WALH

WESTERN ALBUQUERQUE LAND HOLDINGS, LLC

# Santolina Level A

# Master Plan

January 6, 2015

SANTOLINA

The Santolina Level A Master 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 the:

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WESTERN ALBUQUERQUE LAND HOLDINGS, LLC

**Santolina Community Development Team**

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# Chapter 1
# Executive Summary

SANTOLINA

## 1. Executive Summary

Western Albuquerque Land Holdings LLC "WALH" owns 13,851 acres in Bernalillo County west of Albuquerque, New Mexico. WALH has assembled a team of development experts tasked with the mission to create a master plan for a vibrant mixed use community on this land. The team has conducted studies of the site, developed land plans for the property and analyzed the infrastructure systems required to serve the community.

The result of this effort is the Santolina Master Plan. Santolina is envisioned as a master planned community that will develop over a 40-50 year timeframe. The timeframe is influenced by market demand and the state and region's ability to attract, support and facilitate new economy jobs, which are primarily knowledge-based jobs, requiring at least a two-year degree, in support of the digital economy, global markets, information technology and/or innovation capacity. During the design of Santolina, WALH and the development team established the following vision to guide design and development over that extended time period. Santolina will be a community where:

- Jobs and educational opportunities are plentiful and locally accessible
- Desirable housing responds to changing demographic and market preferences
- Open space and quality of life are preserved and enhanced
- A true "live, work, learn and play" community is created for residents

The property is currently undeveloped rangeland on a large mesa framed by two escarpments. The mesa offers panoramic views of the Sandia and Manzano Mountains and immediate views of the City of Albuquerque and Bernalillo County's South Valley. The land area within Santolina is the western gateway to and from the metropolitan area and includes approximately six miles of exposure along Interstate 40 (I-40). Along with access from I-40, the property is readily accessible from many significant roadways. These include Central Avenue, Dennis Chavez Boulevard, Atrisco Vista Boulevard and 118th Street.

Santolina has been designed as a master planned area with a mixture of land uses, a variety of housing and employment opportunities and places for civic life. Today's market preferences convey that people want to be engaged in a community, not just live in a nondescript subdivision that requires driving across town to meet other needs. Santolina will be a distinct community with a sense of place - a place to live, work, learn and play. In order to realize this vision, the land plan proposes the following mix of land use categories:

- Residential Villages to accommodate housing, education, public services, commercial services and recreational uses within convenient reach
- An Urban Center for co-location of regional public and private facilities such as a community center, APS schools, a post-secondary education campus, a regional park, fire/sheriff facilities and commercial and high-density residential development
- A Town Center with freeway access to attract large scale regional commercial users
- Business Parks with freeway access to attract research, technology, healthcare, business and educational facilities such as universities
- A large-scale Industrial and Business Park suitable for manufacturing, distribution and warehousing operations, energy production facilities and other industrial job and educational uses

- Public and private open space to preserve and highlight the natural beauty of the community

Approval of this Level A Master Plan is the first step in transforming ranch land zoned A-1 to a new planned community to serve Bernalillo County residents and the surrounding MSA.

Long range development within Bernalillo County is guided by the Albuquerque/Bernalillo County Comprehensive Plan. The Comprehensive Plan establishes goals and policies that provide the framework for land uses and densities throughout the County. Based on the Comprehensive Plan designations (Exhibit 4: Comprehensive Plan Areas) and corresponding acreages (Exhibit 5: Comprehensive Plan Land Use Allocations), Santolina is permitted 38,045 dwelling units. Along with the residential units outlined above, Santolina is envisioned to include manufacturing, office and service facilities to accommodate approximately 75,000 jobs, a jobs-housing ratio of approximately 2.0 jobs per household at full development. The economic impact to Bernalillo County as a result of the anticipated jobs and output generated by Santolina is substantial. At full buildout, the recurring direct and indirect economic impacts to the County will total $10.9 billion annually, with an additional $18.1 billion in one-time construction wage output during buildout. The addition of the targeted 75,000 jobs created within Santolina will increase the County's overall current jobs-housing ratio from 0.99 to 1.23, a 24.65% increase.

## No Net Expense

The Comprehensive Plan provides that "planned communities shall not be a net expense to local governments". 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 can be satisfied if the County's on-site public expenditures and off-site public expenditures reasonably allocated to the Project have been, or will be, off-set by revenues and/or benefits from the Project.

WALH engaged David Taussig & Associates to prepare Fiscal and Economic Impact Studies for Santolina both dated August 22, 2013 ("Impact Study"), which is included in the Santolina Level A Master Plan as Technical Appendices. The purpose of the Impact Study is to provide a detailed summary of the projected fiscal and economic impacts to the County as a result of the development of Santolina. The Impact Study concludes that the County will receive significant positive fiscal and economic impact as a result of the development of the project. The Bernalillo County Economic Development Department conducted a third party peer review and approved the methodology used in the Impact Study to reach this conclusion and agree that the County's expenditures reasonably allocated to the project will be off-set by revenues and/or benefits from the project and that the Impact Study fully satisfies the "no net expense" policy contained in the Comprehensive Plan and PCC. The positive fiscal and economic benefits generated from Santolina will be expended on and within the project for items that benefit the Project.

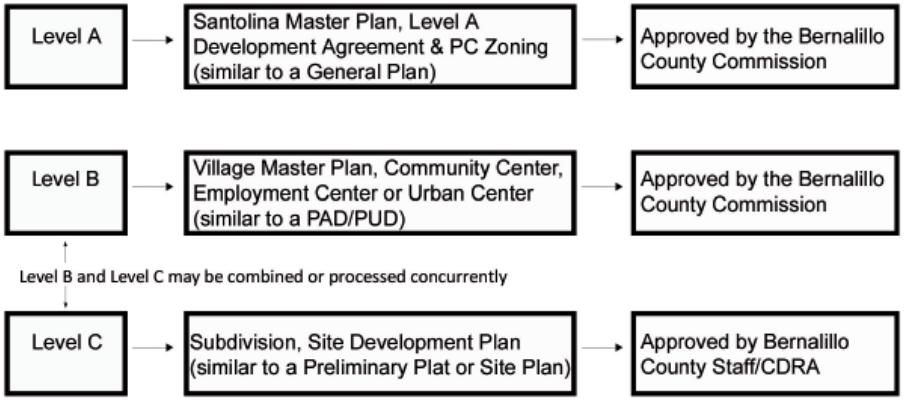
The "no net expense" provisions of the PCC are implemented through the Level A development agreement that is negotiated with the Bernalillo County Manager's Office and approved by the Bernalillo County Commission. The Level A development agreement addresses both capital expenditures, i.e., the money needed to build infrastructure, and the operation and maintenance expenses, i.e., the money needed to operate and maintain such infrastructure.

The Level A approvals, including the development agreement, ensure "no net expense" to the County. The fiscal analysis addresses the ongoing operation and maintenance needs of the County over time and shows that a significant surplus of revenues and benefits are generated by Santolina.

## Planned Communities Criteria Process

As a master planned community located within the Reserve Area of the Comprehensive Plan, Santolina follows the Planned Communities Criteria process. The Planned Communities Criteria has been adopted by Bernalillo County to provide guidance for developers and a framework for County evaluation of large-scale planned community master plans.

The Planned Communities Criteria requires three levels of plans for review and approval. The three-tiered review process of the Planned Communities Criteria allows for a predictable, consistent and open review process that is appropriately scaled to the level of detail required at each stage. The three levels of the approval process are:




A Level A Master Plan is the first step in the approval process. The Master Plan demonstrates "an integrated and self-sufficient model of development", per the Bernalillo County PC Zone. The Level A Master Plan establishes the big picture vision and overall framework for the entire community. Boundaries and sizes of sub-areas may shift to respond to specific development opportunities and their related infrastructure needs.

Future Level B plans will be prepared with more detailed information and analysis as set forth in the Planned Communities Criteria. These plans will be prepared for sub-areas within Santolina. The Level B plans will include further refinement of land uses, zoning details, infrastructure plans, transportation analyses and public facilities.

Subsequently or concurrently, a Level C plan will be submitted for sub-area or portions thereof in the Level B plan that are ready for development. The purpose of the Level C plan will be based on the requested land use. It is typically of a detailed nature consistent with a preliminary plat or site plan.

Concurrently with the Bernalillo County approval of this Master Plan, the Planned Community Zone (PC Zone) has been applied to the property. The Santolina PC Zone (see Chapter 4), places zoning on the property in alignment with the vision for Santolina expressed in this Level A Master Plan.

In summary, via the approval of this Level A Master Plan, WALH has begun the process necessary to develop a vibrant community on the Westside to meet forecasted regional growth over the next 40-50 years.

# Chapter 2
# Introduction

SANTOLINA

# 2. Introduction

## Overview

The Santolina Level A Master Plan ("Master Plan") includes 13,851 acres owned by Western Albuquerque Land Holdings "WALH". The lands (existing and future) within the Master Plan ("Master Plan Area") are the master planned community known as Santolina. Santolina is located on the Southwest Mesa, bound on the north by I-40, on the east by 118th Street, on the south by the Pajarito Mesa grant boundary and on the west by the Rio Puerco Valley.

## Property Conditions

Santolina offers panoramic views of the Sandia and Manzano Mountains and immediate views of the City of Albuquerque and Bernalillo County's South Valley. The Master Plan Area is also the southern half of the western gateway to and from the metropolitan area and has approximately six miles of exposure along I-40. Along with access from I-40, the property is readily accessible from Central Avenue, Atrisco Vista Boulevard and 118th Street.

The property is a large mesa framed by two escarpments. The gently sloping terrain of the mesa features dunes, vegetated swales and natural washes while the escarpments are characterized by more intense topography. The property features an extensive network of drainage basins that convey storm water across the site into closed basins or drain offsite. Additionally, a variety of grasses, wildflowers, cacti and brush provide groundcover throughout the community. During the course of preparing the Master Plan, a number of studies were conducted, resulting in the findings that no endangered species or archeologically significant properties exist within the Master Plan Area.

The Master Plan Area is located within Bernalillo County outside the municipal boundary of the City of Albuquerque. Current zoning consists of limited non-residential designations along the interstate/Central Avenue, such as C-1 (Neighborhood Commercial), C-LI (Commercial/Light Industrial) and M-1 (Light Industrial). The remainder of the Master Plan Area is zoned A-1 (Rural Agriculture) allowing one (1) acre minimum residential lots. Development at this density is not consistent with the Comprehensive Plan's intent for a master planned community in this area.

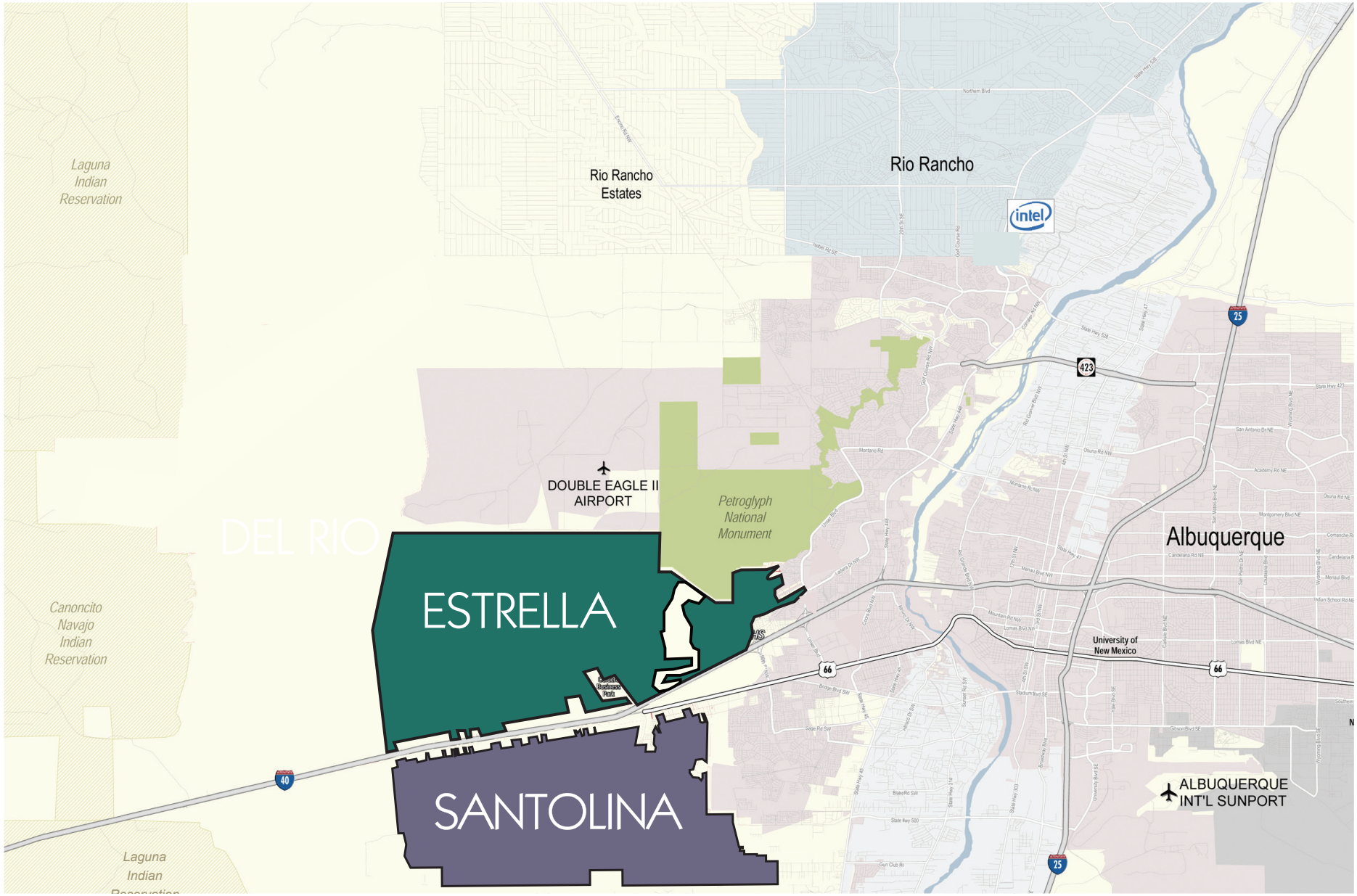
The vast majority of the Master Plan Area is currently undeveloped, unplatted rangeland. Current development on the mesa includes AT&T and Federal Aviation Administration (FAA) facilities along with some outparcels governed by special use permits. Other facilities include the Motor Speedway, the Metropolitan Detention Center and the Cerro Colorado Landfill. These uses have substantially changed the character of the southwest portion of the Master Plan Area. They have been excluded from the Master Plan as outparcels and will be buffered by industrial and business park uses within the Santolina Land Use Plan.

As discussed earlier, the Plan Area is bookended by escarpments which are primarily designated as open space. These areas provide an attractive buffer to land uses east and west of the Plan Area. Where residential villages are located along the eastern boundary of the community, efforts will be made to ensure that future neighborhoods fit contextually with the existing, adjacent residential character.

Santolina's southern boundary is primarily identified as open space, providing a buffer to adjacent land uses. The 148 acre PNM outparcel, centrally located along Santolina's southern boundary, will require screening and buffering to provide separation between the future PNM Generation and Switching Station site and the residential neighborhoods within Santolina. Due to the remote location and lack of major roadway/truck access, it is not an appropriate location for industrial or heavy commercial land uses. Therefore, PNM should bear the responsibility for screening

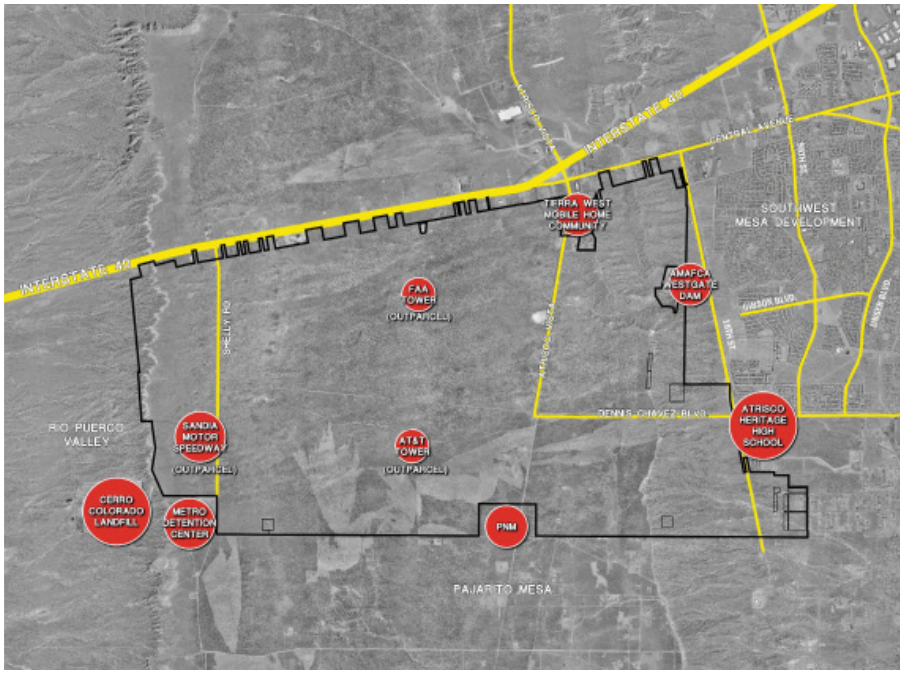
*Exhibit 1: Context Map*

REGIONAL VICINITY




*The Context Map illustrates the boundaries of the Santolina Master Plan Area and identifies adjacent areas of existing development. The area defined as Estrella delineates WALH's property on the north side of I-40. Estrella includes the Westland Master Plan and Westland Sector Development Plan, both of which were approved by the City and the County.*

*Exhibit 2: Existing Conditions and Santolina Boundary*




and noise buffering of their facility adjacent to future residential neighborhoods within Santolina.

## Community Vision

Santolina is envisioned as a master planned community developed over a 40-50 year timeframe. The timeframe is contingent upon market demand and the state and region's ability to support and attract new economy jobs and economic opportunities. During the design of Santolina, WALH and the development team established the following vision to guide design and development over that time period. Santolina will be a community where:

- Opportunities for jobs and educational opportunities 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

In order to realize this vision, the Land Use Plan (Exhibit 7: Land Use Plan) proposes six (6) land use categories within the community to provide a wide range of uses and activities as follows:

- Residential Villages (including residential village centers) to accommodate housing, education, public services, commercial services and recreational uses within convenient reach
- An Urban Center for co-location of regional public and private facilities such as a community center, APS schools, a post-secondary school campus, a regional park, fire/sheriff facilities, commercial and high-density residential development
- A Town Center with freeway access to attract large-scale regional commercial service businesses
- Two Business Parks with freeway access to attract employment centers with research, technology, healthcare, business and university and higher educational facilities

- A large-scale Industrial & Business Park suitable for manufacturing, distribution and warehousing operations, energy production facilities and other industrial uses
- Open Space, including Major Public Open Space, Regional Parks and open space, to highlight the natural beauty of the community and provide recreational areas for residents.

The configuration and design intent of each use is further articulated in Chapter 3 Land Use.

## Existing Plans and Regulations

While envisioned by WALH and the County, via the Albuquerque/Bernalillo County Comprehensive Plan (the Comprehensive Plan), as a vibrant master planned community, the Master Plan Area is currently zoned A-1 as a holding zone until a Planned Community Master Plan is approved for the property. Following is a summary of the existing governing documents in place for the Master Plan Area.

1. **Existing Zoning**
   The Master Plan Area is entirely within Bernalillo County, outside the jurisdiction of the City of Albuquerque. The majority of the land is currently rangeland and zoned as A-1 (Rural Agriculture), allowing one (1) acre minimum residential lots unless master planned as a planned community. There are a limited number of parcels zoned C-1 (Neighborhood Commercial), C-LI (Commercial/Light Industrial) and M-1 (Light Industrial) along the Central Avenue/I-40 corridor.

2. **The Albuquerque/Bernalillo County Comprehensive Plan**
   The Albuquerque/Bernalillo County Comprehensive Plan (Comprehensive Plan) contains long range goals and policies that guide regional development in the City and the County. The Comprehensive Plan was most recently adopted and amended by the Board of County Commission in 2012.

   The Comprehensive Plan establishes broad land use designations that contain goals for how land should develop within each designation, while the Comprehensive Plan shows four categories on the Master Plan. The majority of the Master Plan Area is designated as Reserve.

   Reserve Areas are intended to develop as master planned communities, providing employment, shopping and recreation opportunities that include transportation solutions to help alleviate traffic congestion as well as residential uses. Density allotment in the Reserve Area is restricted to 1 dwelling unit per acre (du./ac.), unless a master plan has been approved. Once a master plan has been approved, density allowance is increased to 3 du./ac. gross. The Master Plan is enacting the long range vision of the Comprehensive Plan which determined that this area is appropriate and desirable for a distinct, large scale, master planned community.

   Based on the Comprehensive Plan, the Master Plan is entitled to an overall number of allowable dwelling units of 38,045 units community-wide. These units are averaged, on a gross acreage basis across all of the residential areas within Santolina.

   An overall residential density of 2.7 du./ac. gross is established once the total number of allowable units (per the Comprehensive Plan) is applied to the total acreage allocated to four Comprehensive Plan categories within the Master Plan Area. As further detailed in Chapter 3 Land Use, in addition to employment, commercial and open space, the community will contain a mix of areas of higher-density multi-family development and areas of lower-density single family development.

   The residential unit total within the Master Plan Area is the driver of projections for population, jobs, infrastructure and other plan elements. All of these assumptions have been made in concurrence with the Comprehensive Plan designations, goals and policies.

3. **Planned Communities Criteria**
   The Planned Communities Criteria was adopted by Bernalillo County to provide guidance for developers and function as a framework for County evaluation of large-scale planned community master plans. The Planned Communities Criteria requires three levels of plans for review and approval. The three-

tiered review process of the Planned Communities Criteria allows for a predictable, consistent and open review process that is appropriately scaled to the level of detail required at each stage. The three levels of the approval process are:

*Exhibit 3: Planned Communities Process*

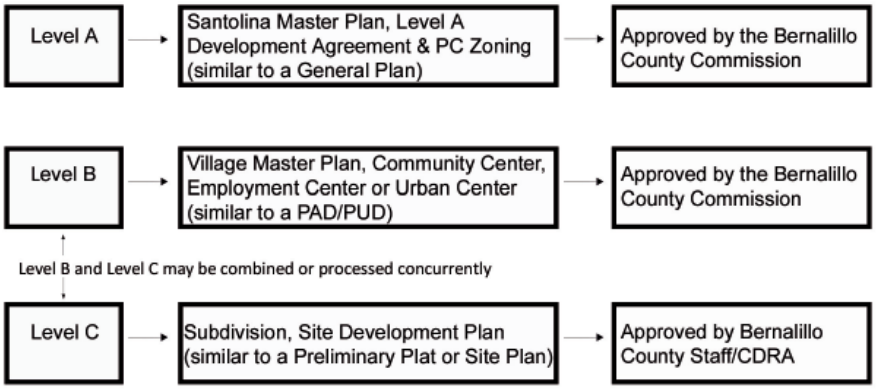



*Exhibit 4: Comprehensive Plan Areas*

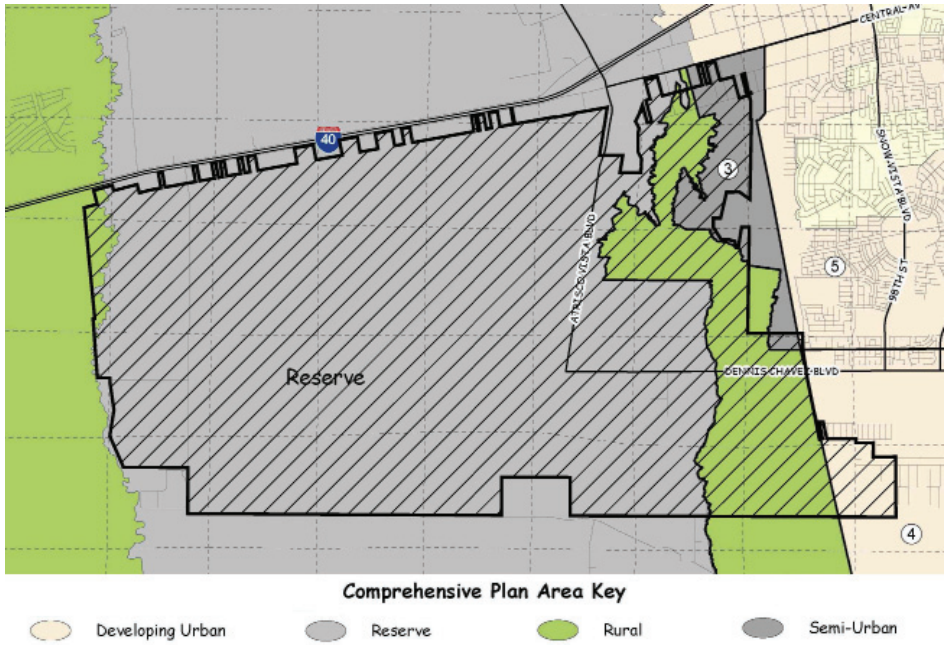



*Exhibit 5: Comprehensive Plan Land Use Allocations*

| Comprehensive Plan Area Designation | Allowable Density | Area | Allowable Units | Percentage of Master Plan Area |
|---|---|---|---|---|
| Reserve Area | 3.0 du./ac.* | 11,223 acres | 33,669 units | 81% |
| Rural Area | 1.0 du./ac. | 1,961 acres | 1,961 units | 14% |
| Semi-Urban Area | 3.0 du./ac. | 459 acres | 1,377 units | 3% |
| Developing Urban Area | 5.0 du./ac. | 208 acres | 1,038 units | 1% |
| | 2.7 du./ac. | 13,851 acres | 38,045 units | |

*3 du./ac. gross permitted in Reserve Areas once a Community Master Plan has been adopted. Otherwise the permitted density is 1 du./ac.

A Level A Master Plan is the first step in the approval process. The Master Plan demonstrates "an integrated and self-sufficient model of development", per the Bernalillo County Zoning Ordinance. The Level A Master Plan establishes the big picture vision and overall framework for the entire community. Boundaries and sizes of sub-areas may shift to respond to specific development opportunities and their related infrastructure needs.

Future Level B plans will be prepared with more detailed information and analysis as set forth in the Planned Communities Criteria. These plans will be prepared for sub-areas within Santolina. The Level B plans will include further refinement of land uses, zoning details, infrastructure plans, transportation analyses and public facilities.

Subsequently or concurrently, a Level C plan will be submitted for sub-area or portions thereof in the Level B plan that are ready for development. The purpose of the Level C plan will be based on the requested land use. It is typically of a detailed nature consistent with a preliminary plat or site plan.

**4. Southwest Area Plan and West Side Strategic Plan**

Both of these plans are regional area plans. The Master Plan complies with the goals and policies of both plans. A summary of key plan goals from both documents is included below:

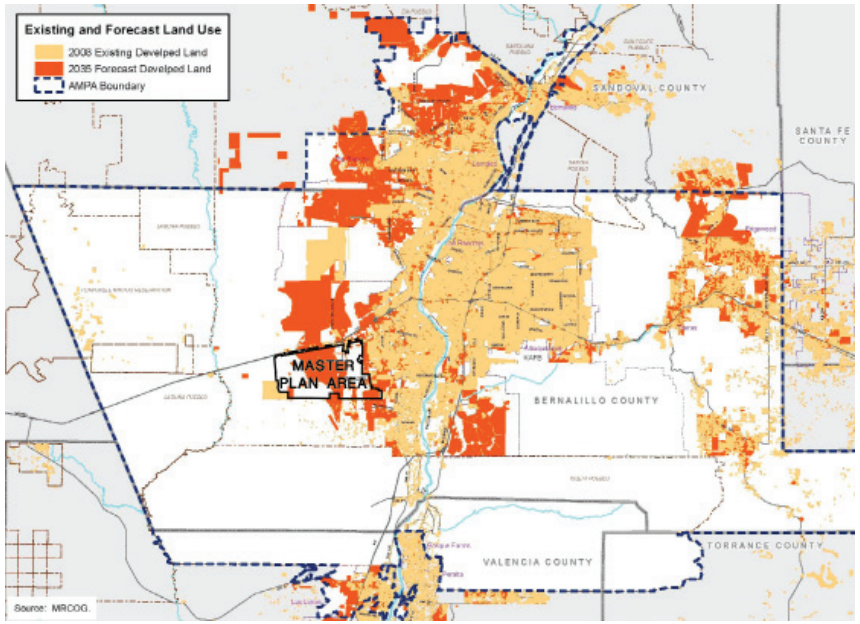
- Promote higher density development on the mesa top to preserve the rural character and agricultural lands of the South Valley
- Promote large-scale development that provides a mix of land uses and appropriately locates commercial and industrial activities
- Provide more commercial services and employment areas for new jobs on the West Side (the goal being to reduce traffic accessing jobs and shopping on the east side of the river by providing jobs and employment on the West Side).
- Promote economic development, especially job opportunities for residents on the West Side.
- Regionally plan the corridors, open space, transportation and utilities for maximum efficiency and preservation of critical regional corridor connectivity

The Santolina Planned Community complies with the goals, policies and intent of these area plans, especially with regard to providing employment opportunities, promoting economic development and providing an appropriate location for growth in order to protect the valley agricultural land from development.

**5. Agricultural Grazing Use Pending Development**

The Master Plan Area shall continue to be used for grazing purposes until development occurs. Property tax rates shall recognize the use of land as agricultural until such time as a Level C plan (see Requested Entitlements & Process below) has been approved and vertical development occurs on an individual final platted parcel or tract. The adoption of the Master Plan or subsequent Level B or C plan approvals shall not be considered as a change in land use or agricultural status of the property for tax purposes.

*Exhibit 6: MRCOG 2035 Regional Land Use Forecast Map*




## Regional Projections

Forecasts and projections within the Master Plan were prepared consistent with data produced in regional studies conducted by several local and state governmental agencies. WALH will review data from these agencies and refine projections and forecasts in future Level B plans. The Master Plan was developed within the context of the following:

The Mid-Region Council of Governments of New Mexico (MRCOG) and The Bureau of Business & Economic Research (BBER) at the University of New Mexico have forecast significant population growth for the Albuquerque Metropolitan Area (AMPA) during the next twenty years. As illustrated in the MRCOG 2035 Regional Land Use Forecast Map, (Exhibit 6: MRCOG 2035 Regional Land Use Forecast Map), a large portion of the growth is allocated to Santolina and WALH's property north of I-40.

1. MRCOG's 2035 Metropolitan Transportation Plan (MTP) identifies the high volume east-west commute as a critical transportation issue to the region. The population west of the Rio Grande is increasing, while the major job concentrations have been primarily located east of the River. There is a long-identified need for new employment centers on the West Side.

2. MRCOG projects that by 2035 the West Side will represent 58% of the AMPA's population.

3. Limited areas of the region can accommodate forecasted growth due to land constraints caused by:

   - Tribal, federal and state ownership
   - Environmental constraints such as escarpments, the Rio Grande and dedicated open space
   - Limited infrastructure systems
   - Fractured land ownership patterns

4. Lands adjacent to existing development, able to be served by the infrastructure are ideal locations to accommodate the forecast growth.

## Zoning

In addition to the Master Plan, WALH also requested adoption of Planned Community Zone (PC Zone) for the entire Master Plan Area. The PC Zone is in conformance with the Level A Master Plan for the planned community.

The Santolina Planned Community Zone consists of six (6) zoning land use districts similar to and consistent with the land use districts outlined within the Planned Communities Criteria. The land use categories are:

- Residential Village (including residential village centers)
- Town Center
- Business Park
- Urban Center
- Industrial & Business Park
- Open Space

Reference Chapter 4 Santolina PC Zone for greater detail of the land uses and characteristics of the PC Zone.

# Chapter 3
# Land Use

SANTOLINA

# 3. Land Use

## Overview

Santolina is envisioned as a master planned community that will be developed over a 40-50 year timeframe. The timeframe is influenced by market demand and the state and region's ability to support and attract new economy jobs. New economy jobs are primarily knowledge-based jobs in support of technological innovation, global markets, information technology, entrepreneurial development and/or innovation capacity. New economy jobs typically require an educated (minimum two-year degree) and skilled workforce that is flexible and creative. These jobs include a broad spectrum of disciplines including research and development, computer programming, bioscience, computer/software engineers, doctors, architects/planners, industrial designers, engineers, scientists, accountants, lawyers, inventors, financial analysts, writers, graphic designers and teachers.

During the design of Santolina, WALH and the design team established the following vision to guide design and development over that time period.

Santolina will be a community where:

- Jobs and educational opportunities are plentiful and locally accessible
- Desirable housing responds to changing demographic and market preferences
- Open space and quality of life are preserved and enhanced
- A true "live, work, learn and play" community is created for residents

As noted in Chapter 2 Introduction, the Master Plan provides a long term framework for the future development of Santolina. The framework addresses how Santolina will contribute to the existing community. Along with the physical contributions outlined within the Master Plan, Santolina will provide a substantial net-positive economic and fiscal benefit to the County. Based on the Level A Master Plan, Santolina provides the following economic benefits:

- The overall fiscal impact to Bernalillo County's general fund as a result of the development of Santolina will be an annual recurring fiscal surplus of $22.4 million
- Santolina will contribute $20 million in annual non-General Fund revenues
- Santolina will generate annual recurring revenues projected to equal approximately 1.78 times the General Fund costs associated with Santolina
- One-time construction gross receipt tax revenues flowing to the County over the build-out of Santolina are substantial, General Fund revenues totaling $47.7 million and non-General Fund revenues totaling $40.9 million

## Addressing Market Trends

There is increasing demand for master planned areas with a mixture of land uses, variety of housing and places for civic life and recreation. Today's market preferences convey that people want to be engaged in a community, not just live in a nondescript subdivision that requires drives across town for other needs. Santolina will be a holistic community with a sense of place - a place to live, work, learn and play.

**Providing Jobs**

The economic viability and sustainability of a region hinges on its ability to generate and provide jobs. The West Side has traditionally focused on residential and some commercial land uses. It has lacked jobs, educational opportunities and an adequate amount of commercial development. While there has been improvement in recent years, quality of life on the West Side is still a function of

commute times and traffic congestion due to limited river crossings. Santolina aims to create job opportunities for the greater West Side and Southwest Mesa areas by providing a mix of land uses, from heavy industry to corporate offices and neighborhood scale employment options.

The economic benefit to Bernalillo County resulting from the anticipated jobs and output generated by Santolina is substantial. At full buildout, the recurring direct and indirect economic impacts to the County will total $10.9 billion annually, with an additional $18.1 billion in one-time construction wage output during buildout. The addition of the targeted 75,000 jobs created within Santolina will increase the County's overall current jobs-housing ratio from 0.99 to 1.23, a 24.65% increase.

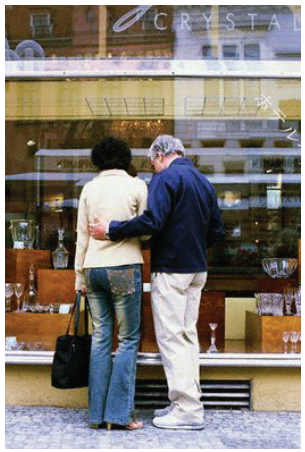
**Education for a Lifetime of Productive Work**

Education and job training are critical for success in the new millennium employment arena. Education provides students the tools, skills and knowledge to successfully transition into the workforce and contribute to the local economy. Santolina is education-oriented, with potential sites for Albuquerque Public Schools (APS), post-secondary education, including university level campuses, technical training facilities and independent school opportunities. All facilities will be easily accessible to employment and residential areas.

**Multi-Modal Transportation Alternatives**

The predominance of single occupancy vehicles crossing the Rio Grande during peak travel times for jobs and education opportunities east of the river is currently a significant challenge for the region. This situation will only get worse without jobs and education opportunities on the West Side. Santolina has been designed to include a variety of employment and education centers to address this imbalance. The employment and education centers are intended to provide jobs for community residents and import jobs to the community, thereby creating reverse commutes to the West Side. It is anticipated that increased employment availability will capture more internal trips within Santolina and the surrounding area versus typical development. The Master Plan responds to this by creating denser development within residential villages and providing transit alternatives, including a community-wide system of roadside and off-road pedestrian and bicycle trails that connect residential villages with employment, commercial and industrial centers as well as schools, parks and community amenities. Additionally, the proposed bicycle network will integrate with the MRCOG Long Range Bikeways System Map providing direct access to the extensive network of existing and proposed bikeways to allow long-range cycling and/or commuting opportunities. The community trails system is designed to provide access to future bus stops located within reasonable walking distance of residences. As the community grows and demand increases, additional bus stops will be integrated into residential villages with additional transit centers proposed for the Urban and Town Centers. In preparation for future demand, the major roadways are designed to accommodate High Capacity Transit.

**Meeting the Needs of America's Changing Demographics**



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 65 at a rate of 10,000 a day (*source: AARP, Social Security Administration and Pew Research)*. At the same time, the generation born between 1983-2000, known as the Millennial generation, is "community shopping". This young generation is beginning to raise families and decide where they will live and work.

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.

## Community Design Principles

Santolina incorporates the following design principles:

- A mix of residential villages and sub-areas defined by neighborhoods and residential village centers linked by an extensive open space and trails network.
- Employment areas of various scales to accommodate large industrial and energy production facilities, professional business parks, regional retail centers and neighborhood scale retail and work options.
- Integration of life-long learning opportunities provided by educational and training facilities and job incubation.
- Integration of open space to provide a network of connected parks, trails and natural open spaces for water harvesting and storage, community recreation, cultural and geographic landmark preservation and wildlife habitat.
- A fresh land use mix that may evolve with changes in home buyer and employer trends during the life of Santolina.
- A transportation system that promotes connections to and from the existing county roadway system and provides opportunities for alternative modes of transportation such as transit, walking and biking.
- A framework for future public facilities, i.e., sheriff/fire, schools and parks to serve the community.
- A framework for the provision of utilities and drainage infrastructure to meet the needs of the community.
- A framework for creating the necessary skilled workforce needed in today's high tech world. APS elementary and middle schools feed into the high school, which provides students the education needed for admittance to post-secondary, training and educational institutions, colleges and universities. These institutions provide students education and training resulting in a skilled workforce. Additionally, these institutions have the leverage to incubate new companies, creating future tenants for the business and industrial parks. These businesses in turn will employ graduates and student interns from the proposed Santolina education campuses. Students, workers and their families will require housing located in close proximity to the schools and businesses. Therefore, the first priority to achieve this vision, is to build housing in an education-oriented community to create the density to support schools and employment centers necessary for a thriving economy and community.

## Land Use Plan

As noted in Chapter 2 Introduction, the West Side, including Santolina, will see significant growth over the next 20 years and beyond. Over the next 40-50 years a series of residential villages will be planned and developed within Santolina to meet this demand.

Santolina is envisioned as a master planned community that will ultimately be home for up to 38,045 residential units and approximately 75,000 jobs, creating a jobs-housing balance of

*Exhibit 7: Land Use Plan*

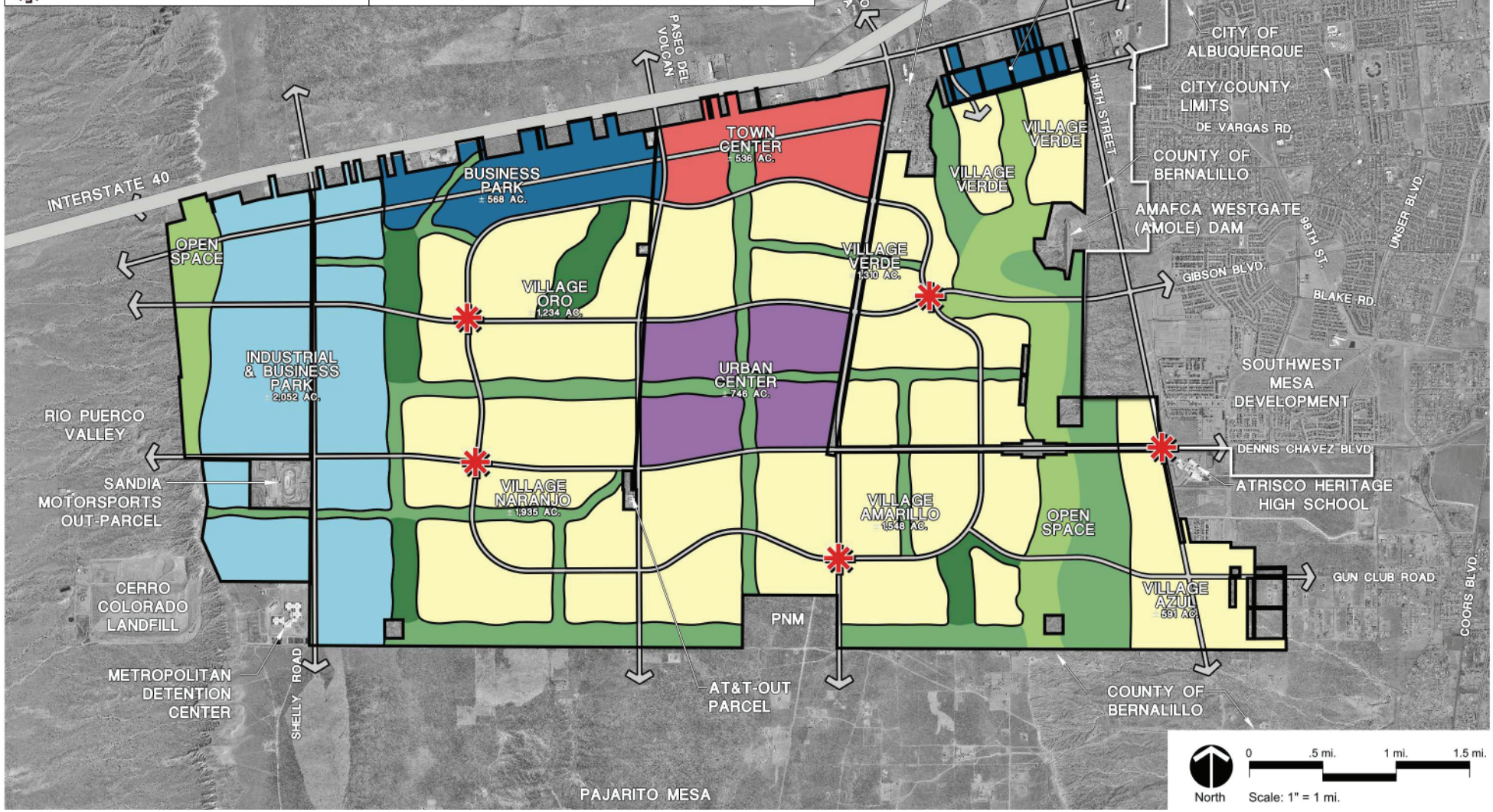
## LEGEND

| Land Use | Acreage | % Of Site |
|---|---|---|
| Village | 6,618 acres | 48% |
| Industrial & Business Park | 2,052 acres | 15% |
| Major Public Open Space | 940 acres | 7% |
| Regional Parks | 466 acres | 3% |
| Open Space | 1,797 acres | 13% |
| Urban Center | 746 acres | 5% |
| Business Park | 697 acres | 5% |
| Town Center | 536 acres | 4% |
| Total: | 13,851 acres | |

Village Center (Proposed location)

NOTES

1. Acreage numbers include right-of-way and Village Centers.
2. Roads are preliminary. Interstate 40 interchanges at 118th Street, Atrisco Vista, Paseo Del Volcan, Shell Road and frontage roads shall be by others.
3. Boundaries between uses are approximate. Final parcel boundaries and acreage amounts will be determined by plat and Level B and C plans.
4. Village, land use and open space boundaries are approximate and will be adjusted at Level B and C plans to reflect actual locations of roadways, utilities, easements, drainage and other infrastructure.



approximately 2.0 jobs per household. This exceeds the target for jobs-housing balance sustainability of 1.7, resulting in Santolina being a net importer of jobs. Jobs and employment are a key component of the Master Plan and an element that will distinguish the community. To meet these targets the Santolina Land Use Plan, (Exhibit 7: Land Use Plan), proposes a balanced mix of land uses designed in a manner to create a strong relation and interplay of uses. The land uses include five (5) residential villages, two (2) business parks, one (1) town center, one (1) urban center, one (1) industrial & business park and significant open space.

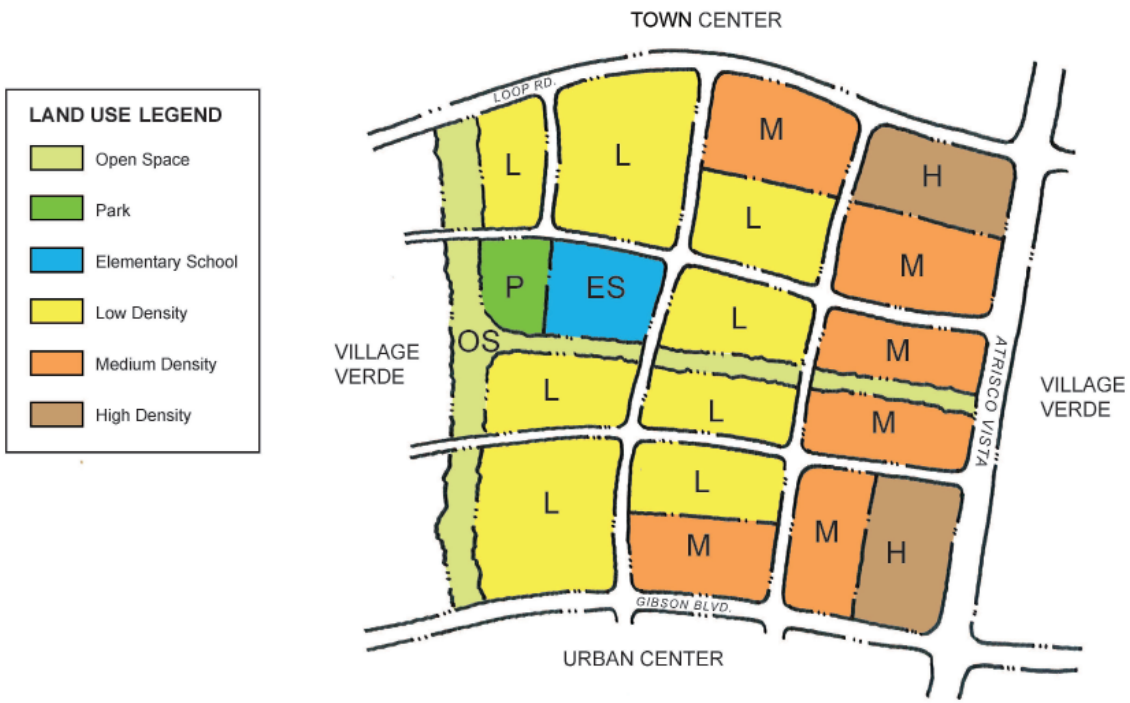
## Santolina PC Zone

The Santolina PC Zone, Chapter 4, provides detailed information on land uses and density ranges allowed within Santolina. The Santolina Level A PC Zone is Level A zoning that creates a three step zoning process, that ensures a mix of land uses that are appropriate to their location and meet the density requirements of the Comprehensive Plan. The Santolina Level A PC Zone is a mechanism for implementing the Planned Communities Criteria and will be implemented in future Level B and C plans.

The first component of the zoning process is establishing the Land Use Districts. Land Use Districts have been defined and correspond to the districts illustrated on the land use plan (Exhibit 7: Land Use Plan). Each land use district includes a broad list of permissive uses, which will be further refined and detailed in Level B plans.

The second step in the zoning process defines site characteristics. Site characteristics are determined by the street type on which

*Exhibit 8: Residential Village Density/Character*



development will occur. Examples of street types and their site characteristic categories include:

- Residential Local
- Residential Collector & Arterial
- Urban Center Local and Collector
- Industrial and Business Park Local, Collector, and Arterial sites

Site Characteristics set density ranges, building heights and development scale as well as establishing land use transitions from more to less intense uses based on street hierarchy and location.

For example, office development located along arterial roads in the Business Park would be permitted higher development intensity (height, floor area ratio, etc.) than development along local or collector roads. Similarly, across the arterial loop road to the south of the Business Park, Residential Village Oro allows more intense uses along the arterial roadway. These uses may include neighborhood scale commercial, neighborhood scale eating establishments and village scale multi-family residential, as permitted in the Residential Village District. The arterial loop provides an appropriate location for more intense uses while also serving as a transition into the less intense, single-family residential character of the village interior. The Santolina PC Zone, Chapter 4, provides specific details about land uses, site characteristics, density and development scale.

The third step in the zoning process, Design Standards, are anticipated to include regulations for setbacks, massing, streetscape, parking, etc. Santolina PC Zoning is fully implemented at the Level C site plan scale. The Santolina PC Zone begins on page 39 of this Master Plan.

## Density

The Santolina Land Use Plan (Exhibit 7: Land Use Plan) contains land use districts that are fully defined in the next section, Land Uses and in the Santolina PC Zone, Chapter 4. Most of the Land Use Districts (with the exception of the districts dedicated solely to employment or parks/open space uses) contain residential uses. The overall number of permitted dwelling units has been predetermined by the Comprehensive Plan Reserve Policy which permits density according to Comprehensive Plan Designated Areas. The Comprehensive Plan designation and associated densities as applied to the Master Plan Area are fully illustrated in Exhibit 4: Comprehensive Plan Areas and Exhibit 5: Comprehensive Plan Land Use Allocations and. Based on this policy, Santolina has an overall density cap of 38,045 dwelling units. The Comprehensive Plan Reserve Policy states that in Reserve Areas with master planned communities, such as Santolina, the overall number of dwelling units can be allocated throughout the Plan Area in order to create areas of higher and lower density as appropriate. This policy is reflected in the creation of the different Land Use Districts in Santolina, such as the Urban Center, Village Centers, and Residential Villages.

## Land Uses

Physical site characteristics form the fundamental structure of any master planned community. The Master Plan Area is characterized by a large mesa, framed by two escarpments. The mesa area is flat and conducive to development. The development of a mix of land uses will be focused on the mesa, preserving the escarpments in large open space areas to be enjoyed by the region.

The Santolina Level A Master Plan is designed in the spirit of the centers and corridors model outlined in the Comprehensive Plan. Rather than incremental decisions made over decades that result in a dispersed pattern of commercial, office, industrial and residential development, Santolina's Activity Centers are intended to concentrate a diversity of community activities at appropriate locations and serve as vibrant, transit-oriented urban places that encourage walking to destinations throughout each center. The Activity Centers safeguard single-family residential

areas from potential intrusions by more intense land uses while providing housing close to jobs and services, reducing personal transportation costs and increasing options for living an urban lifestyle with easy access to a variety of activities.

The land uses within Santolina are described as follows:

**Residential Villages**

The five (5) residential villages of Santolina range in size from 591 acres to 1,935 acres. The residential villages will provide a wide array of residential opportunities to serve the needs of future generations. It is anticipated that each residential village may be developed in its entirety in a single effort or divided into sub-areas (neighborhoods) with a range of distinct characteristics and housing types.

Housing types within the residential villages may include single family large lots to higher density single family neighborhoods associated with production building. Housing may also include a wide range of single family attached housing such as townhomes and duplexes as well as live/work residential and multi-family. While residential villages are primarily planned for residential development, in order to provide walkable commercial services, neighborhood scale commercial is also encouraged.

The design criteria (located in Chapter 4 Santolina PC Zone) for each residential village within Santolina will be further developed at Level B and C plans. The intent for the design criteria is to help develop a sense of place. Establishing design criteria within the Level A Master Plan for the 21+ square miles of Santolina, potentially decades before development, would only result in an “imitation of place”. The concept of “sense of place” refers to the act of connecting human emotion to a place, its history, character and culture. Level B and C plans will define the identity for the residential villages and establish context with the existing natural and built environments, history, culture and character of the immediate region.

Residential village centers will be located within residential villages. The residential village centers are envisioned to include a variety of uses including, but not limited to, higher density residential, neighborhood commercial and local office or healthcare uses that support the surrounding neighborhoods. The residential village centers are envisioned as areas located and sized to provide convenient neighborhood scaled services, supported by more dense residential lifestyles and easily accessible by the surrounding residential village.

Open space areas will be incorporated into the residential villages to accommodate recreational needs, provide water drainage and storage and pedestrian access to locations within the residential village. These open space areas are in addition to and will connect with and/or complement the approximately 3,200 acres (23% of the Master Plan Area) allocated as open space within the Master Plan.

The residential villages may also include public and private schools to serve the surrounding neighborhoods. WALH has established a strong working relationship with APS. The company is committed to continuing to work with all schools to ensure the proper school type, size and locations are provided within Santolina to meet education needs as the community develops.

Lastly, it is anticipated that libraries, County offices and/or community centers may be located within residential villages to serve the community. Additionally, fire and sheriff station facilities

will be located within residential villages as necessary to serve the community in accordance with National, State and County standards and at the County's current level of service.

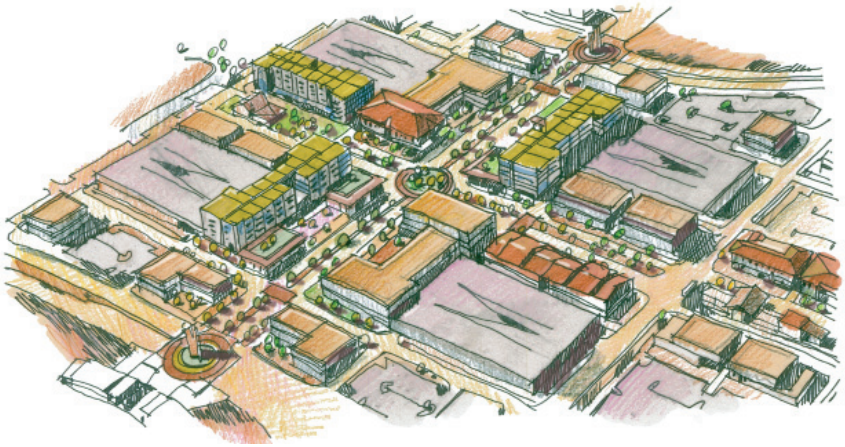
**Urban Center**

The Urban Center within Santolina will be a unique mix of civic and higher-density private uses. The Urban Center is approximately 746 acres or 1.17 square miles. To put the area in context, the University of New Mexico north and south campuses are 478 acres, Downtown Albuquerque is 613 acres or 0.96 square miles and Albuquerque's Nob Hill is 537 acres or .84 square miles.

This site, centrally located within Santolina and bounded by Gibson Boulevard (north), Paseo del Volcan (west), Dennis Chavez Boulevard (south) and Atrisco Vista (east), is an appropriate destination to concentrate a diversity of community activities to draw local and regional residents. Uses located within the Urban Center may include a regional park, one or more schools (APS, trade/technical, higher education or combinations thereof), a community library and a multi-generational community center.

In addition to civic uses, the Urban Center may also include corporate offices, entertainment and athletic venues, commercial services, high density residential, live/work residential and retail/ hospitality uses to keep the area vibrant and active 24/7. The mix of civic amenities and commercial uses will attract new residents and workers creating a destination for the community. The Urban Center becomes the identity of the community as well as a destination.

Open space areas will be incorporated into the Urban Center to complement the built environment, accommodate recreational needs, provide pedestrian access and serve as permeable areas to harvest and store water and improve stormwater quality for the Urban Center.



*Potential vision for Mixed Use Urban Center in "Main Street" style*

**Town Center**

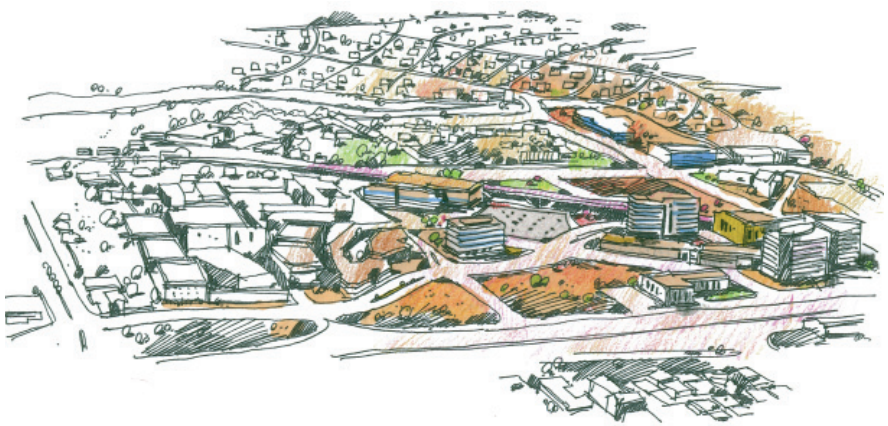
The Town Center, approximately 536 acres, is located between two I-40 Interchanges. These interchanges enable the site to conveniently connect to existing regional roadways. The Town Center has the potential to provide millions of square feet of retail and related services as well as medium to high-density, multi-family residential living. The site can be expected to attract large retail stores, power centers, lifestyle centers, malls, car dealership clusters and other high GRT generators and service providers for the region. This area will import dollars into the county from adjacent areas.

**Business Park**

Critical to achieving the jobs/employment goals of the community are the two business parks located within Santolina adjacent to Central Avenue and I-40. Together the business parks comprise 697 acres of the community. The business parks are designed to be concentrated job generators to potentially attract emerging technology companies, research facilities, office/light industrial uses, post-secondary educational campuses or jobs training educational facilities, healthcare and health research facilities and hospitality and service commercial uses. The business parks have the potential to cluster businesses or medical uses in a campus-like setting with easy access to lunchtime needs, i.e., restaurant and errands, as well as excellent access to existing freeways and roads.

**Industrial & Business Park**

As noted in Chapter 2 Introduction, there are some outparcels governed by special use permits. Outparcels are tracts of land fully or partially surrounded by the Santolina property, not owned by WALH and not included in the Santolina Level A Master Plan Area. These facilities are located along the west end of the mesa. They include the Motor Speedway, the Metropolitan Detention Center and the Cerro Colorado Landfill.



*Conceptual Business Park in proximity to housing and services to reduce long travel times*

In an effort to buffer these existing uses and provide a critically needed location for heavy industrial and energy facilities, an industrial and business center has been located along the western edge of Santolina. This is a vast new industrial and business area of approximately 2,000 acres. The center is ideally located with easy access to I-40. Additionally, the location is closest to existing rail service (approximately 6 miles away on Pueblo of Laguna land). The proximity of existing rail and access to the interstate system makes the site ideal for potential distribution, warehouse, energy production and manufacturing uses. The end-users at this site are likely to be large facilities with low employee/square foot ratios but with high potential for manufacturing product or warehouse/shipping volumes. These users are anticipated to be those not typically located in corporate parks, retail centers or in close proximity to residential housing. The developed metropolitan area has few remaining sites that are appropriate for large-scale industrial users.

Lastly, there has also been growing interest in generating power from solar and other alternative fuels facilities in the region. This area also provides a suitable location for manufacturing or locating solar panel fields and other alternative fuel powered facilities.

**Open Space**

Santolina sets aside the escarpments and other significant areas as open space within the Master Plan, which encompasses Major Public Open Space, Regional Parks and open space. These areas have been identified, and subsequently zoned as open space, per the accompanying Santolina Planned Community Zone. This land use represents approximately 3,200 acres (23% of the Master Plan Area) and will serve to meet the open space requirements for all land uses and parcels within the community. In addition to the designated open space areas noted on the Land Use Plan, an extensive open space and trails system located within development zones will connect residential areas with retail, employment centers and community amenities.

In addition to pedestrian trails; community and educational centers, visitor reception centers and properly designed utilities and infrastructure may be installed within open space. Such facilities may include utility corridors, drainage and water storage facilities, water and wastewater systems as well as roadways to serve the community.

The park and open space program is located and further defined in greater detail in Chapter 8 Government and Public Services. Trails and open space will be further defined and included within subsequent Level B and C plans.

## Transportation System

The structure of every master planned community is established by the physical character of the site along with the existing offsite transportation network and the extension of said network into the community. Santolina has nearly six miles of exposure along I-40. Additionally, the community has ready access to the major regional corridors of Central Avenue, Dennis Chavez Boulevard, Atrisco Vista Boulevard and 118th Street.

Along with the existing roadways, Santolina incorporates the extension of several roadways and the creation of new roads to create a comprehensive road network.

- Dennis Chavez Boulevard will be extended west and connect with the future Paseo del Volcan.
- Gibson Boulevard will be extended west from 118th Street up the escarpment into the community, linking with Atrisco Vista and terminating at the future Paseo del Volcan.
- Atrisco Vista will be extended south through the community to its southern boundary.
- A loop road will create internal circulation through the residential villages and centers, with minor arterials and collectors branching off from the loop road to create access within each residential village.

The transportation system is described in greater detail in Chapter 6 Transportation.

## Phasing Strategy

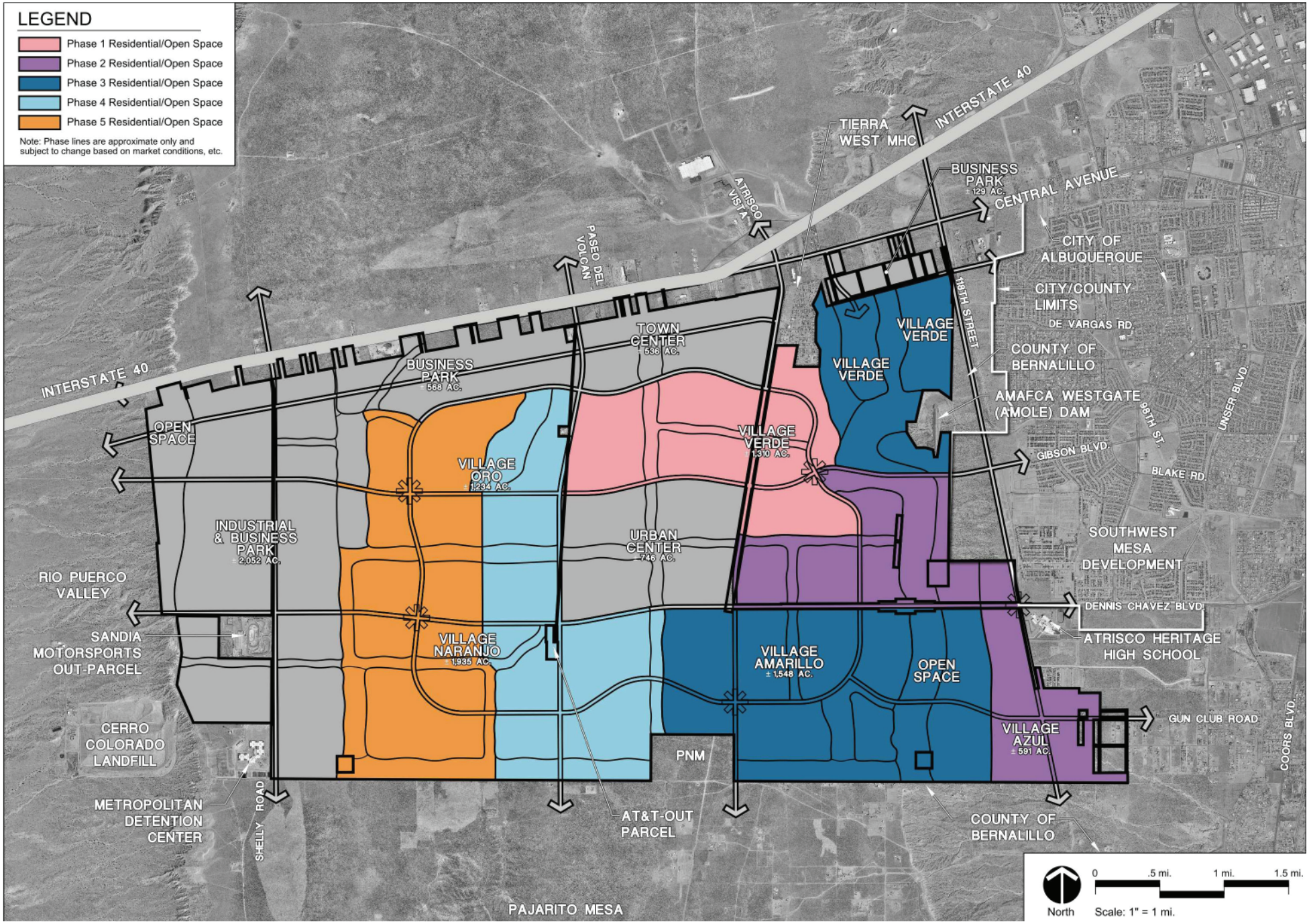
Phasing is an important consideration regarding the development of Santolina. Phasing will be market demand driven within the framework established for roadway and infrastructure planning. Additionally, information regarding phasing of parks and community facilities can be found in Chapter 8 Government and Public Services.

The development of a community the size and scale of Santolina will occur incrementally. Full buildout of Santolina is estimated to be a 40-50 year timeframe based on current demographic trends and market demand. Multi-staged developments are typically referred to as “Phases”. In an effort to simplify infrastructure modeling and other studies, a milestone marker has been established within the

*Exhibit 9: 2035 Projected Development Land Use Table*

| Land Use | Area | Percent |
|---|---|---|
| Village | 2,156 acres | 48% |
| Open Space (Major Public) | 395 acres | 5% |
| Open Space (Regional Parks) | 0 acres | 0% |
| Open Space | 301 acres | 12% |
| Industrial & Business Park | 755 acres | 16% |
| Urban Center | 355 acres | 8% |
| Business Park | 294 acres | 6% |
| Town Center | 320 acres | 6% |
| Master Plan Area Total: | 4,576 acres | |

*Exhibit 10: Residential Phasing Plan*



Master Plan. The Projected Phasing Plans are illustrated in Exhibit 10: Residential Phasing Plan and Exhibit 11: Non-Residential Phasing Plan.

The phasing strategy has been separated between the generally residential and non-residential phases. This has been done purposefully to recognize, not only the differences, but to promote the need for flexibility on the economic development/job creation side of the equation. The residential phasing has been divided into five phases of approximately 10 years each. This provides for two residential phases through 2035 and three subsequent phases to reach Full Buildout within approximately 50 years, or by 2065. The non-residential uses maintain the two phases used in the traffic analysis, 2035 and Full Buildout. This allows for flexibility in responding to specific economic development proposals to ensure that Santolina, in combination with City, County and State Economic Development, etc. can respond with sites tailored to meet an employer's/project's specific needs.

Phasing within the Planned Communities Criteria

The Planned Communities Criteria inherently provides a built in framework for phasing. This framework is appropriately presented in the PCC's Level A, Level B and Level C process requirements.

Once a Level A Master Plan is adopted, the next step is the preparation of a Level B plan that will correspond to the first phase of the project. The Level B plan is required to include a more detailed land use breakdown, more specific zoning language and updated infrastructure plans that address timing, funding and responsibility. The Level B plan is reviewed by staff and other agencies, presented to the Planning Commission and approved by the Board of County Commissioners. Any amendments to the Level A plan, if required, must be processed and approved concurrently with the Level B plan. This process ensures that the County, as part of their review, can verify that the phases (Level B plans) are consistent with the overall framework of the Level A plan, address the housing/employment balance, provide a funding strategy and outline the implementation of necessary infrastructure and community facilities.

The Development Agreement

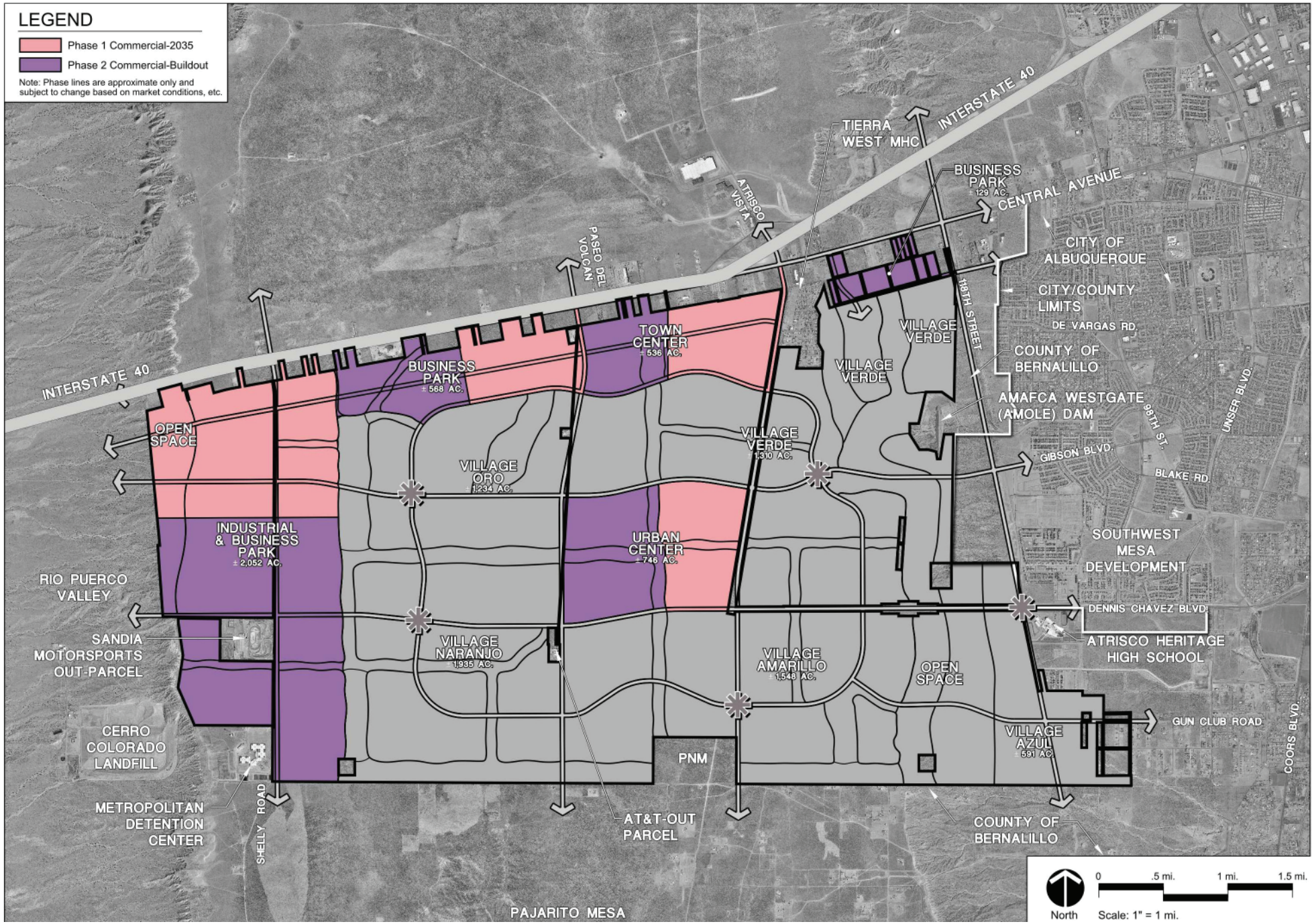
Another critical component to project phasing is the Level A Development Agreement. The development agreement is a separate document required by the Planned Communities Criteria. The development agreement addresses specific issues related to funding, timing (phasing) and responsibility for infrastructure and community facilities. The agreement also addresses school infrastructure, financing districts, level of service, conveyance of infrastructure and relationship to the County's Capital Improvement Plan. This agreement is a companion document to the Level A Master Plan and codifies the Master Plan. The agreement is reviewed by County staff via the County Manager's office and is heard and approved by the County Commission at the same time as the Level A Master Plan. One of the key items addressed in the agreement is the Developer's commitment to meet the "no net expense" provision of the Comprehensive Plan and Planned Communities Criteria.

Housing/Employment Balance

The Santolina development shall achieve a reasonable balance between residential and employment land uses such that it maintains the characteristics of a generally self-sustaining community. The Land Use Plan provides for an approximate jobs-to-housing ratio of 2:1. This balance is predicated on a goal of creating 75,000 jobs at the time of Full Buildout by reserving 4,031 acres generally for non-residential uses. The goal is for jobs within Santolina to have a positive impact on the overall jobs/housing balance of the West Side. The objective, as it relates to transportation, is for the overall jobs/housing balance of the West Side to improve no matter where those jobs are located.

As a component of achieving the housing/employment balance within Santolina, WALH has committed to actively pursue and attract employers to Santolina through entitlements, infrastructure planning and capacity, access, etc. However, it is understood that WALH does not control economic development incentives and public policies provided and implemented by state and local government agencies. It is anticipated that Bernalillo County

*Exhibit 11: Non-Residential Phasing Plan*



will work collaboratively with WALH, Albuquerque Economic Development and other economic development agencies to provide and/or establish incentives to help attract employers to the west I-40 corridor. The Santolina housing/employment ratio will be monitored, reported, and evaluated in future Level B plan submittals. The results shall be considered in the context of the regional jobs/housing data (west of the Rio Grande) in order to fully comprehend the jobs/housing balance of Santolina and its surrounding environment.

The phasing strategy for creating the community takes the following factors into consideration:

- Proximity to existing infrastructure
  A logical phasing strategy begins in close proximity to existing infrastructure. This strategy avoids redundancies and the expense of extending systems. As a result, areas closer to the north and east sides of Santolina are expected to develop first, driving development of residential, commercial, educational and employment opportunities in the specific area. The Industrial & Business Park on the west side of Santolina is the exception, with development near I-40 anticipated within the Projected 2035 Development Plan.

- Proximity to major transportation systems
  Proximity to existing transportation systems and potential transit routes also drive community phasing. As such, areas closer to I-40, Atrisco Vista Boulevard, Dennis Chavez Boulevard, Central Avenue, 118th Street, Shelly Road and other existing roadways will provide access to the early phases.

- Meet needs on the West Side
  Most residents on the West Side currently commute to jobs located east of the river. Businesses and industries on the West Side need employees who live in close proximity to their location. There is also a market driven need for housing, infrastructure and education facilities on the West Side. This will in turn facilitate additional job creation on the West Side. Additionally, reaching retail and recreational facilities requires significant drive times for current West Side residents. Land uses within the first phases are designed to allow flexibility with the intent of creating job and educational opportunities, along with residential development necessary to attract additional retail and employment development.

- Provide choices on the Southwest Mesa
  Employment, post-secondary education and retail choices are currently limited on the Southwest Mesa. Additionally, the majority of available housing comprises single-family detached residences that fall within a specific price range. Phasing will seek to meet employment, commercial and educational needs and address the market demands for a variety of residential products. It is anticipated that residential products will range from multi-family to starter home, move up and custom residential product options that are offered at a variety of price points to appeal to a wide range of home buyers.

- Open space amenity and resource
  Development of parks and open space will keep pace with development to ensure residents are provided access to parks, trails and open space amenities throughout Santolina's buildout.

  The eastern and western escarpments are designated as open space in the Master Plan. It is anticipated that the open space areas may be acquired by the County, City and/or other entity and used as public open space. As open space, the escarpments will provide an important amenity to the County as a whole and for the early residential villages of Santolina while providing a spatial boundary and buffer between existing development to the east and Santolina.

# Chapter 4
# Santolina PC Zone

SANTOLINA

## 4. Zoning and Governance

As noted within Chapter 2 Introduction, the Master Plan outlines PC Zone regulations for the Master Plan Area including the amendment process for the Level A Master Plan, Santolina PC Zone and future Level B plans. The Santolina PC Zone provides the overall framework and has been developed to a level appropriate for a Level A Planned Community Master Plan. Future Santolina Level B plans will expand upon this zoning framework in order to provide more detailed regulation, i.e., parking, setbacks, landscape, and refine the permissive uses, suitable for the County to review specific development proposals (Level C plans).

In order to ensure that the Santolina PC Zone addresses the varied conditions of future planning, the Santolina PC Zone will be detailed and refined in future Level B and C plans.

The Comprehensive Plan establishes broad land use designations that contain goals for how land should develop within each designation, while the Comprehensive Plan shows four categories on the Master Plan. The majority of the Master Plan Area is designated as Reserve.

Reserve Areas are intended to develop as master planned communities, providing employment, shopping and recreation oppor-

*Exhibit 12: Comprehensive Plan Areas*

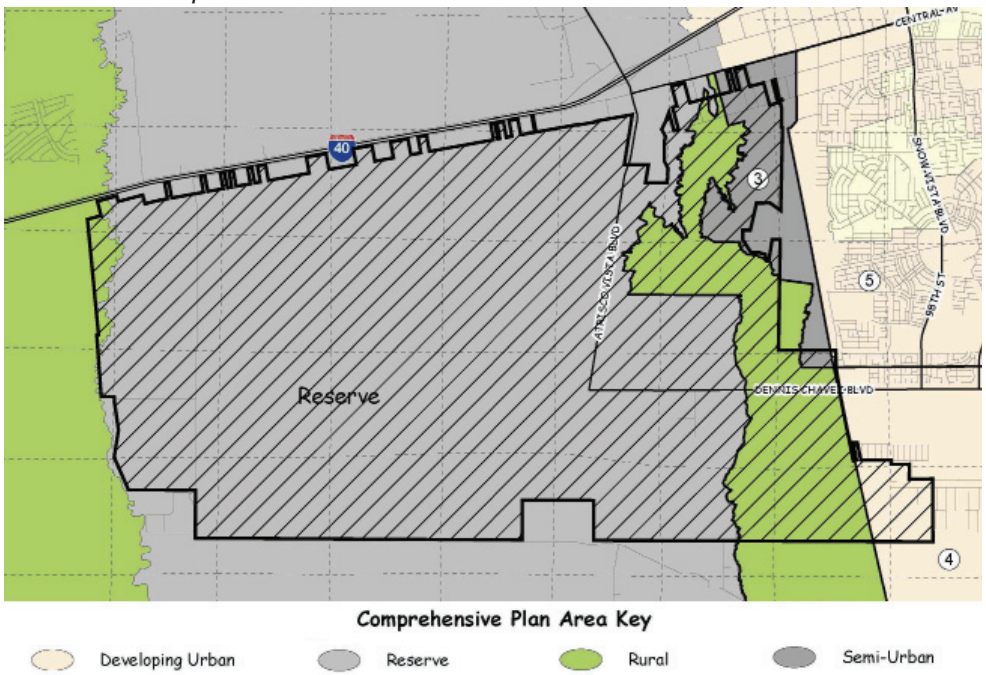



*Exhibit 13: Comprehensive Plan Land Use Allocations*

| Comprehensive Plan Area Designation | Allowable Density | Area | Allowable Units | Percentage of Master Plan Area |
|---|---|---|---|---|
| Reserve Area | 3.0 du./ac.* | 11,223 acres | 33,669 units | 81% |
| Rural Area | 1.0 du./ac. | 1,961 acres | 1,961 units | 14% |
| Semi-Urban Area | 3.0 du./ac. | 459 acres | 1,377 units | 3% |
| Developing Urban Area | 5.0 du./ac. | 208 acres | 1,038 units | 1% |
| | 2.7 du./ac. | 13,851 acres | 38,045 units | |

*3 du./ac. gross permitted in Reserve Areas once a Community Master Plan has been adopted. Otherwise the permitted density is 1 du./ac.

tunities that include transportation solutions to help alleviate traffic congestion as well as residential uses. Density allotment in the Reserve Area is restricted to 1 dwelling unit per acre (du./ac.), unless a master plan has been approved. Once a master plan has been approved, density allowance is increased to 3 du./ac. gross. The Master Plan is enacting the long range vision of the Comprehensive Plan which determined that this area is appropriate and desirable for a distinct, large scale, master planned community.

Based on the Comprehensive Plan, the Master Plan is entitled to an overall number of allowable dwelling units of 38,045 units community-wide. These units are averaged, on a gross acreage basis across all of the residential areas within Santolina.

An overall residential density of 2.7 du./ac. gross is established once the total number of allowable units (per the Comprehensive Plan) is applied to the total acreage allocated to four Comprehensive Plan categories within the Master Plan Area. As detailed in Chapter 3 Land Use, in addition to employment, commercial and open space, the community will contain a mix of areas of higher-density multi-family development and areas of lower-density single family development.

The residential unit total within the Master Plan Area is the driver of projections for population, jobs, infrastructure and other plan elements. All of these assumptions have been made in concurrence with the Comprehensive Plan designations, goals and policies.

## Santolina PC Zone (Planned Communities):

Pursuant to Section 19.5 of the Bernalillo County Comprehensive Zoning Code

Santolina is a 13,851 acre master planned community located in Bernalillo County, west of the incorporated city limits of Albuquerque. The community is designed to feature a mix of residential, commercial, business, industrial, public service facilities and open space areas. The Santolina PC Zone is structured to maintain flexibility to meet changing market demands and the new economy and demographics of the region, while creating a unique sense of place and community identity for Santolina. The Santolina PC Zone adds the benefit of providing a predictable and easy to use framework for large-scale zoning that includes a variety of styles and development types. The Santolina PC Zone conforms to the Level A Planned Community Master Plan.

**Level A Governance and Interim Uses**

All sites within the Santolina Level A boundary area, except those governed by a Special Use Permit or any site expected to be developed with local, state and/or federal support, shall be governed by Section 18, Special Use Permits and Section 24, Administration of the Zoning Code until a Level B Plan, affecting such site, has been adopted by Bernalillo County. No special use permit shall be issued without a demonstration of available necessary infrastructure and utilities, including water, electricity and sewer, to be installed before, or concurrently with, development of the site.

**Amendment Process**

Substantial changes to the Level A Master Plan and/or the Santolina PC Zone will follow the amendment process outlined in the Bernalillo County Comprehensive Zoning Code, Section 19.5.A.

**The Santolina PC Zone Process**

The Santolina PC Zone establishes a series of land use districts and combines the land uses with specific site character standards. The selection of a land use district is followed by the selection of specific design standards that are relevant to the use and site categories chosen. In this way, Santolina can apply a mix and match combination of categories for the community, as appropriate for a specific location or use. Zoning that includes land uses, site characteristics and design standards addresses building forms, the context of a site and the types of development anticipated within districts. This form of zoning also allows for unique design and site character for each subarea of the community enabling development projects to be customized. This prevents the generic cookie-cutter approach to development that some zoning standards require.

The selection process includes three steps as outlined below:

1. **Land Use District Selections**
2. **Site Characteristic Selections (Level B/C Plans)**
3. **Design Standards Selections (Level B/C Plans)**

**The 3-Step Selection Process**

As noted in the three step process above, the Land Use District Selections of Step 1 are articulated within the Level A Plan. The types of Site Characteristics and Design Standards are listed in Level A, but will be further defined and detailed in Level B and C plans.

1. **Land Use District Selections**
   The first step in the process is the selection of a Land Use District from the Santolina Land Use Plan (Exhibit 7: Land Use Plan). Each Land Use District contains a list of permissive land uses. The list of permissive land uses will be further expanded and refined in Level B plans. The districts are based on traditional zoning, as each specifies the permissive land uses allowed within the specific land use district. Although the plan boundaries are conceptual at Level A, development must adhere to the permissive uses within the district boundary. Actual acreages and boundaries will be determined at Level B and C plan stages. Land Use Districts are listed below and include:

   - Residential Village
   - Residential Village Center
   - Urban Center
   - Town Center
   - Business Park
   - Industrial & Business Park
   - Open Space

   The permissive land uses of each of these districts is described in Section 1 below.

2. **Site Characteristic Selections**
   Once the Land Use District has been selected, the next step is the Site Characteristic selections. As was the case with Land Use Districts in Section 1, the Site Characteristics remain general at Level A. General descriptions of the types of Site Characteristics are described in Section 2 below, and they will require more detailed definition at Level B and C plans.

   The character of the various districts within Santolina and the density of development is largely dependent on location within each sub-area. Development along local streets, away from arterial intersections, should have a lower intensity scale to match the neighborhood context of its location. Conversely, development within the Urban Center or Town Center located along an arterial or a major transit route should have a higher density and more urban form commensurate with its locational context. Based on this design approach, the second component clusters characteristics based on the scale of the surrounding transportation system access. This introduces the performance based elements of the zoning system. Specific street sections will be defined at Level B or C, when specific uses have been determined.

3. **Design Standards Selections**
   The third step in the Santolina PC Zone process is the selection of Design Standards that correspond with the Land Use Districts (1) and the Site Characteristics (2). The Design Standards create a more refined level of development that should not be uniformly applied at the large scale of a Level A plan. Customized design standards should be tailored to each individual development district within Santolina in order to create distinct places with unique character. This step introduces the form based elements of the zoning system. The Design Standards will be developed in the Level B and C plans for each area.

## Section 1: Land Use Districts

The selection of land uses for a specific area within Santolina is based on the area's location within the Land Use Plan within the Master Plan.

**(A) Residential Village District**

The Residential Village areas are comprised of five Residential Villages that range in size from approximately 600 acres to 2,000 acres. The Residential Villages will primarily consist of single family homes while also providing a wide range of multi-family residential opportunities and Residential Village Center services in appropriate locations. Residential Villages will be designed to create a small town or neighborhood character. They will meet resident needs for recreational amenities and provide convenient access to shopping, services, education and employment. Excellent connectivity to other Land Use Districts and the larger region will be provided.

Permissive Land Uses in Residential Villages:

1. Large Lot Single Family
2. Medium Lot Single Family
3. Small Lot Single Family Detached
4. Age Restricted Communities
5. Townhouse (Single Family Attached)
6. Live/Work (Residential and Office)
7. Upper Story Residential (Mixed Use)
8. Residential Village Scale Multi-Family Residential
9. Accessory Dwelling Unit
10. Home Occupation
11. Cemetery
12. Fire/Police/Libraries/Public Buildings
13. Park and Related Facilities
14. Open Space
15. Water Storage/Reservoirs
16. School and Educational Facilities (Daycare through Post-Secondary)
17. Senior Transitional Living and Care Facilities
18. Neighborhood Scale Commercial & Services*
19. Neighborhood Scale Eating Establishment with and without Liquor Sales*
20. Eating Establishment, Commercial and Services with drive-up*
21. Auto Fuel Sales*
22. Urban Agriculture
23. Utility, Drainage and Water Storage Facilities
24. Transit Oriented Development (TOD)*

*Only permitted on Collector/Arterial site types or within Residential Village Centers

**(B) Residential Village Center District**

Five Residential Village Centers are associated with the residential villages in the Land Use Districts. Residential Village Centers are envisioned to be a cohesive core of residential, civic and commercial buildings. Each may also serve as a residential village scale transit hub with connectivity to the rest of the Land Use Districts. The locations of the Residential Village Centers are conceptual at Level A and indicate that each Residential Village will likely develop with a center. For planning purposes each center is assumed to be approximately 75 acres in size and designed for mixed uses. Sizes, locations and boundaries of Residential Village Centers will be defined at Level B/C plans and may exceed the 75 acre estimate used for planning purposes. Residential Village Centers may also develop differently in each Residential Village and are not required to be the same size or in a similar location as other Residential Village Centers.

Permissive Land Uses in Residential Village Centers:

1. Townhouse (Single Family Attached)
2. Live/Work (Residential and Office)
3. Upper Story Residential (Mixed Use)
4. Accessory Dwelling Unit
5. Home Occupation
6. Multi-Family Residential
7. Public and Civic Uses
8. Schools (Daycare through Post-Secondary)
9. Residential Village Scale Commercial & Services

10. Residential Village Scale Eating Establishment with and without Liquor Sales
11. Eating Establishment, Commercial and Services with drive-up
12. Food Carts
13. Auto Fuel Sales
14. Entertainment Activities/Hospitality
15. Office (including Medical Clinic and Healthcare)
16. Outdoor Vendor Market
17. Park and Related Facilities
18. Indoor/Outdoor Pool
19. Community Center
20. Senior Transitional Living and Care Facilities
21. Transit Oriented Development (TOD)
22. Utility, Drainage and Water Storage Facilities

**(C) Urban Center District**

The Urban Center is a dynamic, high-density core where office, 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. It is defined by a tight network of streets, wide sidewalks, tree-lined streets, unique architectural elements, street furnishings, pedestrian scale elements and urban green space.

Permissive Land Uses in the Urban Center:

1. Live/Work (Residential and Office)
2. Upper Story Residential (Mixed Use)
3. Multi-Family Residential
4. Public and Civic Uses
5. Schools and Related Facilities
6. Community Scale Commercial & Services
7. Community Scale Eating Establishment with and without Liquor Sales
8. Eating Establishment, Commercial and Services with drive-up
9. Food Carts
10. Educational Campus Facilities and Related Facilities
11. Entertainment Activities/Hospitality/Resort
12. Office
13. Outdoor Vendor Market
14. Hospital
15. Park and Related Facilities
16. Transit/TOD
17. Utility, Drainage and Water Storage Facilities

**(D) Town Center District**

The Town Center has excellent access off Interstate 40. The site is well located for large retail facilities, entertainment, campus office and multi-family development.

Permissive Land Uses in the Town Center:

1. Commercial and Services
2. Hotel/Hospitality
3. Large Retail Facility
4. Eating Establishment with and without Liquor Sales
5. Eating Establishment, Commercial and Services with drive-up
6. Live/Work (Residential and Office)
7. Upper Story Residential (Mixed Use)
8. Multi-Family Residential
9. Auto Fuel Sales
10. Entertainment Activities
11. Park and Related Facilities
12. Public and Civic Uses
13. Truck Plaza/Automobile Sales and Service
14. Office
15. Transit Station
16. Utility Facilities

**(E) Business Park District**

Two Business Parks are located adjacent to Central Avenue and Interstate 40. They are envisioned as locations for large job generators such as emerging technologies, research and development, educational campuses and/or healthcare industries.

Permissive Land Uses in the Business Parks:
1. Large Community Scale Commercial and Services
2. Eating Establishment with and without Liquor Sales
3. Eating Establishment, Commercial and Services with drive-up
4. Auto Fuel Sales
5. Educational Campus Facilities
6. Office
7. Park and Related Facilities
8. Public and Civic Uses
9. Research and Development
10. Light Industrial, Manufacturing, Assembling, Processing
11. Medical Research
12. Healthcare/Hospital
13. Utility Facilities

**(F) Industrial & Business Park District**

The Industrial & Business Park is ideally situated to provide sites for large industrial development, power generation and/or heavy industries that are not suitable for smaller business parks and within the Residential Villages. Due to the large amount of available acreage, the Industrial & Business Park is also an ideal location for industrial symbiosis or an industrial ecology where businesses share resources and make use of the waste or by-products of another business located in the park.

Permissive Land Uses in the Industrial & Business Park:
1. General Industry, Manufacturing, Assembly, Processing
2. Heavy Industry, Manufacturing, Assembly, Processing
3. Power Generation (Solar, Wind, Biofuels, Gas)
4. Wholesale Trade
5. Warehouse and Freight Movement/Distribution
6. Eating Establishment, Commercial and Services with drive-up
7. Food Carts
8. Park and Related Facilities
9. Public and Civic Uses
10. Auto Fuel Sales
11. Recycling Facilities/Refuse/Waste Disposal
12. Transit Station
13. Rail/Freight
14. Utility and Drainage Facilities

**(G) Open Space District**

The eastern and western escarpment areas are identified as open space. As such, they are only appropriate for recreational and educational related development and properly designed public utilities and infrastructure (including utility corridors, drainage and water storage facilities, roadways, water/sewer lines and other infrastructure).

Permissive Land Uses in Open Space:
1. Trails
2. Recreational and Educational Facilities
3. Visitors Center
4. Utility Facilities and Corridors
5. Water Storage and Drainage Facilities
6. Roadway or Transit Rights-of-Way
7. Access Easements
8. Grading and Earthwork, as necessary, for Utility, Water Storage and Drainage Facilities and Trail and/or Roadway Construction

## Section 2: Site Characteristics

The second component defines Site Characteristics based on the scale of the surrounding transportation system access to provide context for the site. As noted above, Section 2 describes the general characteristics included in this portion of the Santolina PC Zone. More detailed descriptions for each of these elements, as well as unique methods to address site context of individual sites will be provided at Level B/C plans.

## (A) Residential Village Sites:

1. **Residential Local Street Site**
   Development that follows the Residential Local Street Site Type is generally located on local streets that primarily consist of single family residential development.

   Residential Local Streets are typically the lowest level (least intensive) of street in the Master Plan Area. The primary function of Residential Local Streets is to provide vehicular, bike and pedestrian access to individual residential properties. Additionally, they provide, depending on the density, multi-modal connectivity to collectors and arterials. Residential Local Streets typically have on street parking and sidewalks with landscape strips that provide pedestrians safe and comfortable access. Bicycles and automobiles typically share the travel lane.

   Land uses within this site characteristic follow these contextual standards:

   a. **Building Height**: Single Family-Maximum 26 feet, Multi-Family and Non-Residential-Maximum 50 feet

   b. **Residential Density**: 1 to 24 dwelling units per acre

   c. **Development Scale**: Development in Residential Local Street Sites shall be at a residential village scale. These areas are envisioned as consisting primarily of single family homes (attached or detached), live/work, residential village scale commercial and mixed-use options.

   d. **Access and Circulation**: Primary front access to residences should be through the front entryway, garages should not dominate the front façade. Front, side, rear access and garage placement on alleys are permitted. Sidewalks that provide comfortable and direct pedestrian movement within neighborhoods, between neighborhoods and to collectors and arterials, shall be provided on all residential local streets unless they front trails, parks or other open areas. When trails are used, sidewalks are not required.

2. **Residential Collector & Arterial Street Site**
   Residential Collector Streets are typically low to medium capacity roads. These roads are designed to provide access to adjacent residential properties and collect traffic from the Local Residential Streets. Collectors provide access between residential neighborhoods as well as access to other collectors and arterials. On street parking is permitted. While there is usually some limited transit access on Collector Streets, their primary function is to provide pedestrian, bicycle and vehicular access.

   Residential Arterial Street Sites are those adjacent to a Minor or Principal Arterial. Single family homes will not have direct access from Residential Arterials Streets. The primary function of the residential arterial is to provide multi-modal (pedestrian, bike, transit and vehicle) access to adjacent residential development and to connect residential areas to commercial and employment areas. Land uses within this site characteristic follow these contextual standards:

   a. **Building Height**: Single Family-Maximum 26 feet, Multi-Family and Non-Residential-Maximum 78 feet

   b. **Residential Density**: 1 to 50 dwelling units per acre

   c. **Development Scale**: Development on Residential Collector and Arterial sites shall be at a residential village or residential village center scale. In order to create walkable, mixed use neighborhoods where residents can meet their daily needs through non-auto modes of transportation, commercial, services and restaurants are encouraged but they are limited by size to keep

them at a scale that is appropriate to the zone.

d. **Site Development**: Development is encouraged to provide attractive building facades and entries toward the street and to parking areas, as well as to landscaped areas and street trees.

e. **Access and Circulation**: Wider sidewalks and/or trails that provide comfortable and direct pedestrian movement within neighborhoods, between neighborhoods, and to other collectors and arterials, shall be provided on all residential collector and arterial streets.

## (B) Urban Center and Residential Village Center Sites:

1. **Urban Center and Residential Village Center Local & Collector Site**

Urban Center and Residential Village Center Local and Collector Streets provide access to adjacent multi-family residences, commercial and services, office employment, or civic and public uses. Streets are pedestrian and bicycle friendly, with on street parking, wide sidewalks, street trees and bike lanes. Land uses within this site characteristic follow these contextual standards:

a. **Building Height**: 78 feet

b. **FAR**: Maximum 1.0

c. **Development Scale**: The Urban Center is envisioned as a mix of schools, public and civic uses, public open spaces, higher intensity multi-family residential, commercial, services and offices. The Urban Center Local and Collector sites will form a street pattern that will encourage and facilitate multi-modal transportation. The appropriate scale can be compared to Community Commercial, in an urban setting, with taller buildings and more density mixed in with public buildings and spaces that provide a focal point for development.

The Residential Village Centers are envisioned as mixed use areas, developed at a residential village commercial scale. Commercial, service and entertainment uses that will serve the surrounding residential areas are encouraged at a scale of development that is intended to provide appropriate residential transition and connectivity. The Residential Village Center Local and Collector sites facilitate pedestrian activity through the location of smaller scale mixed-use development with slower moving vehicular traffic than that on the Arterials. Land uses within this site characteristic follow these contextual standards:

d. **Site Development**: Sidewalks are generally located at the curb, building setbacks are smaller. Public buildings and open spaces serve as a focal point for the Urban Center and the Residential Village Centers.

e. **Access and Circulation**: In order to create a more urban, walkable environment, care should be taken to allow pedestrian access to and through sites. On street parking, shared parking areas, and direct pedestrian access to building entrances from the street, and parking areas are also encouraged.

2. **Urban Center and Residential Village Center Arterial Site**

Urban Center and Residential Village Center Arterials are generally high capacity urban thoroughfares that serve to connect the local and collector roads in the Master Plan Area to other arterials, major transit corridors and interstate access.

As compared to the Local and Collector sites, there is less direct driveway access on Arterial sites from the site to the road. Parking in front of buildings is encouraged while parking in the rear of buildings is allowed. Land uses within this site characteristic follow these contextual standards:

a. **Building Height**: Maximum 100 feet

b. **FAR**: Maximum 2.0

c. **Development Scale**: The Urban Center and Residential Village Center Arterial Sites are at a similar development scale as the Urban Center Local and Collectors and Residential Village Center Local and Collectors. Due to the higher volume traffic on arterials, site access is generally provided by either service road and/or shared access. Streets are designed to accommodate both vehicular and pedestrian access in an urban environment.

d. **Site Development**: Arterials are more auto and transit oriented than Local and Collector streets. Setbacks are slightly larger than on Locals and Collectors with streetscape between the curb and sidewalk/trails. Buildings may focus inward to common areas or toward streets.

e. **Access and Circulation**: Sidewalks, street trees and internal pedestrian walkways are required. Particular emphasis should be placed on pedestrian connectivity between development and transit stops.

## (C) Town Center and Business Park Sites:

1. **Town Center and Business Park Local and Collector Site**

Town Center and Business Park Local and Collector streets function to connect retail services, employment uses and multi-family to each other and to higher capacity arterials. While this site type is typically accessed by vehicular and/or transit, pedestrian connections are important.

Town Center Locals and Collectors will provide the primary access in this site type. Land uses within this site characteristic follow these contextual standards:

a. **Building Height**: Maximum 100 feet

b. **FAR**: Maximum 1.0

c. **Development Scale**: Development on the Town Center and Business Park Local and Collector sites is envisioned as larger scale Community Commercial, office campus style or medium to high-density multi-family development. The sites in these areas are large enough to accommodate large retail facilities, office buildings and multi-family units. Sites shall be oriented toward either the local or collector street in order to facilitate vehicular movement. Pedestrian connectivity should also be accommodated in site plan design.

d. **Site Development**: The Town Center is envisioned as the appropriate Master Plan Area location for large retail facilities and multi-family residential and the Business Park is envisioned as primarily employment uses; therefore, setbacks from the street shall be generally larger than those in the residential and mixed use districts. Pedestrian connectivity and access to and from parking areas and transit stops are included in site plan design.

For Business Park development, the primary employee entrance(s), customer entrance(s), and customer parking may be separated and should be clearly marked.

e. **Access and Circulation**: Parking lots shall be placed around buildings, in order to provide the shortest distance between buildings and to capitalize on potential shared parking arrangements.

Parking pods shall be separated by demarcated, landscaped pedestrian walkways, and shared parking shall be strongly encouraged.

Wide sidewalks, pedestrian entrances, and connectivity to other areas shall be required.

2. **Town Center and Business Park Arterial Site**
Arterial streets are typically characterized by higher volume traffic. Where possible, access to sites shall be via service drives, regularly spaced intersections, and shared access points.

Town Center and Business Park Arterials are primarily transit and auto-oriented, serving to connect the Town Center to the larger Master Plan Area. Parking in front of buildings is encouraged. The land uses within this site characteristic follow these contextual standards:

a. **Building Height**: Maximum 100 feet.

b. **FAR**: Maximum 1.0

c. **Development Scale**: Town Center and Business Park Arterial sites are also at a Community Commercial scale, and may contain large buildings and parking areas.

d. **Site Development**: Loading and service uses should be oriented to and accessed from service drives. Due to the higher volume traffic on arterials, where possible building orientation should be toward a local or collector street or common parking areas. Setbacks are larger than on Collector sites and streetscape is an important design element.

e. **Access and Circulation**: Aligning and sharing access points shall be encouraged. Sidewalks, street trees, and internal pedestrian walkways are required.

## (D) Industrial & Business Park Sites:

1. **Industrial & Business Park Local, Collector and Arterial Site**
Due to the industrial uses in the Industrial & Business Park zone, Industrial Local and Collectors are mostly auto and truck oriented. Other than the distinction in the hierarchical function of the streets, there is little difference in the context of development character between local streets, collector streets and arterials within this district. Therefore, the site types have been combined.

Industrial & Business Park Locals, Collectors and Arterials will primarily serve to connect large industry uses with the remainder of the Master Plan Area and Interstate 40. However, pedestrian connectivity shall be provided from employment sites to transit stops where available. The uses within this site characteristic have the following contextual standards:

a. **Building Height**: Maximum 100 feet.

b. **FAR**: No requirement

c. **Development Scale**: Industrial site scale is the largest in the Plan Area. The scale is intended to accommodate industrial users, energy generation, manufacturing and warehousing. There are no requirements for pedestrian scale architectural detailing and/or screening. Due to the large site requirements for industrial sites, pedestrian activity between uses is not always feasible, therefore pedestrian connectivity should focus on transit stops and parking area connectivity.

d. **Site Development**: Building placement can be largely determined by the use on the site, however development should be cognizant of and respond to adjacent development in order to create a coherent streetscape and pedestrian connectivity if possible and reasonable.

e. **Access and Circulation**: On site loading and truck access should be separated from pedestrian areas such as sidewalks, plazas, and/or courtyards.

### (E) Open Space Site Characteristics:

1. <u>Open Space</u>
Open space occurs throughout the Santolina Master Plan and is comprised of Major Public Open Space, open space and trail corridors that may be used for storm water drainage, collection, storage and/or water harvesting. Access to these areas will be defined in future Level B plans. Additionally, future Level B plans will include community and neighborhood scale parks. Major Public Open Space will be acquired, owned and maintained by either the City or County as provided for in the Comprehensive Plan. Access to Major Public Open Space will be coordinated with adjacent development to ensure that access (including trail heads and small parking areas) is provided. Open space trail corridors will provide off-street bicycle and pedestrian trail systems connecting neighborhoods to schools, commercial and office centers, parks and community amenities.

a. **Building Height**: Buildings allowed within this land use area may include shade structures, informational kiosks and/or learning and community centers. Height of these structures will be limited to 36 feet.

b. **FAR**: N/A

c. **Development Scale**: The purpose of these areas determined by type, will be the provision of visual open space, trails and passive recreation. Open space areas will also incorporate utilities, which may include storm water conveyance and water storage, water/sewer lines, dry utilities and roadways.

d. **Site Development**: Building placement will be determined by the use on the site, with consideration given to minimal disturbance of the natural landscape. Buildings shall be limited to shade structures, restrooms, information kiosks and signage.

e. **Access and Circulation**: Roadway access, while allowed, shall be limited within the open space areas. The primary use shall be limited to pedestrian and bicycles. Trail heads and parking areas for the Major Public Open Space areas shall be developed in concert with the City and/or County Open Space staff to provide pedestrian and bicycle access to these areas. Major roadways shall be allowed through the Major Public Open Space to allow Santolina roadways to connect to the adjacent lands east and west of Santolina.

f. **Buffering and Facilities**: Adjacent landowners will not be required to provide facilities or additional buffering, vertical or horizontal, to any type of open space (major or minor, private or public).

## <u>Section 3: Design Standards</u>

The third step is the selection of Design Standards that correspond with the Land Use Districts (1) and Site Characteristics (2) selections. The Design Standards create a more refined level of development that should not be uniformly applied at the large scale of a Level A plan. In order to create distinct places with unique development styles and forms, Design Standards shall be tailored to individual districts. These standards will be established in the Level B/C plans for each area.

The categories listed below are intended to provide a preliminary framework for the development of the Design Standards in forthcoming Level B/C plans. As stated above, the design standards will be customized at Level B/C to create the desired form that will be in context with the relevant use and site district. The selection process is complete once the Design Standards are prepared at Level B/C.

(A) Single Family Residential Standards (will vary by Local, Collector or Arterial Site Character)

- Lot Size
- Setbacks
- Walls and Screening
- Entryways
- Garages
- Building Materials
- Landscape
- Pedestrian and Bicycle Connectivity
- Parking

(B) Multi-Family Residential Standards (will vary by Local, Collector or Arterial Site Character)

- Lot Size
- Setbacks
- Walls and Screening
- Entryways
- Articulation
- Building Materials
- Useable Recreation
- Landscape
- Pedestrian and Bicycle Connectivity
- Parking

(C) Non-Residential and Mixed Use Standards (will vary by Local, Collector or Arterial Character)

- Lot Size
- Setbacks
- Walls and Screening
- Articulation
- Building Materials
- Landscape
- Sidewalks and Pedestrian Walkways
- Lighting
- Signage
- Pedestrian and Bicycle Connectivity
- Parking

## Santolina PC Zone Definitions

Santolina PC Zone Definitions are intended for and only apply to the Santolina Master Plan Area.

**Accessory Structure** - A use that is incidental to and customarily associated with a specific principal use, located on the same lot or parcel.

**Accessory Dwelling Unit** - A separate dwelling unit that can include a kitchen and is contained on the same lot as the structure of a single-family dwelling or business, and that is subsidiary to the primary use on the lot.

**Community Scale Commercial & Services** - A mix of commercial land uses typically serving groups of neighborhoods and providing facilities with a larger service area than Residential Village Scale Commercial and Services, such as branch banks, larger grocery stores, medium sized retail facilities, and theaters. Typical individual business square footage parameters can be defined at Level B.

**Community Scale Eating Establishment with and without Liquor Sales** - A structure in which the principal use is the preparation and sale of food and beverages; outdoor seating is permitted. Community scale establishments are typically larger restaurants than those found in residential village neighborhoods. Square footage limits can be defined at Level B.

**Drive Up Eating Establishment, Commercial and/or Services** - An establishment accommodating the patron's automobile from which the occupants may receive a service or in which products purchased from the establishment may be consumed.

**Education-Related Development** - Interpretive signage, informational kiosk or similar structure limited to 36 feet, intended to convey information to educate and inform residents and visitors about the history, heritage and culture of the community and region.

**Entertainment Activities (Indoor)** - Predominantly spectator uses conducted within an enclosed building. Typical uses include theaters, concert or music halls, resort facilities or indoor sports arenas.

**Entertainment (Outdoor)** - Predominantly spectator or recreational uses conducted in open or partially enclosed or screened facilities. Typical uses include sports arenas, music venues, or resort facilities with golf courses or other amenities.

**Food Cart** - A mobile venue that sells food.

**Food Cart Pod** - A pod is a grouping of food trucks assembled at an established location (usually a parking lot) on a semi-permanent or regular basis. A pod typically ranges from 2-20 trucks, and there is often some seating or dining area.

**Home Occupation** - An occupation carried on in a dwelling unit; provided that the use is secondary to the use of the dwelling unit for residential purposes and does not change the character thereof.

**Hotel/Hospitality** - An establishment that provides, for a fee, sleeping accommodations and customary lodging services, including maid service, the furnishing and upkeep of furniture and bed linens, and telephone and desk service. Related ancillary uses may include but shall not be limited to conference and meeting rooms, restaurants, bars, and recreational facilities.

**Large Retail Facility** - A large-scale self-service retail store selling food, drugs, household merchandise, clothing, and a variety of other retail goods; large retail facilities are typically located in community scale retail centers rather than in residential village neighborhoods. Square footage limits can be defined at Level B.

**Live/Work** - A dwelling unit used for both dwelling purposes and any nonresidential use permitted in the zoning district in which the unit is located.

**Low Impact Development** - An approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs.

**Mixed-Use Development** - Development that mixes land use types on one site, i.e., combines residential and commercial uses. Mixed uses can be “vertical” (stacked in multi-story buildings), or can be “horizontal” (adjacent to each other in separate buildings or spaces).

**Multi-Family Residential** - Two or more units that are leased or rented within a common building, and are not located on separate lots.

**Residential Village Scale Commercial and Services** - A mix of commercial land uses intended to serve adjacent residential neighborhoods. Residential Village Commercial and services normally includes establishments that meet the everyday needs of residents such as restaurants, grocery stores, convenience stores, dry cleaners, etc. Individual business square footage maximums can be determined at Level B.

**Residential Village Scale Eating Establishment with and without Liquor Sales** - A structure in which the principal use is the preparation and sale of food and beverages; outdoor seating is permitted. The scale of this establishment is appropriate to adjacent neighborhoods. Square footage maximums can be determined at Level B.

**Residential Village Scale Multi-Family Residential** - Dwelling units that are leased or rented within a common building and are not located on separate lots. The size and scale should be ap-

propriate to residential village neighborhoods. Unit caps can be established at Level B.

**Senior Transitional Living and Care Facilities** - An age targeted facility for "seniors" (typically 55 years and over) that can provide a continuum of care and living arrangements: from independent living apartments, assisted care units, nursing care beds, memory impaired facilities, or facilities for treating other health and living needs of seniors. Living units can be owned or leased, separate or attached, with all units under a common management.

**Single Family Detached** - A detached building designed to be occupied by one family, or a group of unrelated persons living together as a unit, with facilities designed to accommodate living and sleeping, including up to two kitchens, including manufactured homes and or prefabricated, modular or sectional units meeting the requirements of the Bernalillo County Building Code, designed to be permanent structures, placed upon permanent foundations and taxed as real property. Up to 10 dwelling units per acre allowed. Can be served by local, collector or rear alley and can have a detached unit/accessory unit. Additionally, can be age restricted.

**Townhouse** - One of a group of two to ten 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 located on its own, individual lot.

**Transit Facilities** - The property, equipment, and improvements of whatever nature owned, used, constructed, maintained, controlled, or operated to provide mass transportation for passengers or to provide for the movement of people.

**Transit Oriented Development** - Moderate and high-density housing, office, or retail/commercial uses concentrated in mixed-use developments located along transit routes.

**Upper Story Residential** - A dwelling unit that is located on the second and/or higher story above any nonresidential use permitted in the zoning district, but that maintains a separate entrance from that use.

**Urban Agriculture (Urban Farm, Urban Garden)** -The practice of cultivating, processing, and/or distributing food in, or around, a residential village, town or city.

**Utility Facility/Infrastructure** - Any privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, storing, or distributing communications, power, electricity, light, heat, gas, oil, renewable energy, transportation, crude products, water, steam, waste, storm water, or any other similar commodity, including any fire or police signal system or street lighting system, which directly or indirectly serves the public.

**Vendor Market** - An occasional or periodic market held in an open area or in a structure where groups of individual sellers offer items for sale to the public.

## Summary of Santolina PC Zone Benefits

The Santolina PC Zone is appropriate for Santolina because of the community's large size and long development timeframe. The goals of creating a cohesive master planned community along with the scale and timeframe involved make upfront site specific individually zoned parcels impractical. Santolina's focus as a mixed-use community with mixed-densities and design styles requires flexible performance based standards. The Santolina PC Zone selects the best and most relevant parts of zoning (land uses, site character and design) and creates a unified whole.

Additionally, the Santolina PC Zone allows for mix and match flexibility that responds to future market demand and new building styles. At the same time, it requires a performance and form based framework for development suitable for its location, context and character. The Santolina PC Zone can address the evolving needs of the new economy and the changing demographics of the region, while creating a unique sense of place and community identity for Santolina. The added benefit is that it provides a predictable and easy to use framework for large-scale zoning.

# Chapter 5
# Utilities

SANTOLINA

## 5. Utilities

One of the primary principles that guided the development of the Santolina Level A Master Plan was a "systems thinking" approach to infrastructure. A large scale master plan, such as Santolina, has the ability to utilize the most environmentally and economically efficient mechanisms available when creating a comprehensive infrastructure plan to serve the community. Infrastructure can be appropriately sized to avoid costly future retrofits. State of the art technologies can be utilized on a system wide basis to provide significant efficiencies in energy transmission, stormwater and wastewater management, and water conservation processes. The Utilities Chapter includes plans for the provision of stormwater drainage, water, wastewater, dry utilities and solid waste. More detailed information on water, wastewater and drainage is included in the Level A Technical Appendices.

## Drainage System

As noted earlier, Santolina is envisioned as a vibrant mixed use master planned community. Santolina will embrace creative and innovative stormwater management practices to compliment the vibrant mix of uses and transit alternatives. Drainage solutions may include naturalist surface drainage systems intertwined with the community trails, open space and park system.

The Master Plan establishes guidelines for "…a drainage strategy for management and maintenance of watersheds and floodplains", as required by the PCC. The strategy for stormwater management within Santolina includes:

- Protection of undeveloped and developed property from flooding in 100 year storm events
- Sustainable infrastructure approaches for the control, conveyance, storage and discharge of stormwater
- Improve water quality by the use of stormwater retention and detention facilities (which trap sediment, pollutants and more, in accordance with the recently promulgated MS4 guidelines and regulations)
- Individual commercial sites (non-single family residential) will comply with MS4 Permit requirements, as adopted by the County, including that sites be designed to retain the 90th percentile storm event
- Shallow groundwater recharge and landscape irrigation by implementing water harvesting techniques on the mesa top
- Recreational activities
- Multi-purpose water storage

More detailed stormwater management will be reviewed with subsequent Level B and Level C plans. Such plans will require approval from the County and other applicable jurisdictions.

**Stormwater Management**

As with any significant stormwater management system, the Santolina public stormwater management system will include many components and require long term maintenance and operational attentions. The components include:

- Closed basin 'retention' systems, including retention ponds, water quality and infiltration devices
- Stormwater 'detention' facilities including detention ponds, embankments and water quality and infiltration devices
- Stormwater conveyance systems including underground pipes and open channels to move stormwater around and through the Master Plan Area

Bernalillo County is anticipated to own and operate the public stormwater infrastructure within closed basin ponding systems within Santolina. These systems will be sited within public right-of-way to accommodate public ownership, operation and maintenance.

It is anticipated the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) will own, operate and maintain the major drainage channels and detention ponds (or dams) required

in those basins discharging stormwater to the south and east (to the river).

A well designed stormwater management system in, around and between retention and detention ponds (or dams) will provide recreational opportunities. WALH will work with the County and/or AMAFCA to obtain use agreements for those facilities envisioned as community parkland.

Public stormwater infrastructure generally refers to storm drainage infrastructure owned and maintained by public agencies, including the County, AMAFCA or NMDOT. Private stormwater infrastructure is generally referring to smaller stormwater infrastructure required, owned and maintained by privately owned sites and facilities, including commercial development sites, private parks, HOA facilities, etc.

As with other major systems necessary to service Santolina, the stormwater system has been designed towards meeting the 2035 Projected Development Plan followed by the Full Buildout.

Private and public 'site development' projects will be required to incorporate "low impact development" (LID) and other green development practices that improve stormwater quality and harvest stormwater. These LID improvements will mimic the existing character of the land in which most of the stormwater remains on-site. These measures will be employed only to an extent that does not violate Rio Grande Compact agreements.

## Water System

The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) has provided a 40 Year Water Plan to the State of New Mexico in which the population growth and water needs of the current and future Bernalillo County/Albuquerque service area are addressed. The 40-year Plan is updated every five years. However, the ABCWUA does not specifically identify developments that are included in the projected water demands.

The ABCWUA has provided a letter dated July 29, 2014, indicating they have the capability and capacity to serve the Santolina Master Plan as it develops over its 40-50 year buildout. This letter is included in the Santolina Water Master Plan Technical Report as an Appendix to the Level A Master Plan.

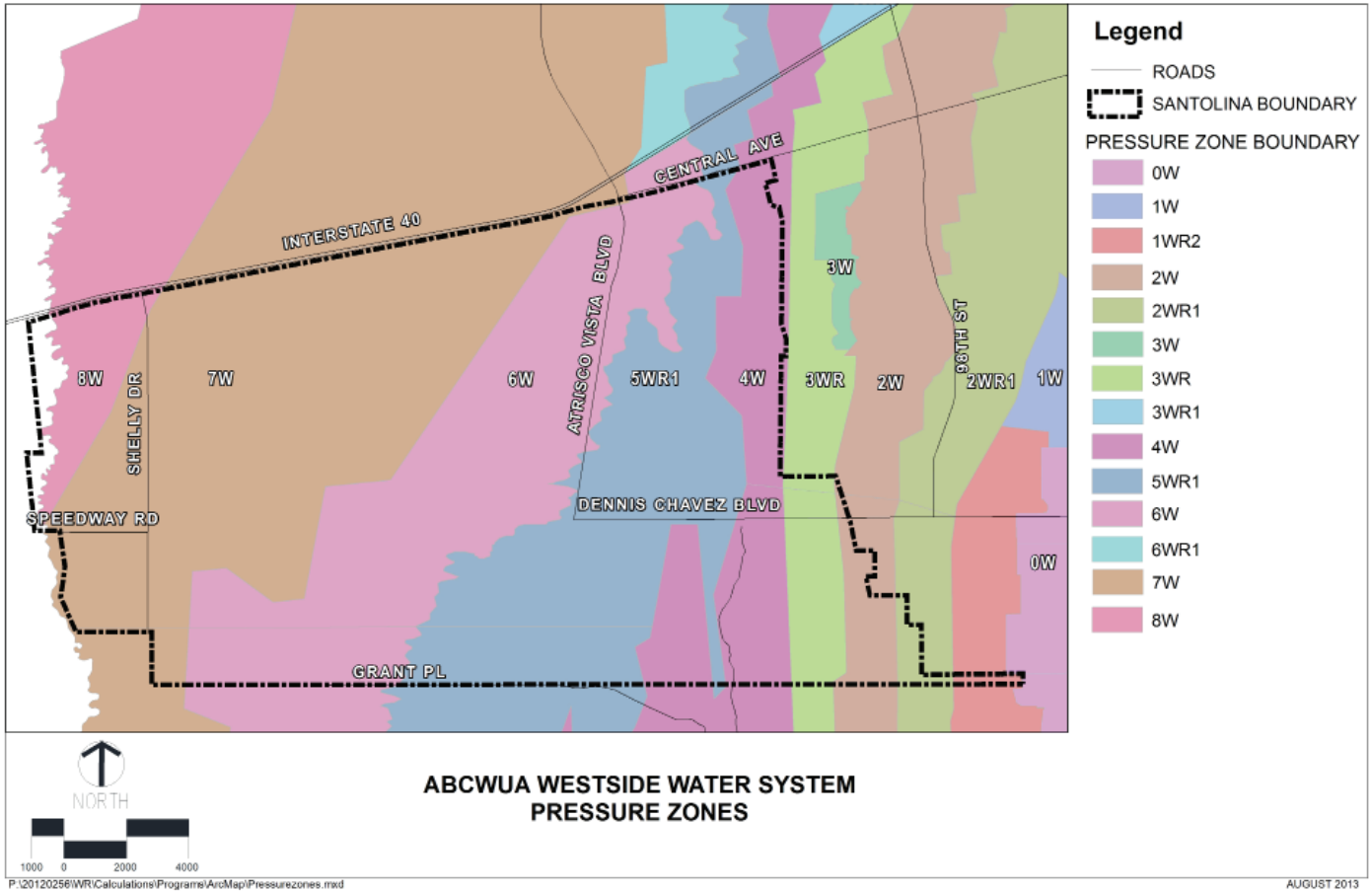
The ABCWUA charges a Water Supply Charge to properties outside of their existing service areas, such as Santolina, to fund the procurement of additional water rights and other water supply initiatives. It is anticipated that Santolina, or at least the majority of the community, will be subject to the Water Supply Charge. The actual amount of the Water Supply Charge will be determined at the time services are taken and at the rate described in the applicable Water and Sewer Rate Ordinance. WALH is committed to working with the ABCWUA to develop additional/new sources of water.

The ABCWUA has and continues to make tremendous gains in water conservation and reductions in the overall demand by its customers, reducing consumption from 251 gallons/person/day in 1995 to the current 135 gallons/person/day. Santolina will comply with all adopted water conservation and usage policies of the ABCWUA and County. Level B and C plans will provide the specific enforcement language necessary to support all applicable water conservation codes.

Santolina anticipates receiving service from ABCWUA for domestic water service. WALH and the design team have prepared a conceptual-level Water Master Plan for providing water service to Santolina. This conceptual plan does not represent the final, optimized layout ABCWUA water system for the Santolina Plan Area.

The typical ABCWUA water system is delineated in both pressure zones and trunk zones. Pressure zones represent ranges of acceptable service pressures based on ground elevations. The Master Plan Area spans elevations representing ABCWUA water pressure Zones 1WR through 8W. See ABCWUA Westside Water System Pressure Zones (Exhibit 14: Water System Pressure

*Exhibit 14: Water System Pressure Zones*



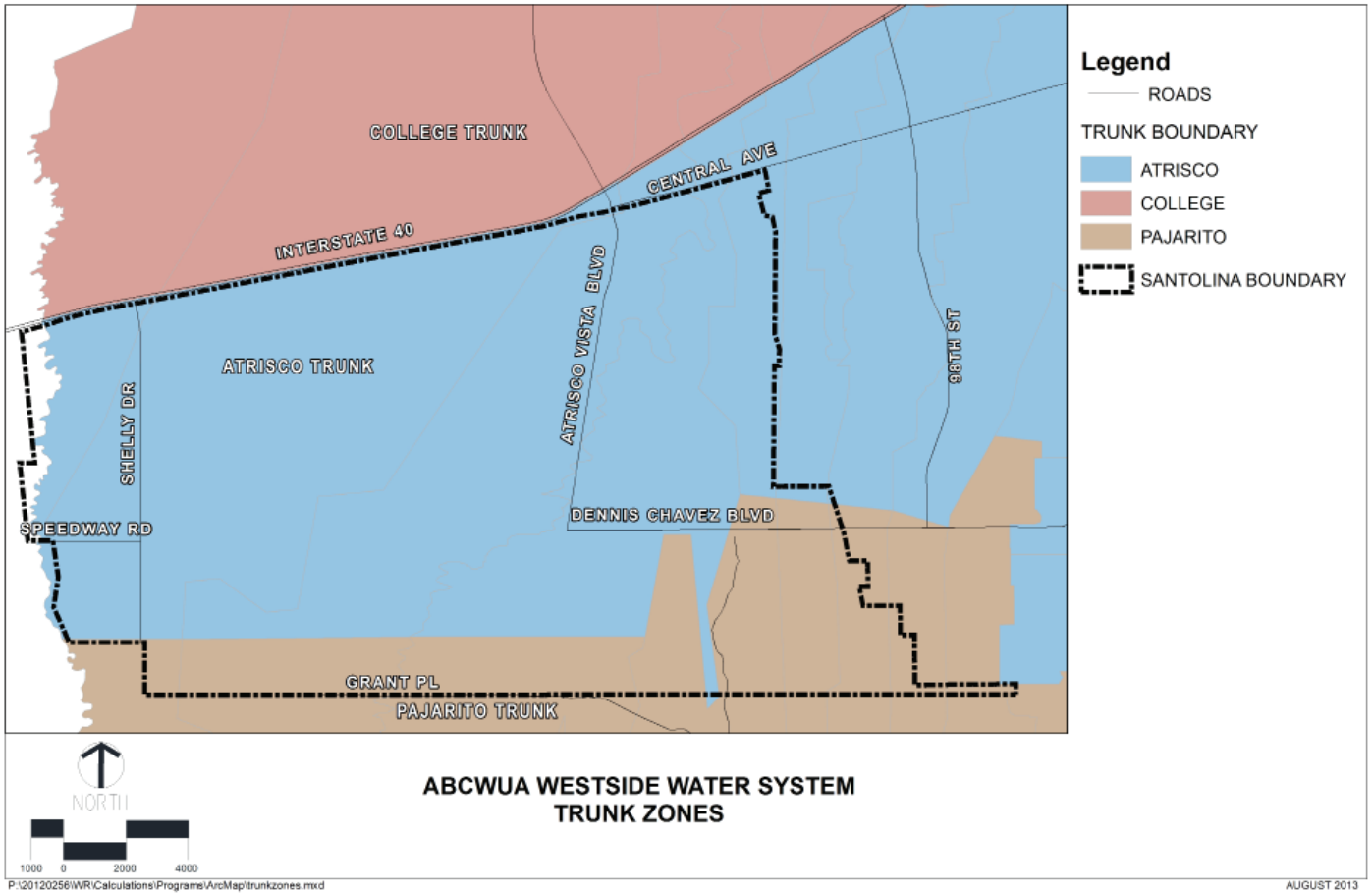

Zones). These zones serve customers between elevations 4,975 ft. and 5,945 ft. Currently, the highest area served by existing infrastructure south of I-40 (excluding the Detention Center) is Zone 3WR with service from the Franciscan Reservoir.

As noted earlier, the ABCWUA water system is also delineated by trunk zones, generally extending in an east-west direction. Santolina is primarily located within the Atrisco trunk zone. See ABCWUA Westside Water System Trunk Zones (Exhibit 15: Water System Trunk Zones). It is also within the northernmost extent of the adjacent Pajarito trunk zone to the south.

Lying just north of Santolina's Atrisco and Pajarito trunk zones, the College trunk zone is currently in various stages of study, design and construction for westward extension, including large transmission lines, pump stations and reservoirs. Construction of these water system improvements will be complete in 2014.

Significant excess capacity exists in these College trunk improvements and this additional capacity could be available for Santolina on a temporary basis, as approved by the ABCWUA. This approach is identified in this Master Plan. Ultimately with

*Exhibit 15: Water System Trunk Zones*




the future construction of Atrisco and Pajarito trunk water system infrastructure, only when needed, Santolina may be closed off from the College trunk system. This thoughtful and efficient approach to Santolina water service optimizes the College trunk water system financial investment, enhances critical system operational issues (water age, etc.), maximizes the use of existing available infrastructure and eliminates duplicative systems until needed.

The Santolina Water Master Plan Technical Report has been developed to support the Level A Master Plan and is available separately from the Master Plan submittal. This technical Water Master Plan report outlines the analysis and data, and provides a concept as to how the proposed water system can provide water service to the Master Plan Area. The final Water Master Plan, identifying design parameters, phasing and construction details, is subject to ABCWUA service requirements and agreements.

## Wastewater System

As with the domestic water system, Santolina is located within the

operational area of the ABCWUA, but outside the adopted service area. Santolina anticipates receiving service from ABCWUA for sanitary sewer collection and treatment. WALH and the design team have prepared a conceptual-level Wastewater (Sanitary Sewer) Master Plan, (Wastewater Master Plan) for providing wastewater service to Santolina. This conceptual plan does not represent the final, optimized ABCWUA wastewater system for the Santolina Plan Area.

The Master Plan Area is currently undeveloped. Therefore, no operational sewer systems or utility districts are in place. However, there are several wastewater systems in close proximity to the Master Plan Area.

- The Tierra West residential community, located at Atrisco Vista and Central Avenue is served by a 15 inch ABCWUA wastewater line. The line extends across I-40 serving Cordero Mesa Business Park and surrounding lands.
- A 10-15 inch wastewater line is located along Dennis Chavez Boulevard to Atrisco Vista. This line provides service to the recently completed Atrisco Heritage High School.

The Wastewater Master Plan has been designed to serve Santolina from three primary existing wastewater outfalls:

- The majority of the Master Plan Area drains south and east towards the Dennis Chavez Boulevard/Atrisco Vista intersection. At this location flows can be directed to an existing interceptor in Dennis Chavez Boulevard on a temporary basis, as approved by the ABCWUA, or to a potential future satellite reclamation plant in the southern portion of the Master Plan Area.
- A small area of Santolina within the northeast drains south and east into the existing ABCWUA wastewater system.
- A small area of Santolina within the southeast can be served by future extensions of the ABCWUA system in the Gun Club/ Coors area to the east.

Details of the benefits and challenges at each outfall are described in the Wastewater Master Plan.

As with other major systems necessary to service Santolina, the Wastewater Master Plan has been designed towards meeting the 2035 Projected Development Plan followed by the Full Buildout.

The Santolina Wastewater (Sanitary Sewer) Master Plan Technical Report has been developed to support the Level A Master Plan and is available separately from the Master Plan submittal. This technical report outlines data that has been studied and details how to serve the Master Plan Area wastewater flow and treatment requirements. A serviceability letter, dated July 29, 2014, identifying wastewater availability to Santolina has been provided by the ABCWUA and is included in the Santolina Wastewater Master Plan Technical Report. The final Wastewater Master Plan, identifying design parameters, phasing and construction details, is subject to ABCWUA service requirements and agreements.

## Dry Utilities

“Dry utilities” is the term used to refer to electric, natural gas, cable and telecom utility systems. The Dry Utilities Map (Exhibit 22: Conceptual Dry Utilities: Existing Facilities) illustrates the location of existing dry utilities and schematic designs for major systems.

Dry utilities will be installed in coordination with the phased development of Santolina. The dry utilities are typically located within shared utility corridors than may also function as trails and open space corridors. Future Level B and Level C plans will establish the exact size and location of dry utilities.

The planning, design and construction costs for utility transmission and distribution facilities are not borne by the developer.

## Electric

PNM is the electric service provider for the Albuquerque/Bernalillo

County area. The utility provider has electric facilities located in proximity to the Master Plan Area. PNM owns and operates two transmission lines (a 345kV transmission line and a 115kV transmission line) paralleling the eastern boundary of Santolina along the 118th Street. Additionally, the Master Plan Area is bisected by a 345kV transmission line owned and operated by the El Paso Electric Company (adjacent to Atrisco Vista ROW).

Few electric distribution facilities are currently located in the area. PNM has an existing overhead 12.47kV distribution line on the western portion of the Master Plan Area. PNM also has another overhead 12.47kV distribution line located within Santolina.

Electric utility transmission development is guided by the Facility Plan Electric System Transmission and Generation (2010-2020) adopted by Bernalillo County. Electric distribution development is guided by PNM's Electric Service Guide found on PNM's web site (www.pnm.com). In order to provide electric service to Santolina, the proposed electric system may consist of 115kV overhead transmission lines, structures and distribution substations. Additionally, distribution facilities using 12.47kV and 7.2kV lines, structures and equipment may be required.

In order to support Santolina, overhead 115kV transmission lines located within 75 ft. easements will be required to connect with new substations located within load centers. Distribution substation sites will typically occupy parcels of land approximately 1 to 2 acres in size. Transmission-related stations may require 5 to 10 acre sites.

PNM owns a parcel consisting of approximately 148 acres along the southern boundary of Santolina. The site is considered for use as a potential future generation station and switching station. Future transmission corridors connecting with the 148-acre PNM parcel will be identified in future Level B and C plans.

The location of transmission related station(s) and the routing of transmission lines required to support Santolina will be determined by PNM and the developer. Based on Santolina's build-out load requirements, additional substations will be 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 natural gas, telecommunications and cable/internet services.

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

Distribution Feeder – within a utility easement. PNM will ask for an additional easement behind the ROW to secure their installation. Distribution lines require a minimum of 10 feet for an easement.

Switch Cabinets – within utility easement. Each cabinet is approximately 7' X 7' X 4'; and requires at least 23' X 13' easement or clear space for access to the doors. Transformer – Easement determined by transformer size. Transformers are usually installed on the front lot line of a given property and require easements for access and feed.

## Gas

New Mexico Gas Company (NMGCO) is the local gas distribution utility company.

An existing 20” transmission gas line (600-900psi) runs across the Master Plan Area along the future Dennis Chavez Boulevard alignment. There are two (2) existing border stations adjacent to the 20” transmission gas line. The stations are located near 118th Street and Shelly Road. An existing 16” very high pressure (VHP) gas line (175psi) runs west along Central Avenue to Atrisco Vista and then turns south for approximately 2,500 ft. before ending. The existing lines are in good condition with significant cathodic protection maintained throughout the length of the line.

There is currently no long range plans for infrastructure improvements for this area. A conceptual natural gas supply system has been prepared based on the Land Use Plan. The system includes the following:

- 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 gas border station near Shelly Road and a possible future gas border station located near Atrisco Vista. This loop system will also tie into the existing 16” VHP gas line.
- A system of 8-12” looped gas lines may be placed to serve the northeast portion of the Master Plan Area. This system will also tie into the existing 16” VHP gas line.
- An 8-12” gas line will be installed to service the southeast portion of Santolina. The line may be looped to future gas lines in Gun Club Road.
- 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 175 psi, then regulator stations will be utilized to reduce the VHP gas line to a distribution line sized for 60psi generally.

## Telecommunications

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

The Master Plan Area is currently split between two CenturyLink district offices. The Southwest Central Office has jurisdiction of all territory approximately south of Dennis Chavez Boulevard and the West Central Office has jurisdiction of the area roughly north of Dennis Chavez Boulevard. All existing customers outside of the current municipal limit are served by these district offices. Telecommunication lines may piggy back on the overhead electric power poles during the design and expansion of dry utility services within Santolina.

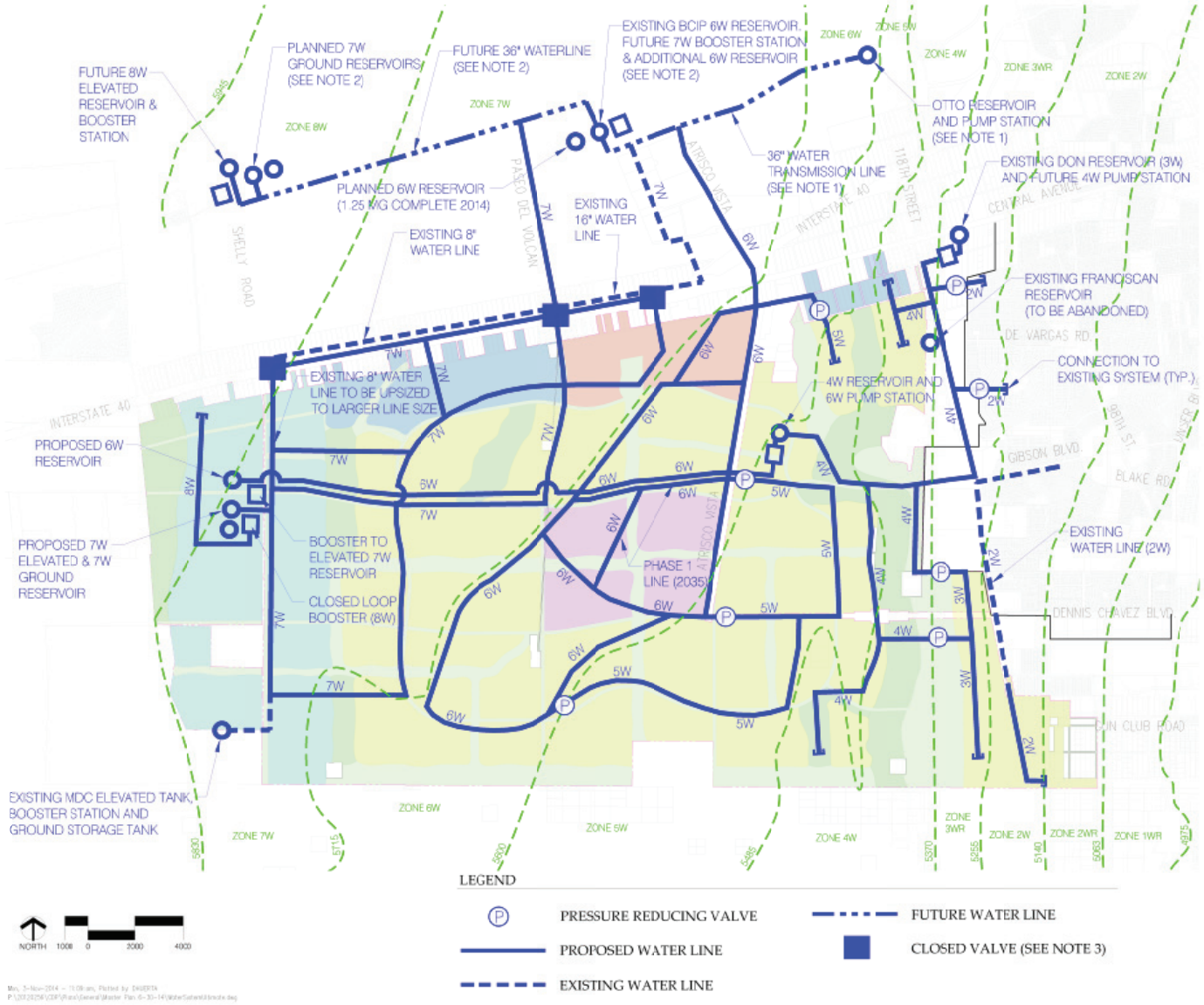
XFINITY is considering extending fiber optic service to serve Santolina. Two extensions would occur. The first is westward from the Dennis Chavez Boulevard/118th Street intersection for the southeast portion of Santolina. The second is from 140th Street and Central Avenue for the northeast area of Santolina. XFINITY typically follows PNM electrical where possible. The utility will likely locate services underground within a public utility easement or public right of way, but as with others, telecommunication lines may co-locate on the overhead electric power poles where proposed.

As with other utilities, the Level A Master Plan provides a framework for future development. More detailed plans will be provided during Level B plan review for specific portions of Santolina.

## 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 private contractors.

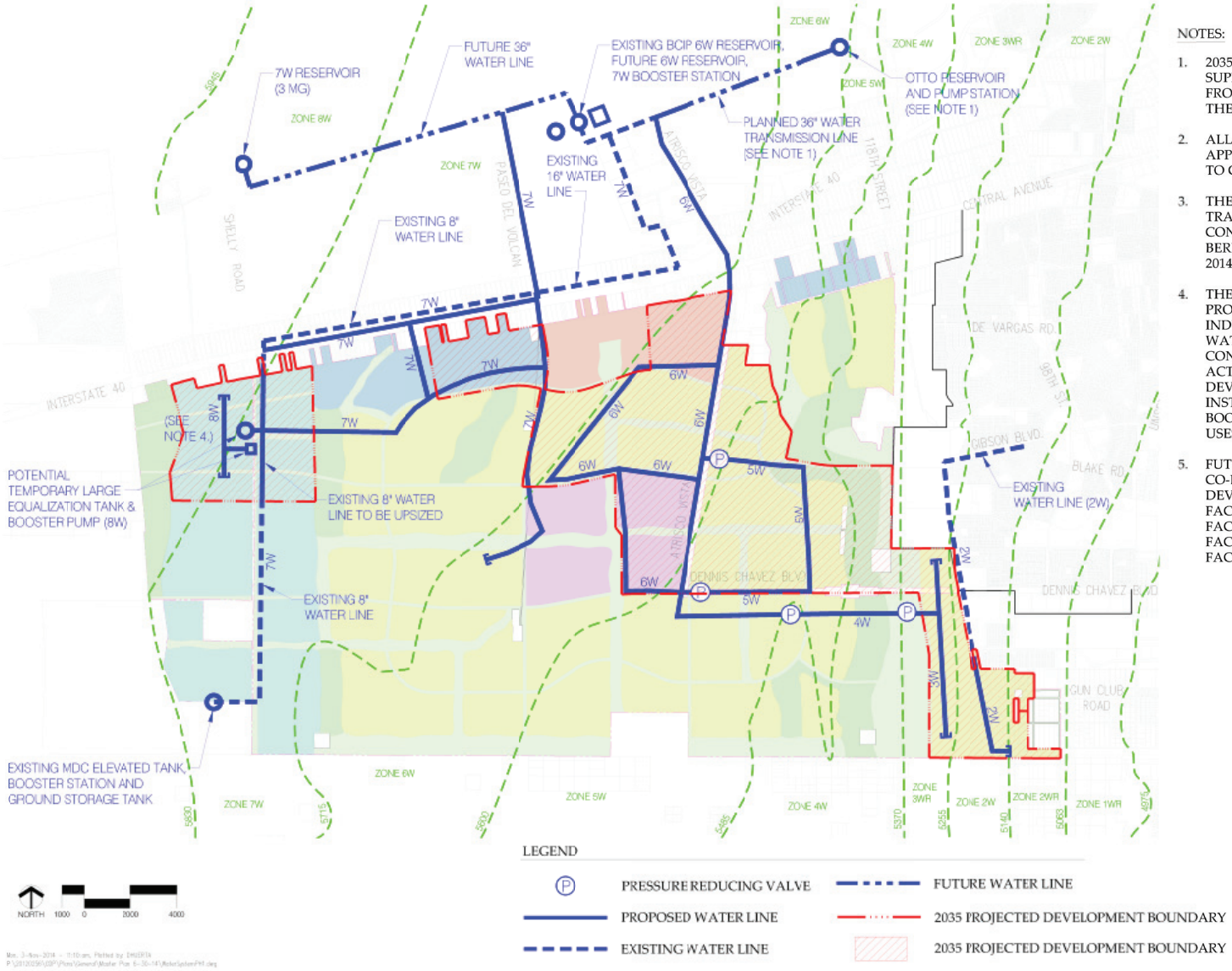
*Exhibit 16: Conceptual Water System Master Plan*




NOTES:

1. THE OTTO PUMP STATION AND 36" TRANSMISSION LINE ARE CURRENTLY UNDER CONSTRUCTION (COUNTY OF BERNALILLO /WALH PROJECT).
2. THE 7W RESERVOIR, BCIP PUMP STATION / RESERVOIR AND 36" TRANSMISSION LINE ARE UNDER DESIGN AND PLANNED FOR CONSTRUCTION IN 2014.
3. WITH CONSTRUCTION OF ALL REQUIRED LINES, BOOSTERS & RESERVOIRS IN ATRISCO TRUNK, ALL CONNECTIONS (VALVES) BETWEEN COLLEGE AND ATRISCO TRUNKS SHALL BE CLOSED.
4. ALL WATER INFRASTRUCTURE SHOWN IS ILLUSTRATIVE ONLY AND SUBJECT TO CHANGE.

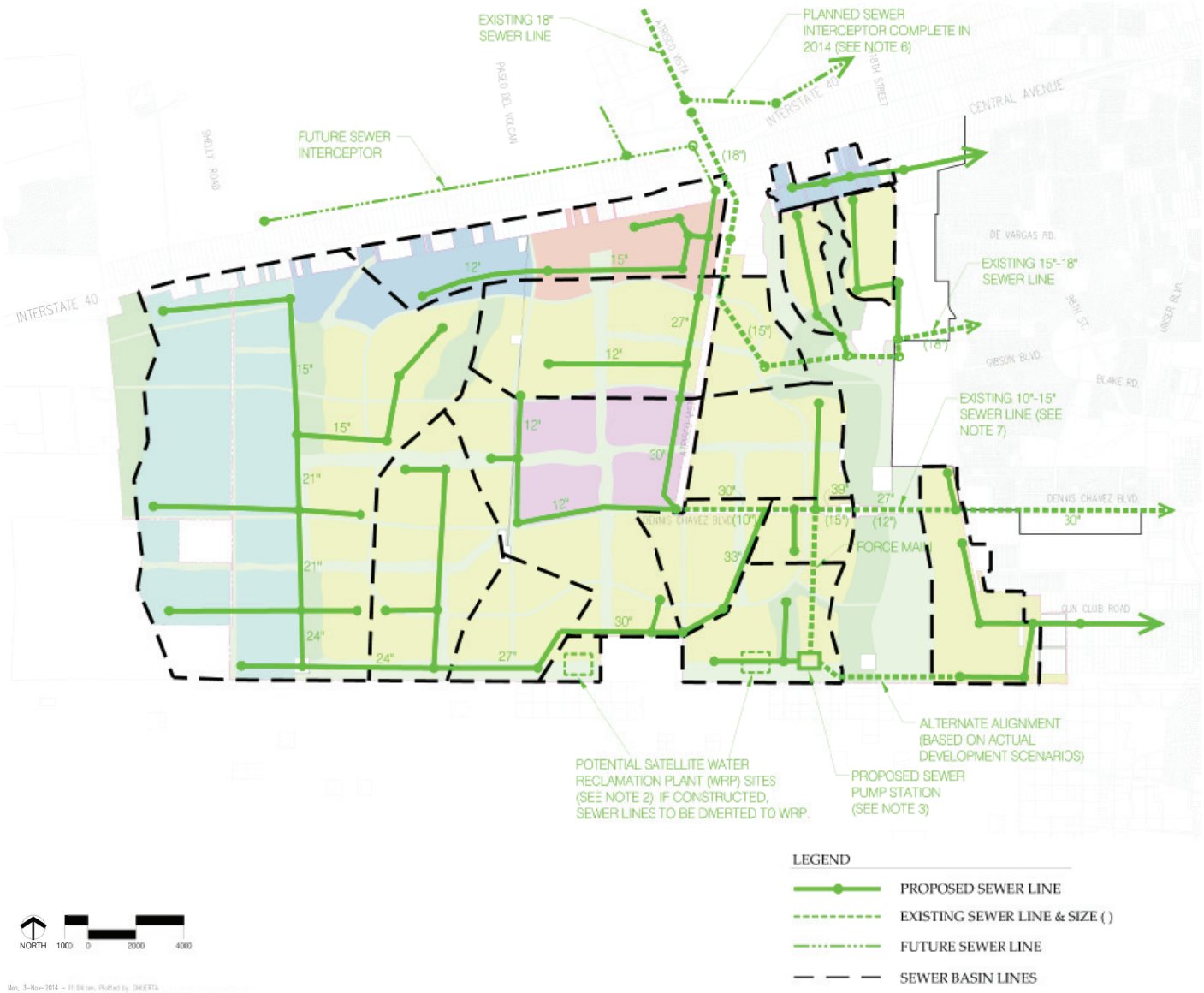
*Exhibit 17: Conceptual Water System Master Plan, 2035 Projected Development Plan*




NOTES:

1. 2035 PROJECTED DEVELOPMENT PHASE WATER SUPPLY SHALL BE PROVIDED TEMPORARILY FROM PLANNED (2014) WATER FACILITIES IN THE COLLEGE TRUNK (NORTH OF I-40).
2. ALL WATER LINE ALIGNMENTS ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. THE OTTO PUMP STATION AND 36" TRANSMISSION LINE ARE CURRENTLY UNDER CONSTRUCTION (COUNTY OF BERNALILLO/WALH PROJECT) COMPLETE IN 2014.
4. THE WESTERN PORTION OF THE 2035 PROJECTED DEVELOPMENT PHASE 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 OR LAND USES WITH NO WATER USE.
5. FUTURE DETAILED STUDIES MAY BE ABLE TO CO-LOCATE THE TEMPORARY 2035 PROJECTED DEVELOPMENT PLAN PHASE 1 8W WATER FACILITIES WITH THE ULTIMATE 6W/7W/8W FACILITIES (SUCH THAT THE PHASE 1 FACILITIES ARE NOT 'THROW-AWAY' FACILITIES).

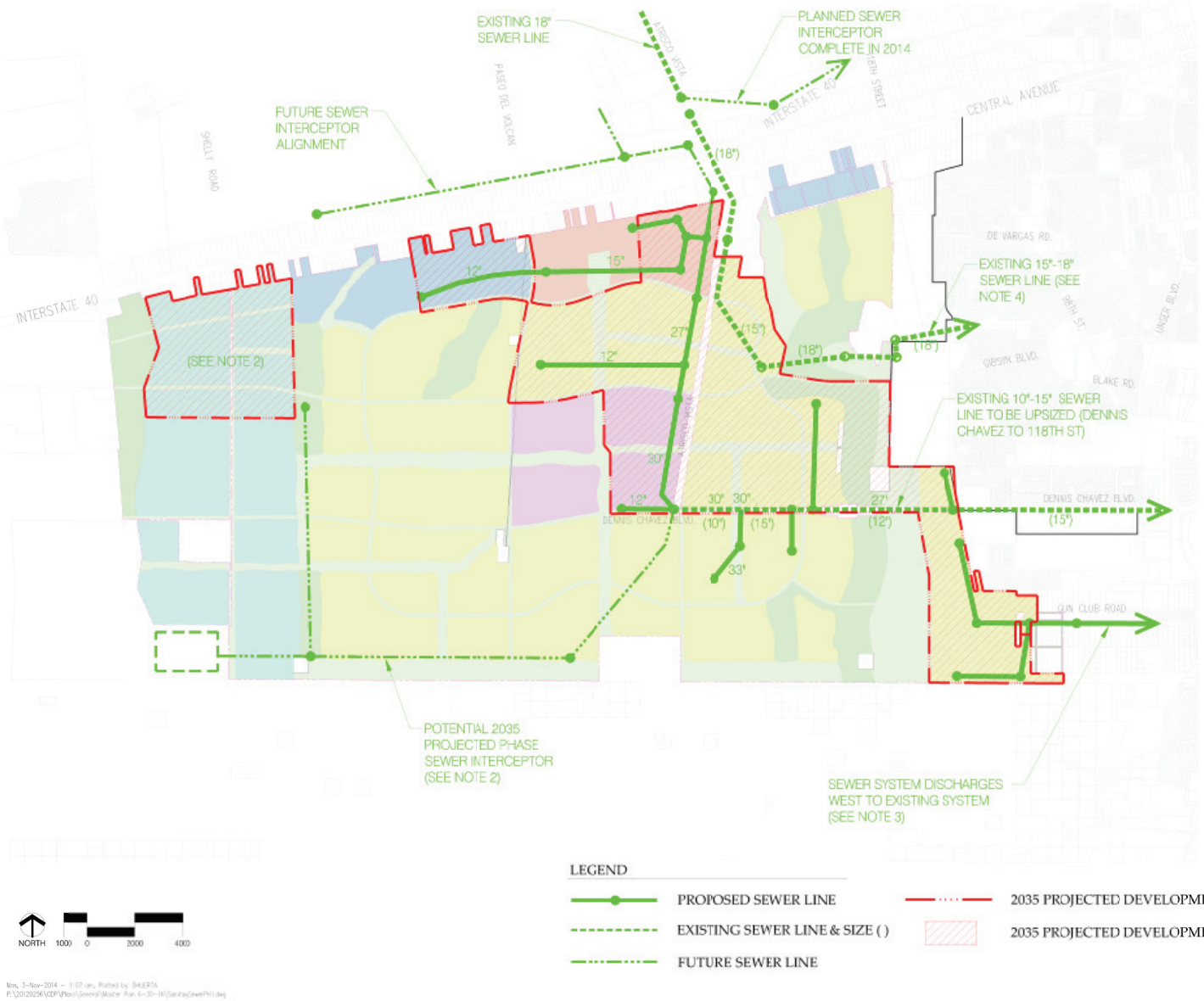
*Exhibit 18: Conceptual Sanitary Sewer Master Plan*




NOTES:

1. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
2. FUTURE ABCWUA POLICIES MAY SEEK CONSTRUCTION OF SATELLITE WRP'S ON THE "FAR WEST MESA". ONLY ONE WRP IS ANTICIPATED FOR SANTOLINA IF FUTURE WUA POLICIES PROCEED IN THIS DIRECTION.
3. SEWER PUMP STATION MAY BE REMOVED IF / WHEN WRP IS CONSTRUCTED IN THE FUTURE.
4. THE PAJARITO MESA AREA, SOUTH OF SANTOLINA, IS PROJECTED TO BE SERVED BY ONSITE TREATMENT SYSTEMS PRIMARILY.
5. FINAL SEWER SYSTEM CONFIGURATION SHALL BE DETERMINED BY APPROPRIATE LEVEL B MASTER PLANS, APPROVED BY THE WATER AUTHORITY.
6. PLANNED INTERCEPTOR WILL EXTEND SOUTH ON EITHER 118TH STREET OR 98TH STREET CORRIDORS.
7. THE EXISTING DENNIS CHAVEZ BLVD. SEWERLINE WILL REQUIRE UPSIZING (OR PARALLEL LINES).

*Exhibit 19: Conceptual Sanitary Sewer Master Plan, 2035 Projected Development Plan*

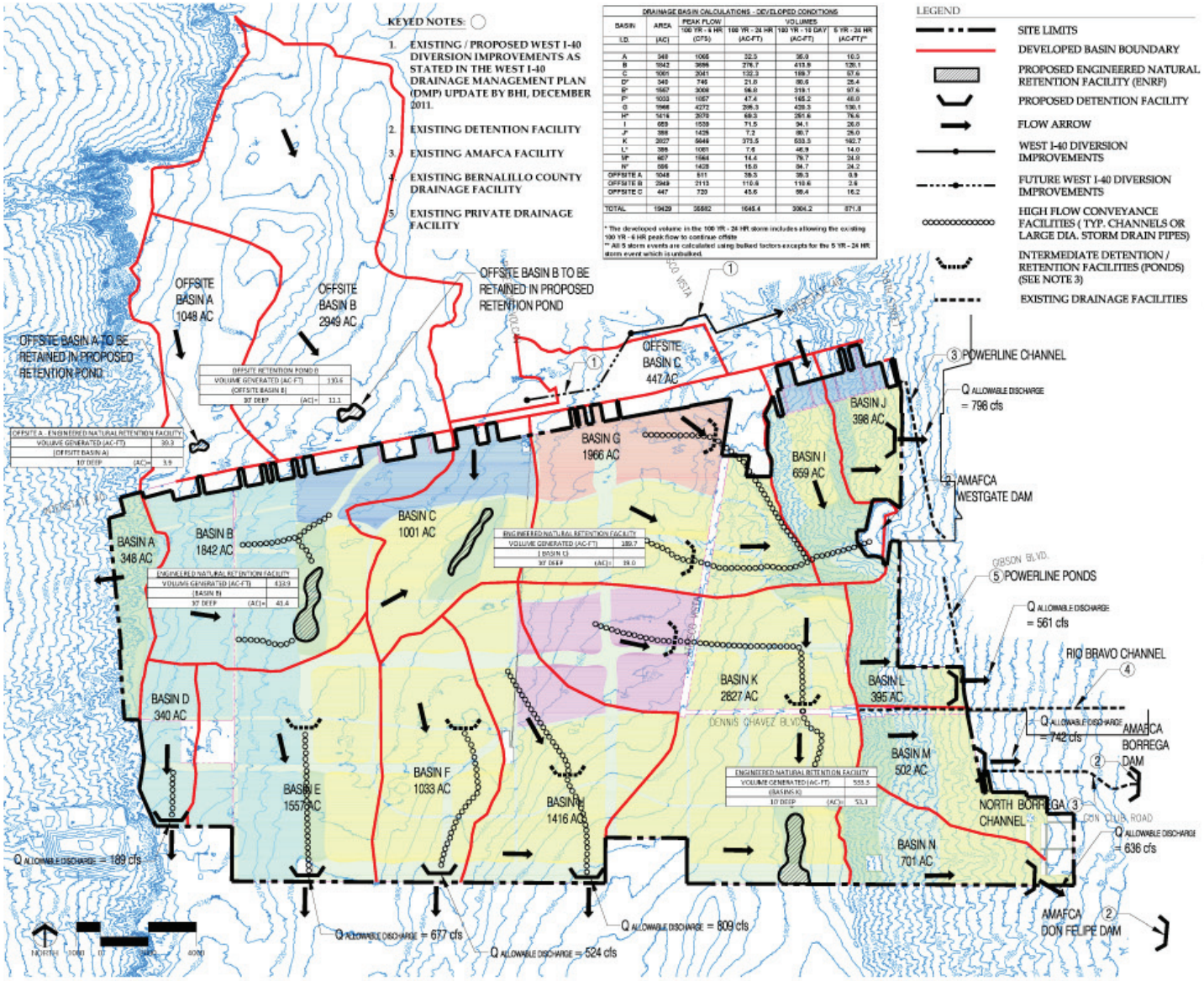



NOTES:

1. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
2. 2035 PROJECTED DEVELOPMENT PHASE 1 OF THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE:
   (A) CONSTRUCTION OF POTENTIAL 2035 PROJECTED DEVELOPMENT PHASE SEWER INTERCEPTOR
   (B) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK)
   (C) ONSITE TREATMENT & DISPOSAL SYSTEMS.

   SEE ALSO NOTE 3.
3. FINAL SEWER SYSTEM CONFIGURATION SHALL BE DETERMINED BY APPROPRIATE LEVEL B MASTER PLANS, APPROVED BY THE WATER AUTHORITY.
4. THIS EXISTING 15"-18" SEWER MAY BE TEMPORARILY AVAILABLE FOR INITIAL 'SPOT' DEVELOPMENT IN THE TOWN CENTER, BUSINESS PARK AND/ OR RESIDENTIAL LANDS.

*Exhibit 20: Conceptual Stormwater Management Plan*




| DRAINAGE BASIN CALCULATIONS - DEVELOPED CONDITIONS | | | | | |
|---|---|---|---|---|---|
| BASIN | AREA | PEAK FLOW | VOLUMES | | |
| | | 100 YR - 6 HR | 100 YR - 24 HR | 100 YR - 10 DAY | 5 YR - 24 HR |
| I.D. | (AC) | (CFS) | (AC-FT) | (AC-FT) | (AC-FT)** |
| A | 348 | 1066 | 32.3 | 36.0 | 10.3 |
| B | 1842 | 3696 | 216.7 | 413.8 | 126.1 |
| C | 1001 | 2041 | 132.3 | 189.7 | 67.6 |
| D* | 340 | 745 | 21.8 | 60.6 | 25.4 |
| E* | 1557 | 3068 | 56.6 | 319.1 | 97.6 |
| F* | 1033 | 1067 | 47.4 | 165.2 | 46.0 |
| G | 1966 | 4272 | 206.3 | 439.3 | 130.1 |
| H* | 1416 | 3070 | 68.3 | 261.6 | 76.6 |
| I | 659 | 1539 | 71.5 | 94.1 | 26.0 |
| J* | 398 | 1428 | 7.2 | 80.7 | 26.0 |
| K | 2627 | 5649 | 373.5 | 633.3 | 182.7 |
| L* | 395 | 1061 | 7.6 | 46.9 | 14.0 |
| M* | 502 | 1644 | 14.4 | 76.7 | 24.0 |
| N* | 686 | 1428 | 15.8 | 84.7 | 24.2 |
| OFFSITE A | 1048 | 511 | 36.3 | 39.3 | 8.9 |
| OFFSITE B | 2949 | 2113 | 116.8 | 119.6 | 3.6 |
| OFFSITE C | 447 | 720 | 43.6 | 58.4 | 16.2 |
| TOTAL | 19429 | 36882 | 1645.4 | 3004.2 | 871.8 |

* The developed volume in the 100 YR - 24 HR storm includes allowing the existing 100 YR - 6 HR peak flow to continue offsite

** All 5 storm events are calculated using bulked factors except for the 5 YR - 24 HR storm event which is unbulked.

NOTES:

1. WITH DEVELOPMENT OF BASINS B AND C, FLOW ACROSS I40 FROM OFFSITE BASINS A AND B WILL BE CUT OFF AND RETAINED UPSTREAM OF I40 (IE, WITHIN THE OFFSITE BASINS RESPECTIVELY)
2. STORMWATER FACILITIES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
3. THE INTERMEDIATE DETENTION / RETENTION FACILITIES AND HIGH FLOW CONVEYANCE FACILITIES ARE ILLUSTRATIVE ONLY. WITH CREATIVE USE OF OPEN SPACE CORRIDORS AND PARKS, IT IS ANTICIPATED THAT FUTURE LEVEL "B" REPORTS WILL MINIMIZE THE NUMBER OF THESE LARGE FACILITIES
4. CONVEYANCE FACILITIES (SUCH AS ABOVE GROUND CHANNELS) WILL BE DESIGNED AS ENGINEERED NATURAL ARROYOS WITH MULTI PURPOSE USES.
5. STORMWATER MANAGEMENT FACILITIES LOCATED ON THE SOUTH BOUNDARY ARE DESIGNED TO DETAIN THE 100-YR 24-HR STORM WHILE DISCHARGING HISTORIC PEAK FLOW OFFSITE.

*Exhibit 21: Conceptual Stormwater Master Plan, 2035 Projected Development Plan*

**KEYED NOTES:**

1. EXISTING / PROPOSED WEST I-40 DIVERSION IMPROVEMENTS AS STATED IN THE WEST I-40 DRAINAGE MANAGEMENT PLAN (DMP) UPDATE BY BHI, DECEMBER 2011.
2. EXISTING DETENTION FACILITY
3. EXISTING AMAFCA FACILITY
4. EXISTING BERNALILLO COUNTY DRAINAGE FACILITY
5. EXISTING PRIVATE DRAINAGE FACILITY

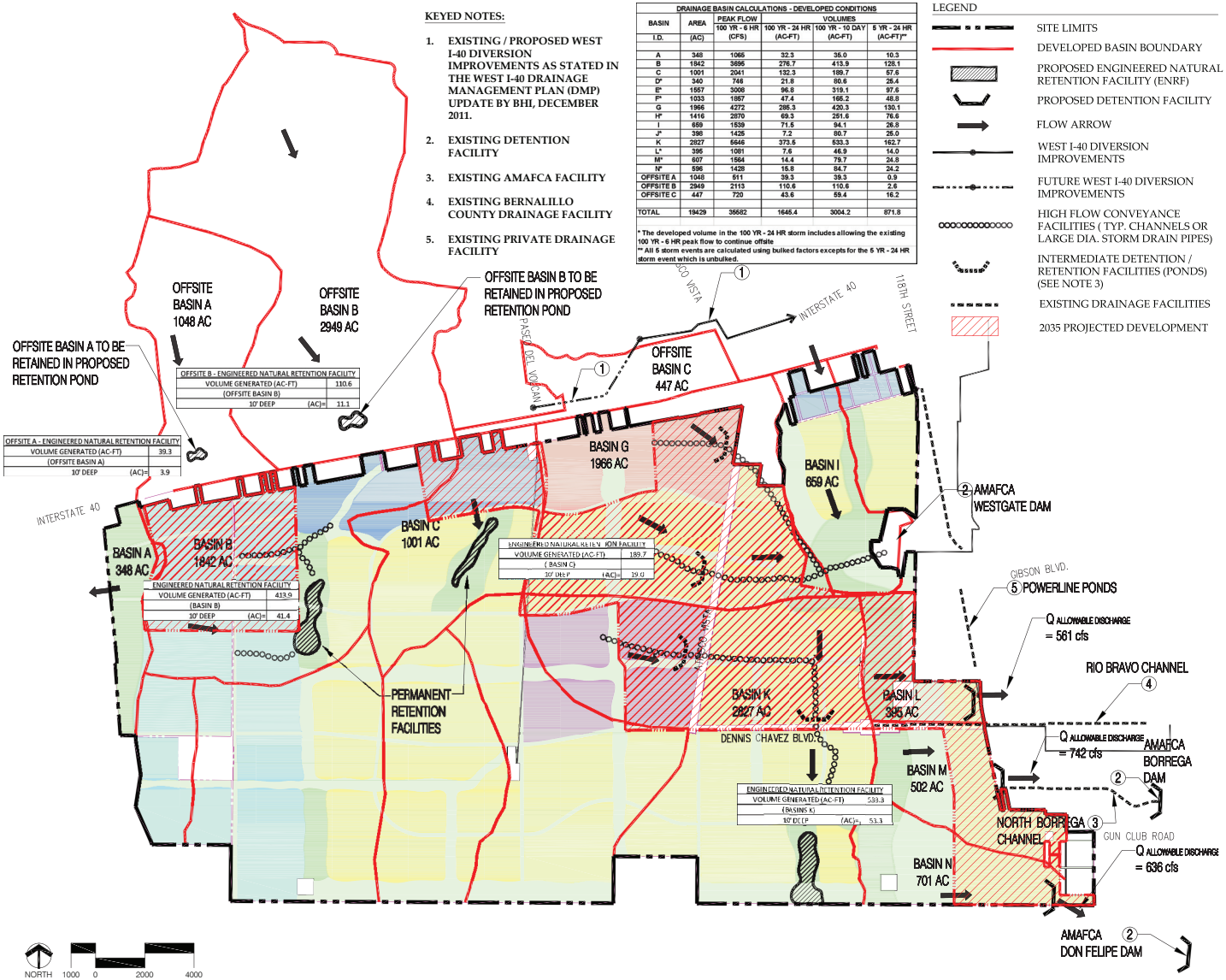
| DRAINAGE BASIN CALCULATIONS - DEVELOPED CONDITIONS | | | | | |
|---|---|---|---|---|---|
| BASIN | AREA | PEAK FLOW | | VOLUMES | |
| | | 100 YR - 6 HR | 100 YR - 24 HR | 100 YR - 10 DAY | 5 YR - 24 HR |
| I.D. | (AC) | (CFS) | (AC-FT) | (AC-FT) | (AC-FT)** |
| A | 348 | 1065 | 32.3 | 35.0 | 10.3 |
| B | 1842 | 3695 | 276.7 | 413.9 | 128.1 |
| C | 1001 | 2041 | 132.3 | 189.7 | 57.6 |
| D* | 340 | 746 | 21.8 | 80.6 | 25.4 |
| E* | 1557 | 3008 | 96.8 | 319.1 | 97.6 |
| F* | 1033 | 1957 | 47.4 | 168.2 | 48.8 |
| G | 1966 | 4272 | 285.3 | 420.3 | 130.1 |
| H* | 1416 | 2870 | 69.3 | 251.6 | 76.6 |
| I | 659 | 1539 | 71.5 | 94.1 | 26.8 |
| J* | 398 | 1425 | 7.2 | 80.7 | 25.0 |
| K | 2827 | 5646 | 373.6 | 533.3 | 162.7 |
| L* | 395 | 1081 | 7.6 | 46.9 | 14.0 |
| M* | 607 | 1564 | 14.4 | 79.7 | 24.5 |
| N* | 596 | 1429 | 15.8 | 84.7 | 24.2 |
| OFFSITE A | 1048 | 511 | 39.3 | 39.3 | 0.9 |
| OFFSITE B | 2949 | 2113 | 110.6 | 110.6 | 2.6 |
| OFFSITE C | 447 | 720 | 43.6 | 59.4 | 16.2 |
| | | | | | |
| TOTAL | 19429 | 35682 | 1645.4 | 3004.2 | 871.8 |

* The developed volume in the 100 YR - 24 HR storm includes allowing the existing 100 YR - 6 HR peak flow to continue offsite

** All 5 storm events are calculated using bulked factors excepts for the 5 YR - 24 HR storm event which is unbulked.

LEGEND

- SITE LIMITS
- DEVELOPED BASIN BOUNDARY
- PROPOSED ENGINEERED NATURAL RETENTION FACILITY (ENRF)
- PROPOSED DETENTION FACILITY
- FLOW ARROW
- WEST I-40 DIVERSION IMPROVEMENTS
- FUTURE WEST I-40 DIVERSION IMPROVEMENTS
- HIGH FLOW CONVEYANCE FACILITIES ( TYP. CHANNELS OR LARGE DIA. STORM DRAIN PIPES)
- INTERMEDIATE DETENTION / RETENTION FACILITIES (PONDS) (SEE NOTE 3)
- EXISTING DRAINAGE FACILITIES
- 2035 PROJECTED DEVELOPMENT




NOTES:

1. WITH DEVELOPMENT OF BASINS B AND C, FLOW ACROSS I40 FROM OFFSITE BASINS A AND B WILL BE CUT OFF AND RETAINED UPSTREAM OF I40 (IE, WITHIN THE OFFSITE BASINS RESPECTIVELY)
2. STORMWATER FACILITIES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
3. THE INTERMEDIATE DETENTION / RETENTION FACILITIES AND HIGH FLOW CONVEYANCE FACILITIES ARE ILLUSTRATIVE ONLY. WITH CREATIVE USE OF OPEN SPACE CORRIDORS AND PARKS, IT IS ANTICIPATED THAT FUTURE LEVEL "B" REPORTS WILL MINIMIZE THE NUMBER OF THESE LARGE FACILITIES
4. CONVEYANCE FACILITIES (SUCH AS ABOVE GROUND CHANNELS) WILL BE DESIGNED AS ENGINEERED NATURAL ARROYOS WITH MULTI PURPOSE USES.
5. STORMWATER MANAGEMENT FACILITIES LOCATED ON THE SOUTH BOUNDARY ARE DESIGNED TO DETAIN THE 100-YR 24-HR STORM WHILE DISCHARGING HISTORIC PEAK FLOW OFFSITE.

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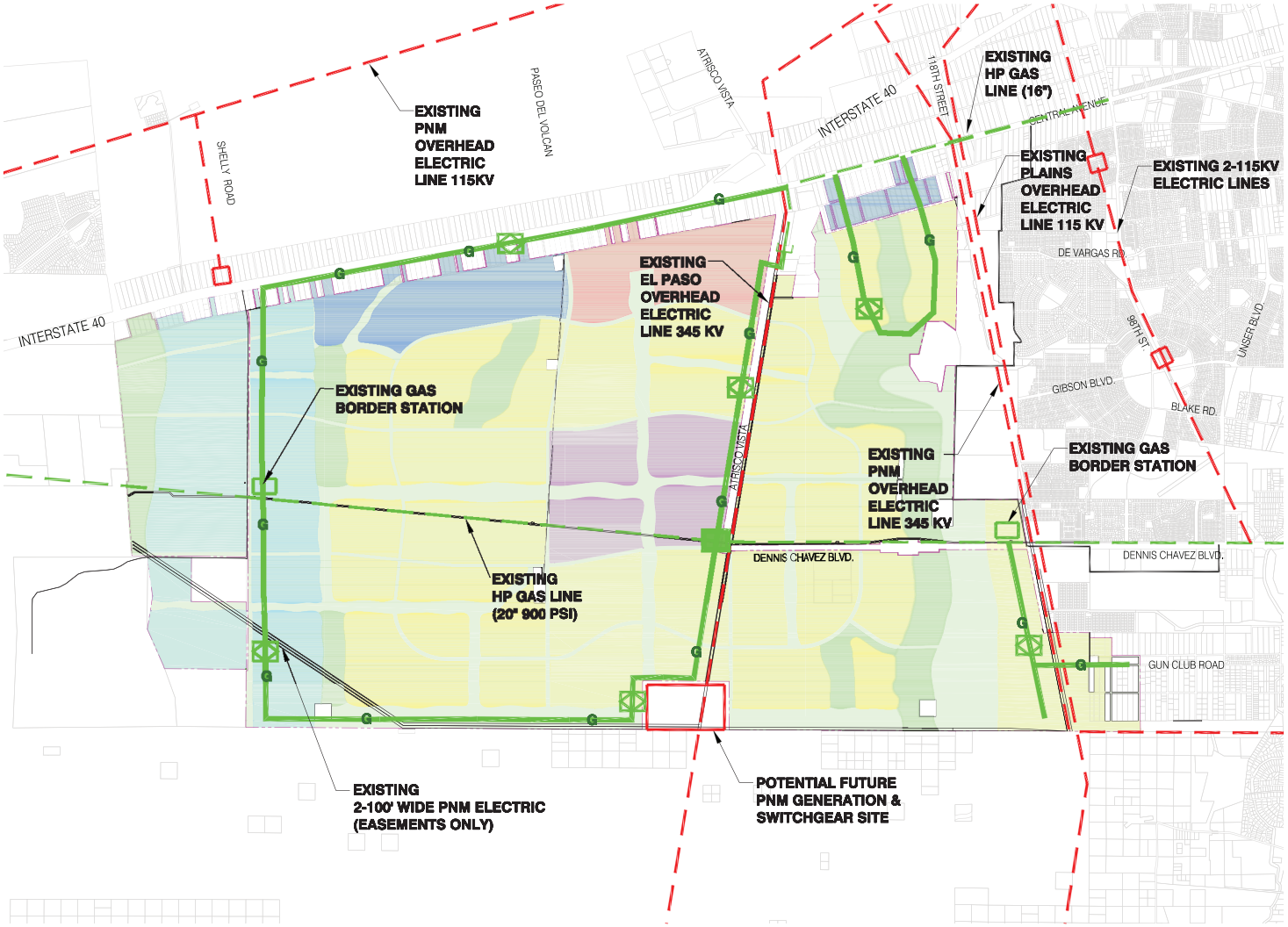
*Exhibit 22: Conceptual Dry Utilities: Existing Facilities*




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

NORTH 1000 0 2000 4000

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# Chapter 6
# Transportation

SANTOLINA

# 6. Transportation

## Overview

The Master Plan Area is generally described as a large mesa framed by two escarpments. The development of a mix of land uses will be focused on the mesa, preserving the escarpments in large open space areas to be enjoyed by the region.

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 for the land uses on the mesa. The system will provide a safe, functional and appropriate transportation system to move people and goods into/out of and throughout Santolina. Due to Santolina's multi-decade buildout, the transportation system is designed to be flexible and implemented in stages. The system will provide adequate, functional and attractive roadways, trails and transit options linking residential villages and uses within each phase of Santolina's development.

The PCC contains the following Level B submittal requirements:

*B. Transportation, 1. A disclosure statement regarding strict conformance with the Level A Transportation System Plan will be required, or a substitute traffic analysis, with consequential findings, recommendations, and proposed amendments to the Level A Transportation System Plan and Level A Community Master Plan, must be conducted prior to formal submittal of the Level B plan.*

## Transportation Planning

In conformance with the PCC requirements, the transportation analysis reviewed two projected development phases (2035 and Full Buildout), along with existing transportation network conditions. This approach to phasing is appropriate for the Level A approval given the overwhelming difficulties of precisely projecting when, where and how much development will occur in any particular year over the 40-50 year master plan time horizon for 13,800 acres. Actual development phasing will be impacted by access, market conditions, utilities and economic incentives offered by the City, County and/or State to attract business to Bernalillo County and Santolina.

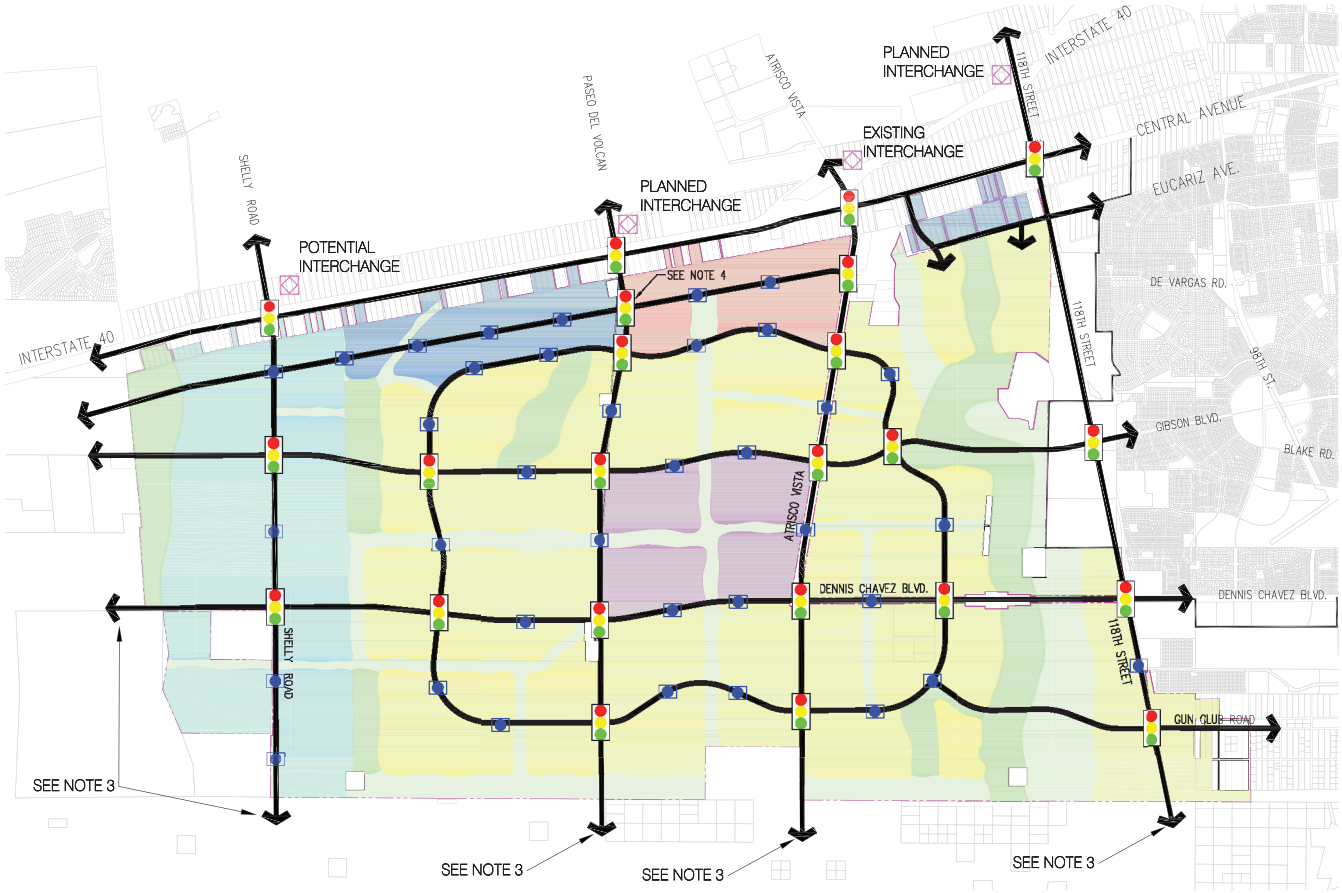
The Santolina Level A Transportation Master Plan's future year travel demand model used the adopted 2035 MTP model as the foundation to build the 2035 project development phase. This model includes the two interchanges at 118th Street and Paseo del Volcan. Future Level B submittals and Level A transportation updates will address the Santolina roadway network needs as actual development proposals progress.

Transportation access to and from Santolina is important to the success of the community. Santolina is currently accessed by a road network that includes Atrisco Vista, Dennis Chavez Boulevard, 118th Street, Central Avenue and Shelly Drive. Additionally, Santolina enjoys approximately six miles of exposure along I-40 with access from the Atrisco Vista/West Central interchange.

The 2035 Metropolitan Transportation Plan (MTP) outlines several publicly funded projects that will improve access to Santolina including:

- widening Dennis Chavez Boulevard east of Atrisco Vista
- widening Atrisco Vista north of I-40
- constructing Paseo del Volcan north of I-40
- Paseo del Volcan/I-40 interchange

*Exhibit 23: Transportation Master Plan*




NOTES:

1. TRAFFIC SIGNAL AND INTERSECTION SPACING GENERALLY CONFIRMS WITH NMDOT STATE ACCESS MANAGEMENT (SAM) MANUAL FOR URBAN PRINCIPAL AND MINOR ARTERIALS.
2. ROADWAY FUNCTIONAL CLASS AND ACCESS MANAGEMENT PLAN ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. FUTURE ROADWAY EXTENSIONS AND INFRASTRUCTURE OUTSIDE SANTOLINA ARE BY OTHERS (AS REQUIRED BY DEVELOPMENT PATTERNS).
4. SIGNAL LOCATION TO BE EVALUATED PENDING PASEO DEL VOLCAN INTERCHANGE LAYOUT AND LOOP ALIGNMENT.

LEGEND

- MAJOR SIGNALIZED INTERSECTION
- POTENTIAL FUTURE SIGNALIZED INTERSECTION
- EXISTING INTERCHANGE OR PLANNED INTERCHANGE
- PRINCIPAL ARTERIAL
- OFFSITE IMPROVEMENTS (BY OTHERS)

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**Major Street System**

As with the other components of the Santolina Level A Master Plan, a "systems thinking" approach served as the guiding principle to achieve an efficient and appropriate design for the Santolina transportation network. The following section and accompanying maps illustrate the internally and regionally connected Santolina Level A transportation network. More detailed information on the Transportation system is included in the Transportation Technical Appendix.

Santolina will benefit from the community's proximity to the existing roadway network described in the Chapter 2 Introduction. Roadways will be extended into the community as needed to serve the residential villages and centers. The roadway system within the Santolina Transportation Master Plan Level A (Transportation Plan) has been designed and modeled as a multi-modal system with adequate space for trails, bicycles and transit. The roadway network, consistent with the system illustrated on the Land Use Plan is shown in greater detail on the Master Transportation Plan (Exhibit 23: Transportation Master Plan). All roads illustrated in the Transportation Plan are principal arterials designed with four to six travel lanes. The roadways will adhere to the intersection and driveway spacing as identified in the Santolina Level A Transportation Master Plan, which generally adhere to the intersection and driveway spacing as identified in the NMDOT's State Access Management Manual (SAMM). Any deviations from this intersection and driveway spacing criteria will require County Staff approval, which may be appealed to the County Planning Commission and/or County Commission. The Santolina access management plan and intersection spacing policy approved in the Level A Master Plan will be implemented for all roadways within the Master Plan Area. The policy supersedes other policies that may be in place for roadways within Santolina.

The Master Plan portrays a new arterial roadway, located just south of the I-40 Frontage Road, within the Town Center, Business Parks and Industrial & Business Park. The primary purpose of the roadway is to provide an alternate east-west roadway between Santolina master plan areas (which is not the NMDOT-owned Frontage Road) while at the same time helping alleviate Santolina-related traffic congestion on the existing I-40 Frontage Road. Other benefits include maintaining the flexibility of the Frontage Road to be converted to a one way system in the future, minimizing the need to expand/widen the existing Frontage Road and providing additional access opportunities to existing platted but non-Santolina properties adjacent to the Frontage road.

The Transportation Plan includes the extension of Dennis Chavez Boulevard, the extension and improvements to Atrisco Vista Boulevard, constructing Paseo del Volcan as a northern extension of Dennis Chavez Boulevard and the extension of Gibson Boulevard west from its current terminus at 118th Street.

Gibson Boulevard will also be extended up the eastern escarpment onto the mesa. The extension of Gibson Boulevard (by others) plays a critical role not only as a primary access road for the community, but also as a means to ensure future roadway and I-40 interchange development critical to Santolina and the region. The extension is designed to demonstrate to the Federal Highway Administration (FHWA) that the local roadway network is fully developed. The Gibson Boulevard extension will provide residents an alternative to I-40 for local trips. This is crucial for the FHWA's review of I-40 Interchange Access Change Requests for the future 118th Street and Paseo del Volcan interchanges.

A new loop road will create internal circulation through the residential villages and centers of Santolina, with minor arterials and collectors branching off from the loop road to create local access within each residential village. The loop road, along with the east-west alignments of the new arterial roadway south of the Frontage Road and Gibson and Dennis Chavez Boulevards,

provides the backbone to develop a gridded roadway network as future roadways are developed in Level B and C submittals.

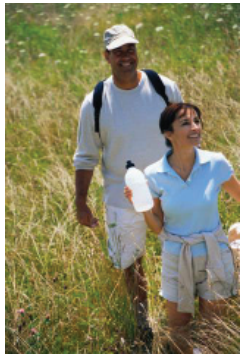
**Dedication and Construction**
As noted earlier, the roadways illustrated on the Transportation Plan are all 4-6 lane arterial roadways. The necessary right-of-way will be dedicated during the Level B or C review and approval process. The Level B and C plans will include studies to establish the refined location and alignment of the roadways identified within, or required to serve each Level B and C area.

While right-of-way will be dedicated for the ultimate roadways, construction of permanent roadways, intersections and other elements will be phased to serve the development.

## A Mix of Transportation Opportunities

The vision for Santolina includes a vibrant mixed-use community that is home to approximately 38,045 homes and 75,000 jobs. As part of the vision to create a vibrant community, Santolina will include multi-modal travel, with an emphasis on pedestrian, cycling and transit facilities. An extensive trails system will be incorporated into the residential villages to accommodate alternative transit modes along with recreational needs. These open space areas are in addition to and will connect with/compliment the approximately 3,200 acres (23% of the Master Plan Area) of allocated open space identified within Chapter 3 Land Use.

**Pedestrian**
Santolina's trails system will provide a community-wide system of roadside and off-road trails designed to connect residential villages with amenities, retail and employment centers as well as the extensive parks and open space system. The location of all trails will be further refined during Level B and C review and approvals. However, the Transportation Plan incorporates roadside trails along one side of all collector and higher levels of streets. Marked at-grade crosswalks will be provided where appropriate. Connecting to the roadside trails, off-road trails will meander between and through the residential villages of Santolina linking to the open space areas identified on the Land Use Plan.

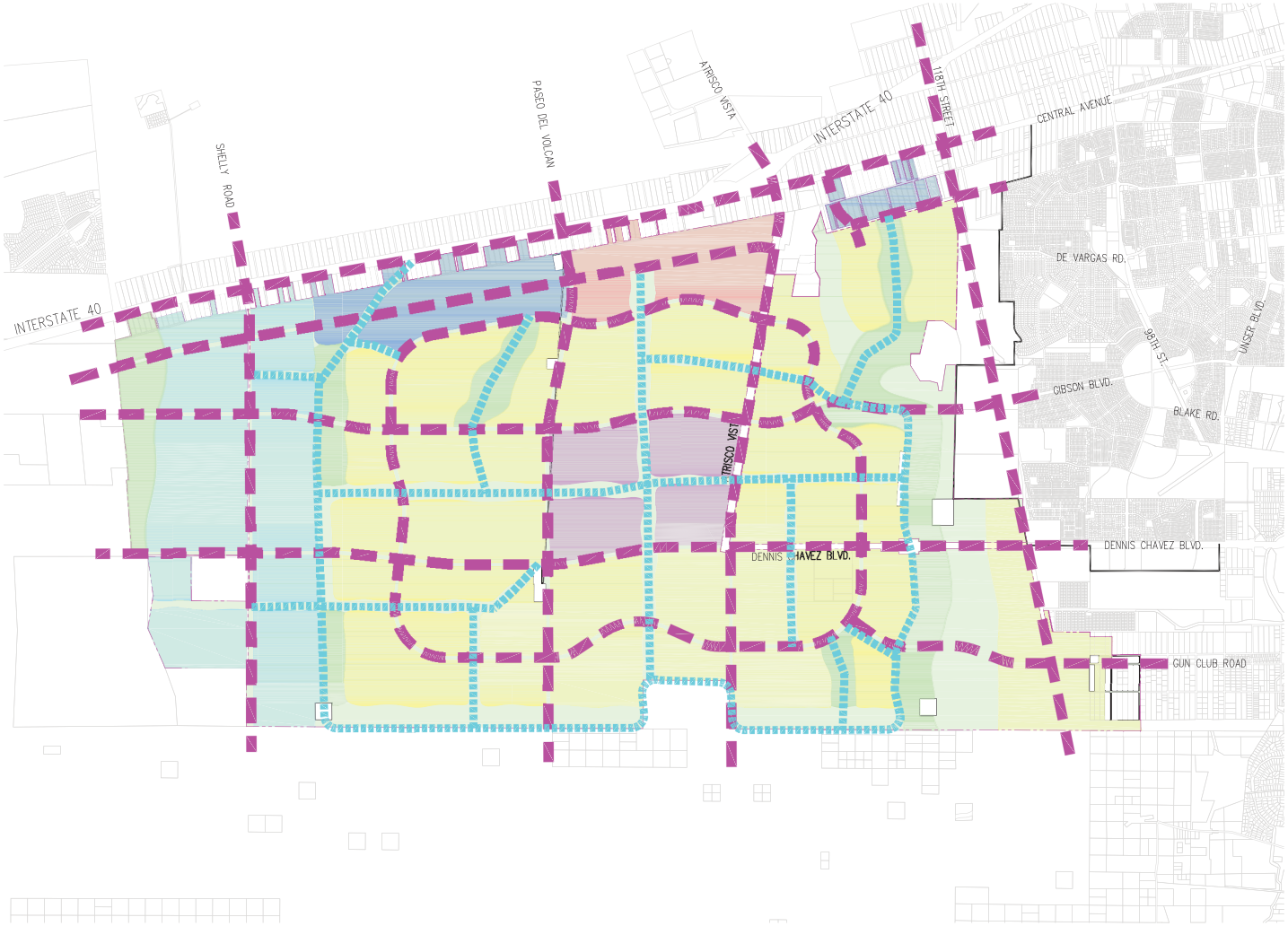


The trails system is designed to encourage pedestrian trips throughout the community. Sidewalks and roadside trails enable short walking trips to schools, parks and other amenities within each residential village. Pedestrian access will be encouraged and further defined in the Level B and C plans for specific areas of Santolina.

**Cycling**
Similar to the pedestrian trails network, Santolina's bikeway network will provide a community-wide system of on-street, roadside and off-road trails. Additionally, adequate bicycle crossings at major roadways will be provided. Multi-use roadside trails are also proposed along principal arterials. This will enable cyclists to travel outside the traffic lanes. Santolina's relatively flat topography and open space system provides expanded opportunities for bicycle commuting and recreation. The bicycle network is illustrated on the Pedestrian and Bikeways Master Plan (Exhibit 24: Pedestrian & Bikeways Master Plan).

The proposed bicycle network conforms to, and will integrate with, the MRCOG Long Range Bikeways System Map. The map envisions extending bikeway facilities on Dennis Chavez, Atrisco Vista, 118th Street, Gibson Boulevard, Paseo del Volcan and Central Avenue. This will provide direct access to the extensive network of existing and proposed bikeways in AMPA, providing opportunities for long-range cycling and/or commuting.

*Exhibit 24: Pedestrian & Bikeways Master Plan*




COMMUNITY TRAILS

ALL PRINCIPAL ARTERIALS HAVE ON-STREET BIKE LANES, SIDEWALK AND MULTI-USE TRAIL

NOTES:

1. ROADS ARE PRELIMINARY AND SHOWN FOR ILLUSTRATIVE PURPOSES.
2. ALL MINOR ARTERIALS AND COLLECTORS WILL ALSO HAVE ON-STREET BIKE LANES, SIDEWALK AND MULTI-USE TRAILS.

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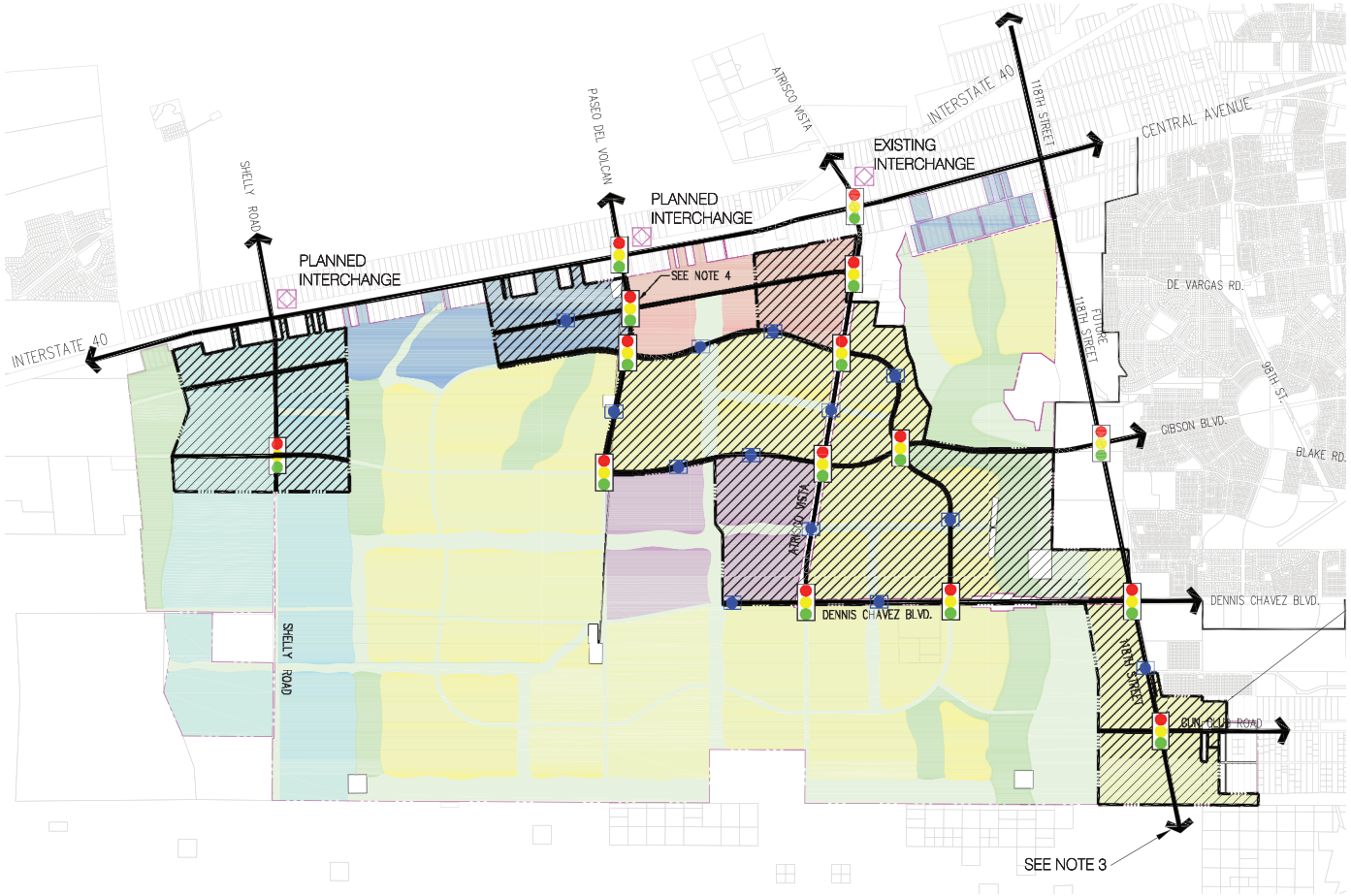
*Exhibit 25: Transportation Master Plan, 2035 Projected Development Plan*




NOTES:

1. TRAFFIC SIGNAL AND INTERSECTION SPACING GENERALLY CONFIRMS WITH NMDOT STATE ACCESS MANAGEMENT (SAM) MANUAL FOR URBAN PRINCIPAL AND MINOR ARTERIALS.
2. ROADWAY FUNCTIONAL CLASS AND ACCESS MANAGEMENT PLAN ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. FUTURE ROADWAY EXTENSIONS AND INFRASTRUCTURE OUTSIDE SANTOLINA ARE BY OTHERS (AS REQUIRED BY DEVELOPMENT PATTERNS).
4. SIGNAL LOCATION TO BE EVALUATED PENDING PASEO DEL VOLCAN INTERCHANGE LAYOUT AND LOOP ALIGNMENT.

LEGEND

- MAJOR SIGNALIZED INTERSECTION
- POTENTIAL FUTURE SIGNALIZED INTERSECTION
- EXISTING INTERCHANGE OR PLANNED INTERCHANGE
- PRINCIPAL ARTERIAL
- 2035 PROJECT DEVELOPMENT BOUNDARY

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**Mass Transit**

Transit must be frequent, fast and reliable to effectively reduce regional traffic congestion. The extensive trails system within Santolina allows the location of bus stops to be within reasonable walking distances of residences. Short walks and the convenient location of bus stops within the community will encourage bus transit use. Additionally, transit centers are proposed for the Urban Center, Community Centers and Employment Center.

Public bus service within the region is provided by ABQ Ride, Albuquerque's public transit provider and the Rio Metro Regional Transit District (RTD) providing bus service for the areas of Bernalillo, Sandoval and Valencia counties. ABQ Ride service, while expanding, is limited to City of Albuquerque residents and areas outside the City on contract basis. Currently, no transit routes serve Santolina. As Santolina develops, the available market for transit ridership is expected to grow, prompting the consideration of transit service by the County, ABQ Ride and the RTD. WALH will communicate and coordinate with the County, ABQ Ride and the RTD throughout the development process to ensure future transit services are proactively planned, scheduled and operational once development, population and ridership thresholds are met. Transit will likely begin with limited commuter routes providing limited service during peak hours, then develop into fixed routes with shorter headways, ultimately becoming a High Capacity Transit System that could include Bus Rapid Transit if the demand for this type of service is present.

## Studies Conducted

A detailed transportation analysis was conducted to determine the appropriate internal roadway network for Santolina that grows with the community to accommodate future traffic volumes.

As noted in Chapter 2 Introduction, Santolina will be developed in a multi-staged approach. 2035 has been set as a milestone for transportation and infrastructure modeling within the Master Plan and the region. The Transportation Plan, consistent with all other reports, identifies the probable development to occur by 2035.

Specific to the Transportation Plan, travel demand modeling for Santolina, the 2035 Projected Development Plan utilized the existing 2035 MRCOG regional travel demand model. This model functions as the primary transportation planning tool for AMPA. Testing models are based on estimates of population and employment within the proposed land uses. With this data, the MRCOG travel demand model has been used to estimate the future traffic volumes, capacity requirements and network impacts associated within Santolina.

The Full Buildout scenario is a forecast of the population and employment anticipated at Full Buildout of Santolina. This analysis is outside the planning horizon for the region, as all forecasts and studies currently look out to 2035. Therefore, the balance of AMPA was held at 2035 levels of development for the Full Buildout scenario. The Full Buildout analysis will be used to ensure the internal road network is sized properly to accommodate the full development of Santolina.

**2035 Projected Development Plan**

The road network within the 2035 Projected Development Plan has been established to provide adequate connectivity and capacity to serve the forecast 2035 level of development. Analysis of 2035 Projected Development Plan Transportation Plan was based on available population forecasting from UNM/BBER/MRCOG. The analysis of the 2035 Projected Development Plan road network and associated development confirms the internal roadway network illustrated in the Transportation Plan is sufficient to accommodate the anticipated traffic volumes. Specific levels of service (LOS) at roadway links are identified within the Transportation Master Plan. In summary, the internal roadway system will meet the needs of the 2035 Projected Development Plan internally generated traffic.

Additionally, roadways beyond the Master Plan Area have been included in the 2035 Projected Development Plan modeling to more accurately evaluate effects to the Master Plan Area. Comparisons with the pre-Santolina 2035 MTP model results are favorable and show the benefits of the jobs-housing balance proposed for Santolina. Traffic volumes on the surrounding roadway network outside Santolina are generally reduced from the levels shown in the 2035 MTP. Volume reductions occur on I-40, Rio Bravo, 118th Street (south of Central Avenue) and Paseo del Volcan, as well as many other roadways. In the locations where traffic increases, it is in the opposite direction than current peak hours. For example, the results show an increase in traffic from east-to-west in the morning, indicating the counter-commute which results from employment centers in Santolina. This preserves and optimizes the capacity and utilization of the existing roadways, thereby reducing the need for future improvements.

The comparisons with the pre-Santolina 2035 MTP also show approximately 10-20% of the traffic volume on Paseo del Volcan and Atrisco Vista in Santolina is pass-through traffic, demonstrating that Santolina improves regional connectivity. Additionally, the mix of land uses and anticipated job creation with Santolina results in 15-35% of the traffic being internal to the community, further reducing impact to the regional roadway network. Lastly, and significant from a regional perspective, river crossings are reduced on a regional basis. 2035 Projected Development Plan has been identified on the Development Plan (Exhibit 25: Transportation Master Plan, 2035 Projected Development Plan). Future Level B plans for the 2035 Projected Development Plan will require verification and certification that the submittals are consistent with and adhere to the Level A Master Plan. Otherwise, an amended Level A Master Plan will be required.

**Full Buildout**

The transportation system planned for Full Buildout consists of expanding the 2035 Projected Development Plan roadway network to accommodate remaining development within Santolina. These additional roadways include completing the internal loop roadway, additional primary arterials and connections to Shelly Drive.

Traffic volumes have been modeled for the Full Buildout scenario in the same manner as the 2035 Projected Development Plan forecast. However, the Full Buildout scenario will require approximately 40-50 years to complete. As noted earlier, no adopted long-range

transportation network or forecast socioeconomic projections are available for this timeframe. Therefore, the Full Buildout scenario was modeled on the 2035 Projected Development Plan socioeconomic and roadway network established by MRCOG. This limitation leads to challenges identifying the source of future roadway capacity deficiencies, as future roadways and developments cannot be projected or analyzed at this time. The Full Buildout transportation model is expected to be modified and updated throughout the development of Santolina. The model will be amended, as needed or required, in conjunction with future Level B master plan submittals. Any future updates to the MTP beyond the current 2035 planning horizon will also be incorporated at that time.

As would be expected, internal traffic volumes within Santolina will increase with Full Buildout. Accordingly, the number of traffic lanes will increase to accommodate the additional capacity. Internal segments of Paseo del Volcan and Dennis Chavez Boulevard, along with portions of the loop road are forecast to experience congestion (volume-to-capacity ratio close to 1.0). Intersections along these roadways will likely experience peak hour delays similar to current regional intersections.

All key community entering and exiting roadways are projected to operate with congested conditions. Atrisco Vista and Paseo del Volcan, from I-40, south to the loop road could be candidates for possible expansion to eight lanes. However, it is unlikely that Gibson or Dennis Chavez Boulevards will be widened to eight lanes through the escarpment due to environmental impacts. The potential future extension of Gun Club and/or Grant Roads would provide additional access to the community. Furthermore, overpass connections across I-40 to the anticipated growth area north of I-40 and west of Atrisco Vista would provide relief to Atrisco Vista and Paseo del Volcan. Additionally, it is anticipated that future roadway congestion will be mitigated by high capacity transit, local and commuter bus service. Future Level B plans for Full Buildout will require verification and certification that the submittals are consistent with and adhere to the Level A Master Plan. Otherwise, an amended Level A Master Plan will be required.

In summary, the Transportation Plan achieves the goals of the Planned Communities Criteria by providing an emphasis on walkability and transit, with the goal of creating a transportation and circulation system that allows for transit connections throughout the community. Additionally the roadway system supports the approximate 2.0 jobs-housing goal and will help reduce the demand for river crossings on a regional basis.

The Planned Communities Level A submittal criteria requires a phased analyses of travel demand and supply, in addition to consideration of private and public responsibilities for the provision of transportation infrastructure. Two phases are provided (2035 and Full Buildout) to satisfy the requirements of the PCC.

The Santolina Level A Master Plan future year travel demand models used the adopted 2035 MTP model. This model includes the two projected interchanges 118th Street and Paseo del Volcan. The analysis included these major transportation changes.

Private and public responsibility for on-site improvements are defined in the development agreement. The development agreement addresses specific issues related to funding, timing,

and responsibility for infrastructure and community facilities including:

- financing districts
- level of service
- conveyance of infrastructure
- relationship to the County's Capital Improvement Plan

The agreement is a companion document to the Level A Master Plan and codifies the plan. The agreement is reviewed by County staff via the County Manager's office and is heard and approved by the County Commission at the same time as the Level A Master Plan. One of the key items addressed in the agreement is the Developer's commitment to meet the "no net expense" provision of the Comprehensive Plan and Planned Communities Criteria.

The funding strategy will continue to be further defined in Level B Plans and development agreements. As a point of reference, the Planned Communities Criteria Level B submittal requirements include the following:

> Follow through with more detailed infrastructure/ service agreement covering phasing of the village master plan and its public services/facilities, and designation of financial, operations, and management responsibility over time.

# Chapter 7
# Environment and Open Space

SANTOLINA

# 7. Environment and Open Space

## Overview

The physical and environmental characteristics of the Santolina property provide the structure for the Santolina Master Plan. Baseline studies and environmental analysis of the existing natural and man-made features were performed to determine soil conditions, slopes, natural drainage patterns and the presence of archaeological sites, vegetation and/or wildlife within and immediately adjacent to Santolina. Environmental analyses are one of the established pillars of sustainability that informed the development of the Santolina Master Plan. The process involved reviewing existing data, plans, maps and GIS information available from the County and other public sources. The findings represent important generalized base-line data and serve as the foundation for the Santolina Level A Master Plan. This data, combined with the other systems including transportation/access, surrounding land uses, etc. informed the decisions on where to locate different types of development and highlighted natural areas for preservation. The resulting plan features the inclusion of Major Public Open Space (as identified by the Comprehensive Plan); additional open space areas based on steep slopes, difficult soils, natural depressions (playas) and multi-use open space corridors (drainage, water storage, utilities and trails). This open space network respects the existing topography and land forms, provides separation from the surrounding neighborhoods and creates a trails and open space system that connects future neighborhoods to recreation, jobs, schools, commercial centers and community amenities. Additionally, these studies confirmed that from an environmental perspective, with a focus on preservation of fragile areas, this area is an ideal location for development.

Significant features have been identified within the Master Plan, including escarpments and drainageways which have been designated as open space. Portions of the designated open space area also align with adjacent future Major Public Open Space areas within the Comprehensive Plan. WALH will work with the appropriate public agencies, including but not limited to Bernalillo County, City of Albuquerque, ABCWUA, AMAFCA and private conservation groups to negotiate the ownership of these areas as Major Public Open Space.

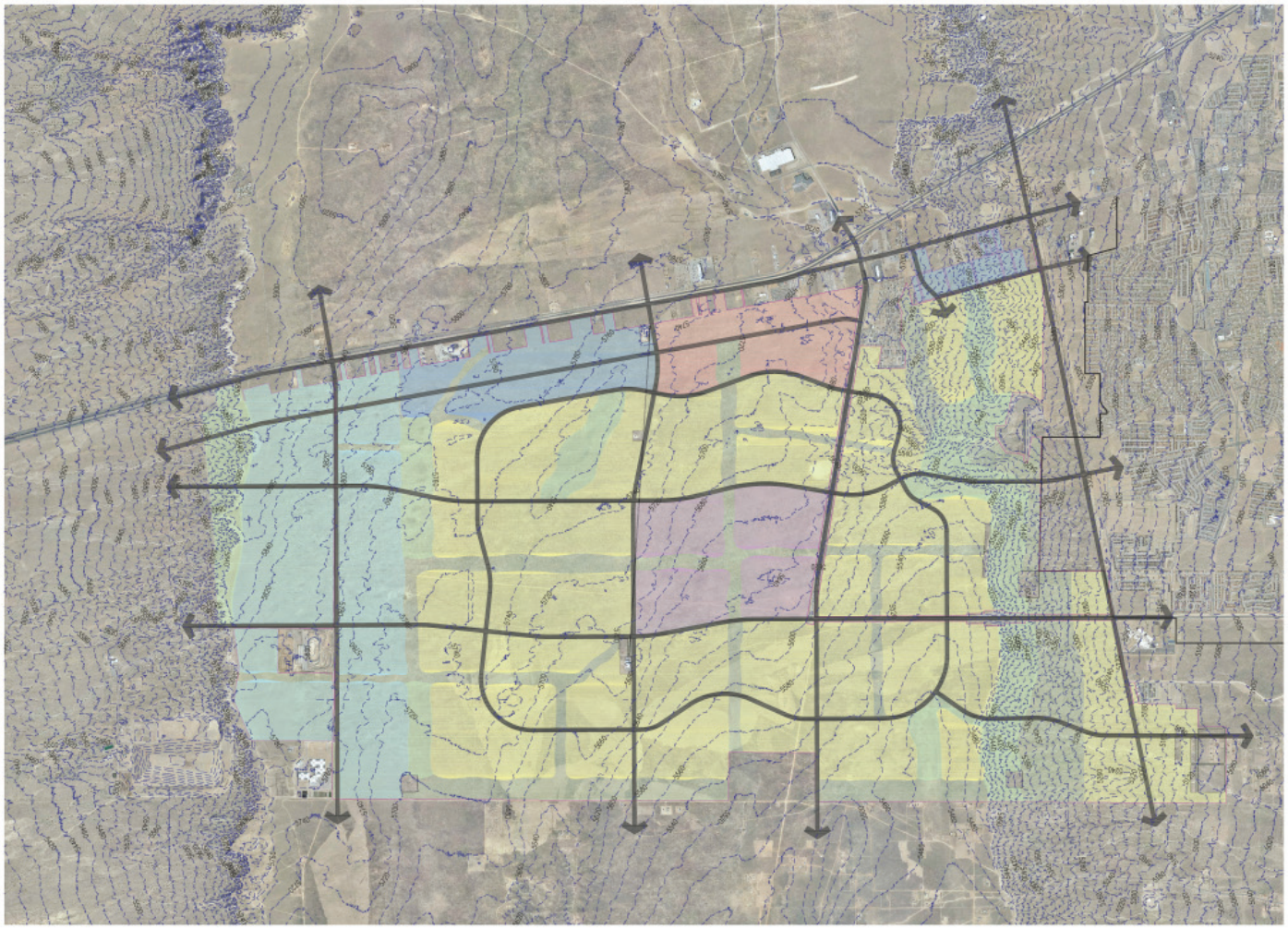
Following is a summary of findings related to the assessment of physical and cultural characteristics within the Master Plan Area.

## Landforms/Topography

The Master Plan Area is characterized by a large mesa, framed by two escarpments. The mesa area features a series of dunes overlooking the Rio Puerco Valley, partially vegetated swales that run parallel roughly east-west and a group of natural depressions in the north-central portion of the community. Gently sloped, finger-like washes drain most of the mesa southward to a series of natural depressions in the Pajarito Grant and on Isleta Pueblo land.

The elevation of the area gradually descends from 6,100 feet at the top of the western escarpment near the community's western boundary to approximately 5,575 feet at the top of the eastern escarpment, then down to 5,100 feet at the far southeastern boundary near Gun Club Road. The existing topography is illustrated on the Topography Exhibit (Exhibit 26: Existing Topography). As a result, much of Santolina enjoys views toward the Sandia and Manzano Mountains, the South Valley, the Bosque and the City of Albuquerque. The Rio Grande bosque is also visible as it winds its way south while Mount Taylor is visible to the northwest. The most

*Exhibit 26: Existing Topography*



NOTES:

1. A 20 ' CONTOUR INTERVAL IS DISPLAYED
2. AERIAL IMAGERY IS SPRING 2010 ORTHOPHOTOGRAPHY
3. EXISTING TOPOGRAPHY IS APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE

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striking views are from along the eastern escarpment slope. One of the goals of the Master Plan is to preserve and enhance these unique local and regional views.

Much of the Master Plan Area is flat, with slopes in the 0-5% range. See the Slope Map, (Exhibit 27: Slope Analysis), for a graphic location and breakdown of slopes within the Master Plan Area. The flat areas are highly suitable for development due to the minimal potential for erosion, significant grading or the use of retaining walls. The areas with significant slopes are limited to the area within and along the escarpments. These areas have been identified on the Land Use Plan and will be designated as open space or residential village within the Master Plan.

## Archeology

In May 2005, a Class I records search and cultural resource reconnaissance of Santolina was conducted by Cibola Research Associates (CRA). There have been no changes to the Master Plan Area since the study was completed. The CRA report is contained in a separate document (see M. Marshall 2005 Phase I Cultural Resource Inventory for the prior Zacate Community Master Plan Area) that was submitted to Bernalillo County with the prior Zacate Master Plan.

The Class I study involved a review of the New Mexico Cultural Resources Information System (NMCRIS) files, consultation with the New Mexico State Register of Cultural Properties (NMRCP) and the National Register of Historic Places (NRHP). The review did not reveal any nominated properties within the Master Plan Area.

The only cultural property listed on the registers in proximity to the Master Plan Area is a State-maintained segment of historic Route 66 (HPD No. 1674). This site starts at Atrisco Vista Boulevard and Central Avenue and runs east along the south frontage road of I-40.

In an effort to understand the nature, distribution and significance of cultural resources within Santolina, a brief archaeological reconnaissance was completed. The reconnaissance included 12 transect miles and resulted in the identification of 14 additional potential cultural properties. The majority of the area's significant cultural resources are located in the Rio Puerco rim and the Rio Grande Valley rim and slopes of the escarpment areas, specifically the dune formations and arroyos. An estimated 80% of the found cultural resources are located within approximately 20% of the escarpment rim and slopes. To preserve and protect these resources, the escarpment areas are designated undeveloped open space within the Master Plan.

## Air Quality

Bernalillo County and the Albuquerque region in general, experience unique meteorological and physiographical conditions. These conditions affect air quality and are an important consideration in master planned community development.

Primarily, the conditions reflect the regional geography that exists in the Rio Grande valley basin, including the proximity of the parallel mountain ranges. The depressed valley, combined with raised mountains and high mesas on either side, creates an opportunity for pollution-capturing stagnant air. The situation is exacerbated by the temperature inversions, mostly a fall/winter phenomenon, that predominantly occur in the valley basin. The mountains tend to minimize wind and storm-related activity from clearing out the stagnant air. Typically, wind and air movement increase sufficiently to move airborne pollutants to other vicinities. Since Santolina is primarily located on the westernmost high mesas of the Rio Grande valley and upwind of the valley from the perspective of the prevailing wind patterns, these effects are reduced. Accordingly, Santolina is better situated for improved air quality characteristics than most other regional developments.

The primary airborne pollutants of concern for the Albuquerque and Bernalillo County region include particulate matter, carbon

monoxide and oxides. Particulate matter is most often found in the level of fugitive dust (typically from construction activities or unpaved roadways) and woodburning smoke emissions. All of these pollutants and their sources are regulated by current policies and restrictions established by the Albuquerque Bernalillo County Air Quality Board. Santolina will comply with these regulations. Oxides, specifically nitrogen oxides, are a direct output from vehicles and are a chief culprit in the air pollution status of many communities.

Of great significance, all three pollutants are affected to varying degrees by the 'vehicle miles travel' (VMT) of the transportation system. Accordingly, because clean air is closely related to the availability of an efficient transportation system with minimum congestion and multimodal travel opportunities, Santolina is well positioned to provide a positive impact to regional air quality. Master planning efforts have emphasized the need to reduce vehicular travel and increase walkability, thus reducing air pollution. Human-powered transportation, including pedestrian, bicycle and trail opportunities, are critical components of the Santolina multimodal system. Additionally, Santolina's emphasis on jobs on the west side of the river further reduces travel by automobile. All of these efforts result in reduced VMT, which is both a critical requirement for improved air quality and a specific requirement of the Planned Communities Criteria.

Santolina plans for significant mixed use development concepts that promote reduced travel and VMT. The mixed uses will encourage use of alternate modes of travel and reduced travel between uses, allowing people to live and work near shopping, schools and other facilities that are part of their everyday lives. Compatible residential subdivision design, with interlocking road systems, minimized use of cul-de-sacs, transit and trail connections, and more, will complete the picture for air quality-focused planning. Landscaping palettes and practices will emphasize the need for reduced pollen, an air borne pollutant that has tremendous impact on human health and happiness.

Bernalillo County is in an "attainment area" as defined by the United States Environmental Protection Agency (EPA). Areas that are in "attainment areas" do not have a requirement for impact assessments on a project by project basis. The Clean Air Act requires every state to establish a network of air monitoring stations for criteria pollutants, using criteria set by the EPA for their location and operation. The monitoring stations in this network are called the State and Local Air Monitoring Stations (SLAMS). The states must provide the EPA with an annual summary of results from each SLAMS. This ensures that the region as a whole continues to meet air quality attainment standards.

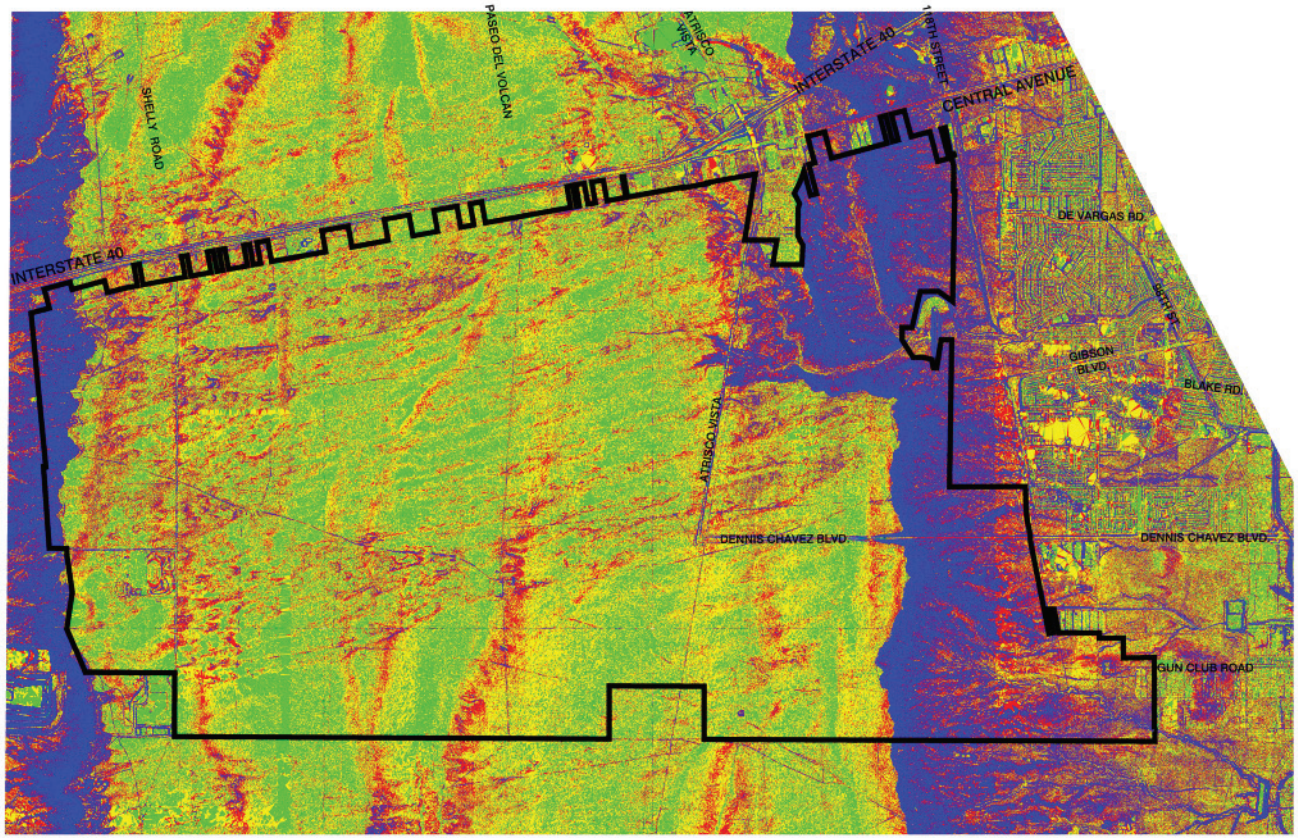
Further, the Bernalillo County/Albuquerque region continues to operate the various programs which helped it gain the 'EPA attainment area' status, including oxygenated fuels program, woodburning restrictions in the winter, vehicle emissions inspection, municipal 'clean fuel' fleets and more.

In summary, the Santolina Master Plan emphasizes a generally self-reliant community with significantly lower travel (VMT) and vehicular emissions, careful attention to fugitive dust and pollen, and importantly, will comply with all future air quality regulations that may arise in Bernalillo County.

## Soils

The Master Plan Area's geologic and soils conditions pose no development restrictions. All of the soils have been noted in the Soil Survey for Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico as suitable for community development. The soils identified within the Master Plan Area are illustrated on the Existing Soils Map (Exhibit 28: Soil Survey).

*Exhibit 27: Slope Analysis*




LEGEND

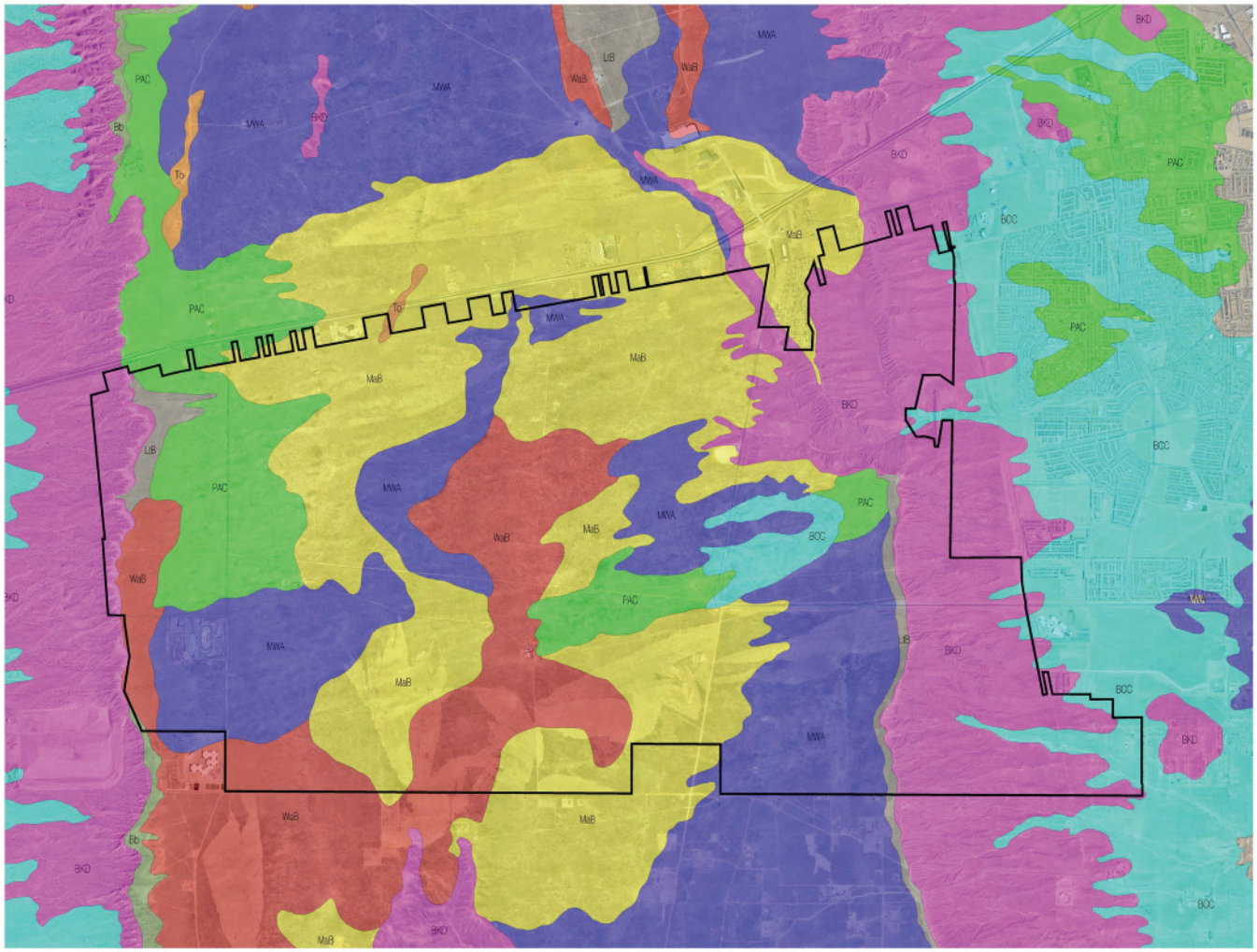
- LESS THAN 2% SLOPE
- 2% - 5% SLOPE
- 5% - 9% SLOPE
- GREATER THAN 9%

NOTES:

1. SLOPE DATA IS SUPERIMPOSED OVER THE MASTER PLAN

NORTH 1000 0 2000 4000

*Exhibit 28: Soil Survey*




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.

NORTH 1000 0 2000 4000

However, many of the soils are eolian-deposited, i.e., wind-blown, and are therefore sensitive to disturbance and prone to erosion by wind or water. To minimize wind and stormwater erosion during community development, Santolina's buildout will comply with all applicable Bernalillo County grading and drainage standards.

Applicable LID practices as determined or approved by County staff and the soil and water conservation district will be provided in an approved terrain management plan. The plan will, as appropriate, include:

- scheduling grading and earthmoving operations to expose the smallest practical area for the shortest possible time,
- soil erosion prevention and control practices,
- construction control methods,
- long-term treatment of disturbed areas through vegetative and other means,
- balancing cut-and-fill grading plans
- development clustering

An approved soils and terrain management plan for the entire Level A development will be provided concurrently with the first Level B plan submittal.

## Vegetation

Within Santolina a range of vegetative groundcovers exist, primarily grasses, wildflowers, cacti and brush. Several varieties of native grasses are found within the area, 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 penstamen and desert zinnia.

## Wildlife

Greater diversity of wildlife is found within the escarpment areas framing the community. Wildlife found in Santolina and its vicinity are common to the Southwest Mesa grasslands and include scaled quail, mourning dove, jackrabbits, cottontail, rats, prairie dogs, deer mouse and a variety of reptiles and invertebrates. No listed or endangered species have been identified in Santolina.

## Existing Drainage

Santolina features an extensive network of drainage basins that convey stormwater across the property. The location, size and water distribution of the basins is indicated on the Stormwater Management Plan – Existing Conditions (Exhibit 20: Conceptual Stormwater Management Plan).

Large portions of Santolina are comprised of closed basins. These are drainage systems that are fully contained within the mesa top and do not discharge to the Rio Grande. These basins retain all stormwater runoff within their existing, large natural land depressions. Furthermore, the natural depressions within these closed basins have sufficient existing volume to fully capture the large storm events of the study (100-year, 10-day event). In most cases, significantly more volume is available in these depressions than the volume generated in the design storm event. The closed drainage basins can be considered as basins that do not drain to the Rio Grande. There is a unique opportunity to capture 100% of the mesa top stormwater through rainwater harvesting. This would provide Santolina an additional water source for irrigation of community landscape and open space. Detailed information about a potential mesa top, rain water harvesting plan will be further refined in Level B plans. These areas, combined with open space where appropriate, could be potentially used and expanded for multi-purpose water storage.

The remainder of the Master Plan Area drains offsite. A small portion drains west to the Rio Puerco watershed. Four basins free discharge south onto the adjacent Pajarito Grant lands, while the remaining drain down the eastern escarpment into public drainage facilities.

Some offsite drainage from the north will be diverted east into the I-40 conveyance system established within the West I-40 Drainage Management Plan Update. The remaining flow south of the diversion will follow historic paths to discharge into the Westgate Dam. Flows not contained within the diversion are part of closed basin systems and will be captured on-site.

As noted above several basins drain east down the eastern escarpment. These basins drain into several arroyo systems identified as FEMA floodplains, see Existing Floodplains (Exhibit 29: Existing Floodplains). Formal floodplain modification approvals must be sought from FEMA and approved by the County prior to development in the drainage basins that affect these limited floodplains.

## Middle Rio Grande Regional Water Plan

The Middle Rio Grande Regional Water Plan (MRGRWP) is intended to provide support for policies, programs and projects that meet the overall water conservation goal, which is embodied in the mission statement: “Balance water use with renewable supply”.

Some of the goals of the MRGRWP are listed below:

- Preserve Water for the Region’s Agricultural, Cultural and Historical Values
- Preserve Water for Economic and Urban Vitality
- Preserve Water for the Qualities of Life Valued by Residents in the Region
- Conserve Water

Santolina will further these goals by providing the appropriate location for urbanized mixed use development that will attain the most current water conservation goals. Santolina will take development pressure off of the region’s established agricultural areas, which also preserves water for the qualities of life valued by residents in the Region. If growth is not planned in an appropriate location and manner, the trend for low density residential development (1-2 DU/acre) that has begun to replace established farm land in places like the South Valley will continue.

Examples of the most relevant ways that Santolina will further the MRGRWP specific recommendations are outlined below:

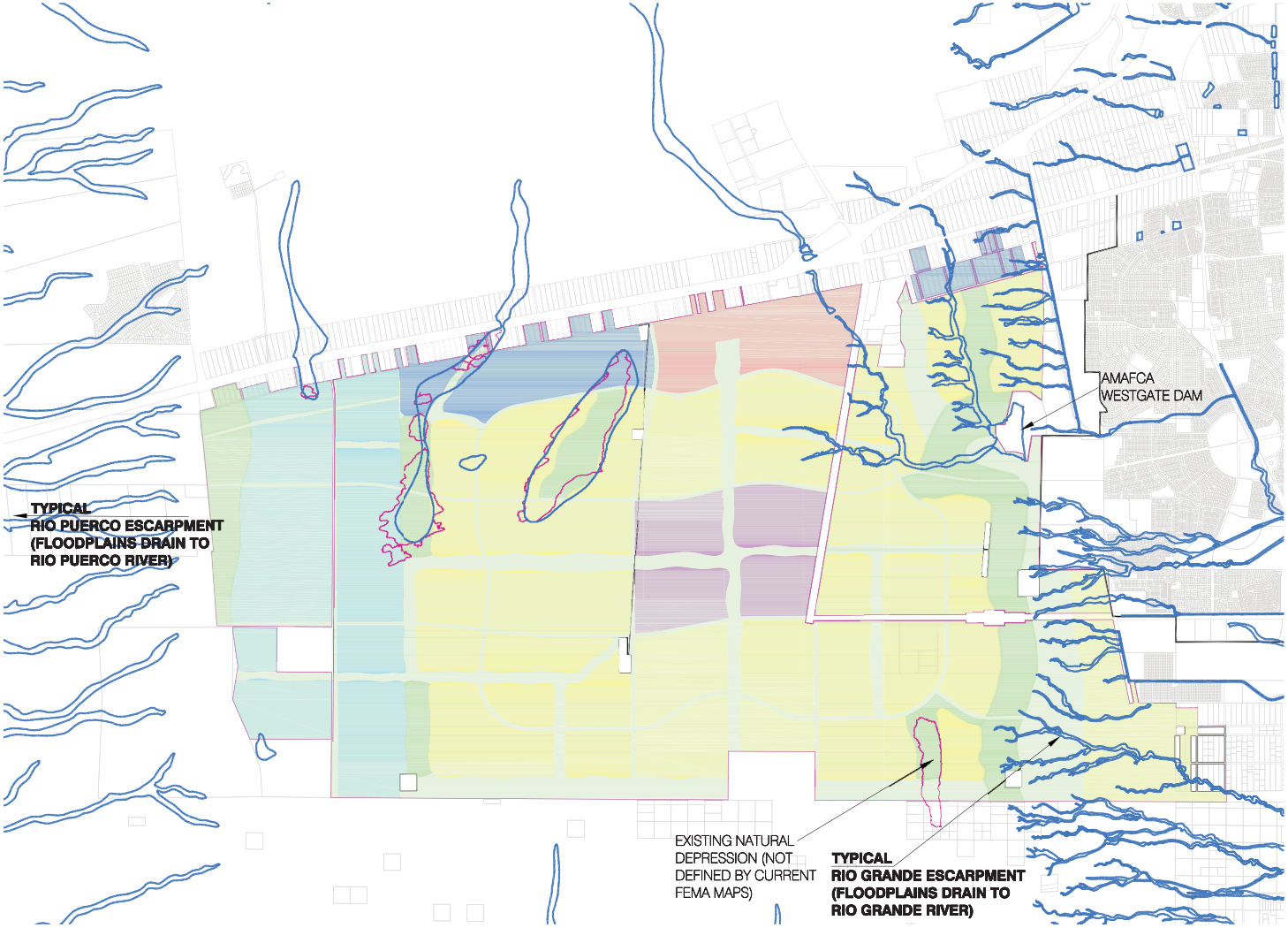
- Outdoor Conservation Programs: lawns and community landscaping will incorporate xeriscaping to the greatest extent possible.

- Rainwater Harvesting: some areas of Santolina will capture 100% (no river return requirement) of rainwater. Other areas will capture most or all stormwater (not required for the Rio Grande Compact), onsite or in nearby drainage and/or storage facilities to harvest and reuse for irrigation within the community.

- Water Conservation Regulations: Santolina will notify and encourage builders to comply with or exceed the water conservation and stormwater management regulations of Bernalillo County and the ABCWUA.

- Wastewater Reuse: as a master planned development, Santolina has the opportunity to work with the ABCWUA to institute greywater (and potentially blackwater in the future) re-use systems during infrastructure construction to provide irrigation in development areas, thus avoiding costly retrofits.

*Exhibit 29: Existing Floodplains*




LEGEND

EXISTING FEMA FLOOD PLAINS (TYP)

EXISTING NATURAL DEPRESSION (DEFINED BY CONTOUR MAPS)

NOTES:

1. 100 - YEAR FLOOD (1% CHANCE OF OCCURRENCE IN ONE YEAR) PLAIN LIMITS ARE SHOWN.

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- Storm Water Management Plan: Santolina has prepared a stormwater management plan to control run off through the use of swales, rainwater harvesting and retention structures to enhance infiltration and recharge, minimize erosion and reduce pollution of surface and ground water. Individual sites will be designed to retain the 90th percentile storm event.

- Protect Water from Contamination: measures, including stormwater management and dust control, will be implemented to protect the region's water from contamination and ensure compliance with federal, tribal, state and local standards for water quality.

The Santolina Level A Master Plan recognizes and supports the goals and recommendations of the MRGRWP. The development model of a master planned area, like Santolina, is part of the strategy for sustainable regional water use for the future. Santolina provides a plan to accommodate population growth in a manner that makes use of efficient infrastructure systems and requires all new development to follow the most current water conservation requirements.

# Chapter 8
# Government and Public Services

SANTOLINA

## 8. Government and Public Services

### Overview

As the future home to 38,045 residential units, employment, commercial and education centers, Santolina will function as a small city unto itself. As such, the community will feature a variety of public services and facilities appropriate to serve residents of Santolina and the Westside. A Public Facilities Plan (Exhibit 31: Santolina Public Facilities Plan) illustrates potential future locations for schools, parks, community centers, library, public safety and civic centers within Santolina. Given the community's 40-50 year buildout, this plan is conceptual in nature and will be revised throughout the community's development as sites are located based on market demand and negotiations with appropriate governing agencies. Public services and facilities including parks and open space will be developed in phases that track with development, as discussed and illustrated in the Phasing section of Chapter 3 Land Use. The following sections outline the anticipated public facilities within Santolina.

### No Net Expense

The Comprehensive Plan provides that planned communities shall not be a net expense to the County. 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 can be satisfied if the County's on-site public expenditures and off-site public expenditures reasonably allocated to the Project have been, or will be, off-set by revenues and/or benefits from the Project.

WALH engaged David Taussig & Associates to prepare Fiscal and Economic Impact Studies for Santolina both dated August 22, 2013 ("Impact Study"), which is included in the Santolina Level A Master Plan as Technical Appendices. The purpose of the Impact Study is to provide a detailed summary of the projected fiscal and economic impacts to the County as a result of the development of Santolina. The Impact Study concludes that the County will receive significant positive fiscal and economic impact as a result of the development of the project. The Bernalillo County Economic Development Department conducted a third party peer review and approved the methodology used in the Impact Study to reach this conclusion and agree that the County's expenditures reasonably allocated to the project will be off-set by revenues and/or benefits from the project. The positive fiscal and economic benefits generated from Santolina will be expended on and within the project for items that benefit the project as determined by Bernalillo County.

### Schools

The number and types of schools required to serve Santolina have been estimated for 2035 and Full Buildout using MRCOG's forecast for numbers of children of various age groups. The School Projection Table, (Exhibit 30: School Projections), is an estimate of the quantity and types of schools required to serve the community based on current APS standards. These projections are subject to change as service models change. Future studies at Level B will be necessary to estimate specific school requirements.

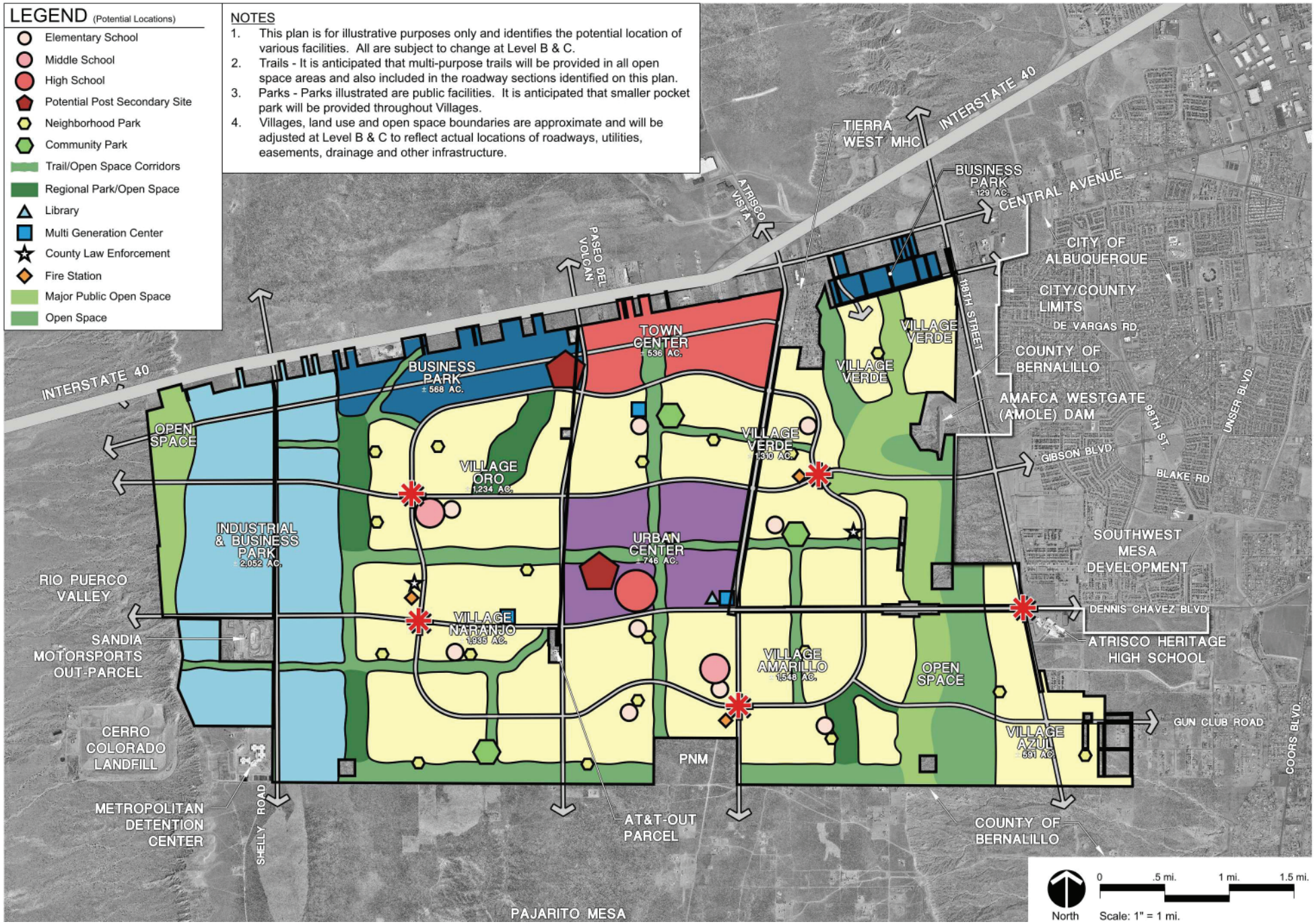
Identified school sites on the Public Facilities Plan (Exhibit 31: Santolina Public Facilities Plan) are conceptual and subject to relocation or removal from the plan based on needs at the time. Specific school sites will be identified and development timed to meet school and community educational needs during development

*Exhibit 30: School Projections*

| Schools | Elementary | Middle | High |
|---|---|---|---|
| Required in 2035* | 3.6 | 1.3 | 0.8 |
| Required at Full Build** | 9.64 | 3.54 | 2.01 |
| Average Population per School | 9,404 | 25,617 | 45,025 |

*Based on a 2035 projected population of 34,132
**Based on a full build population of 93,300

*Exhibit 31: Santolina Public Facilities Plan*



of Santolina. WALH has established a good working relationship with APS. The company is committed to continuing to work with all schools to ensure the proper school type, size and locations are provided within Santolina to meet education needs as the community develops.

## Parks

The Santolina public park and open space system will be designed in coordination with the Bernalillo County Parks and Recreation Department. The goal is to provide a variety of parks including neighborhood parks, community parks, regional parks and open space areas. Parks will be included in each phase so that they will keep pace as Santolina develops. The location and provision of regional park and open space was determined by an analysis of Santolina's topography and natural defining features.

Development of parks and open space will keep pace with development to ensure residents are provided access to trails, parks and open space throughout Santolina's buildout. These parks will fill a variety of community needs including passive areas, trails, open space, playgrounds and recreation fields.

As noted in Chapter 3 Land Use, the Master Plan presents approximately 3,200 acres of permanent open space. While the 3,200 acres meets the open space requirements for the entire project, it is anticipated additional open space will be identified and dedicated for community trails and parks during the subsequent Level B and C approval process. These open space areas will be incorporated into the residential villages, urban center and other land use areas to accommodate recreational needs, as well as providing surface drainage, pedestrian access and links between land use areas and the escarpments.

*Exhibit 32: Santolina Parks, Open Space and Public Facilities*

**Bernalillo County Park Standards**

**Projected Population at Full Build: 93,300**
**Projected Population at 2035: 34,132**

| Park/Open Space/ Recreation Type | Santolina Acreage | | Santolina Level of Service |
|---|---|---|---|
| | Facilities at 2035 | Facilities at Full Buildout | |
| Neighborhood Park* | 34 acres | 93 acres | Provided at Level B* |
| Community Park* | 85 acres | 233 acres | Provided at Level B* |
| Regional Park | 0 acres | 466 acres | 5 acres/1,000 people |
| Major Public Open Space | 411 acres | 940 acres | 10 acres/1,000 people |
| Open Space (public and private) | 415 acres | 1,797 acres | 19 acres/1,000 people |
| Community Center | 2 facilities | 6 facilities | Provided at Level B* |
| Swimming Pool | 2 facilities | 5 facilities | Provided at Level B* |

* Neighborhood and Community Parks, Community Centers and Swimming Pools are conceptually located at Level A.

The goal for parks, recreation facilities and open space within Santolina is to create a network of trails, open space and parks that operate at different scales to accommodate a variety of uses, activities and purposes including passive and active recreation, water storage and drainage facilities. The intent of the Santolina open space, trails and parks network is to provide trails and bikeways connecting these facilities with schools, community centers and libraries. In order to meet Bernalillo County park and open space planning policies and to create connections to the existing community, wherever possible the Santolina system will also connect to other public open space and facilities outside of the Master Plan

Area. These amenities will work together to provide a quality of life amenity for future residents of Santolina, the Westside and Bernalillo County. The Public Facilities Plan (Exhibit 31: Santolina Public Facilities Plan) shows the anticipated number of parks and community facilities. As a part of future Level B Plans, the amount of park and open space acreage by type, within the total 3,203 allotted acreage provided with this Level A Plan, may change to meet the needs of the County and the community.

**Park Types**

Neighborhood Park

Neighborhood parks are small parks that are typically between half an acre and five acres. They generally serve the neighborhoods that are located within a half mile of the park and feature facilities such as playgrounds, picnic tables and small informal sports fields. These parks may be publically or privately owned. When publically owned, they will typically be privately constructed and dedicated to the County. Whereas, when they are privately owned, they are typically maintained by a Homeowners Association or other private entity. Future Santolina Level B plans will further determine the location, scale and components of neighborhood parks.

Community Park

Community parks are typically between five and 20 acres and serve a larger area than neighborhood parks. These parks typically contain more formalized programming and can include formal sports fields that are used by youth and adult sports teams, swimming pools or splash pads, dog parks, etc. These parks are often co-located with Community or Multi-Generational Centers. Community parks are typically publically owned. Future Santolina Level B plans will further determine the location, scale and components of community parks.

Regional Park

Regional parks are typically over 20 acres, serving Bernalillo County's Westside and often the County as a whole. Regional parks are typically more formally programmed and can include facilities such as sports fields, swimming pools or splash pads, destination playgrounds, horseback riding facilities, water features, etc. Similar to neighborhood and community parks, regional parks are typically publicly owned. Regional parks in Santolina will often serve multiple functions of passive and active recreation, water storage and drainage facilities. These multiple purposes complement each other by providing an amenity to the community as well as an appropriate location where stormwater can be captured for re-use. Regional parks have been identified on the Land Use and Public Facilities Plans. Future Santolina Level B plans will further define the details of these areas.

Community Centers and/or Multi-Generational Centers

Community centers and multi-generational centers are used to host a variety of community organizations, educational activities, events, sports leagues and meetings. The current approach to these types of centers is to include programming for the continuum of life's ages and stages. Community Centers are typically publically owned and Santolina will work with Bernalillo County Parks and Recreation Department in the development of centers

in future Level B plans to ensure the programming and facilities provide well-rounded recreational opportunities for the community.

Aquatic Recreation

Aquatic recreation has been identified as an important recreational element by Bernalillo County and as such, a County Aquatics Master Plan is currently being developed. Santolina will work with Bernalillo County Parks and Recreation Department in the development of future Level B plans to ensure that Santolina is well served with opportunities for water play and recreation.

**Open Space Types**

There are two types of open space within the Plan Area, Major Public Open Space and open space. Major Public Open Space, as identified on the Land Use and Public Facilities Plans, is the area that corresponds with the locations identified in the Albuquerque Bernalillo County Comprehensive Plan, the City of Albuquerque Major Public Open Space Facility Plan (jointly adopted by the City and County), the Bernalillo County Parks, Open Space, and Trails Master Plan and the Southwest Area Plan. These areas, as identified on the plans, are typically referred to as the Eastern Ceja and the Western Ceja and/or the Rio Puerco Ceja, or sometimes the east and west escarpments. The Major Public Open Space areas have been mapped on the Land Use and Public Facilities Plans according to the Westside Major Public Open Space map located in the City of Albuquerque Major Public Open Space Facility Plan.

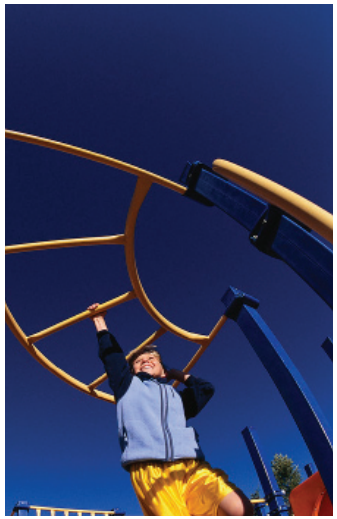
The second type of open space identified within the Plan Area is open space. These areas primarily consist of the steep slopes of the escarpment and multi-use trail/utility/drainage corridors which complement the areas that have been identified as Major Public Open Space. The escarpment areas provide the environmental foundation for the identity of the Plan Area. The permissive uses in both the Major Public Open Space and open space areas are defined in the Open Space District of the Santolina PC Zone (Chapter 4 Santolina PC Zone). They include trails, recreational and educational facilities, visitors center, utility facilities and corridors, water storage and drainage facilities, access easements and roadway and/or transit right-of-way.

**Trails**

Trail corridors are identified on the Santolina Land Use and Public Facilities Plans. These corridors will serve multiple purposes within the Plan Area. They are located to connect the land use areas of the plan and provide residents the opportunity to access different areas of the community through alternative, non-motorized modes of transportation. While the trails are designed to connect destination points such as the Urban Center, Town Center and residential villages, they also serve as recreational destination areas in themselves, providing excellent opportunities for jogging, dog walking and bicycling. The trail corridors also provide permeable areas that will capture

and improve stormwater as well as serving as utility corridors and water storage areas.

## Parks Funding Strategy



The Level A Planned Communities Criteria requires a concept plan and strategy for funding. The Level A Parks Concept Plan is provided on page 97 (Exhibit 31: Santolina Public Facilities Plan). The development agreement provides the funding strategy and clearly defines that parks, trails and open space facilities that solely benefit Santolina will be the responsibility of the developer for the design and construction of the facility. For projects that are regional in nature, it is required that Santolina pay its proportional share of the costs for those facilities. Major Public Open Space is identified in the Comprehensive Plan as being a community-wide benefit, and as such, the cost for acquisition and development would be provided by the City and/or County (which is consistent with the other Major Public Open Space areas that have been acquired and developed in the community).

## Public Services Facilities

It is anticipated that Bernalillo County may wish to locate one or more libraries, community centers and/or County offices within Santolina. Additionally, state and federal facilities may be located in Santolina to serve the community. These facilities will provide residents, employees and visitors convenient access to civic services and serve as a resource for this region of the County.

WALH is committed to working with the Bernalillo County Sherriff's Office and the Bernalillo County Fire Department in order to ensure that police and fire stations are appropriately located within the Plan Area. This coordination will also ensure that facilities are provided at a rate that keeps pace with development and are in accordance with National, State and County Standards. Street design will be articulated in future Level B and C plans and will allow safe and efficient access for police and fire services. As land use determines the need for public safety facilities and service areas, the specific locations, size and type of facilities will be identified and defined in Level B and C plans.

Government and public facilities are not specifically identified or located on the Land Use Plan. Such uses will be site specific and time driven to meet public agency and educational needs within the community. The uses typically complement most land uses, including residential. As such, government and public facilities are allowable uses within all land uses identified within Chapter 3 Land Use.

The Planned Communities Level A submittal criteria for Government and Public Services requires a strategy for funding infrastructure and demonstrated financial feasibility or proposed phases. As is explained below, this requirement is addressed through the adherence to the Planned Communities Criteria and the Level A Development Agreement.

## Government and Public Services Funding

The Planned Communities Criteria provides a built in framework for phasing. Once a Level A Master Plan is adopted, the next step is the preparation of a Level B plan that will correspond to the first phase of Santolina, followed by subsequent Level B plans

for additional project phases, as needed. Each Level B plan is required to include a more detailed land use breakdown, more specific zoning language, and updated infrastructure plans that address timing, funding and responsibility. Each Level B plan is reviewed by staff and other agencies, presented to the Planning Commission and approved by the County Commission. If a Level B requires an amendment(s) to the Level A plan, they will be processed concurrent with Level B plans. This process ensures that the County, as part of their review, can verify that the phases (Level B plans) are consistent with the overall framework of the Level A plan, provide a funding strategy and outline the implementation of necessary infrastructure and community facilities.

The Santolina Fiscal and Economic Studies, which are included as Technical Appendices, discuss anticipated costs and revenues, establish that the Santolina Level A Master Plan meets the "no net expense" requirement and demonstrate the financial feasibility of the project.

The Santolina Level A Development Agreement, companion document to the Level A Master Plan, is a contract between WALH and Bernalillo County that defines the specific financial requirements for the provision of infrastructure and public services within Santolina. The development agreement is reviewed by County staff via the County Manager's office and is heard and approved by the County Commission at the same time as the Level A Master Plan.

The "no net expense" provisions of the PCC are implemented through the Level A development agreement that is negotiated with the Bernalillo County Manager's Office and approved by the Bernalillo County Commission. The Level A development agreement addresses both capital expenditures, i.e., the money needed to build infrastructure, and the operation and maintenance expenses, i.e., the money needed to operate and maintain such infrastructure.

The Level A approvals, including the development agreement, ensure "no net expense" to the County. The fiscal analysis addresses the ongoing operation and maintenance needs of the County over time and shows that a significant surplus of revenues and benefits are generated by Santolina.

## Government and Public Services Network

One of the underlying principles that informed the Santolina Level A Master Plan is that a systems approach to planning produces sustainable development. Each of the separate elements that are described above (parks, Major Public Open Space, open space, trail corridors, schools and public service facilities) has been designed to create a network that can be easily accessed by multi-modal transportation options. The intention of the plan is to connect all of these elements into a system that supports the educational, social, civic and recreational needs of the community. In order to fully integrate water conservation and stormwater harvesting into the Plan Area, water harvesting, drainage retention and detention at appropriate scales are permissive uses within all types of parks and recreation facilities. Major Public Open Space, open space and regional parks are located on the Land Use Plan. Schools, community and neighborhood parks, libraries, multi-generational centers, law enforcement and fire stations are conceptually located on the Public Facilities Plan and will be further defined in future Level B plans. The intent of the Santolina Government and Public Services network is

to provide connections between schools and parks, schools and neighborhoods, fire stations and neighborhoods, and so on. The provision of these kinds of physical connections creates the structure for a well-rounded community that not only meets the physical needs of its residents but also provides for the social and spiritual connections (both to each other and to the place itself), that are an immeasurable aspect of quality of life.