environments, as well as job growth and business diversity.

Development within this Level B Plan Area will be managed with the following objectives:

- Investment in infrastructure and services in a manner that promotes quality, efficiency and compact growth
- Ordered phasing of development through the provision of services to foster mixed-use and compact development patterns
- Implementation of complete streets for multi-modal transportation options. Street sections within this Level B Plan promote safe access for all users including pedestrians, bicyclists, motorists and transit riders
- Conservation and protection of natural resources. The Level B Land Use Plan (Exhibit 2) identifies the preservation of approximately 1,000 acres of public open space.

Phased Development within this Level B Plan Area will be sequenced based on the 2025 and 2040 projections for build-out. Development phasing of this Level B Plan Area will achieve the following:

- Orderly development that encourages urban growth to be located in: (1) areas with existing urban development and existing service capacity; (2) in existing urban development areas where new service can be provided in conjunction with existing services; and (3) in the remainder of the Level B Plan Area.
- Prevent the commitment of land to urban growth before the provision of adequate public facilities. Capital facilities, transportation, parks and open space can be programmed based on an orderly phasing of development.
- Prevent low density development from occurring prior to the ability to support urban densities.

Ensuring the financial tools are available will allow the Developer to provide adequate public facility infrastructure prior to new development. Effective growth management has as much to do with timing of development as the planned location of uses.

This Level B Plan provides a Land Use Plan that identifies target areas for development. Phasing of infrastructure and, subsequent development, is based on the 2025 and 2040 roadway network. Furthermore, phasing of this Level B Plan Area depends on serviceability agreements reached with the ABCWUA, as further delineated in Section 8.2.9, Water and Sewer Infrastructure.

8.2.1 No Net Expense

The Comprehensive Plan provides that planned communities shall not be a net expense to the County. As defined in the Level A Development Agreement, “no net expense” is defined as a mutual commitment to achieve the goal of a responsible balance of infrastructure costs, including construction, operation and maintenance, shared between the public and private sectors. The “no net expense” test is satisfied if the County’s on-site public expenditures and off-site public expenditures reasonably allocated to the project have been, or will be, offset by revenues and/or economic and fiscal benefits (direct, indirect and induced) from the project.

The Level B Plan analysis for the project must also satisfy the “no net expense” policy. If the development of a phase results in a revenue shortfall, then such shortfall will be mitigated. If the development of a phase results in excess revenue, then such excess revenue will be carried forward and used when applying the no net expense test to future phases.

8.2.2 Timing of Development

Recognition of the size of the project, the time required to complete development, the need for development to proceed in phases and the possible impact of the economic conditions, cycles, varying market condition and financing availability during the course of development, Owner(s) and Developer(s) shall have the right to develop the property in such order and at such rate and time as the market dictates. This flexibility is subject to the conditions of the Level A Plan approvals, this and future approved Level B Plans and Level C Plans.

8.2.3 Infrastructure Improvements

The Level C Development Agreements will categorize infrastructure improvements, using industry

practices and standards customarily acceptable to and uniformly applied by the County, as:

- Infrastructure that solely benefits the project (the “Project Infrastructure”) and/or
- Infrastructure that benefits the project as well as other real property (the “System Infrastructure”). The determination of whether infrastructure is Project Infrastructure or System Infrastructure shall be determined using industry practices and standards customarily acceptable to and uniformly applied by the County. The Owner(s) and Developer(s) of the Project Infrastructure or System Infrastructure shall be responsible for the operation and maintenance of the infrastructure that it owns.



8.2.4 Project and System Infrastructure

Owner(s) and/or Developer(s) shall be responsible for all the costs and expenses associated with all Project Infrastructure, which is infrastructure that solely benefits the project. Project Infrastructure may be funded by Owner(s) and Developer(s) directly or from any and all available financing mechanisms. Owner(s) and Developer(s) will be responsible for its proportionate share of System Infrastructure, as determined using industry practices and standards customarily acceptable to and uniformly applied by the County of the cost and expense associated with System Infrastructure. The County will reasonably cooperate and participate with Owner(s) and Developer(s) and other governmental and quasi-governmental entities and utility service providers with respect to any System Infrastructure. System Infrastructure may be funded from any and all available financing mechanisms.

8.2.5 Roadway Infrastructure

Owner(s) and Developer(s) shall be responsible for the design, construction and dedication of all transportation improvements that are reasonably necessary to service the project and that are designated as Project Infrastructure. Owner(s) and Developer(s) shall not be responsible for any infrastructure associated with the Existing Uses, unless determined to be System Infrastructure. Owner(s) and Developer(s) shall be responsible for its proportionate share of the construction and dedication of all transportation improvements designated as System Infrastructure. Owner(s) and Developer(s) has prepared a Transportation Master Plan which is described in the Master Plan. The Master Plan is subject to adjustment through the more detailed analysis conducted in connection with Level B Plans and Level C Plans. Owner(s) and Developer(s) shall not be required to correct existing roadway deficiencies; however, the County may require Owner(s) and Developer(s) to mitigate additional negative impacts resulting from the development of the project which are identified through the Level C Plan review process.

8.2.6 Industrial Development Impacts

In the event any development provides industrial uses that generate truck traffic carrying heavy loads (HVT) which negatively impact existing roadway infrastructure otherwise in serviceable condition, then the Owner(s) and Developer(s) of the Level C Plan may be required to address and mitigate, using industry practices and standards customarily acceptable to and uniformly applied by the County, such negative impacts caused by the HVT.

8.2.7 Stormwater Infrastructure

Owner(s) and Developer(s) shall be responsible for the design and construction of all stormwater drainage infrastructure that is reasonably necessary to service the project and designated as Project infrastructure. Owner(s) and Developer(s) shall be responsible for its proportionate share of the design, construction and dedication of all stormwater drainage improvements that are designated as System Infrastructure. The preliminary Stormwater Management Plan is described in the Level A Master Plan, but is subject to adjustment through the more detailed analysis conducted in connection with Level B Plans and Level C Plans. If AMAFCA

provides stormwater drainage infrastructure for the project, the Owner(s) and Developer(s) may enter into separate agreements with the AMAFCA concerning the terms of providing such stormwater infrastructure to the project. All matters associated with existing and/or future AMAFCA stormwater drainage infrastructure for the project shall be resolved solely between the Owner(s) and Developer(s) and the AMAFCA. The County will not promote, support or enact any ordinance, legislation or policy that interferes with and/or restricts the Owner(s) and Developer(s) use of the AMAFCA existing and/or future infrastructure and/or agreements between the Owner(s) and Developer(s) and AMAFCA, as long as that use does not diminish or otherwise negatively affect current County flood or drainage infrastructure.

8.2.8 Open Space, Parks, Recreation and Trail Facilities

Development of open space, parks, recreation and trail facilities shall comply with the Level A Master Plan. The Level A Master Plan must be amended if a Level B Plan or Level C Plan proposes changes to the types and general locations of open space, park, recreation and/or trail facilities that significantly deviate from the intent and framework established by the Level A Master Plan. Owner(s) and Developer(s) shall dedicate to the County:

1. All open spaces, parks, recreation and/or trail facilities that are designated Project Infrastructure; and
2. The Owner(s) and Developer(s) proportionate share of System Infrastructure.

All dedications shall be subject to the reservation of reasonable rights necessary for the development of the project, including but not limited to roadway, utility and drainage easements. All lands and facilities dedicated and/or constructed by Owner(s) and Developer(s) must meet the industry practices and standards customarily acceptable to and uniformly applied by the County. The Owner(s) and Developer(s) of the open spaces, parks, recreation or trail facilities shall be responsible for operating and management of those facilities. The land area of any open spaces, parks, recreation and/or trail facilities will be considered in calculating the land use densities and open space requirements for the project. If access dedications are made such excess

shall be carried forward and used in calculation for subsequent Level B or Level C Plans.

8.2.9 Water and Sewer Infrastructure

The ABCWUA may provide water and sewer service for the project. The Owner(s) and Developer(s) has prepared a conceptual Water Master Plan and conceptual Wastewater Master Plan, which are described in the Master Plan. However, such master



plans are subject to adjustment through the more detailed analysis to be conducted in connection with Level B Plans and Level C Plans. If the ABCWUA provides water and sewer service for the project, the Owner(s) and Developer(s) will enter into a separate Development Agreement with the ABCWUA concerning the terms of providing such water and sewer service to the project. All matters associated with water and sewer infrastructure for the project shall be resolved solely between the Owner(s) and Developer(s) and the ABCWUA. The County will not promote, support or enact any ordinance, legislation or policy that interferes with and/or restricts the Owner(s) and Developer(s) use



of the ABCWUA’s water and sewer infrastructure and/or agreements between the Owner(s) and Developer(s) and the ABCWUA, as long as that use does not diminish or otherwise negatively affect current County water or sewer service.

8.2.10 Phasing of Project and Infrastructure

The project shall be developed in multiple phases at such times, location and size as determined by market demand or the Owner(s) and Developer(s). The project Infrastructure improvements shall be installed in phases on an as needed basis and sized to serve the phase of the project proposed and/or being developed. Owner(s) and Developer(s) portion of all costs incurred for the construction of System Infrastructure that benefits the project shall be based on a fair-share, proportionate cost determination.

8.2.11 Proportionate Share Requirements

Owner(s) and Developer(s) shall be responsible for the costs of Project Infrastructure and the Owner(s) and Developer(s) shall only be responsible for its proportionate share of the costs of



System Infrastructure. The Owner(s) and Developer(s) proportionate share of the costs of System Infrastructure shall be based on a fair-share, proportionate cost determination, considering total infrastructure capacity and the capacity required to serve the project. If the Owner(s) and Developer(s) elects to construct and/or pay for more than its proportionate share of any System Infrastructure, the County will allow the Owner(s) and Developer(s) to recover, through any legal means, all of the costs incurred by Owner(s) and Developer(s) in connection with such System Infrastructure that exceed the Owner(s) and Developer(s) proportionate share.

8.2.12 Impact Fees

The County and Owner(s) and Developer(s) will comply with the New Mexico Development Fees Act of 1978 NMSA, §§ 5-8-1, et seq. (the “Act”) and the Bernalillo County Impact Fees Ordinance, Chapter 46-1, et seq. (the “Ordinance”) to the extent the

Ordinance and its implementation is not inconsistent with the Act, with the understanding that it is anticipated the project will be its own separate service area.

8.2.13 Level of Service

The County will provide public services to the project consistent with the level of service provided to the remainder of the unincorporated areas of the County. The design and construction requirements for all infrastructure improvements within the project will comply with the Master Plan and the applicable level(s)-of-service in the remainder of the unincorporated areas of the County and pursuant to County policies applied in a non-discriminatory manner.

8.2.14 Conveyance of Infrastructure

Upon completion of any public roadway infrastructure, drainage facilities, parks, open space and trails, or any other County infrastructure improvement, wherever located, constructed for the benefit of the general public, which also benefits the project, the County will accept the conveyance of any such improvements and shall thereafter own, operate and maintain such improvements at its sole cost and expense. The County reserves the right to not accept infrastructure that is not designed and built to the County’s standards. The County may incorporate into its Improvement Plan System Infrastructure identified in future Level A Plans, Level B Plans and Level C Plans.

8.2.15 Plans Approved by the County

The County will cooperate with Owner(s) and Developer(s) in connection with the funding, design and construction of all infrastructure improvements.

8.3 LEVEL B DEVELOPMENT AGREEMENT

A Level B Development Agreement will be submitted to the County for this Level B Plan. Based on the Planned Communities Criteria for Level B Plans, the intent of the Level B Development Agreement is to provide:

- Detailed infrastructure/service agreements covering phasing of the Master Plan and

its public services/facilities and designate financial, operational and management responsibility over time

- Measures to mitigate negative consequences of the development
- Augment the Level A Development Agreement by noting items mutually agreed to by the County and Owner(s) and Developer(s) and committing to their permanency, unless re-negotiated
- Provide a legal recording instrument
- Identify any public/private partnerships, public incentives and include provisions for affordable housing
- Identify public/private agreements for the protection and maintenance of the open space system.

Any limitations on development established within the Level A Master Plan Approvals cannot be increased within the Level B Plan Approvals.

8.4 LEVEL C APPROVAL PROCESS

Once the Level B Plan is approved, all subsequent development must comply with its standards and guidelines. The PCC imply that a plan submitted pursuant to the Level B Plan is to be either a Subdivision Plat or a Site Development Plan. According to the PCC, Level C approvals are by “Staff, with pre-application conference.” For the purposes of this Plan, this is construed to mean Bernalillo County Planning Department Staff.

Any limitations on development established within the Level B Plan approvals cannot be increased within the Level C approvals.

This Level B Plan encompasses 4,243 acres of the 13,851 acre approved Santolina Level A Master Plan. Subsequent Level B Plans will be submitted for the remaining 9,608 acres of the Level A Master Plan. Future Level B Plans will follow the same process as this Level B Plan and will encompass the appropriate land area and requirements based on the provisions of the PCC.

8.5 PROJECT AND SYSTEM PUBLIC INFRASTRUCTURE FUNDING STRATEGY

As defined by the approved Level A Development Agreement, Owner(s) and/or Developer(s) shall be responsible for all the costs and expenses associated with all Project Infrastructure, which is infrastructure that solely benefits the project. Project Infrastructure may be funded by Owner(s) and Developer(s) directly, or from any and all available financing mechanisms. Owner(s) and Developer(s) will be responsible for its proportionate share of System Infrastructure, as determined using industry practices and standards customarily acceptable to, and uniformly applied, by the County for the cost and expense associated with System Infrastructure. The County will reasonably cooperate and participate with Owner(s) and Developer(s) and other governmental and quasi-governmental entities and utility service providers with respect to any System Infrastructure. System Infrastructure may be funded from any and all available financing mechanisms.

Available financing mechanisms for Project and System Infrastructure may include but not be limited to (in alphabetical order):

Charges for Services. Fees imposed for public services and/or facilities.

Direct Funding. Financing without the use of the financial market or a third party service, such as a financial intermediary.

Federal Grants. Funds received from federal agencies. Some grants may require a percentage match from the County.

General Obligation (GO) Bonds. GO bonds approved by voters. The sale of bonds will not necessarily increase taxes for property owners. GO bonds will not be used to fund the repair of existing County facilities.

Gross Revenue Tax (GRT) Revenue Bonds. GRT bonds are project specific for major capital acquisitions or construction. GRT Bonds are approved by the Board and are funded from gross receipts taxes collected within the county.

Open Space Mill Levy. In 2014, Bernalillo County voters approved a .20 mil levy for 15 years. The open space mill levy may be utilized for the purposes of acquiring, improving, operating and maintaining

natural areas, open spaces and cultural, historic and nature education sites within the County to protect drinking water sources, wildlife habitat and agricultural land, including along the Rio Grande, providing opportunities for citizens to enjoy nature.

Impact Fees. Impact fees fund capital facilities identified in the Impact Fee Capital improvement Plan (ICIP). Impact Fee Capital Improvements include roads, parks, open space, drainage and fire/emergency services.

Intergovernmental Revenues. Revenues received from other governing agencies other than the County.

Loans. Financing where funds are borrowed from the financial market using a third party service, such as a financial intermediary.

Special Assessment District (SAD). SAD’s are typically formed by a group of property owners that agree to pay a special assessment on their property to fund public improvements.

State Capital Outlay Appropriations. Capital Outlay funds are received from the State of New Mexico (State) through legislative capital outlay appropriations. These grants are reimbursable (the County fronts said funds) and awarded for projects in a local government’s Infrastructure Capital Improvement Plan (ICIP). Capital Outlay grants must be spent within four years of appropriation. Like GO Bonds, these funds must be spent on the specific capital project for which appropriated and cannot be used on daily operations or maintenance.

Utility Expansion Charges (UEC). Utility expansion charges are fees paid by customers as a method to recover part or all of the cost of public facilities providing system capacity for their use.

Water Supply Charges (WSC). WSC’s charges are fees paid by customers as a method to recover part or all of the cost of providing a water supply for their use.

In addition to the standard tools, the State created two additional approaches. These add to the existing toolbox and can be key opportunities and incentives to ensure that infrastructure is built in logical and complete phases. Many of the typical infrastructure development approaches provide piecemeal construction of said infrastructure as

development occurs, without incentivizing the upfront infrastructure construction.

Tax Increment Development Districts (“TIDDs”). Adopted by the New Mexico Legislature in 2006, TIDD’s provide for the financing of public (not private) improvements, including, but not limited to: water and wastewater systems, streets and trails, parks, utilities, public buildings, libraries and cultural facilities, schools and workforce housing. TIDD’s utilize the tax increment generated within the boundaries of the TIDD(s) only. The taxes outside the boundaries of the TIDD(s) will not be affected.

“Tax increment” is the amount of gross receipts tax or property tax collected within a district over a “base amount” which is the amount collected during the calendar year preceding the formation of a district. This is only the tax increment which provides the revenue stream to fund bonds. TIDD’s are utilized to finance debt created by the pledge of incremental revenues to the payment of debt service on TIDD bonds. Furthermore, TIDD bonds are not obligations of the State or the local government jurisdiction in which the TIDD is located. Rather, TIDD bonds are solely obligations of the TIDD issuing the bonds, as TIDDs are political subdivisions of the State, separate and apart from the county. Importantly, a county forming a TIDD can dedicate a maximum of 75% of local option “tax increment” generated within the district for the purpose of securing district bonds, and that percentage must be formally approved by the County.

The establishment of TIDD(s) will not abolish the requirements of the “no net expense” for the County’s PCC Level A, B or C.

Finally, it is critically important to recognize that TIDDs:

- Place the upfront costs for the construction of public infrastructure on the Project Proponent.
- Provide funds necessary for the construction of public improvements with third party financing, relieving the County of incurring the costs, risk and obligation of issuing County bonds and potentially freeing up additional bonding capacity for the County.

- Allow public improvements to be constructed earlier than said improvements might otherwise be constructed.
- Since, they are structured as “reimbursement districts,” the public improvements are, most often, completed and the tax base essentially established prior to the issuance of TIDD bonds.
- Require that constructed public infrastructure is dedicated (given) to the County (or appropriate agency) only once completed.
- TIDD’s Play an important role in ensuring the viability and vibrancy of Santolina, with corresponding benefit to the County.

Public Improvement Districts (“PID’s”). PID’s are used to finance public infrastructure such as on-site and off-site infrastructure and improvements, including water and sewer systems, streets and trails, parks, electrical, gas and telecommunications systems, public buildings, libraries and cultural facilities, school facilities, equipment and related costs of operation and administration.

Each PID once formed, constitutes a political subdivision of the State, separate and apart from the County. PID financing is based on a special levy which is in addition to all existing taxes and levies. The special levy is only imposed on property contained within the PID. The special levy amount is based on the infrastructure costs and the benefits received by the property. No property located outside the boundaries of the PID(s) will incur the additional special levy and all existing tax revenues to the County and State outside the PIDs will remain unchanged.

A PID is typically organized through a streamlined petition and hearing process, with a unanimous consent procedure or approval through an election of property owners and qualified resident electors. Once formed, PID’s are utilized to finance, in part, various. Most frequently, a PID financing is based upon the pledging of revenues in order to pay debt service on bonds issued by a PID. No taxes generated outside the Project are utilized by the PID’s.

PID’s do not finance private infrastructure costs however, may be used for improvements such as the following:

- County and State roadways, interchanges, and traffic signalization
- ABCWUA water and sewer infrastructure
- County and AMAFCA flood and drainage control structures
- County parks, trails and recreational facilities.

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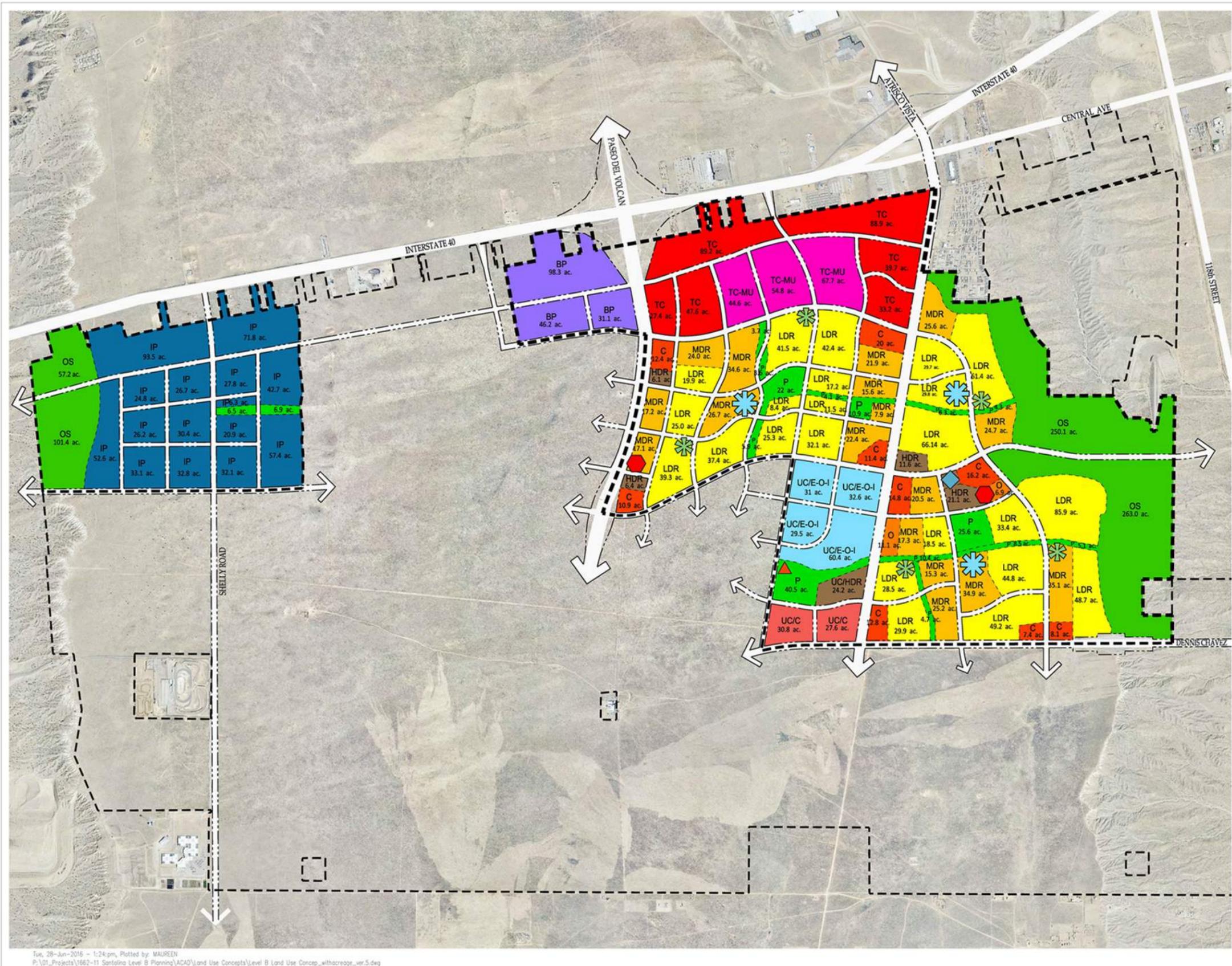
WALH

WESTERN ALBUQUERQUE LAND HOLDINGS LLC

6900 East Camelback Road
Suite 607
Scottsdale, Arizona 85251
480.970.4001



EXHIBIT 1: CONTEXT MAP



Land Use

- LDR Low Density Residential
- MDR Medium Density Residential
- HDR High Density Residential
- UC/E-O-I Urban Center/ Education / Office / Institutional
- Public Safety Facility ±6 ac.
- C Commercial
- TC Town Center
- TC-MU Town Center - Mixed Use
- UC/HDR Urban Center/ High Density Residential
- UC/C Urban Center/ Commercial
- O Office
- BP Business Park
- IP Industrial and Business Park
- School
- Neighborhood Park 3 - 5 ac.
- Community Center / Aquatic Facility
- P Parks and Internal Open Space
- OS Open Space (Escarpment)
- Accessible Playground
- Level B Boundary

Tue, 28-Jun-2016 - 1:24:pm, Plotted by: MAUREN
P:\01_Projects\1662-11 Santolina Level B Planning\ACAD\Land Use Concepts\Level B Land Use Concept_wilhacreege_ver.5.dwg

EXHIBIT 2: LAND USE PLAN

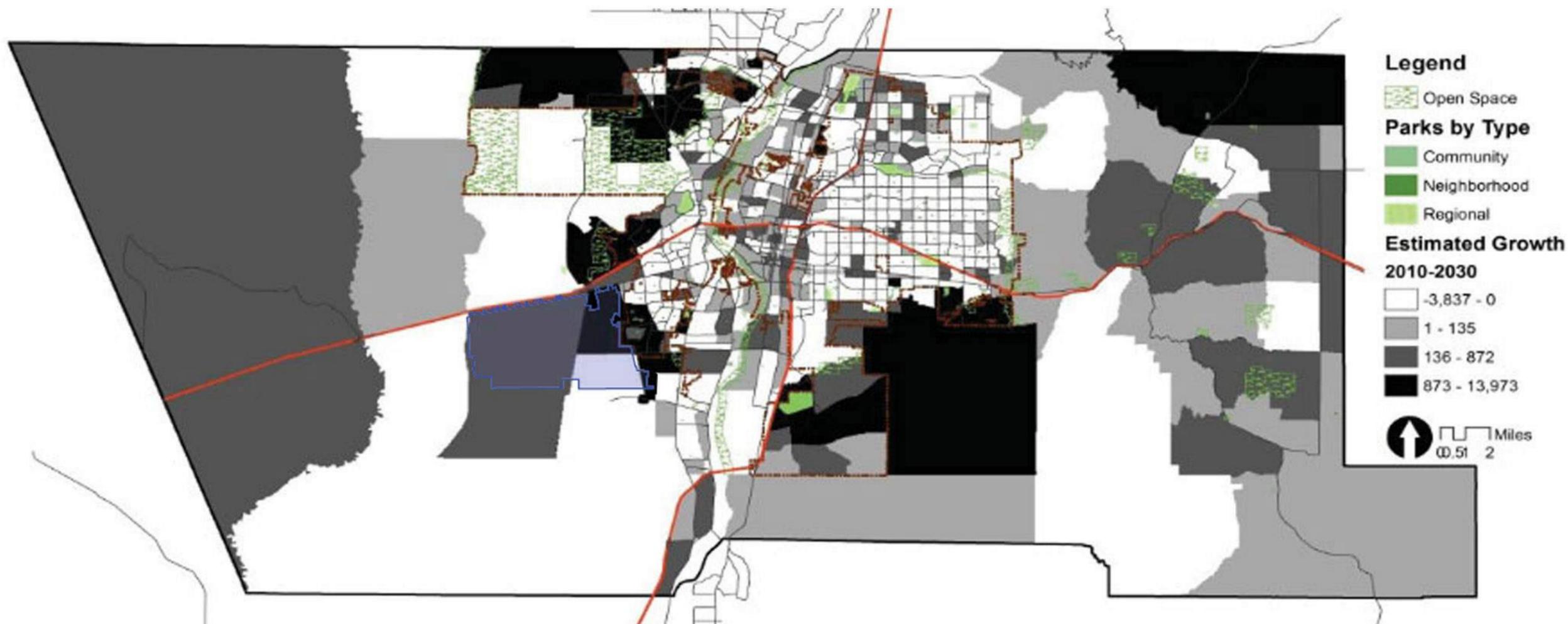


EXHIBIT 3: COUNTY PROJECTED POPULATION GROWTH OVERLAY

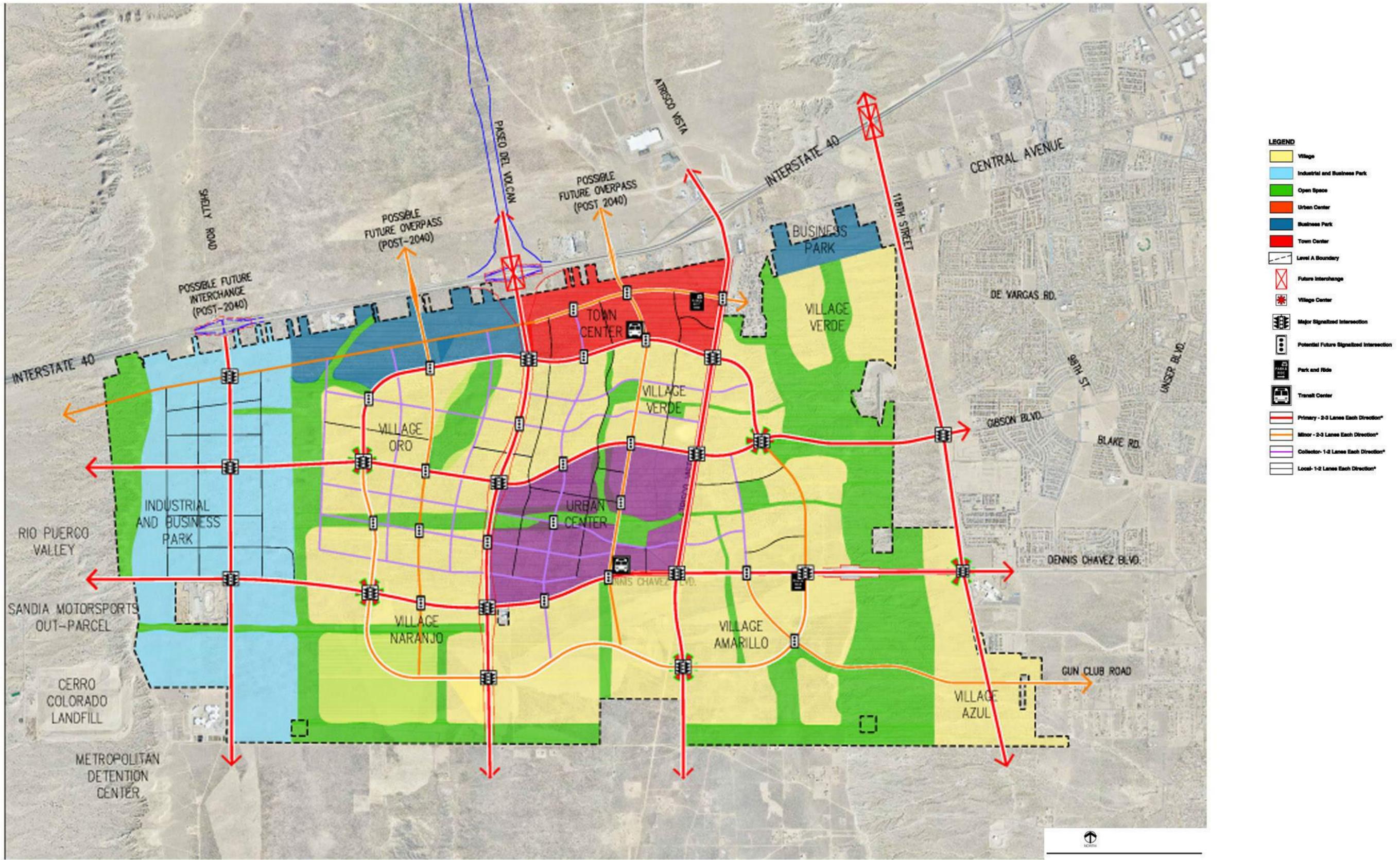
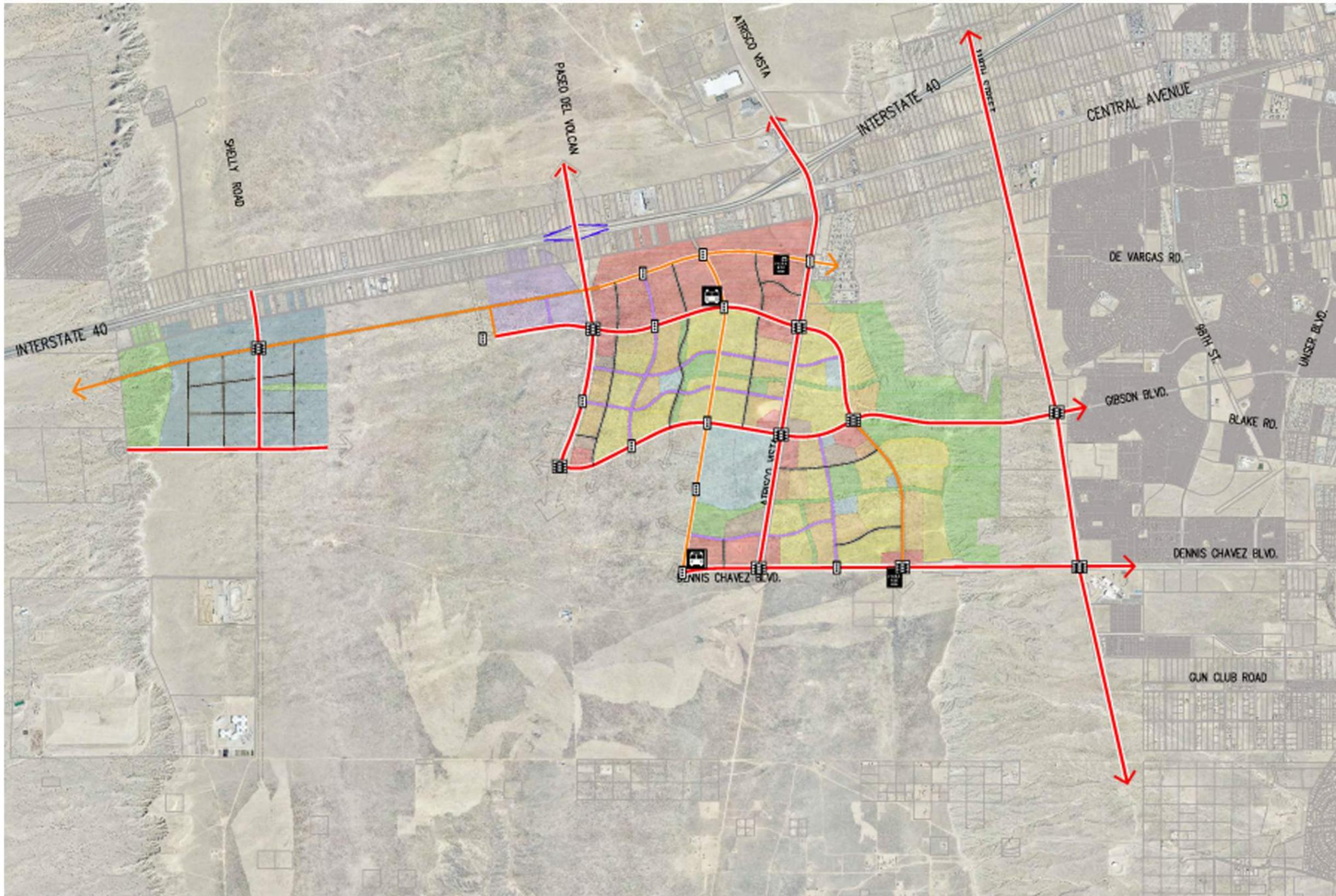


EXHIBIT 5: AUTO TRANSIT CIRCULATION FULL BUILDOUT NETWORK



- LEGEND
-  Future Interchange
 -  Major Signalized Intersection
 -  Potential Future Signalized Intersection
 -  Park and Ride
 -  Transit Center
 -  Primary - 2-3 Lanes Each Direction*
 -  Minor - 2-3 Lanes Each Direction*
 -  Collector - 1-2 Lanes Each Direction*
 -  Local - 1-2 Lanes Each Direction*



EXHIBIT 6: AUTO TRANSIT CIRCULATION LEVEL B NETWORK

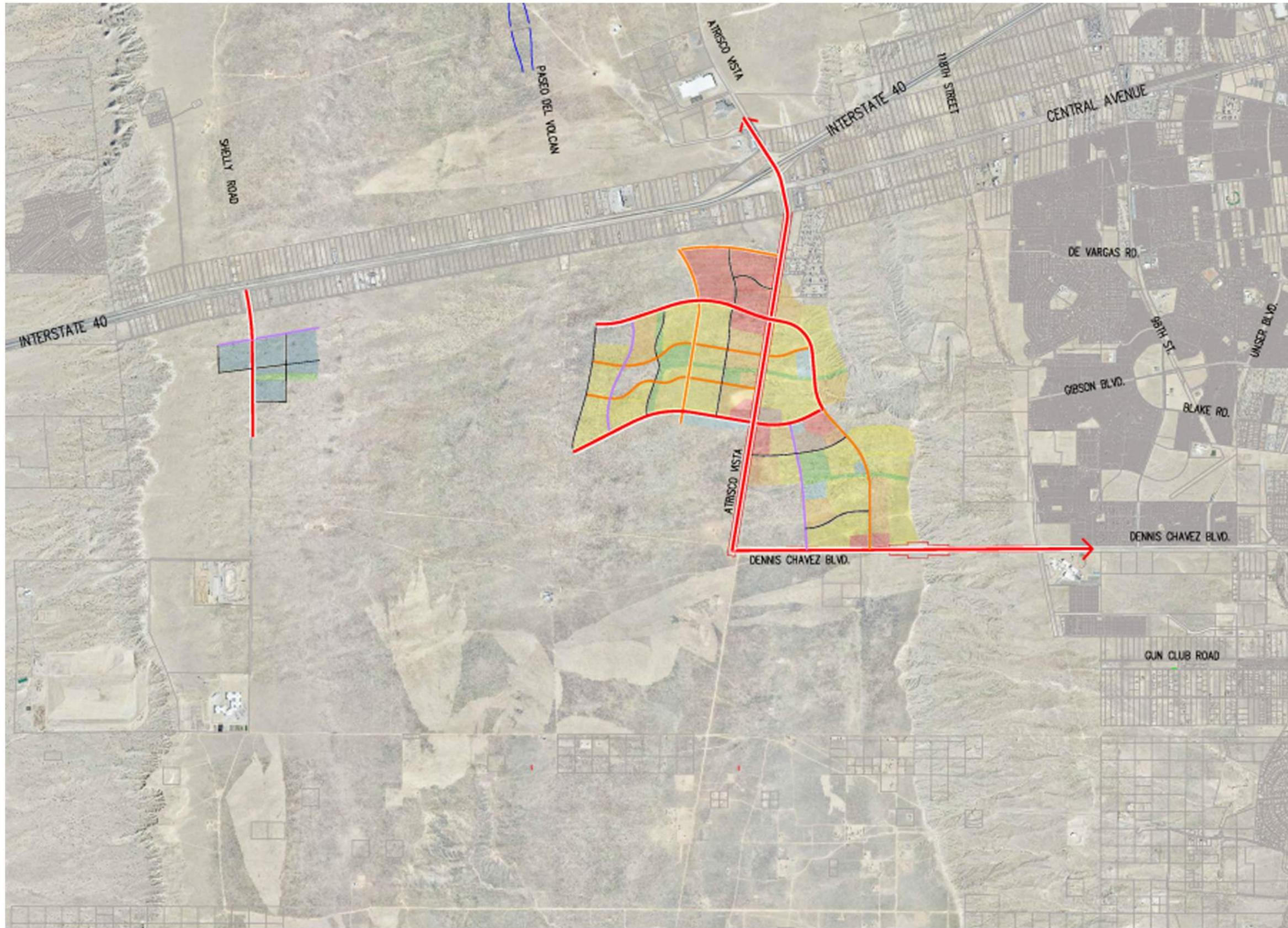
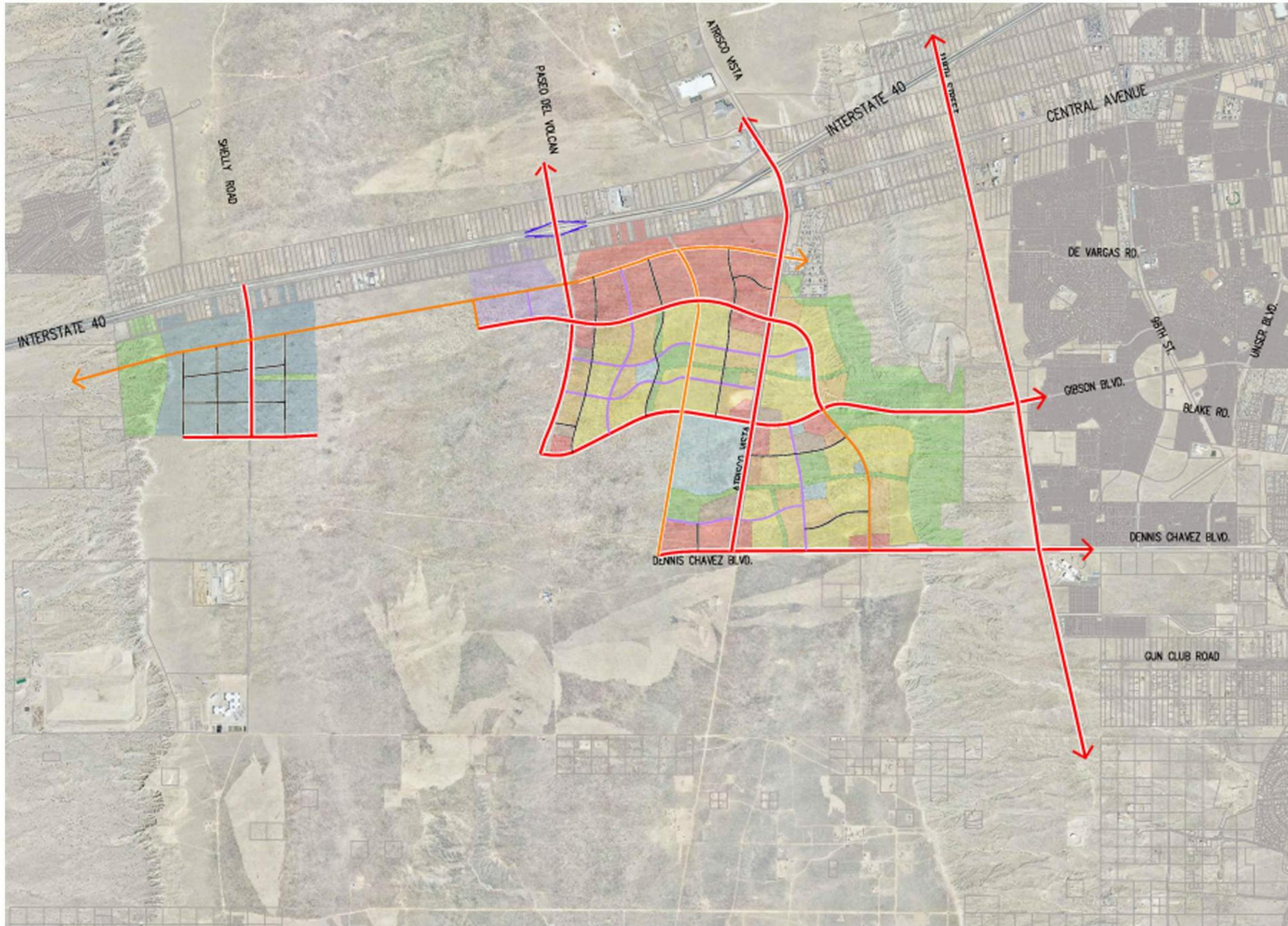


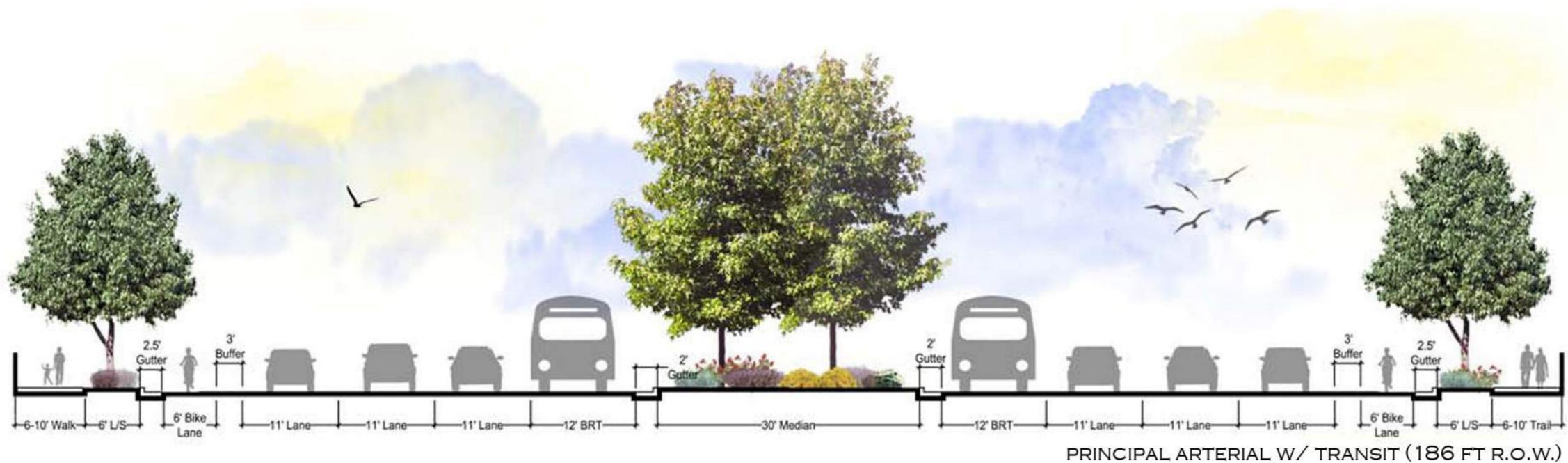
EXHIBIT 7: ROADWAY PHASING
ROADS REQUIRED BY 2025



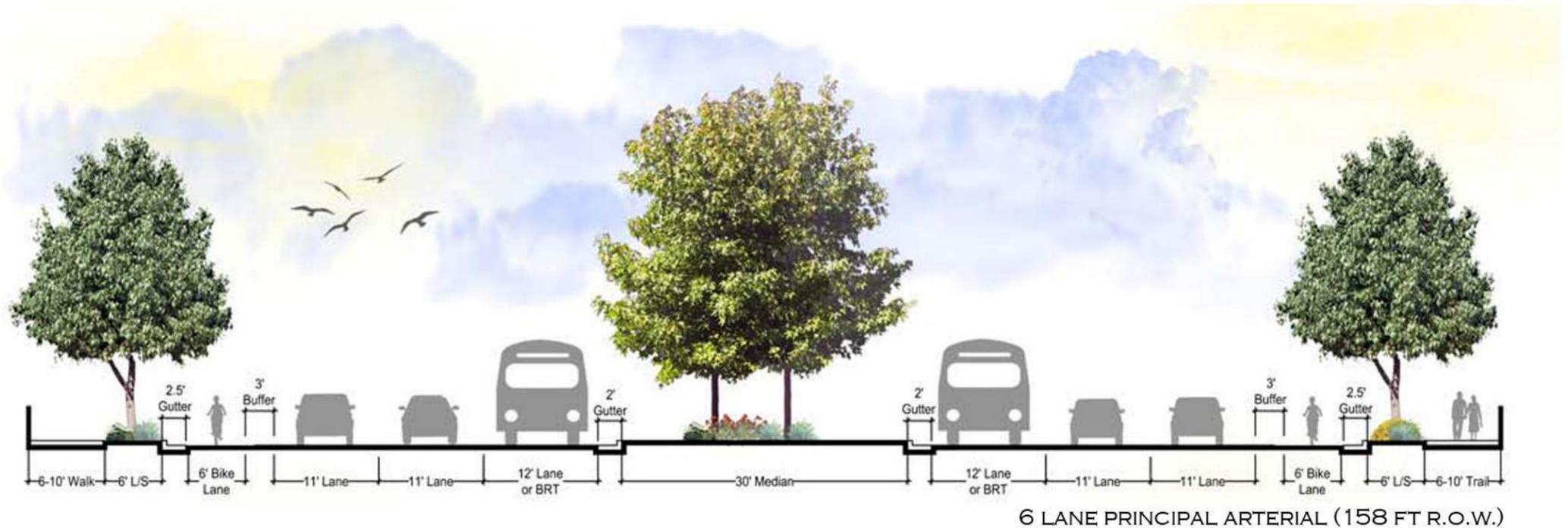
LEGEND

- Primary - 2-3 Lanes Each Direction*
- Minor - 2-3 Lanes Each Direction*
- Collector - 1-2 Lanes Each Direction*
- Local - 1-2 Lanes Each Direction*

EXHIBIT 8: ROADWAY PHASING
ROADS REQUIRED BY 2040



PRINCIPAL ARTERIAL W/ TRANSIT (186 FT R.O.W.)



6 LANE PRINCIPAL ARTERIAL (158 FT R.O.W.)

EXHIBIT 9: ROADWAYS - 6 LANE PRINCIPAL ARTERIAL, PRINCIPAL ARTERIAL

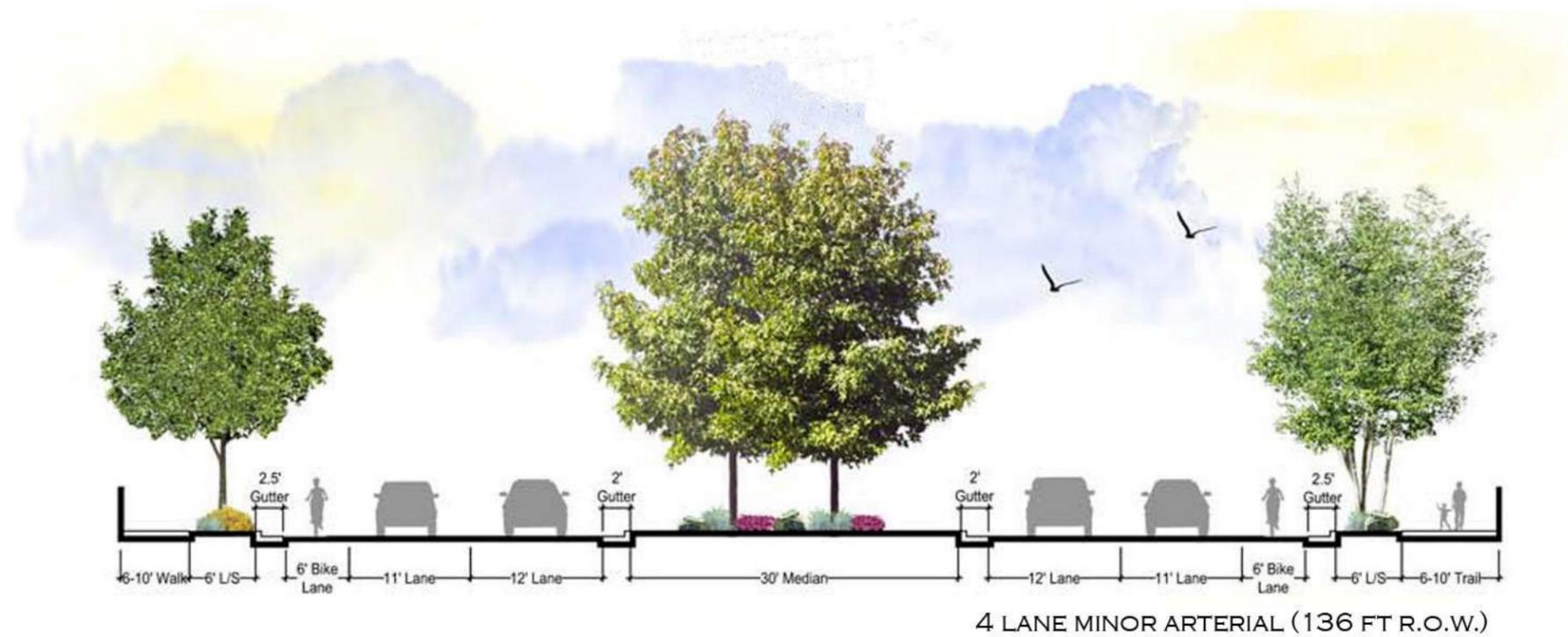
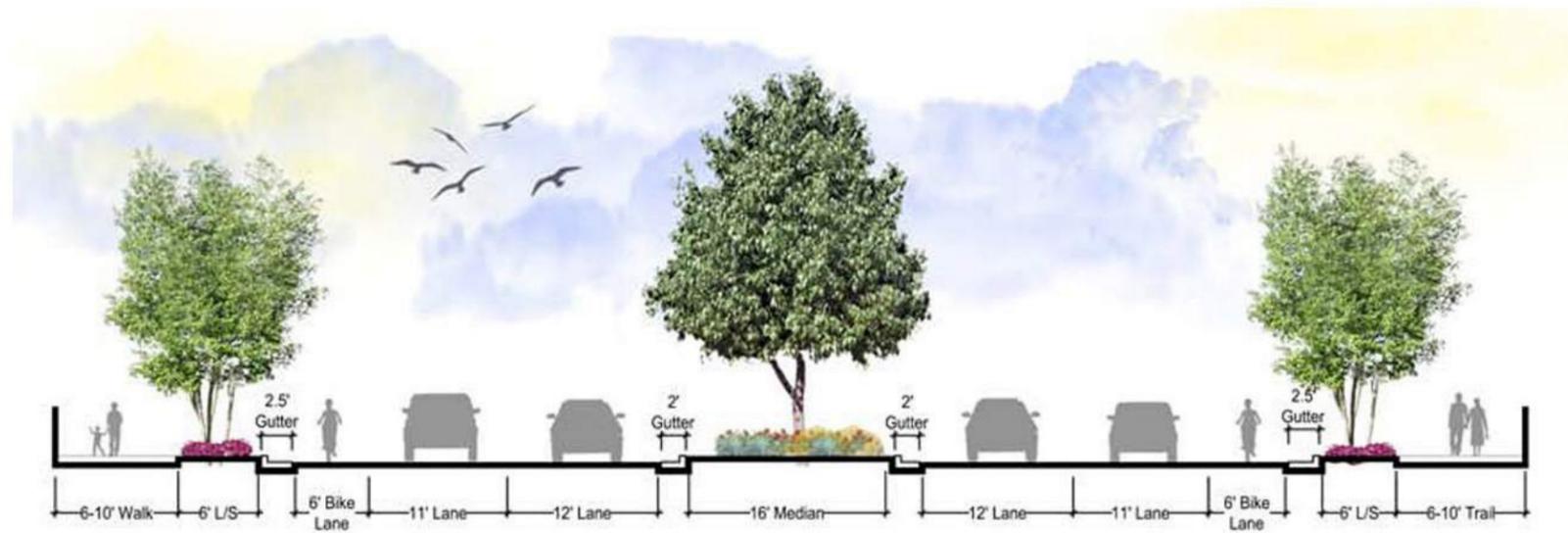
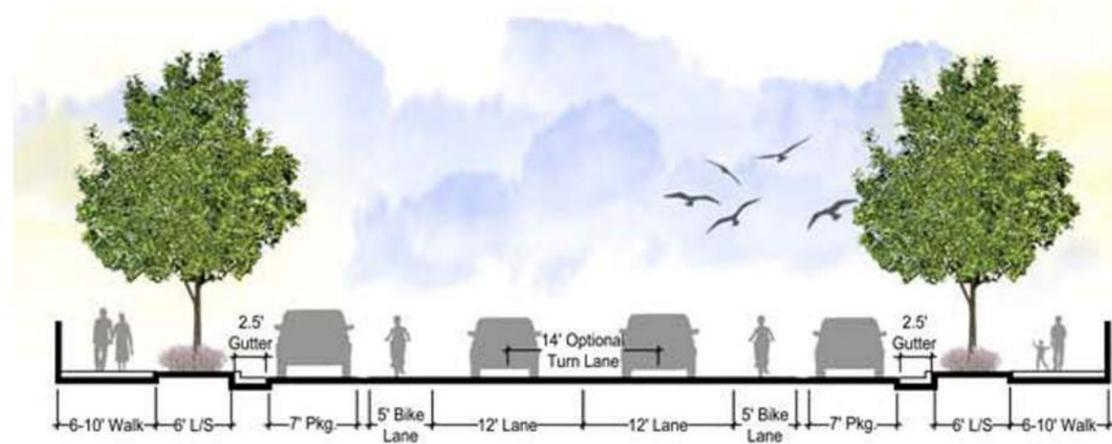


EXHIBIT 10: ROADWAYS - 4 LANE MINOR ARTERIAL,
4 LANE COLLECTOR WITH PARKING

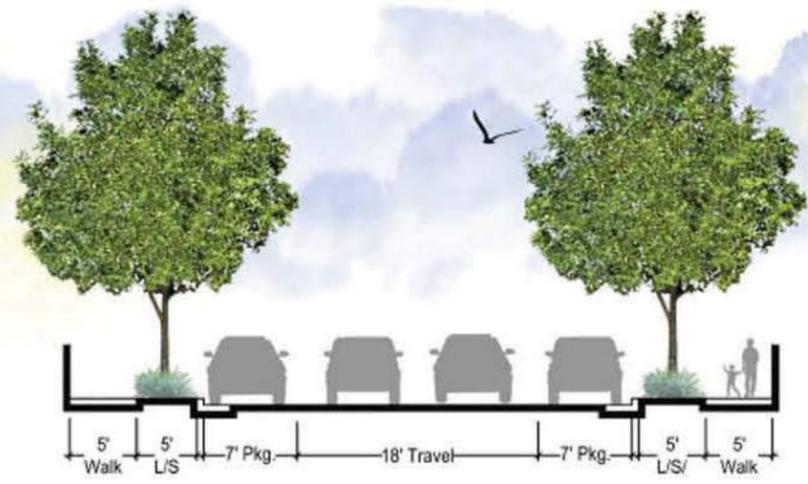


4 LANE COLLECTOR WITHOUT PARKING (115 FT R.O.W.)

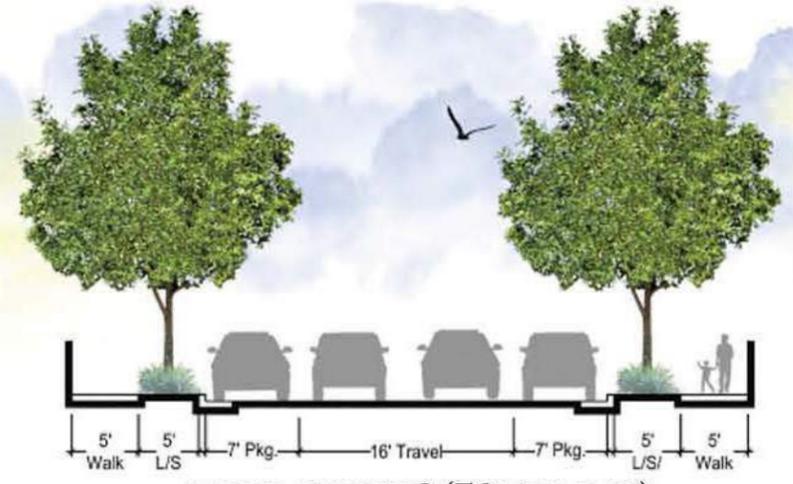


2 LANE COLLECTOR WITH PARKING (77 - 99 FT R.O.W.)

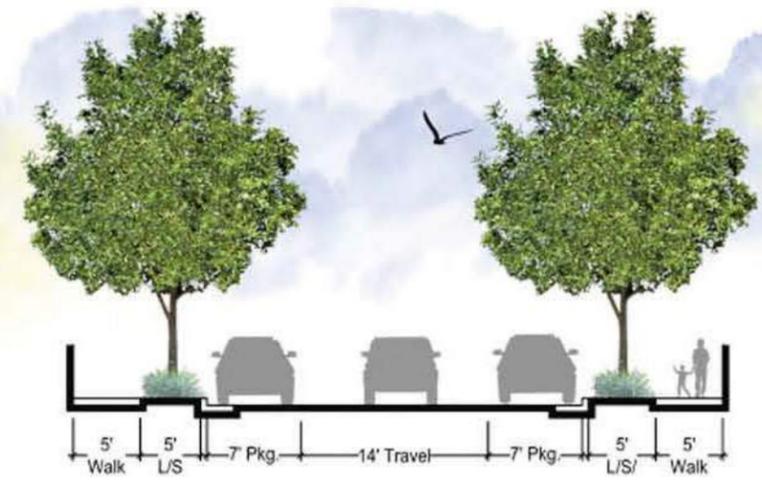
EXHIBIT 11: ROADWAYS - 4 LANE COLLECTOR WITHOUT PARKING,
2 LANE COLLECTOR W/ PARKING



LOCAL STREET 1 (52 FT R.O.W.)



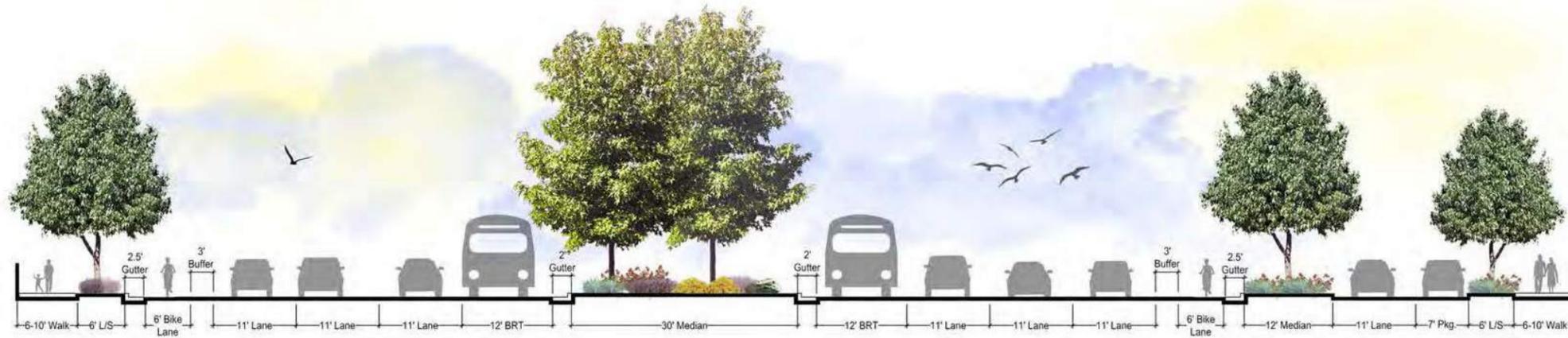
LOCAL STREET 2 (50 FT R.O.W.)



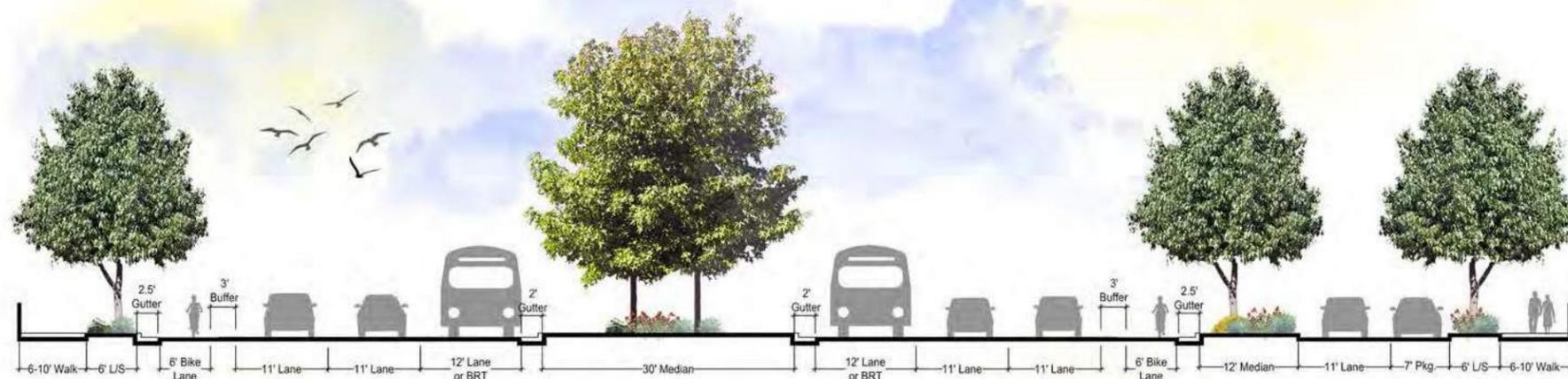
LOCAL STREET 3 (48 FT R.O.W.)

TO BE USED ON LOW VOLUME ROADS ADT <1,500,
PRIVATE ROADS, OR AS APPROVED BY THE COUNTY

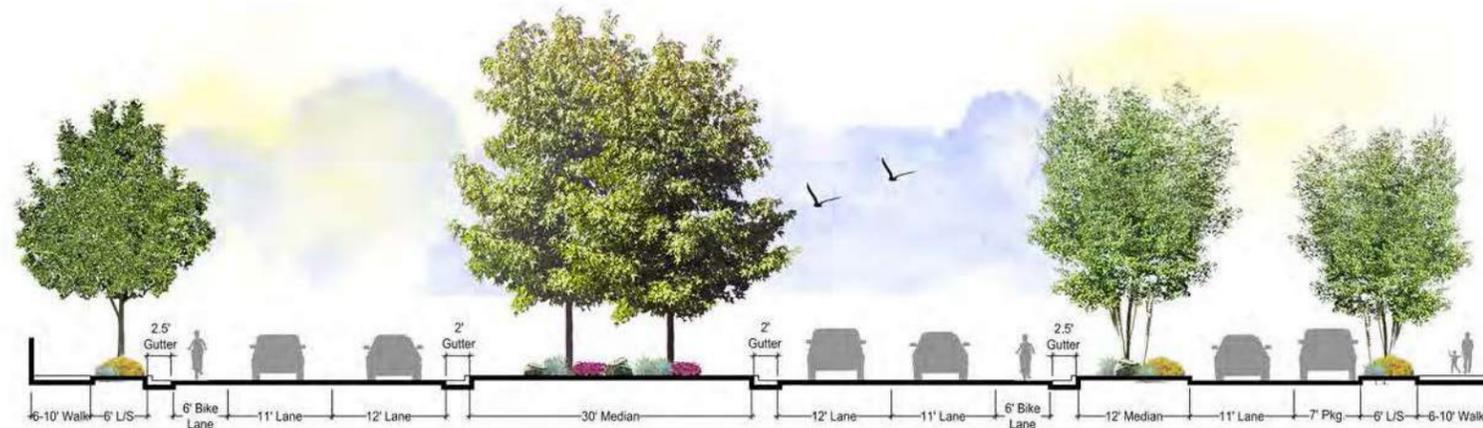
BERNALILLO COUNTY LOCAL ROAD SECTIONS
INCLUDED BY REFERENCE:
MINOR LOCAL RESIDENTIAL DWG 201008,
FEBRUARY 15, 2016
MAJOR LOCAL RESIDENTIAL DWG 201007,
FEBRUARY 15, 2016



DENNIS CHAVEZ AT URBAN CENTER



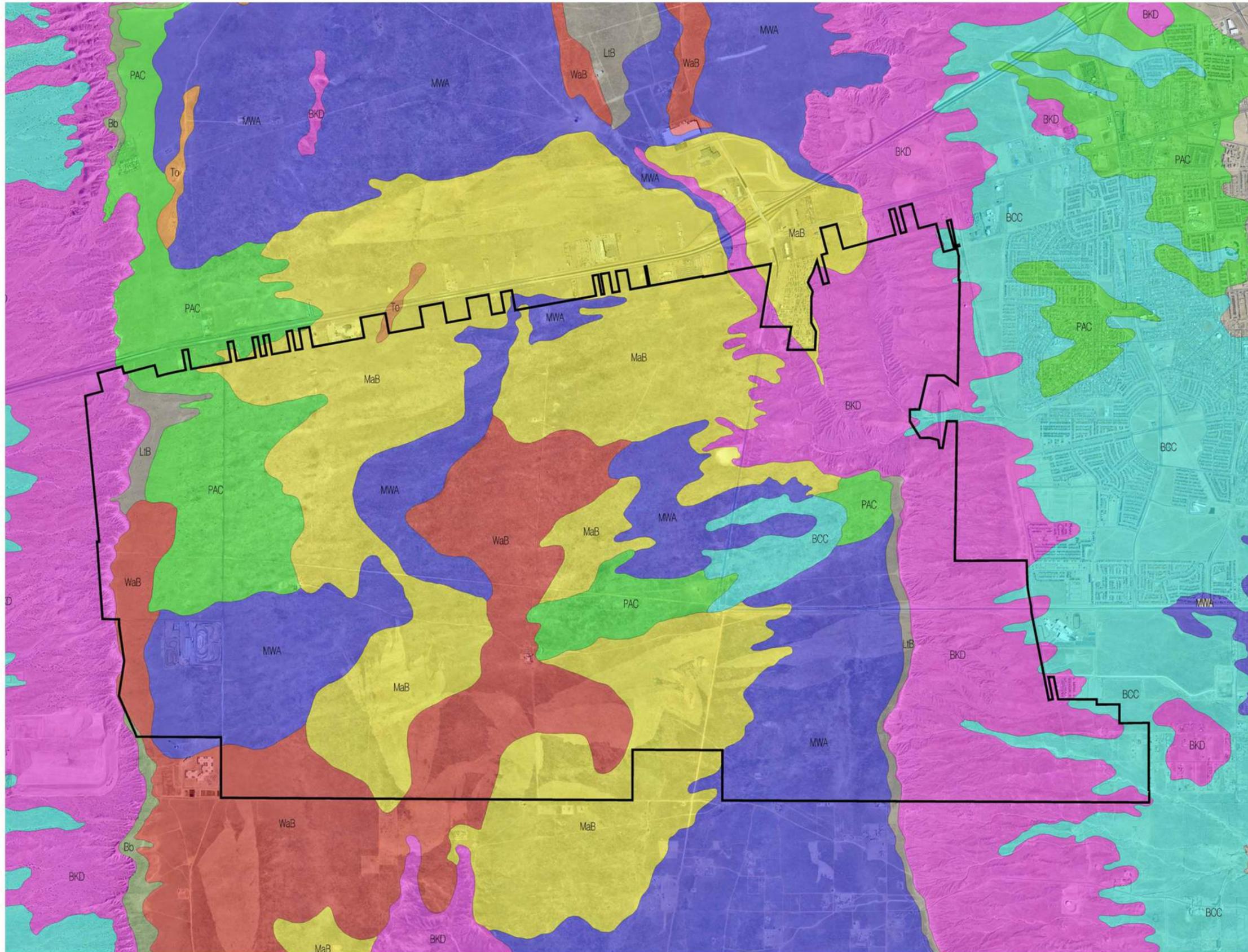
ARROYO VISTA@ URBAN CENTER



GIBSON AT URBAN CENTER



EXHIBIT 13: ROADWAYS -
LEVEL B STREET SECTIONS
FRONTAGE ROAD



LEGEND

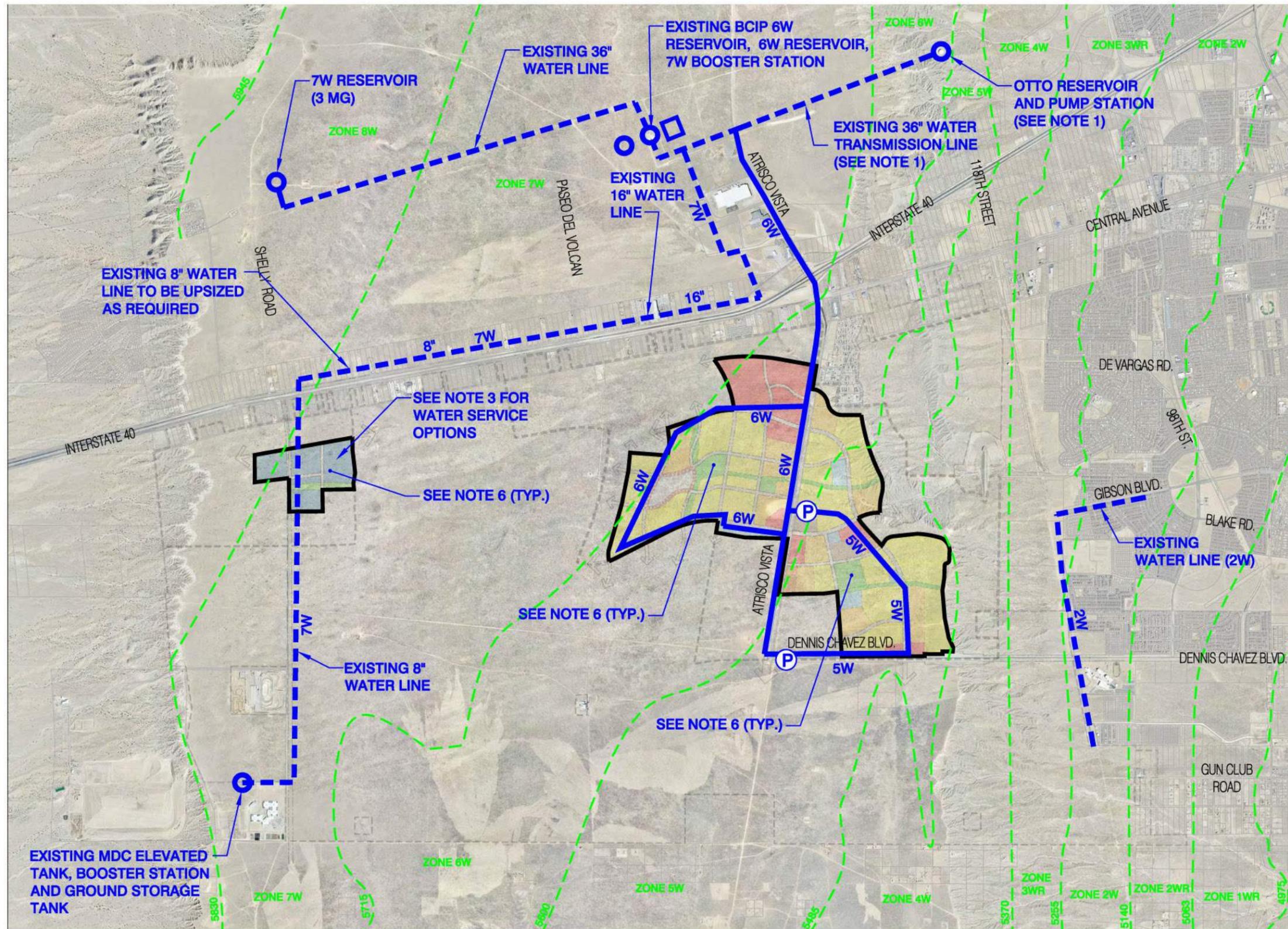
- Bb - Bluepoint fine sand, hummocky
- BCC - Bluepoint loamy fine sand, 1 to 9 percent slopes
- BKD - Bluepoint-Kokan association, hilly
- LIB - Latene sandy loam, 1 to 5 percent slopes
- MaB - Madurez loamy fine sand, 1 to 5 percent slopes
- MWA - Madurez-Wink association, gently sloping
- PAC - Pajarito loamy fine sand, 1 to 9 percent slopes
- To - Tome very fine sandy loam
- WaB - Wink fine sandy lam, 0 to 5 percent slopes

NOTES:

1. ALL SOIL TYPES LOCATED ON SANTOLINA ARE DEVELOPABLE WITH PROPER REMEDIATION.
2. SOIL SURVEY IS APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
3. APPROXIMATE 27 SOIL BORINGS WERE CONDUCTED. NO BEDROCK NOR GROUNDWATER WAS ENCOUNTERED IN THE 20' - 60' DEEP BORINGS.
4. ALL BORINGS REVEALED PRIMARILY SANDY SOIL CONDITIONS WITH OCCASIONAL CLAY LENSES.
5. SITE SOILS ARE SUITABLE FOR STORMWATER INFILTRATION & PERCOLATION.
6. LOW R-VALUE TEST RESULTS SUGGEST SANTOLINA PAVEMENT SECTIONS MAY BE THICKER THAN COUNTY AVERAGES.



EXHIBIT 14: SOIL SURVEY



NOTES:

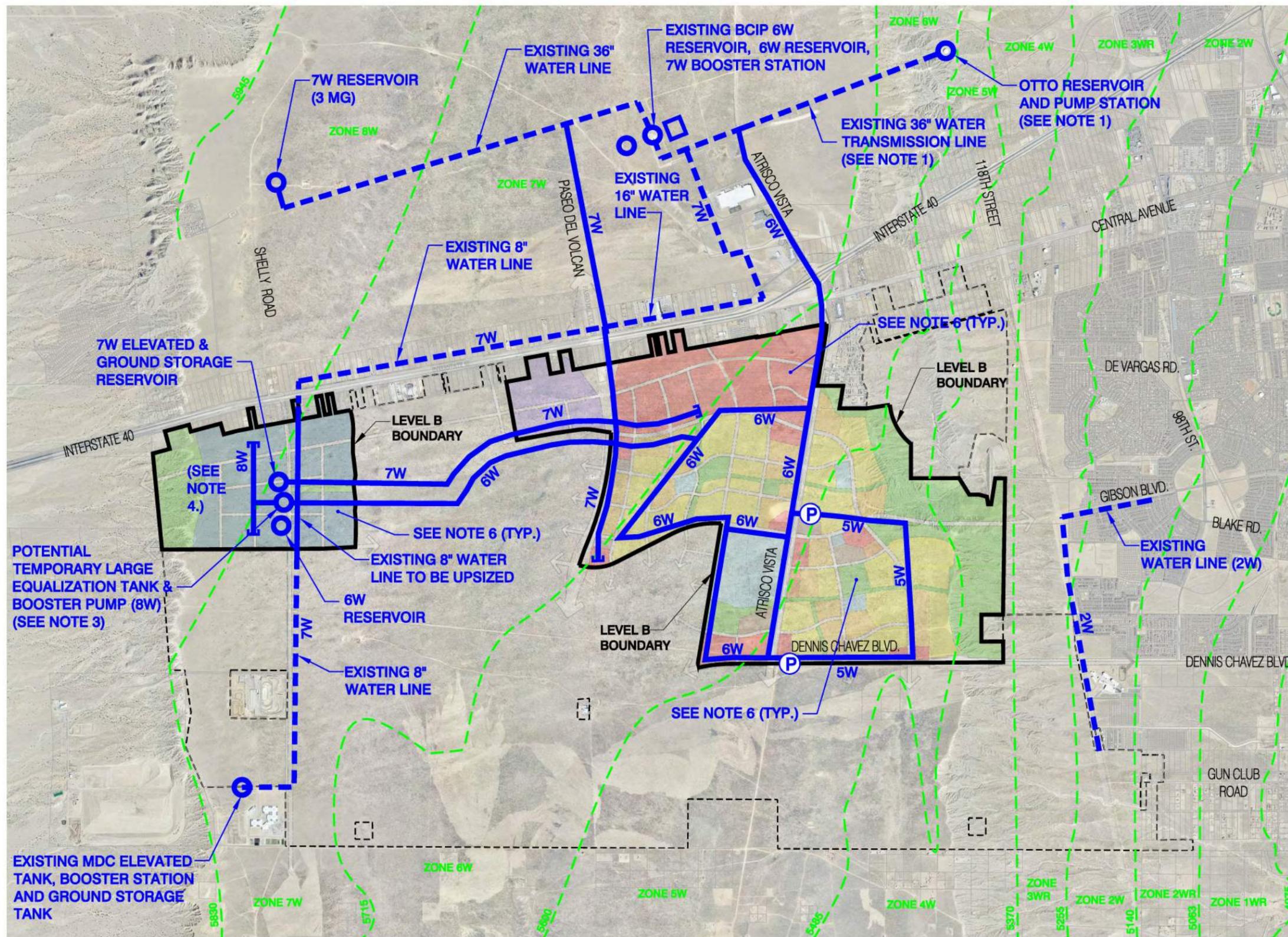
1. THIS PLAN CONCEPTUALLY SHOWS WATER SUPPLY FROM EXISTING WATER FACILITIES IN THE COLLEGE TRUNK (NORTH OF I-40). THE FINAL WATER SUPPLY APPROACH WILL BE SUBJECT TO AGREEMENTS WITH ABCWUA.
2. THIS PLAN IS CONCEPTUAL ONLY. FINAL WATER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
3. ALL WATER LINE ALIGNMENTS ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
4. THE WESTERN PORTION OF THE INDUSTRIAL & ENERGY PARK LIES ABOVE WATER ZONE 7W. FINAL SERVICE CONFIGURATION SHALL BE BASED ON ACTUAL CIRCUMSTANCES AT THE TIME OF DEVELOPMENT. SERVICE OPTIONS INCLUDE INSTALLATION OF PRIVATE OR PUBLIC BOOSTER STATIONS, SITE GRADING, LAND USES WITH NO WATER USE, OR CONNECTION TO EXISTING LINE IN SHELLY ROAD.
5. INFRASTRUCTURE CAN BE PHASED TO CONFORM TO ACTUAL DEVELOPMENT.
6. LOCALIZED WATER DISTRIBUTION SYSTEM (WATER LINES, VALVES, HYDRANTS, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A WATER LINE.

LEGEND

- P PRESSURE REDUCING VALVE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- FUTURE WATER LINE



EXHIBIT 15: WATER SYSTEM, 2025



NOTES:

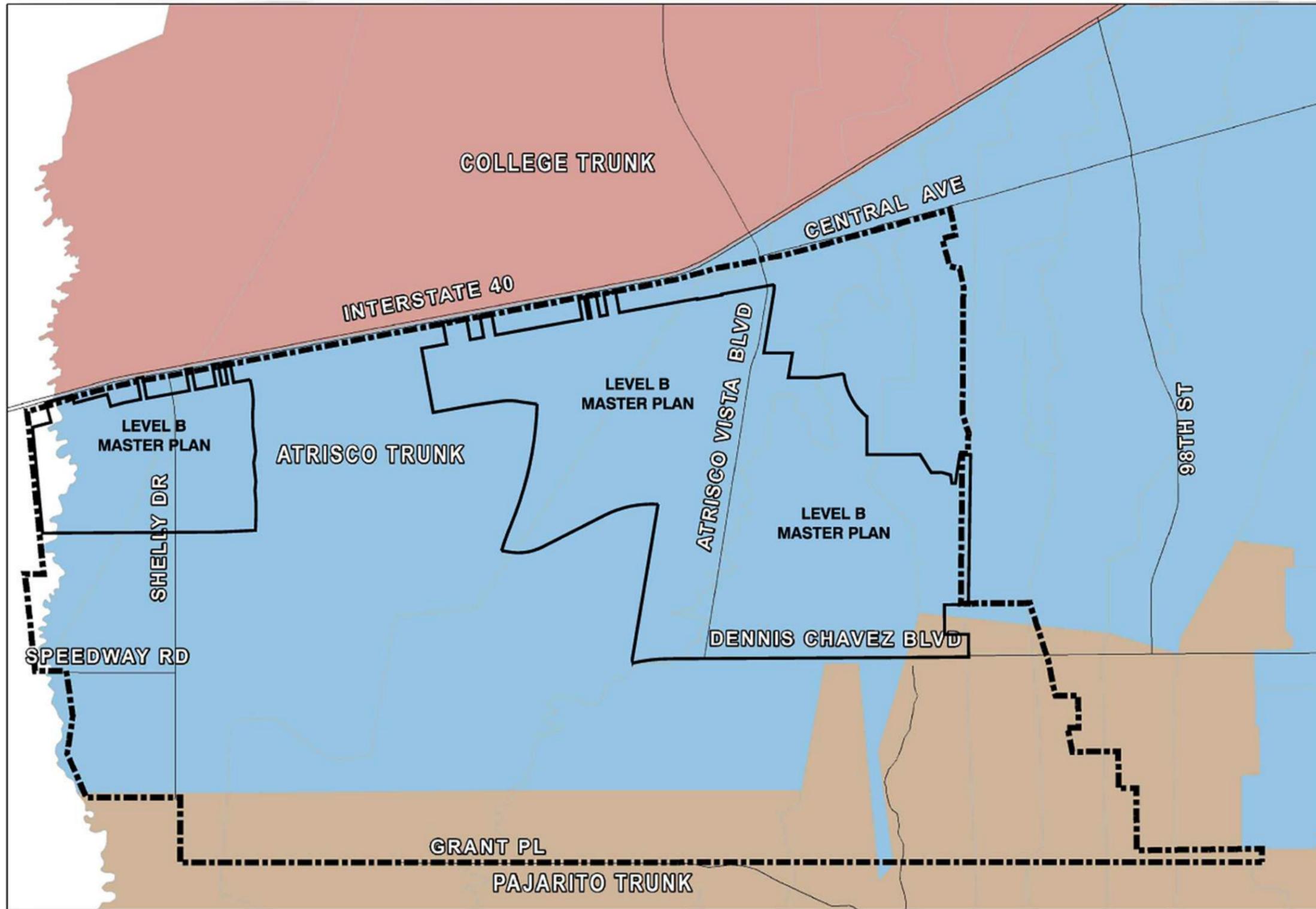
1. THIS PLAN CONCEPTUALLY SHOWS WATER SUPPLY FROM EXISTING WATER FACILITIES IN THE COLLEGE TRUNK (NORTH OF I-40). THE FINAL WATER SUPPLY APPROACH WILL BE SUBJECT TO AGREEMENTS WITH ABCWUA.
2. THIS PLAN IS CONCEPTUAL ONLY. FINAL WATER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
3. ALL WATER LINE ALIGNMENTS ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
4. THE WESTERN PORTION OF THE INDUSTRIAL & ENERGY PARK LIES ABOVE WATER ZONE 7W. FINAL SERVICE CONFIGURATION SHALL BE BASED ON ACTUAL CIRCUMSTANCES AT THE TIME OF DEVELOPMENT. SERVICE OPTIONS INCLUDE INSTALLATION OF PRIVATE OR PUBLIC BOOSTER STATIONS, SITE GRADING, LAND USES WITH NO WATER USE, OR CONNECTION TO EXISTING LINE IN SHELLY ROAD.
5. INFRASTRUCTURE CAN BE PHASED TO CONFORM TO ACTUAL DEVELOPMENT.
6. LOCALIZED WATER DISTRIBUTION SYSTEM (WATER LINES, VALVES, HYDRANTS, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A WATER LINE.

LEGEND

-  PRESSURE REDUCING VALVE
-  PROPOSED WATER LINE
-  EXISTING WATER LINE



EXHIBIT 16: WATER SYSTEM, FULL BUILD

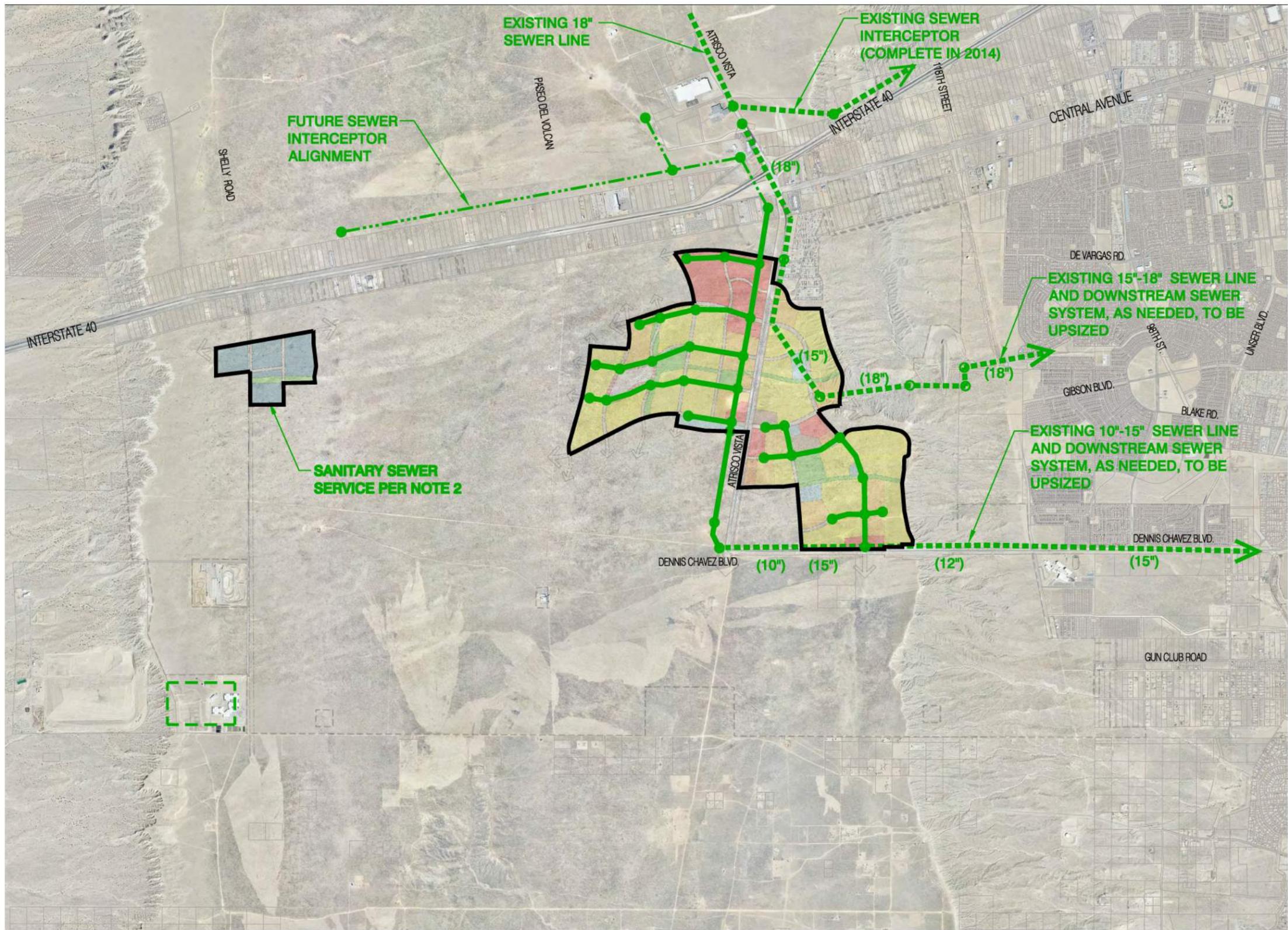


Legend

- ROADS
- TRUNK BOUNDARY
- ATRISCO
- COLLEGE
- PAJARITO
- SANTOLINA BOUNDARY

**ABCWUA WESTSIDE WATER SYSTEM
TRUNK ZONES**

EXHIBIT 17: ABCWUA WESTSIDE
WATER SYSTEM TRUNK ZONES



NOTES:

1. THIS PLAN IS CONCEPTUAL ONLY. FINAL SEWER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
2. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. PRIOR TO EXTENSION OF PUBLIC SEWER LINES, THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE:
 (A) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK)
 (B) ONSITE TREATMENT & DISPOSAL SYSTEMS.
 SEE ALSO NOTE 1.
4. LOCALIZED SANITARY SEWER DISTRIBUTION SYSTEM (SANITARY LINES, MANHOLES, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A SEWER LINE.

LEGEND

-  PROPOSED SEWER LINE
-  EXISTING SEWER LINE & SIZE ()
-  FUTURE SEWER LINE

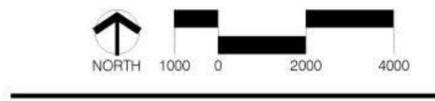
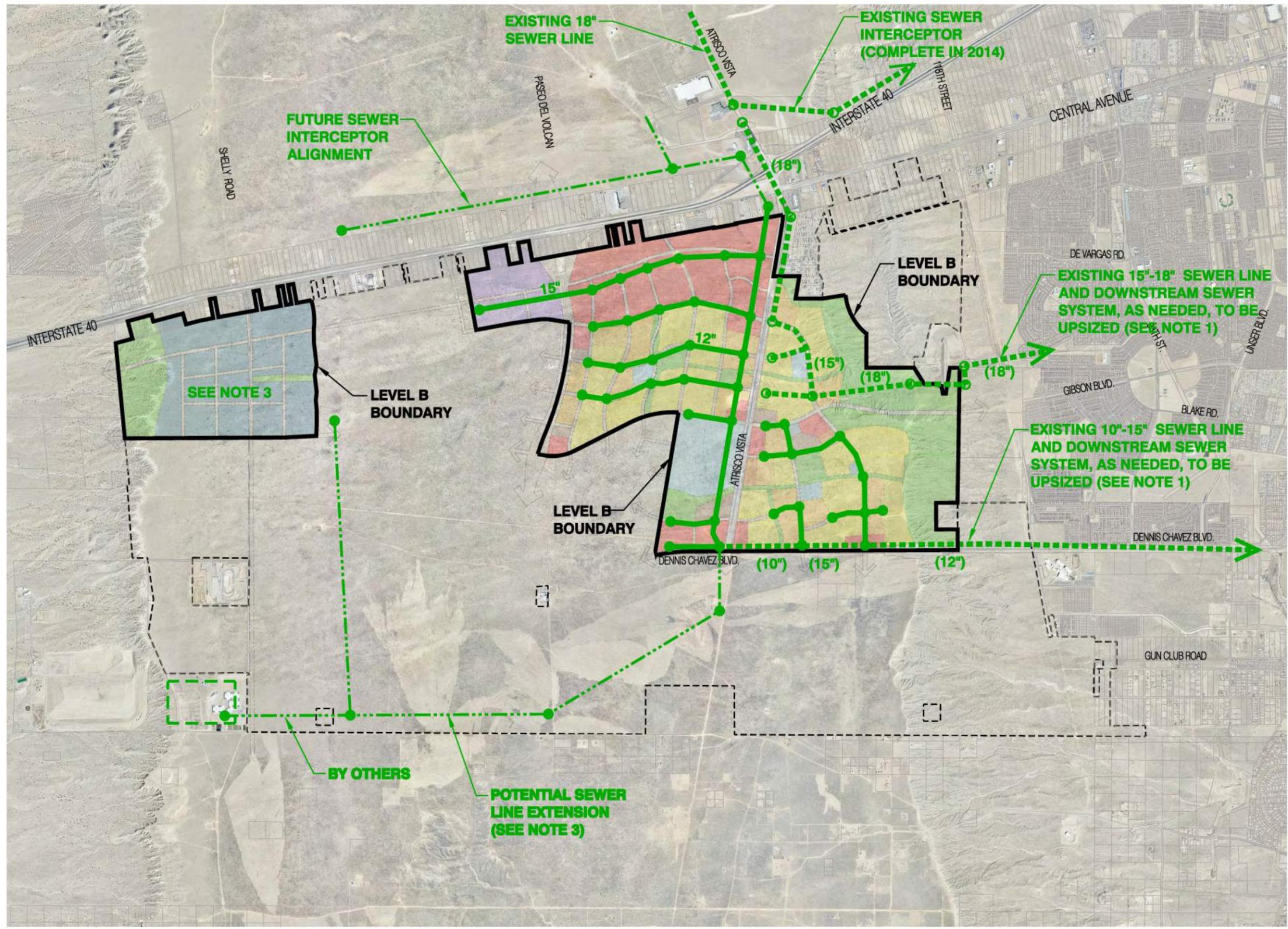


EXHIBIT 18: SANITARY SEWER 2025



NOTES:

1. THIS PLAN IS CONCEPTUAL ONLY. FINAL SEWER SYSTEM INFRASTRUCTURE, TIMING OF INFRASTRUCTURE AND CONFIGURATION SHALL BE DETERMINED BY FINAL AGREEMENTS WITH ABCWUA, APPROPRIATE LEVEL C DESIGN ANALYSIS REPORTS AND ACTUAL DESIGN EFFORTS, APPROVED BY THE WATER AUTHORITY.
2. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. PRIOR TO EXTENSION OF PUBLIC SEWER LINES, THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE:
 - (A) CONSTRUCTION OF POTENTIAL SEWER INTERCEPTOR (NEAR SOUTH & WEST BOUNDARY)
 - (B) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK)
 - (C) ONSITE TREATMENT & DISPOSAL SYSTEMS.
 SEE ALSO NOTE 1.
4. LOCALIZED SANITARY SEWER DISTRIBUTION SYSTEM (SANITARY LINES, MANHOLES, ETC.) NOT SHOWN WILL BE INSTALLED IN ACCORDANCE WITH ABCWUA & COUNTY REQUIREMENTS. MOST STREETS WILL HOLD A SEWER LINE.

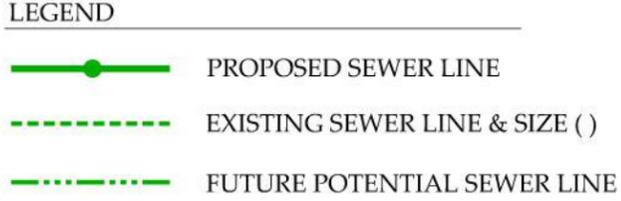
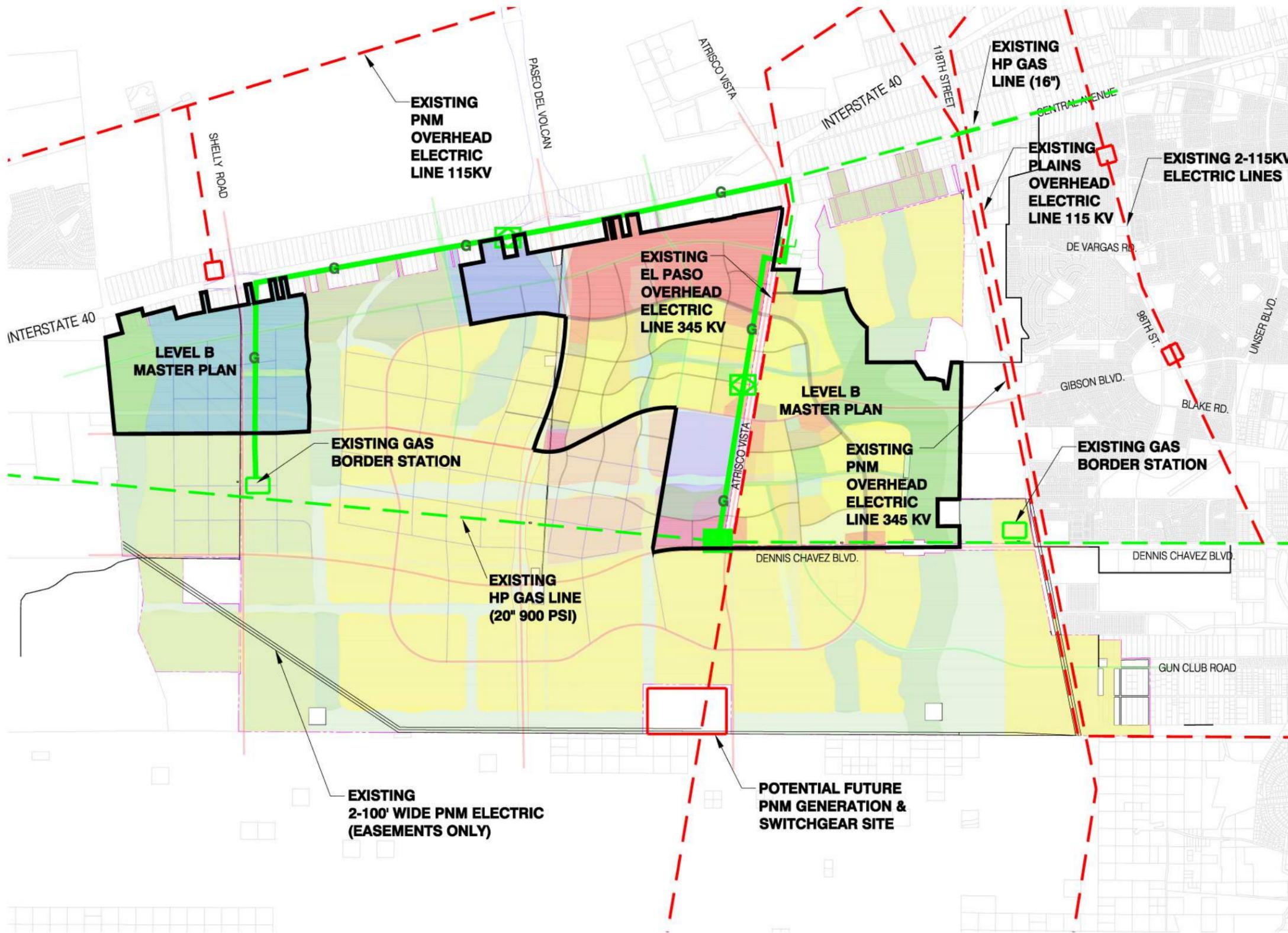


EXHIBIT 19: SANITARY SEWER FULL BUILD



NOTES:

1. WITH DEVELOPMENT OF THE MASTER PLAN AREA, ADDITIONAL UTILITY FACILITIES WILL BE REQUIRED AND PLANNED
2. EXISTING DRY UTILITIES FACILITIES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
3. ONLY A SCHEMATIC FUTURE GAS SYSTEM IS PROVIDED AT THIS TIME. AN ELECTRIC SYSTEM SCHEMATIC WILL BE PROVIDED WITH FUTURE LEVEL 'B'; MASTER PLANS.

LEGEND

- 8-12" GAS LINE
- EXISTING SUBSTATION
- EXISTING ELECTRIC TRANSMISSION LINE
- EXISTING GAS LINE
- GAS BORDER STATION
- GAS REGULATOR STATION



EXHIBIT 20: DRY UTILITIES

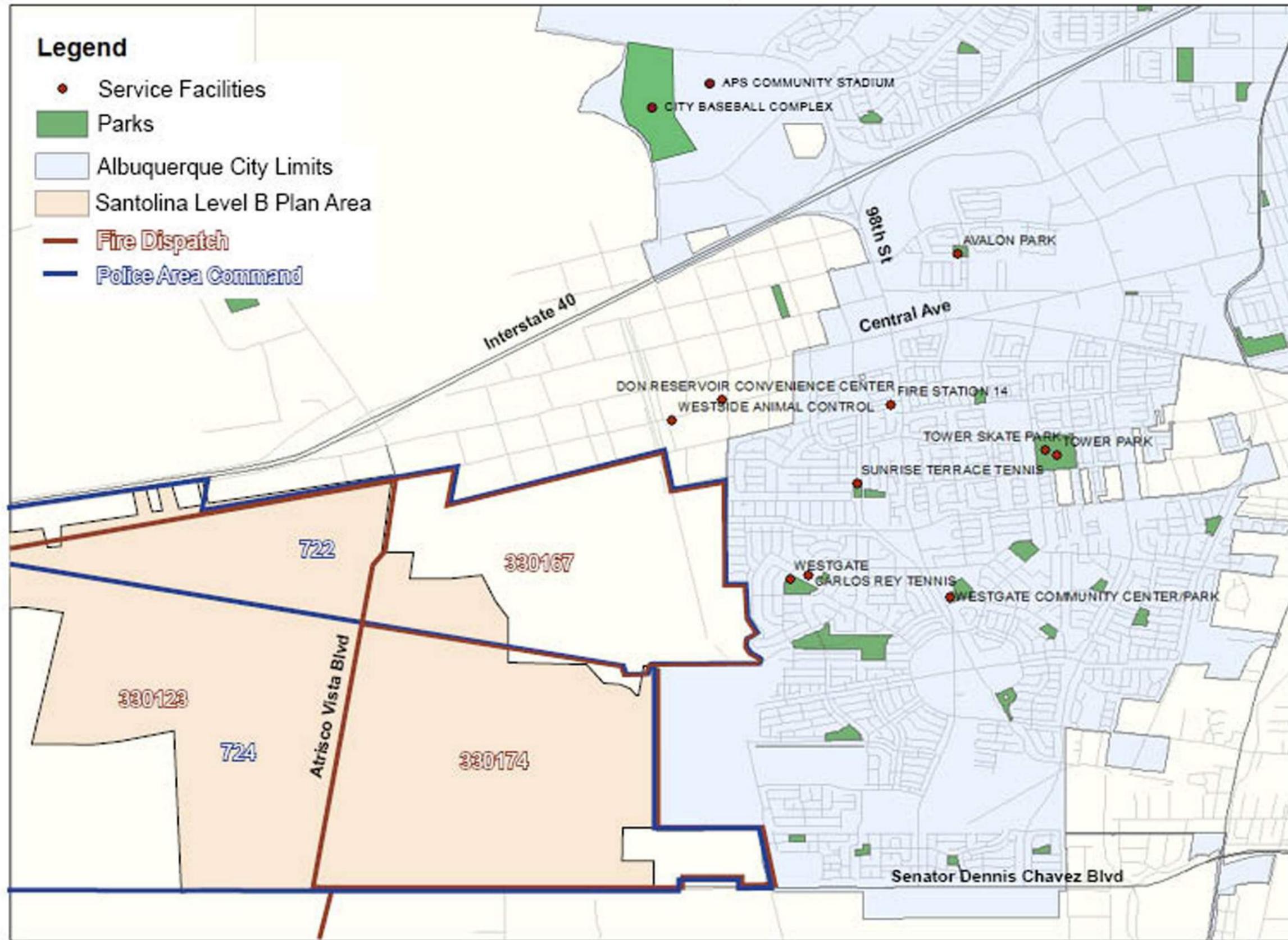


EXHIBIT 21: SERVICE FACILITIES & DISPATCH BOUNDARIES

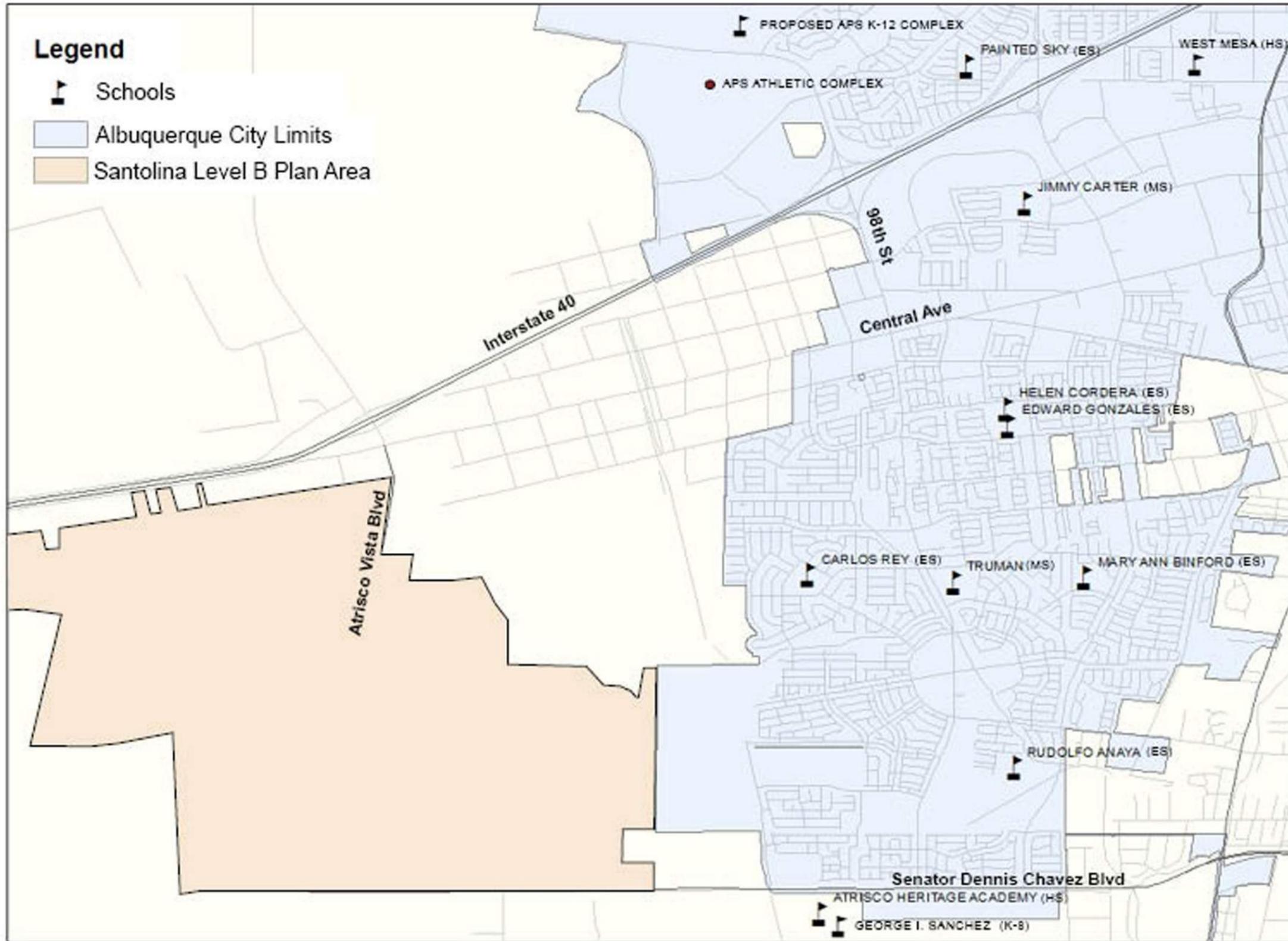


EXHIBIT 22: PUBLIC SCHOOL LOCATIONS