



*Rio Verde Village
Planned Area Development*

City of Tucson

April 2015



THE PLANNING CENTER
a division of TPC Group, Inc.

Rio Verde Village Planned Area Development

River Road and Craycroft Road
Tucson, Arizona

Submitted to:

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I.	Introduction	
A.	Background	1
B.	Project Overview	1
C.	Intent	1
D.	Conformance with the General Plan and City Land Use Plans	2
E.	Compatibility with Adjoining Land Uses	4
II.	Site Analysis	
A.	Existing On-Site Development	8
B.	Existing Off-Site Development	8
C.	Existing Zoning	10
D.	Public, Educational, Community and Cultural Facilities	12
1.	Schools Abutting the Project Site	12
2.	Parks, Trails and Public Land	12
3.	Fire Stations	13
4.	Police Stations	13
5.	Hospitals	13
E.	Existing Infrastructure	16
1.	Sewer	16
2.	Water	16
3.	Solid Waste Disposal and Recycling	16
4.	Private Utilities	17
F.	Major Transportation and Circulation	21
1.	Adjacent Roadways	21
2.	Current and Future Right-of-Way	21
3.	Scenic Corridor Zone	21
4.	Access Points	21
5.	Alternate Modes of Transportation	21
6.	Roadway Characteristics	22
G.	Hydrology, Water Resources and Drainage	24
1.	Off-Site Watersheds	24
H.	Topography and Slope	28
I.	Vegetation and Wildlife	29
1.	Vegetative Communities and Plant Associations On-Site	29
a.	Sonoran Desert Upland	29
b.	Xeroriparian Habitat	29
c.	Hydro/Meso Riparian Habitat	30
d.	Mixed Native and Non-Native Landscape	30
e.	Disturbed Area	31
2.	Wildlife Habitats	31
J.	Soils	34
K.	Viewsheds and Visual Analysis	37
L.	Paleontological and Cultural Sites, Structures and Districts	40
III.	PAD District Proposal	
A.	Rio Verde Village PAD Districts	43
B.	Rio Verde Market	51

1.	Purpose	51
2.	Permitted Land Uses	51
a.	Commercial Services Use Group	51
b.	Retail Trade Use Group	51
c.	Civic Use Group	52
d.	Recreation Use Group	52
e.	Residential Use Group	52
f.	Storage Use Group	52
g.	Utilities Use Group	52
3.	Secondary Land Uses	52
4.	Accessory Land Uses and Structures	53
a.	Commercial Services Use Group	53
b.	Retail Trade Use Group	53
5.	Rio Verde Market Development Standards	54
a.	Development Criteria	54
b.	Roofing Material	55
C.	Rio Verde Manor	57
1.	Purpose	57
2.	Permitted Land Uses	57
a.	Residential Use Group	57
b.	Agricultural Use Group	57
c.	Civic Use Group	57
d.	Commercial Services Use Group	58
e.	Recreation Use Group	58
3.	Secondary Uses	58
4.	Accessory Land Uses	58
a.	Commercial Services Use Group	58
b.	Retail Trade Use Group	58
5.	Rio Verde Manor Development Standards	59
a.	Development Criteria	59
b.	Roofing Material	60
D.	Scenic Corridor Zone	61
1.	Preservation and Reestablishment of Vegetation.	61
2.	Structure Height	61
3.	Siting	62
4.	Screening	62
5.	Utilities	62
6.	Additional Design Considerations	62
E.	Circulation Plan	63
1.	Traffic Circulation	63
2.	Proposed Vehicular Access	64
3.	On-Site Vehicular Circulation	64
4.	On-site Pedestrian and Non-Motorized Circulation	64
5.	Bicycle Circulation & River Park Development	70
F.	Roadway Standards	78
1.	Width Requirements (Development Standard 3-01.2.3 – Width Requirements)	78
2.	Parking Lanes (Development Standard 3-01.2.4.D – Parking Lanes)	78
3.	Sidewalk Area (Development Standard 3-01.2.7.A – Sidewalk Area)	78

4.	Curbing (Development Standard 3-01.3.2.A – Curbing)	78
5.	Alleys (Development Standard 3-01.6.6 – Alleys)	78
G.	Parking Requirements	78
1.	Parking Requirements for Non-Residential Uses	78
a.	Calculation of Required Motor Vehicle Parking Spaces	78
b.	Parking Area Access Lanes	78
c.	Paving Materials	79
d.	Handicapped Parking	79
e.	Demonstrated Parking	79
2.	Parking Requirements for Residential Uses	79
a.	Motor Vehicle Parking Spaces per Dwelling Unit	79
b.	Vehicular Maneuvering	79
c.	Parking Area Access Lanes	79
d.	Handicapped Parking	79
e.	Paving Materials	80
H.	Off-Street Loading Requirements for Commercial Uses	80
1.	Designated Loading Areas	80
I.	Solid Waste Disposal and Recycling	80
1.	Solid Waste Disposal and Recycling Provider	80
2.	Solid Waste Disposal and Recycling for Commercial Uses	80
3.	Solid Waste Disposal and Recycling for Residential Uses	81
J.	Landscape Program	82
1.	Landscape Borders and Screening Requirements	82
2.	Water Harvesting	83
3.	Native Plant Preservation	83
4.	Regulated Riparian Habitat (RRH)	83
a.	On-Site Areas	84
b.	Off-Site Areas	84
K.	Post-Development Hydrology	91
1.	Erosion Protection Measures	91
2.	Environmental Resource Zone	91
3.	Watercourse Amenity Safety Hazard (WASH)	91
4.	Treatment of Washes	91
5.	Detention/Retention Requirements	93
6.	Onsite Grading	93
7.	Wastewater	94
L.	Design Review Committee	96
M.	Interpretations and Amendments	96
1.	Interpretation	96
2.	Amendments	96
N.	Bibliography	98
Appendix A: Definitions		99
Appendix B: Riparian Habitat Inventory Plan		101
Appendix C: Land Use Code References		112
Appendix D: Basis School Site Plan		114
Appendix E: Traffic Study		116
Appendix F: PAD Ammendment - April 2015		117

List of Exhibits

Exhibit I.A: Regional Context 5

Exhibit I.B: Local Context..... 6

Exhibit II.A: Existing Development 9

Exhibit II.C: Zoning..... 11

Exhibit II.D.1: Existing Schools 14

Exhibit II.D.2: Public Facilities and Services 15

Exhibit II.E.1.a: Existing Utilities..... 18

Exhibit II.E.1.b: Wastewater Service Letter..... 19

Exhibit II.E.2: Water Service Letter 20

Exhibit II.F: Existing Circulation 23

Exhibit II.G.1: Existing Condition Hydrology 26

Exhibit II.G.2: Aerial Photograph/Off-Site Existing Condition Hydrology 27

Exhibit II.I.1: Vegetative Communities 32

Exhibit II.I.2: Arizona Game and Fish Letter 33

Exhibit II.J: Soils..... 36

Exhibit II.K: Photo Key Map 39

Exhibit II.L: Arizona State Museum Letter..... 41

Exhibit III.A.1: PAD Districts..... 44

Exhibit III.A.2: Market District Conceptual Site Plan 45

Exhibit III.A.3: Manor District Conceptual Site Plan A..... 46

Exhibit III.A.4: Manor District Conceptual Site Plan B..... 47

Exhibit III.A.5: Manor District Conceptual Site Plan C 48

Exhibit III.A.6: Manor District Conceptual Site Plan D 49

Exhibit III.A.7: Manor District Conceptual Site Plan E..... 50

Exhibit III.E.3: On-Site Vehicular Circulation Plan 66

Exhibit III.E.4.a: Non-vehicular Circulation..... 67

Exhibit III.E.4.b: Cross Section “A” 10’ Pedestrian Trail Adjacent to Rio Verde Market..... 68

Exhibit III.E.4.c: Cross Section “B” 10’ Pedestrian Trail Adjacent to Rio Verde Manor..... 69

Exhibit III.E.5.a: Conceptual Bike Loop Plan 72

Exhibit III.E.5.b: Cross Section “C” Sidewalk within River Road Right-of-Way 73

Exhibit III.E.5.c: Cross Section “D” Sidewalk within Craycroft Road Right-of-Way 74

Exhibit III.E.5.d: Cross Section “E” Conceptual Bike Loop Ramp Section 75

Exhibit III.E.5.e: Cross Section “F” Typical River Park Trail..... 76

Exhibit III.E.5.f: Typical Plan View of River Park..... 77

Exhibit III.J.1: Proposed Landscaping and Screening 86

Exhibit III.J.2: Proposed Water Harvesting 87

Exhibit III.J.3: Regulated Riparian Habitat Impacts..... 88

Exhibit III.J.4: Conceptual Mitigation Plantings 89

Exhibit III.J.5: Typical Plan and Cross Section “G” Riparian Mitigation Planting 90

Exhibit III.K: Developed Condition Hydrology 95

List of Tables

Table II.B: Existing Uses..... 8
Table II.C: Adjacent Zoning 10
Table II.D: Existing Schools within a One-mile Radius 12
Table II.F: Roadway Characteristics 22
Table III.B.5.a: Rio Verde Market District Development Criteria for Nonresidential Land Uses.54
Table III.B.5.b: Rio Verde Market District Development Criteria for Residential Land Uses
(Excluding Residential Care Services)..... 55
Table III.B.5.c: Rio Verde Market District Development Criteria for Residential Care Services.56
Table III.C.5.a: Rio Verde Manor District Development Criteria (Excluding Residential Care
Services)..... 59
Table III.C.5.b: Rio Verde Manor District Development Criteria for Residential Care Services.. 60





I. Introduction

I. Introduction

A. Background

The Rio Verde Village Planned Area Development is located within the Catalina Foothills at the southeast corner of River Road and Craycroft Road. The subject property was recently annexed into the City of Tucson, and thus given translational zoning categories of RX-1, C-1 and SR. A change in zoning to Planned Area Development (PAD) is requested for development of the site.

The Catalina Foothills holds the 5th highest per capita income in the state and the area has experienced significant residential growth over the past several years with little commercial and office development to service the community. As a result, residents have found themselves driving extended distances to do their shopping and to commute to work, with average commute times for most of the area's residents range from fifteen (15) to thirty-five (35) minutes. Based on a statewide average, the area is underserved in its number of grocery stores, super-centers, convenience stores and restaurants.

See Exhibit I.A: Regional Context, page 5.

B. Project Overview

The Rio Verde Village Planned Area Development is located on the southeast corner of River and Craycroft Roads in Tucson, Arizona. The portion of the site adjacent to Craycroft Road is currently vacant. The southeastern portion of the site serves as a private residence.

See Exhibit I.B: Local Context, page 6.

With today's busy lifestyles, Tucsonans are seeking destination live, work and play experiences that allow them to complete their errands, go to work, and experience recreational opportunities without having to drive long distances between uses. The mixed use development at the Rio Verde Village seeks to meet the needs of today's busy Tucsonans while also providing a quality shopping, dining, lodging, housing and recreational experience for users of Rio Verde Village to enjoy.

Today's creative-mind workforce can choose to live anywhere in the world. As a result, companies are finding it necessary to locate their businesses in desirable areas like the Catalina Foothills in order to attract quality employees. The creation of a mixed use community within the area will help Tucson to continue to offer a competitive business environment for companies to attract such employees.

C. Intent

The City of Tucson's Planned Area Development Zone designation allows owners of large tracts of land to comprehensively develop the land with mixes of land uses and development standards that are not available through the traditional Land Use Code zoning classifications. The City's current Land Use Code is structured for a more traditional separation of residential, commercial and industrial development land uses.

The Rio Verde Village Planned Area Development will allow for the comprehensive planning of a mixed use development center that will encourage residents to live, work and play in the beautiful Catalina Foothills. This will benefit the community by enhancing resident's quality of life and creating

sustainable commercial and residential choices within one development.

The Rio Verde Village PAD provides guidance for the comprehensive and integrated planning of a mixed use development on the site. The following factors are important to the success of this development:

- Develop a mixed use center that creates a more livable, pedestrian-friendly community;
- Cluster work places and shopping developments with convenient access to residential communities to contribute to the quality of life and employment opportunities for the local workforce;
- Utilize existing infrastructure in the development of the Rio Verde Village;
- Advance the economic sustainability of the area through the creation of additional tax revenues;
- Provide complementary civic and hospitality uses; and
- Provide a mix of residential uses in an area currently consisting of low density single family residential and apartments.

This PAD shall serve as the primary mechanism for controlling the development of Rio Verde Village. In accordance with Section 2.6.3 of the *Land Use Code*, the PAD standards herein supersede the standards of the *Land Use Code*. Where specific references to LUC standards are provided, those reference the LUC standards in existence on the date this PAD is approved by the Mayor and Council. The City of Tucson Development Standards shall apply except where modified herein. Where the PAD is silent, the LUC provisions

for the C-2 and R-2 zone and other relevant City standards shall control.

D. Conformance with the General Plan and City Land Use Plans

The project lies within the boundaries of the City of Tucson's General Plan and falls under the Master Planned Communities Land Use. The Rio Verde Village PAD will offer a mixed use area that is designed to integrate office and commercial services as well as residential choices.

Element 1: Evolving Edge Growth Area of the City of Tucson's General Plan states:

“Support compact development patterns which minimize the need for additional public facilities”

“Support a mix of housing types and opportunities throughout the Evolving Edge Growth Area to meet the diverse needs of the residents.”

“Expand the regional trail system and connect it with the Pima County system.”

The PAD is located in an infill area surrounded by existing development, two major roads and the Tanque Verde Creek. The proposed mix of residential, commercial and office uses create a compact development pattern that minimizes the need for additional public facilities. The project also provides a mix of housing types in an area currently dominated by single family residential. Additionally, a vital connection to the Pima County's regional trail system the “Urban Loop” will be accommodated near the southwest corner of the site, providing connectivity between the Rillito and Pantano River Parks.

Element 2: Land Use of the City of Tucson's General Plan states:

"The recurrent nonresidential theme focuses on grouping commercial uses in nodes or mixed use-activity centers. Again, the integration of uses, particularly in mixed-use centers, or village centers, is emphasized as one way to create a more livable, pedestrian-friendly community. In addition, increasing residential uses and density in and around activity centers will provide a local market for commercial services."

Element 3: Circulation of the City of Tucson's General Plan states:

"The factors considered in the development of a comprehensive transportation and circulation plan include supporting the economic viability of the area, increasing the safety of the transportation system, and improving accessibility and mobility options for people and freight."

The PAD mixed use land use plan supports economic viability while providing for accessibility to additional employment opportunities as well as good and services.

Element 4: Community Character and Design of the City of Tucson's General Plan states:

"Support infill and redevelopment projects that reflect sensitivity to site and neighborhood conditions and adhere to relevant site and architectural design guidelines."

"Promote residential development that reinforces Tucson's character and

enlivens and provides market support for existing regional and neighborhood activity centers and nodes."

"Promote quality in design for residential, commercial, industrial, mixed-use, and publicly-funded development."

"All development should incorporate environmentally sensitive design that protects the integrity of existing neighborhoods, complements adjacent land uses, and enhances the overall function and visual quality of the street, adjacent properties, and the community."

The PAD is located at the southeast corner of two major roads: River and Craycroft Roads and is surrounded by existing development. The proposed mix of residential, commercial and office uses support a development pattern that reflects sensitivity to the surrounding wash area to the south and adjacent neighbors. The commercial will be located towards the major streets, and then transitions to office and lodging uses, proposed residential uses will be strategically located along the eastern portion of the site adjacent to existing residential uses. In addition, design standards will be submitted as an extension of this document in order to establish common theme and design elements that will be used throughout the project area. Off-site mitigation will enhance an area adjacent to the Tanque Verde Creek, restoring an area that has been degraded from wildfires in the past, creating visual appeal and enhancing its habitat value.

Element 10: Parks, Recreation, Open Space and Trails of the City of Tucson's General Plan states:

Provide an interconnected urban trail network for bicyclists and walkers based on enhanced roadways and incorporating appropriate natural and improved washes.

The PAD supports on-site pedestrian paths connecting the mixed use and residential areas (Manor and Market districts) as well as providing a connection to the future Tanque Verde River Trail and the “Urban Loop” connection proposed near the southwest portion of the site connecting Rillito and Pantano River Parks.

Element 13: Economic Development of the City of Tucson’s General Plan states:

“The region will enjoy benefits from new economic opportunities and improved business services... The Vision foresees continued expansion of the trade and service activities that currently constitute the largest economic sector... Clustered work places and shopping developments with convenient access to residential communities will contribute to the quality of life and employment opportunities for the local workforce. “

Element 14: Environmental Planning and Conservation of the City of Tucson’s General Plan states:

“Continue to identify and protect environmentally sensitive natural areas and encourage the preservation of vegetation and wildlife within these areas.”

Although the project will impact existing riparian habitat along the unnamed tributary wash, mitigation for these impacts will provide enhanced riparian habitat and vegetation to the Tanque

Creek area. The off-site mitigation area is within the annexation district boundary located on the south side of the Tanque Verde Creek. This mitigation will restore vegetation lost to past human activity and wildfire fires, restoring and enhancing wildlife habitat on this confluence of two major washes.

The Rio Verde Village PAD seeks to provide and expand upon the City of Tucson’s *Vision* as outlined in the General Plan.

E. Compatibility with Adjoining Land Uses

The Rio Verde Village PAD is compatible and complementary to adjoining land uses.

To the north of the PAD is the River Center, a shopping center featuring a pharmacy, restaurant and retail shops and a public library.

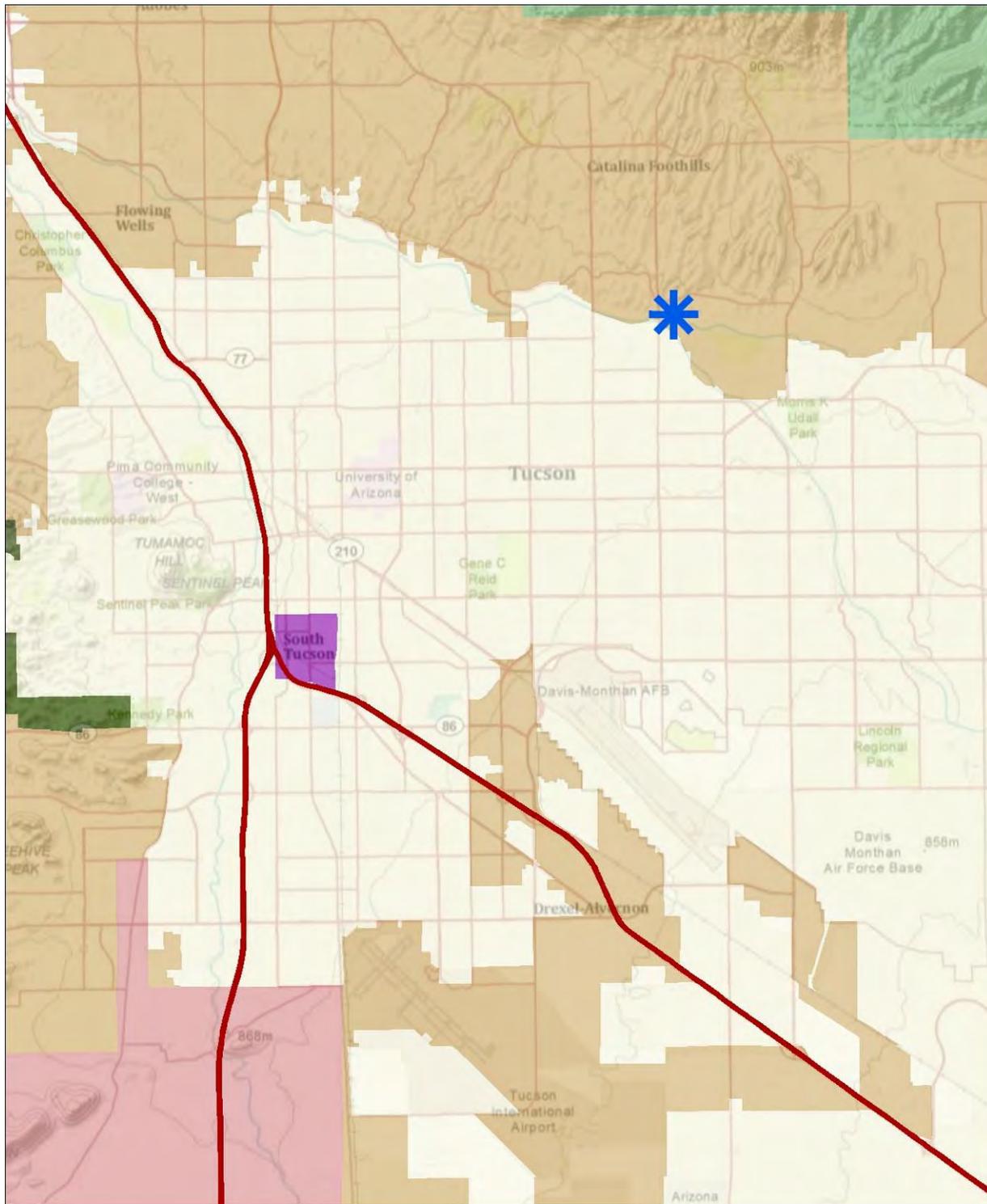
To the south is the Tanque Verde Creek and to the east are single family residential uses. Uses at the Rio Verde Village will complement the uses across the street and enhance the commercial options for area residents.

To the east of the Rio Verde Village is existing residential development. To ensure compatibility with this adjoining land use, the PAD plans for residential development adjacent to this area.

Across Craycroft Road to the west of the property is a drainage channel owned by Pima County, running parallel to Craycroft. To the west of the channel is a single family residential subdivision.

See Exhibit II.A: Existing Development, page 9.

Exhibit I.A: Regional Context



LEGEND

- Site Location
 - City of Tucson
 - Pima County
 - Tucson Mountain Park
 - Coronado National Forest
 - Tohono O'odham Nation San Xavier District
 - South Tucson
- FILE NAME: BRT-07_regional.mxd
 SOURCE: Pima County DOT GIS, 2010

Exhibit I.B: Local Context



Parcel ID #s:
 109-22-005C, 109-22-005D,
 109-22-005E, 109-22-003J,
 109-22-2810, 109-22-2820,
 109-22-2830, 109-22-2840,
 109-22-2850, 109-22-2860 &
 109-22-0008B

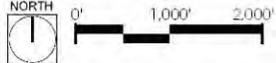
- LEGEND**
-  Site Boundary
 -  Jurisdictional Boundary

Notes:

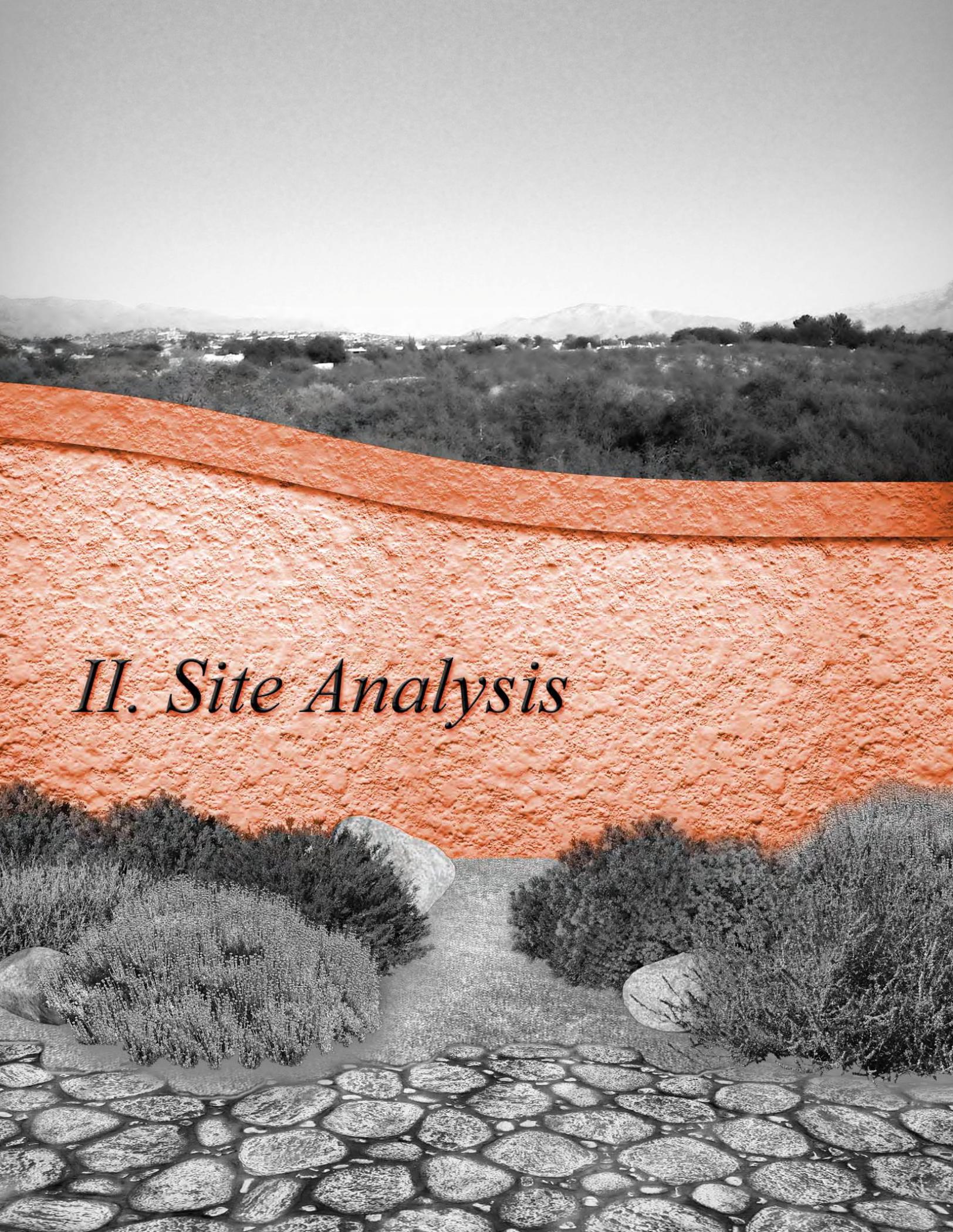
Project Site is located at:
 Township 13S, Range 14E, Section 25

Site Boundary Acreage: 40.32 AC

NORTH



FILE NAME: BRT-07_location.mxd
 SOURCE: Pima County DOT GIS, 2010



II. Site Analysis

A. Existing On-Site Development

Except for a single-family residence in the southeastern corner of the property, the site is currently vacant. A Development Plan was approved in Pima County in April 2011 for commercial development, called the Rio Verde Village (P1210-022), on the northwest corner of the site. It is anticipated that the NW corner (gas station/convenience store) will be developed prior to the approval of the PAD; the remainder of the development plan area would be modified by this PAD and eventually superceded by an alternate Development Plan.

See Exhibit II.A: Existing Development, page 9.

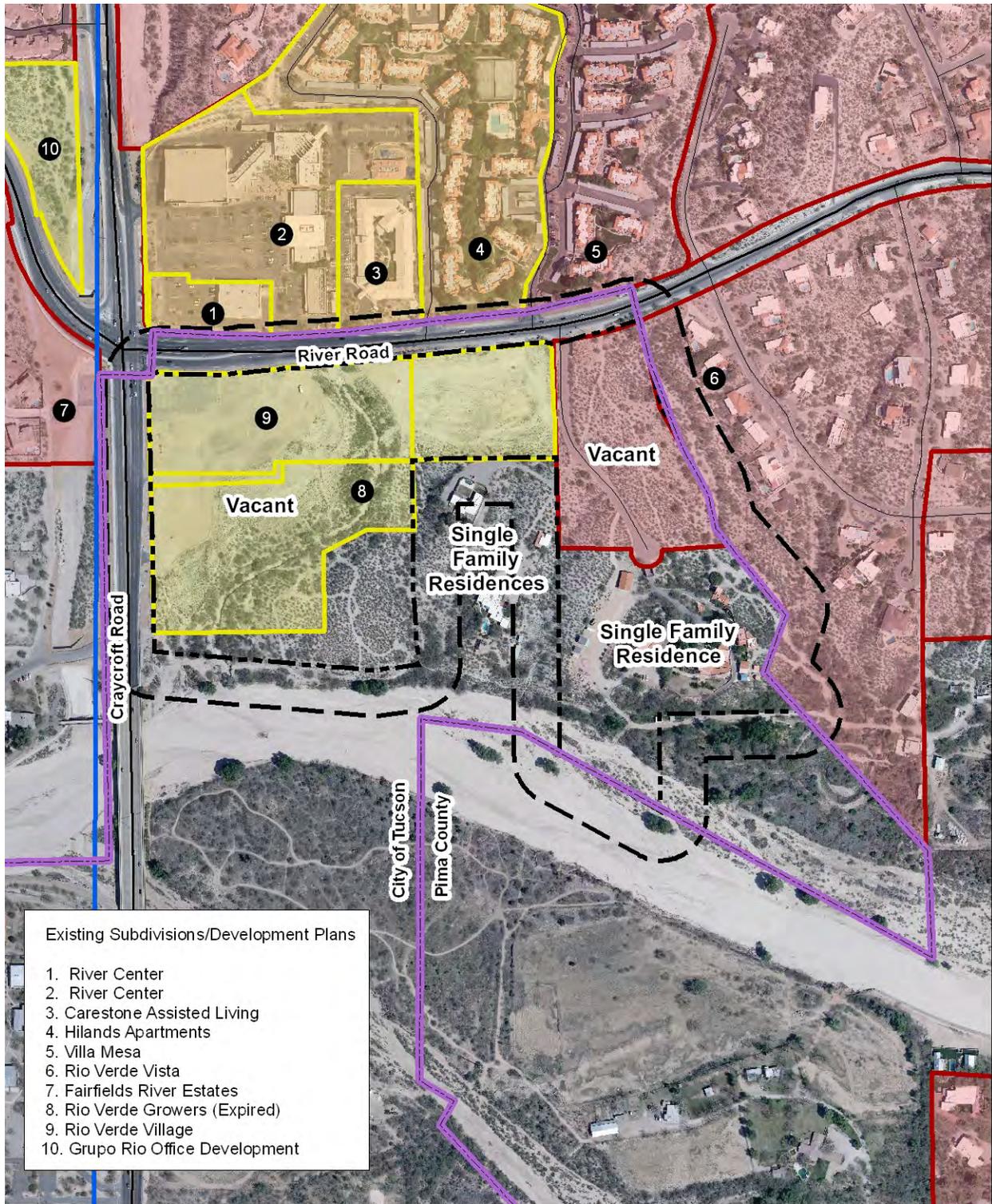
B. Existing Off-Site Development

To the east of the Rio Verde Village is the Rio Verde Vista development. Villa Mesa, the Hilands Apartment Buildings, Carestone Assisted Living and the River Center are all located to the north of the Rio Verde Village, across River Road. The Fairfield River Estates development is located to the west of the site, across Craycroft Road. The Tanque Verde Creek is located to the south of the site. See Exhibit II.A: Existing Development, page 9.

Table II.B: Existing Uses

Project Site	Residential & Vacant (Rio Verde Village Proposed Development Plan, P1210-022, anticipated for a Gas Station/Convenience Store Development in the northwest corner of the site)
North	Single Family Residential, Multi-Family Residential, Commercial
South	Tanque Verde Creek
East	Single Family Residential
West	Single Family Residential

Exhibit II.A: Existing Development



- Existing Subdivisions/Development Plans
1. River Center
 2. River Center
 3. Carestone Assisted Living
 4. Hilands Apartments
 5. Villa Mesa
 6. Rio Verde Vista
 7. Fairfield's River Estates
 8. Rio Verde Growers (Expired)
 9. Rio Verde Village
 10. Grupo Rio Office Development

LEGEND

- Site Boundary
- Approved Subdivision Plan
- 150-Foot Radius
- Jurisdictional Boundary
- Approved Development Plan



FILE NAME: BRT-07_existing_land_uses.mxd
 SOURCES: Pima County DOT GIS, 2012
 Aerial Imagery: PAG, 2008

C. Existing Zoning

The existing zoning designation on the project site is “SR,” Suburban Ranch, “C-1,” Business (Nonresidential) and “RX-1,” Residence. The zoning designations of surrounding properties, as depicted in Exhibit II.C: Zoning, on page 11, are as follows:

Table II.C: Adjacent Zoning

North	Pima County: CB-1 (Local Business Zone), Pima County: TR (Transitional Zone)
South	Pima County & City of Tucson: SR (Suburban Ranch Zone)
East	Pima County: CR-1 (Single Residence Zone)
West	Pima County: SR (Suburban Ranch Zone)

D. Public, Educational, Community and Cultural Facilities

1. Schools Abutting the Project Site

The Site falls within the Tucson Unified School District. Schools located within a mile of the Site are listed in the following table:

Table II.D: Existing Schools within a One-mile Radius

School	Type	Class
Saint Gregory College Preparatory School	Private	High School
Castlehill Country Day School	Private	Pre-K - 5
Whitmore Elementary School	Public	Elementary

See Exhibit II.D.1: Existing Schools, page 14.

2. Parks, Trails and Public Land

Fort Lowell Park is located approximately 0.6 miles from the southern boundary of the project site. Fort Lowell Park features racquetball courts, a historical museum, a jogging path, public art and a pond. Features in Fort Lowell Park also include a swimming pool, lighted soccer fields, tennis courts and baseball fields.

To the west of Craycroft Road is the Rillito River Park. The Rillito River Park winds through the City of Tucson along the Rillito riverbed. An asphalt trail is constructed along the north side of the river and is used by walkers, joggers, skaters and cyclists. The path includes underpass ramps under major roadways to provide grade separated crossings for users.

West of the Craycroft Road bridge at the Rillito River Park there is a fully developed trail head. This trail head includes parking, restrooms, plazas, seating areas, and multiple access points to the River Park. These features are located within approximately 500 feet of the PAD, therefore are available to support any River Park development east of Craycroft Road.

East of the site, upstream of Craycroft Road the Rillito branches into two watercourses, the Tanque Verde Creek and the Pantano Wash. The Tanque Verde Creek is located directly south of the project site.

The land on the Tanque Verde Creek and the Pantano Wash, immediately upstream from the Craycroft Road Bridge, is privately owned. There is no public trail in this area and no trail improvements; although master plans indicate future trails along both the Tanque Verde and Pantano Wash. Nevertheless, the wash is used by equestrians and some pedestrians.

See Exhibit II.D.2: Public Facilities and Services, page 15.

3. Fire Stations

There are no fire stations within a one-mile radius of the project site.

4. Police Stations

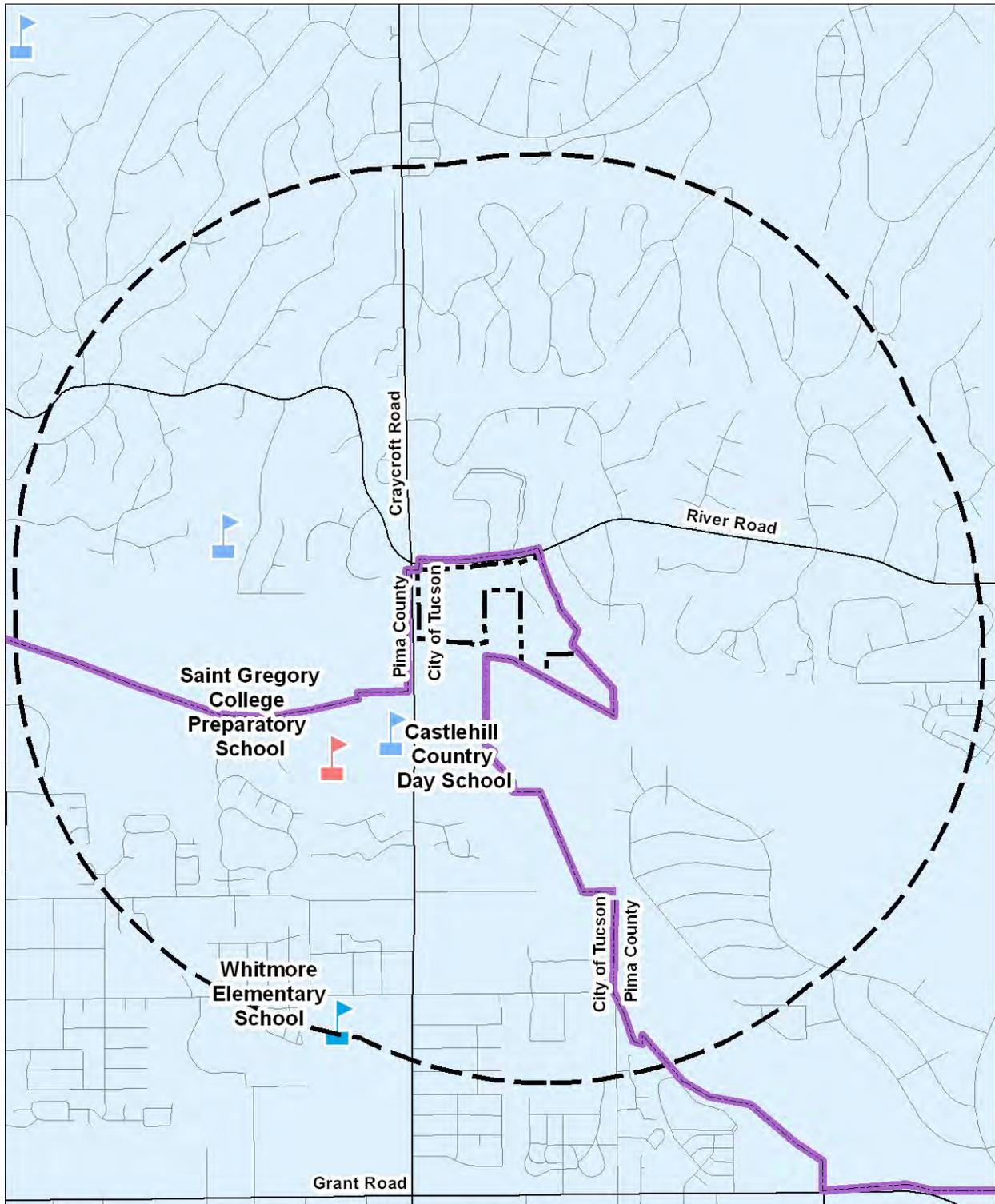
The police station that will provide service to the site is the City of Tucson's Rincon Substation, located at 9670 East Golf Links Road.

5. Hospitals

The nearest hospital is Tucson Medical Center, located at 5301 East Grant Road, approximately 1.75 miles southwest of the project site. A private hospital, Tucson Medical Center has 650 licensed beds at the Grant location.

See Exhibit II.D.2: Public Facilities and Services, page 15.

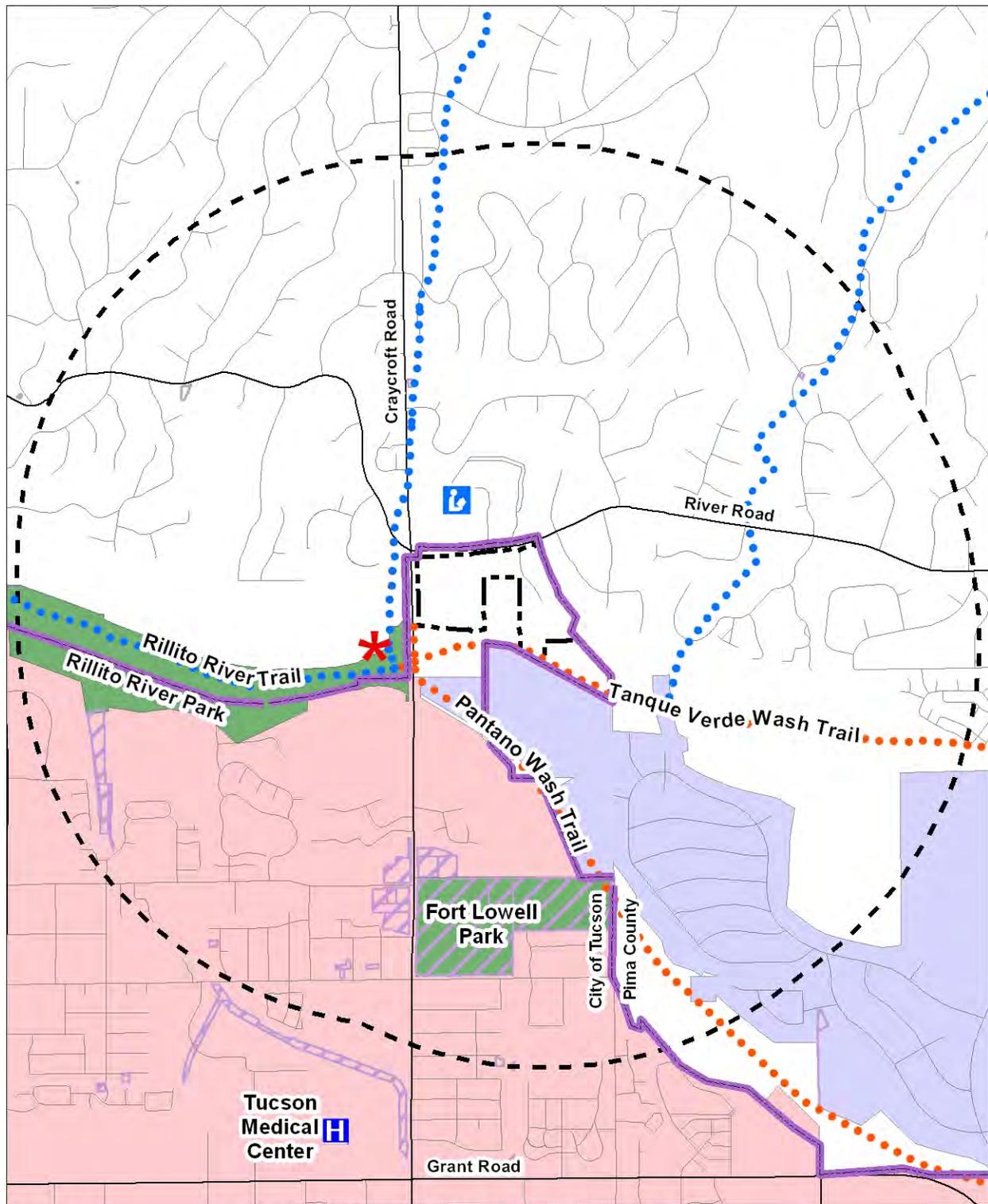
Exhibit II.D.1: Existing Schools



LEGEND		SCHOOLS	SCHOOL DISTRICTS
	Site Boundary		
	One-Mile Radius		Tucson Unified
	Jurisdictional Boundary		

		0'	1,000'	2,000'
		FILE NAME: BRT_07_schools.mxd		
		SOURCE: Pima County DOT GIS, 2011		

Exhibit II.D.2: Public Facilities and Services



LEGEND		Public Facilities	Parks and Trails	Fire Districts
	Site Boundary			
	One-Mile Radius			
	Jurisdictional Boundary			

FILE NAME: BRT-07_public_facilities.mxd
 SOURCE: Pima County DOT GIS, 2011

E. Existing Infrastructure

1. Sewer

A 30" gravity main sewer line, G-68-25, runs along the southern portion of the project boundary and an 8" gravity main, G-79-62, runs within the project boundary along the east side. A sewer stubout was provided at the northwest corner of the project site as part of the recent Craycroft Road intersection improvements by plan G-2006-131, to serve the northwesterly portion of the project.

Pima County Regional Wastewater Reclamation Department allocates system capacity at the Ina Road Water Reclamation Facility to new developments on a first-come/first-serve basis. Capacity is currently available at several points around the site.

See Exhibit II.E.1.a: Existing Utilities, page 18 and Exhibit II.E.1.b: Wastewater Service Letter, page 19.

2. Water

According to the Pima County Department of Transportation Geographical Information Services and Arizona Department of Water Resources (ADWR), there is one well located just south of the project site, #514359. The well is currently registered for domestic water production. See Exhibit II.E.1.a: Existing Utilities, page 18.

The closest reclaimed water line is located at St. Gregory College Preparatory School, located approximately 2,000 feet from the project site.

The City of Tucson Water Department stated in a letter dated September 15, 2010 that Tucson Water will provide water service to the eastern 9.99 acres of this project based on the subject zoning. Tucson Water has an assured water supply (AWS) designation from ADWR. Multiple water stubouts were provided along Craycroft and River Roads as part of the recent Craycroft Road intersection improvements to serve the anticipated water needs for the project. See Exhibit II.E.2: Water Service Letter, page 20. As a result of annexation into the City of Tucson, Tucson Water will provide water service to the PAD.A water service agreement will be required to establish service to the property.

3. Solid Waste Disposal and Recycling

Solid waste and recycling will be provided by the City of Tucson.

4. Private Utilities

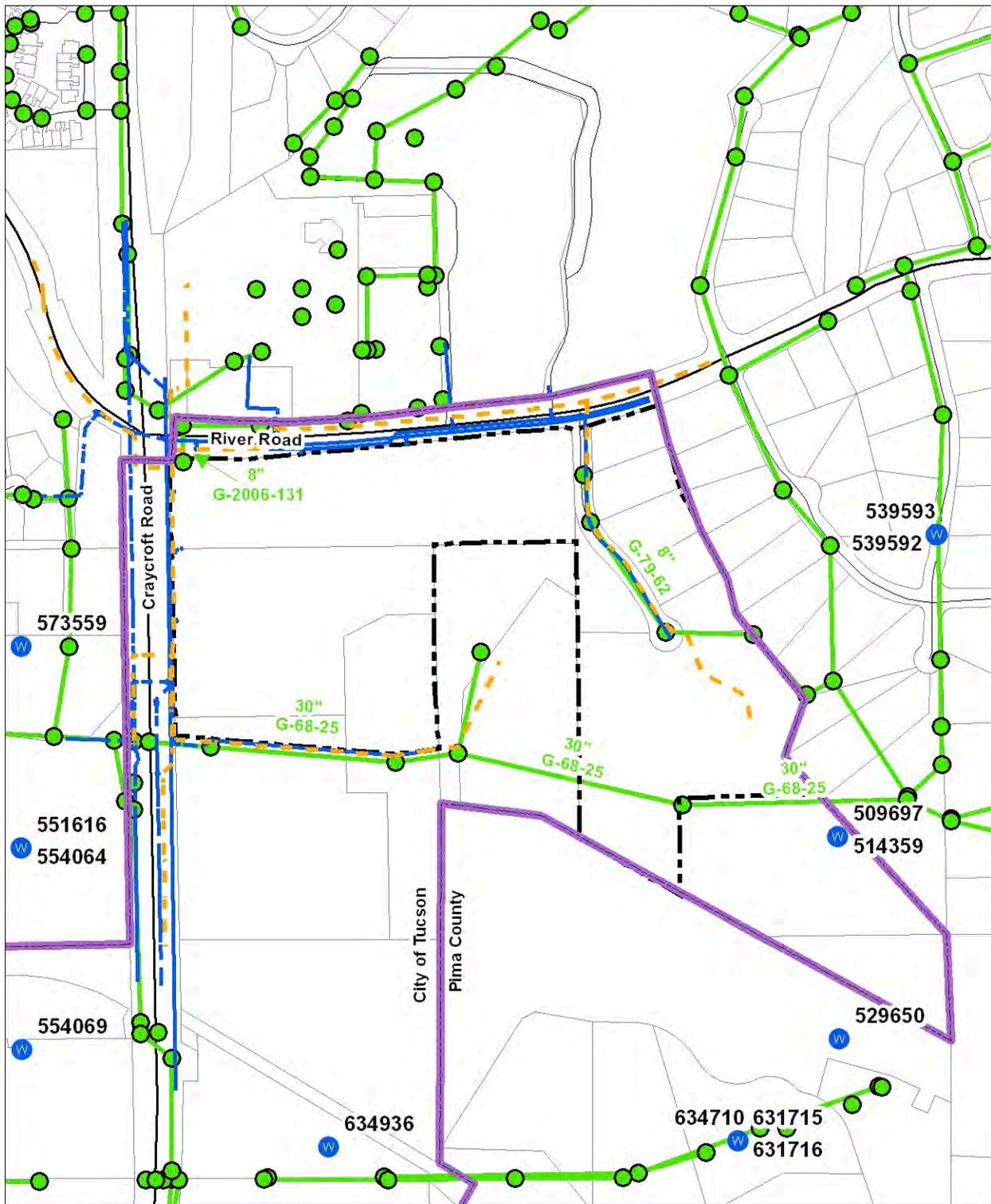
Facilities currently exist along Craycroft and River Roads, directly adjacent to the project site. Electricity, natural gas and telecommunications will be extended to the project site at the time of development through agreements with individual utility companies. The following utility companies currently serve the area:

Electricity: Tucson Electric Power

Telephone: Cox Communications

Natural Gas: Southwest Gas

Exhibit II.E.1.a: Existing Utilities



LEGEND

- Site Boundary
- Jurisdictional Boundary
- Manholes
- Registered Well
- Sewer Network
- Water Line
- Gas Line



FILE NAME: BRT-07_utilities.mxd
SOURCE: Pima County DOT GIS, 2011

Exhibit II.E.1.b: Wastewater Service Letter



**Pima County
Regional Wastewater Reclamation Department**

Michael Gritzuk, P.E.
Director

201 N. Stone Ave., 8th Floor
Tucson, Arizona 85701
(520) 740-6500

Visit our website:
<http://www.pima.gov/wwm>

November 16, 2010

Ms. Raquel Goodrich
The Planning Center
110 S. Church, # 6320
Tucson, AZ 85701

Capacity Response No. 10-177 Type I

RE: **Rio Verde Village PAD, on Parcels #109-22-005C, -0050, -005E, -003J, -2810, 2830, -2840, -2850, -2860 & -008B. Estimated Flow 29,900 gpd (ADWF).**

Greetings:

The above referenced project is tributary to the Ina Road Wastewater Reclamation Facility via the North Rillito Interceptor.

Capacity will become available for this project upon the completion of the RWRD Plant Interconnect, anticipated for December of 2010.

This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is an analysis of the system as of this date and valid for one year.

Note: Conditions within the public sewer system constantly change. An update to this letter must be obtained to verify that capacity exists in the downstream public sewer system just prior to submitting the development plan or subdivision plat for review and approval.

If further information is needed, please feel free to contact us at (520) 740-6500.

Respectfully,

A handwritten signature in black ink that reads "Mary M. Hamilton".

Mary Hamilton, P.E.
PCRWRD Planning Section Manager

MH:ks

c: Subhash Raval, DSD; T13, R14, Sec. 25

Exhibit II.E.2: Water Service Letter

September 15, 2010



CITY OF TUCSON
TUCSON WATER DEPARTMENT

Pima County Development Services Department
Planning Division, Subdivision Coordination
201 N. Stone Ave, Second Floor
Tucson, AZ 85701-1207

Attn: L H

SUBJECT: **Water Availability for project: Rio Verde Village, APN: 10922003J, Case #: N/A,**
Parcel: [REDACTED] Lots: 9999, Location Code: , Total Area: 9.99ac, Zoning: SR

WATER SUPPLY

Tucson Water will provide water service to this project based on the subject zoning of the above parcels. Tucson Water has an assured water supply (AWS) designation from the State of Arizona Department of Water Resources (ADWR). An AWS designation means Tucson Water has met the criteria established by ADWR for demonstration of a 100-year water supply – it does not mean that water service is currently available to the subject project.

WATER SERVICE

The approval of water meter applications is subject to the current availability of water service at the time an application is received. The developer shall be required to submit a water master plan identifying, but not limited to: 1) Water Use; 2) Fire Flow Requirements; 3) Offsite/Onsite Water Facilities; 4) Loops and Proposed Connection Points to Existing Water System; and 5) Easements/Common Areas.

Any specific area plan fees, protected main/facility fees and/or other needed facilities' cost, are to be paid by the developer. *If the existing water system is not capable of meeting the requirements of the proposed development, the developer shall be financially responsible for modifying or enhancing the existing water system to meet those needs.*

This letter shall be null and void one year from the date of issuance.

Issuance of this letter is not to be construed as agency approval of a water plan or as containing construction review comments relative to conflicts with existing water lines and the proposed development.

If you have any questions, please call New Development at 791-4718.

Sincerely,


Joseph G. Olsen, P.E.
Planning Administrator
Tucson Water Department

JGO:bjp
CC:File

Post-it* Fax Note	7671	Date	11-29	# of pages	1
To	Raquel Goodrich	From	BJ		
Co./Dept.		Co.			
Phone #		Phone #	791-4718		
Fax #	622-1950	Fax #			



NEW DEVELOPMENT • P.O. BOX 27210 • TUCSON, AZ 85726-7210
(520) 791-4718 • FAX (520) 791-5288 • TTY (520) 791-2639 • www.cityoftucson.org

F. Major Transportation and Circulation

1. Adjacent Roadways

Craycroft Road runs along the west side of the project site while River Road runs along the project site's northern boundary. North Calle Rosario, a minor local road, runs within the project on the eastern portion of the site.

2. Current and Future Right-of-Way

River Road has a current varying width right-of-way and Pima County's Major Streets and Routes Plan indicates a future 150-foot right-of-way adjacent to the project site. However, both Pima County and the City of Tucson have acknowledged that the current ROW is sufficient and will not require further dedication. The current and future right-of-way for Craycroft Road adjacent to the project site is also 150 feet.

See Exhibit II.F: Existing Circulation, page 23.

3. Scenic Corridor Zone

The project site is subject to the Scenic Corridor Zone (SCZ) from both River and Craycroft Roads. The SCZ extends to a depth of four hundred (400) feet and places additional restrictions on development such as requirements for a roadway buffer area, structure height limitations, siting specifications and signage restrictions.

4. Access Points

Access to the Rio Verde Village PAD is via Craycroft Road on the western portion of the project site and River Road on the northern portion of the project site. Access to the eastern residential portion of the property is via Calle Rosario.

5. Alternate Modes of Transportation

Bike lanes are located along River and Craycroft Roads adjacent to the project site. SunTran operates an existing public transit route, Craycroft/Fort Lowell Route #34 just under one (1) mile from the project site. The route incorporates a planned stop at Craycroft Road and East Glenn Street, also just under one (1) mile from the project site.

See Exhibit II.F: Existing Circulation, page 23.

6. Roadway Characteristics

Based on the Pima County Geographic Information System (GIS) and the Federal Highway Administration’s Functional Classification Map for Pima County, River Road is classified as an Urban Minor Arterial. South of River Road, Craycroft Road is classified as an Urban Principal Arterial. North of River Road, Craycroft Road is classified as an Urban Minor Arterial. According to the Pima County Major Streets and Routes Map, both River and Craycroft Roads are classified as a Scenic Major Route.

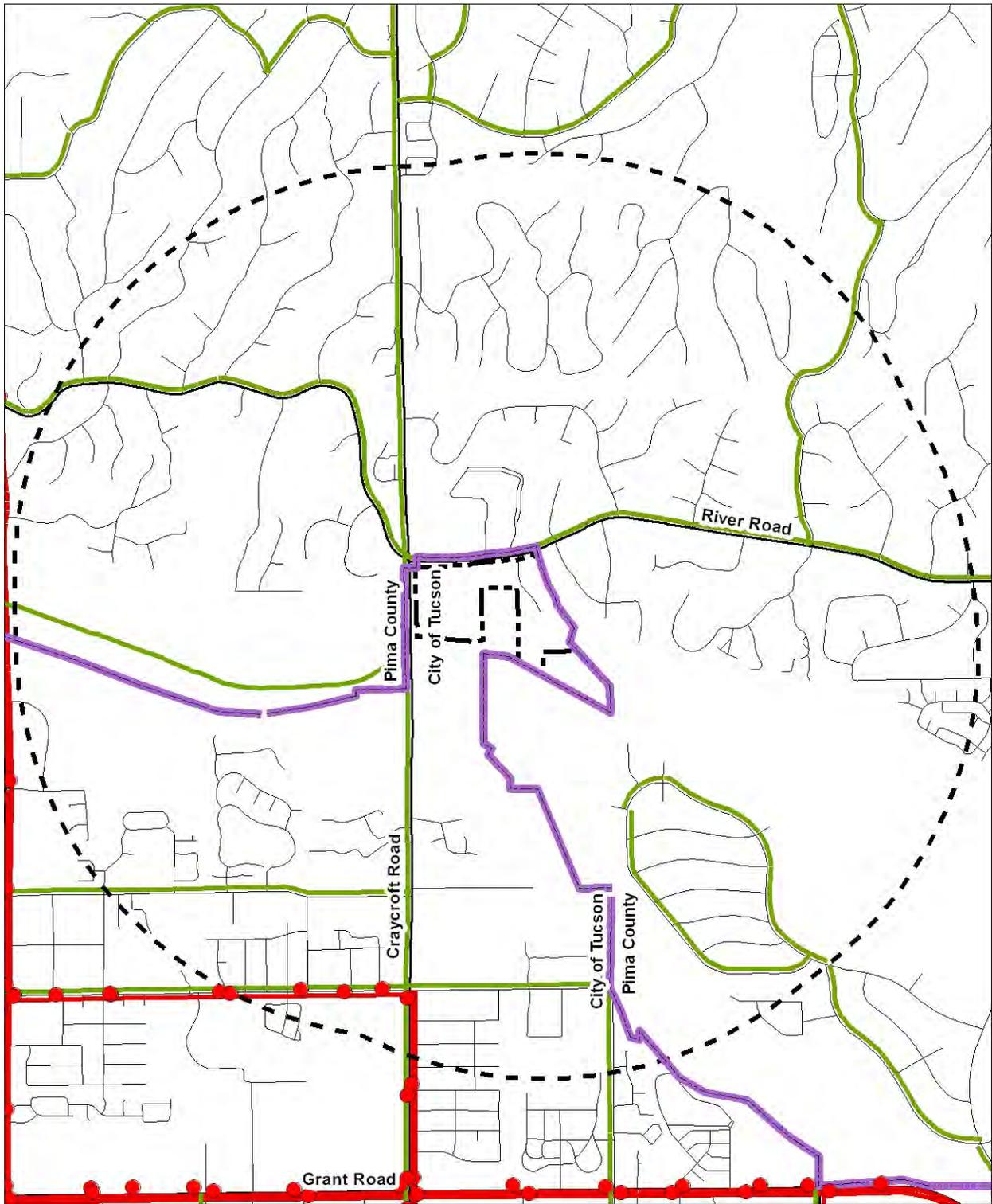
The two existing single family residential homesites located to the south of the property have access to River Road via an access easement to Calle Rosario. The surrounding transportation network is indicated on Exhibit II.F: Existing Circulation, page 23; attributes of the adjacent roadways are summarized below in Table II.F: Roadway Characteristics.

Additional information regarding traffic volumes and levels of service has been provided in the Traffic Study for Rio Verde Village along River Road and Craycroft Road, November 2010, prepared by Kimley-Horn and Associates, Inc.

Table II.F: Roadway Characteristics

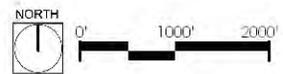
Roadway	Functional Class	# Lanes	Divided	Bike Route	Bus Route	Curb & Gutter	Sidewalk	Paved	Average Daily Trips
North Craycroft Road	Urban Principal Arterial & Scenic Major Route	4	No	Yes	No	Yes	Provided on west side of roadway; none along site frontage	Yes	.32 miles of River Road to River Road: 24,592 (April 2010)
East River Road	Urban Minor Arterial & Scenic Major Route	2	No	Yes	No	Not Entire Length	Provided on north side of roadway; none along site frontage	Yes	Craycroft Road to Tanuri Drive: 15,401 (March 2010)
Calle Rosario	Minor	2	No	No	No	No	No	Yes	Not Available

Exhibit II.F: Existing Circulation



LEGEND

-  Site Boundary
-  One-Mile Radius
-  Bicycle Routes
-  Bus Routes (Sun Tran)
-  Bus Stops
-  Jurisdictional Boundary



FILE NAME: BRT-07_traffic.mxd
SOURCE: Pima County DOT GIS, 2011

G. Hydrology, Water Resources and Drainage

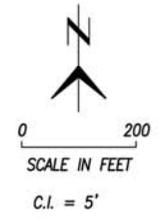
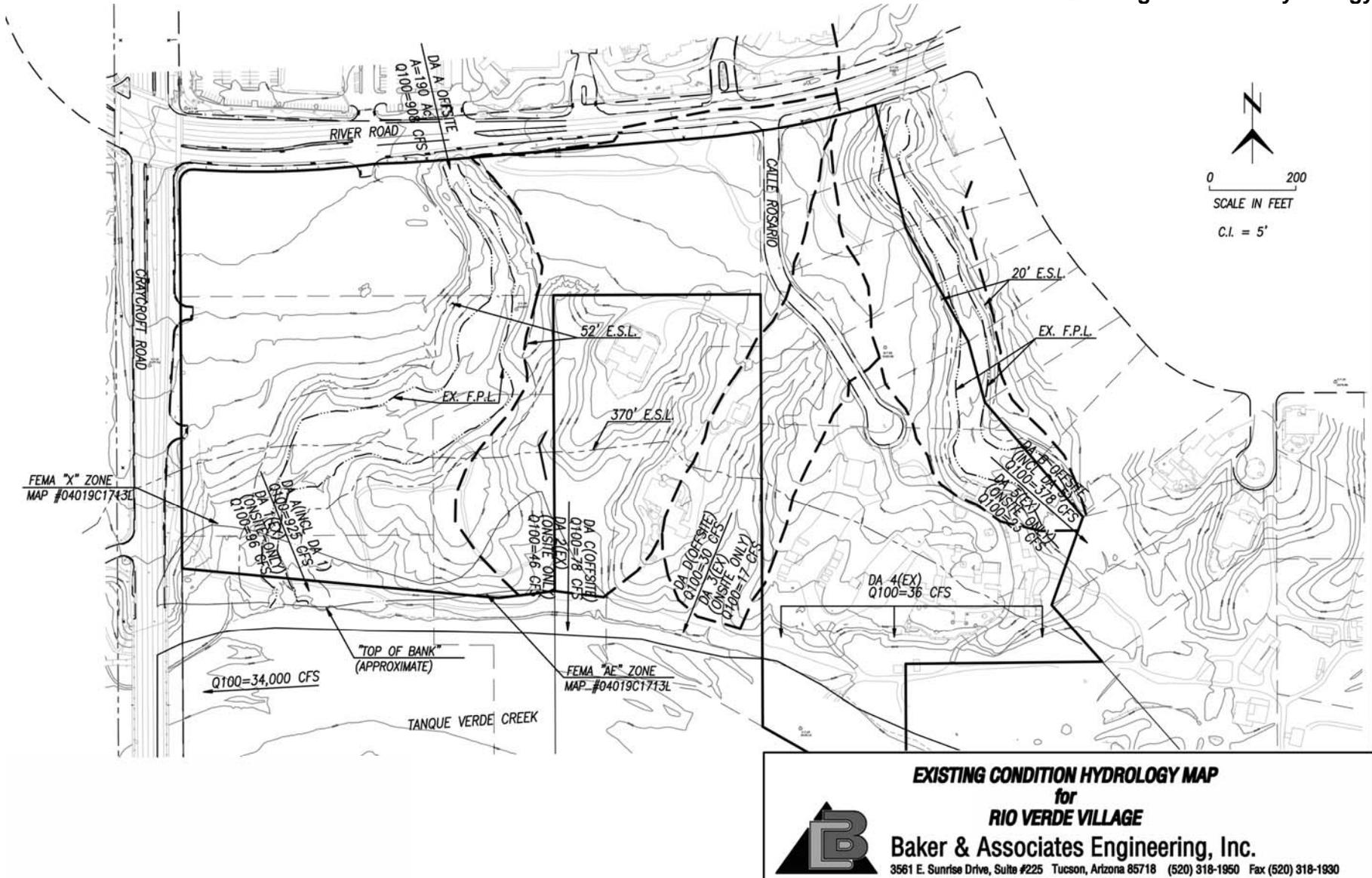
1. Off-Site Watersheds

There are 3 offsite watersheds that affect all or portions of the project site:

- The first is the Tanque Verde Creek, which is located along/near the southerly boundary of the site. Per FEMA's Flood Insurance Study of June 16, 2011, the Tanque Verde Creek along the project boundary is estimated to have a 100 year discharge of 34,000 cfs, and per FIRM panel #04019C11713L, the FEMA "AE" floodplain is generally contained within the existing banks or low-lying overbank areas. Per the City of Tucson standards, an erosion hazard setback for this wash has been calculated at 370 feet from the existing top of bank as identified on Exhibit II.G.1: Existing Condition Hydrology, page 26.
- A second off-site watershed discharges into our site via 2-90" pipe culverts beneath River Road. This watershed lies upstream of the project site into the commercial developments directly adjacent to River Road, and further upstream into the foothills residential developments. This watershed flows into an existing, natural channel that generally flows north to south through the middle portion of the property, and ultimately discharges into the Tanque Verde Creek, just upstream of the Craycroft Road bridge. At the discharge point, this wash conveys 925 cfs in the 100 year storm event, and the flows are contained within the natural wash. An erosion hazard setback for this wash has been calculated at 52 feet from the 100 year FPL and has been identified on Exhibit II.G.1: Existing Condition Hydrology, page 25. Off-site watershed boundaries are shown on Exhibit II.G.2: Aerial Photograph/Off-Site Existing Condition Hydrology, page 27.
- A third off-site watershed discharges into our site via pipe culverts beneath River Road along the eastern edge of the proposed development. This watershed also lies upstream of the project site into the apartment development directly adjacent to River Road, and further upstream into the foothills residential developments. This watershed flows into an existing, natural channel that generally flows north to south along the eastern boundary of the property, and ultimately discharges into the Tanque Verde Creek. At the discharge point, this wash conveys 378 cfs in the 100 year storm event, and the flows are contained within the natural wash. An erosion hazard setback for this wash has been calculated at 20 feet from the 100 year FPL and has been identified on Exhibit II.G.1: Existing Condition Hydrology, page 25. Off-site watershed boundaries are shown on Exhibit II.G.2: Aerial Photograph/Off-Site Existing Condition Hydrology, page 27.

Under existing conditions, the proposed project site discharges from 5 locations to either existing, natural washes and then into the Tanque Verde Creek, or directly into the Tanque Verde Creek. None of these local watersheds create a regulatory discharge, and 2 of these watersheds contribute flow to the on-site washes identified above in the off-site watershed portion of this document. All watershed boundaries and discharges have been identified on Exhibit II.G.1: Existing Condition Hydrology, page 26.

Exhibit II.G.1: Existing Condition Hydrology



EXISTING CONDITION HYDROLOGY MAP
for
RIO VERDE VILLAGE
Baker & Associates Engineering, Inc.
3561 E. Sunrise Drive, Suite #225 Tucson, Arizona 85718 (520) 318-1950 Fax (520) 318-1930

Exhibit II.G.2: Aerial Photograph/Off-Site Existing Condition Hydrology



H. Topography and Slope

The site generally slopes from north to south, with elevations ranging from 2,436 feet along the southern boundary to 2,506 feet at the northern boundary.

The average cross slope of the parcel is 11.65%, as calculated by performing the following calculation:

$$ACS = \frac{I \times L \times 0.0023}{A} \times \frac{(N-1)}{N}$$

$$I = 5'$$

$$L = 41,455$$

$$A = 40.32 \text{ Ac}$$

$$N = 68$$

$$ACS = \frac{5 \times 41,455 \times 0.0023}{40.32} \times \frac{(68-1)}{68}$$

$$ACS = 11.65\%$$

I. Vegetation and Wildlife

1. Vegetative Communities and Plant Associations On-Site

There are four different vegetation communities and/or plant associations that cover the site, along with areas that are heavily graded or disturbed or contain no vegetation. They are 1) Sonoran Desert Upland, 2) Xeroriparian, 3) Hydro-meso riparian and 4) Mixed Native and Non-Native Landscape.

a. Sonoran Desert Upland

The Sonoran Desert Upland community is mostly comprised of Creosote Bush (*Larrea tridentata*) with limited amounts of Barrel Cacti (*Ferocactus wislizenii*) and Foothills Palo Verde (*Cercidium microphyllum*). In general, the existing vegetation is in fair to good health. The Sonoran Desert Upland community occupies approximately 11.8 acres (approximately 29%) of the site and is located mostly east of the unnamed tributary wash through the western portion of the site and east of the existing Calle Rosario on the eastern portion of the site.

The upland vegetation does not provide significant scenic value or screening as it is located away from the two major roadways adjacent to the site. The upland vegetation provides some wildlife habitat value since it is located on the edge of a larger natural area, but since the site is also in close proximity to existing commercial and high density residential developments on the north side of road and existing single family residential developments immediately adjacent to the site, the overall wildlife habitat of the upland vegetation is not especially important to the region.

b. Xeroriparian Habitat

Xeroriparian Habitat occurs along the unnamed wash running through the western portion of the site from River Road on the north toward the Tanque Verde Creek on the south, and along another wash immediately to the east of the PAD boundary. The majority of the vegetation along this wash includes typical Xeroriparian species of Catclaw Acacia (*Acacia greggii*), Whitethorn Acacia (*Acacia constricta*), Velvet Mesquite (*Prosopis velutina*), Blue Palo Verde (*Cercidium floridum*), and Foothills Palo Verde (*Cercidium microphyllum*) and Desert Hackberry (*Celtis pallida*). There are a few small Cottonwoods (*Populus fremontii*) near the northern end of the wash that have grown in response to runoff from the culvert and are not indicative of the hydrogeologic conditions typically associated with this species. This area is approximately 6.2 acres (approximately 15 % of the site).

This area is of low to moderate importance to scenic value from view points off site. This is due to the existing topography of the site which has the riparian habitat mostly within the incised banks of the wash, out of view of the two major roadways adjacent to the site.

This area also provides only limited wildlife value. The wash intersects with River Road on the north, runs under River Road, and upstream of River Road is contained in an underground pipe culvert as it flows through an existing commercial development and an existing apartment complex. The wash does not “daylight” for over 1/3 mile from its intersection with River Road, and therefore is not connected to an existing, functional, continuous habitat corridor. At the southern end of the wash it does have a confluence with the Tanque Verde Creek, and provides some benefit to wildlife that use the Tanque Verde Creek as habitat.

c. Hydro/Meso Riparian Habitat

The Hydro/Meso Riparian Habitat occurs in the extreme southeast portion of the site, south of the existing on-site residence. This area is closely associated with the Tanque Verde Creek and includes Cottonwoods (*Populus fremontii*), Arizona Ash (*Fraxinus velutina*) as well as Velvet Mesquite (*Prosopis velutina*). This area also includes a portion of the fringe area of the Tanque Verde Creek river bed. This area is approximately 2.5 acres (approximately 6 % of the site).

This area, while possessing some large trees and inherent scenic beauty, is not visible from most of the site or River Road, but somewhat visible from the bridge on Craycroft Road over the Tanque Verde. It has limited value as screening for adjacent properties.

As Hydro/Meso Riparian Habitat, it has value as wildlife habitat. No impacts to this area are proposed.

d. Mixed Native and Non-Native Landscape

The site also includes an area that contains both mixed native and non-native vegetation in a residential landscape context. This vegetation is associated with an existing residence and is lush and mature. This area includes many different species of non-native plants including bermuda grass, olive trees, pine trees, eucalyptus trees, junipers, and oleander, Italian cypress, citrus trees and other ornamental landscape plants typical of residential development from the 1980's. The vegetation is good to very good condition and includes some large, individual specimens of trees that can be seen from Craycroft Road to the west and from the Tanque Verde Creek and properties to the south of the Tanque Verde. This area is approximately 3.8 acres (or approximately 10%) of the site.

e. Disturbed Area

The remainder of the site is disturbed area and contains either no vegetation or areas of desert broom (*Baccharis sarothroides*). The disturbed areas are located west of the tributary wash, north and east of the tributary wash and west of the existing on-site residence. This area is approximately 16.0 acres (or roughly 40% of the site.)

See Exhibit II.I.1: Vegetative Communities, page 32.

2. Wildlife Habitats

The Arizona Game and Fish Department's Online Environmental Review Tool was accessed and current records show that there are three special status species that have been documented within two miles of the project area: Mexican Long-tongued Bat, Arizona Myotis and Stag-horn Cholla. The Federal Wildlife Status listed the Mexican Long-tongued Bat and the Arizona Myotis as Species of Concern (SC). The United States Fish and Wildlife Service and the Bureau of Land Management listed the Mexican Long-tongued bat as sensitive (S), and the State of Arizona listed the Mexican Long-tongued bat as wildlife of special concern (WSC) in Arizona and salvage restricted (SR). The Stag-horn Cholla is listed by the State of Arizona as salvage restricted (SR).

See Exhibit II.I.2: Arizona Game and Fish Letter, page 33.

Exhibit II.I.2: Arizona Game and Fish Letter

Project Name: BRT-07
Date: 10/28/2010 1:34:47 PM

Project Location



Project Name: BRT-07
Submitted By: Raquel Goodrich
On behalf of: OTHER
Project Search ID: 20101028013539
Date: 10/28/2010 1:34:42 PM
Project Category: Development Within Municipalities (Urban Growth), Commercial/Industrial (mall) and associated infrastructure, New construction
Project Coordinates (UTM Zone 12-NAD 83): 512084.237, 3570545.026 meter
Project Area: 56,534 acres
Project Perimeter: 1999.462 meter
County: PIMA
USGS 7.5 Minute Quadrangle ID: 1726
Quadrangle Name: SABINO CANYON
Project locality is not anticipated to change

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 3 miles of Project Vicinity:

Name	Common Name	FWS	USFS	BLM	State
Bat Colony					
<i>Choeronycteris mexicana</i>	Mexican Long-tongued Bat	SC	S	S	WSC
<i>Myotis aztecus</i>	Arizona Myotis	SC			
<i>Oporita versicolor</i>	Stag-horn Cholla				SR

J. Soils

The information provided in this section is based on best data available from the Soil Survey for Pima County, Arizona, Eastern Part, 1999 and generalized soil maps based on Soil Survey data available through Pima County Department of Transportation. According to these sources, the site contains two soil types.

Exhibit II.J: Soils, page 36, shows soils associations within the project area. The following descriptions from the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey for Pima County provide information about the characteristics of each soil.

Pinaleno-Stagecoach Complex, 5 to 16 Percent Slopes

This map unit is on strongly sloping fan terraces. The unit is 40 percent Pinaleno very cobbly sandy loam and 35 percent Stagecoach very gravelly sandy loam. Pinaleno soils are on crests and shoulders that have gradients of 5 to 10 percent, Stagecoach soils are on shoulders and backslopes that have gradients of 5 to 16 percent. Included in this unit are small areas of Tubac and Mohave soils on broad summits and Palo Verdes and Jaynes soils on relict fan terraces. Also included are small areas of rubble and talus at the footslopes of mountains. In these areas the rock fragments are 3 to 36 inches or more in diameter. Included areas make up about 25 percent of the total acreage.

The Pinaleno soil is very deep and well drained. Typically, the surface is covered by 30 percent cobble and stones and 20 percent gravel. The surface layer is brown very cobbly sandy loam about 2 inches thick. The upper 28 inches of the subsoil is reddish brown and red extremely cobbly sandy clay loam. The lower 30 inches is pink extremely gravelly sandy clay loam. These soils generally are noneffervescent in the upper solum. In some areas, the surface layer is very gravelly sandy loam.

Permeability of the Pinaleno soil is moderately slow and available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is medium, and the hazard of water erosion is slight. The hazard of wind erosion is very slight.

Arizo-Riverwash Complex, 0 to 3 percent slopes

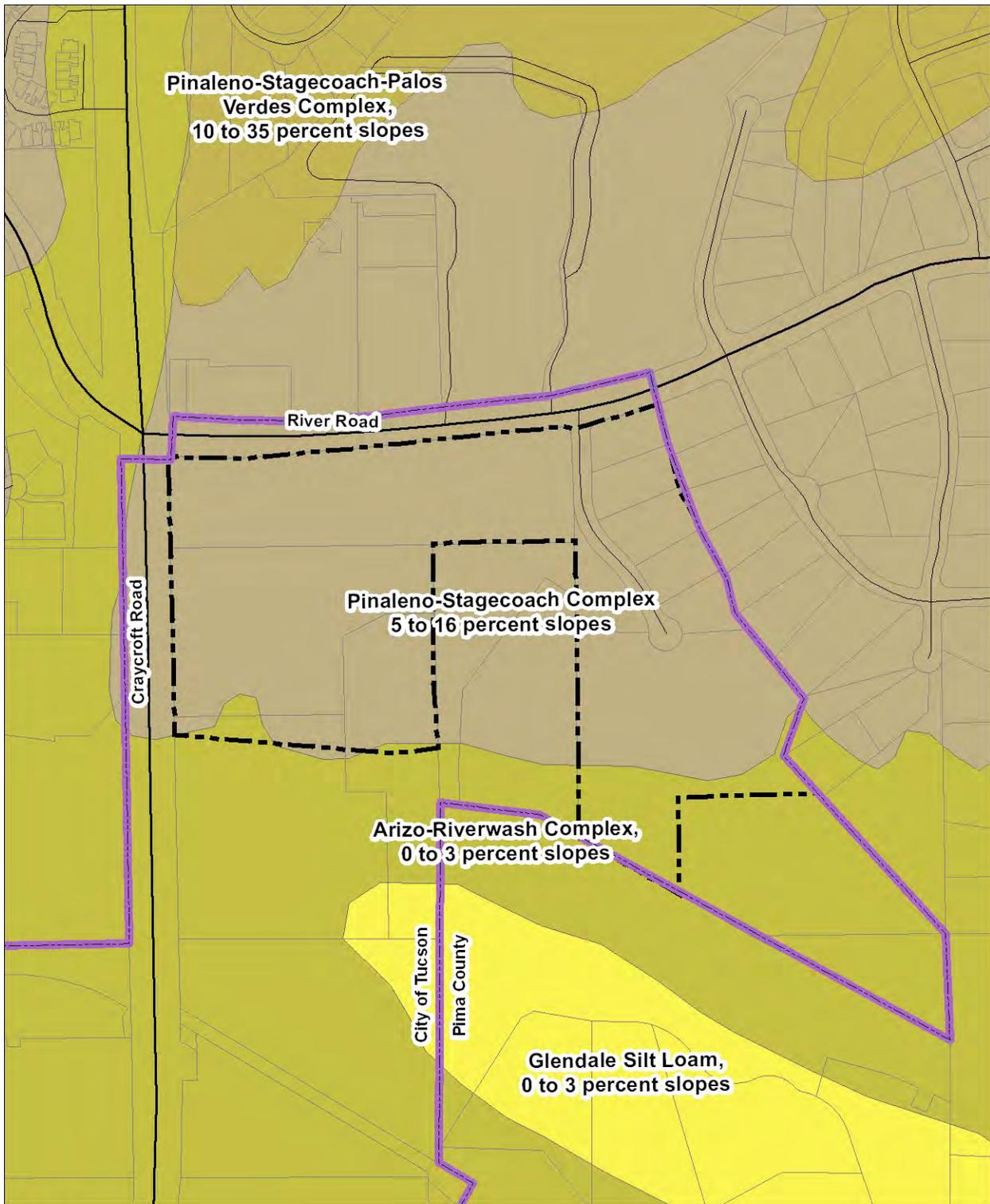
This map unit is 50 percent Arizo gravelly loamy sand and 20 percent Riverwash. Arizo soils and Riverwash occupy bar and channel flood plain physiography. Arizo soils are on higher-lying bars, and Riverwash is in the channel bottoms. Included in this unit are small areas of nearly vertical scarps that have Glendale and Anthony soils on flood plains and stream terraces above Arizo soils. Included areas make up about 30 percent of the total acreage.

The Arizo soil is very deep and excessively drained. Typically, the surface layer is yellowish brown gravelly loamy sand about 18 inches thick. The lower part to a depth of 60 inches or more is light yellowish brown very gravelly loamy sand. These soils are moderately alkaline and calcareous throughout. In some areas, the substratum has less gravel and cobble than is typical. In places, the soil has less lime in the upper part than is typical.

Permeability of the Arizo soil is very rapid. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is very slow except during convective thunderstorms in the summer and frontal storms in the winter when runoff from higher positions causes flash flooding. Hazard of water erosion is very high during flash floods. This soil is subject to frequent but brief periods of flooding in both the summer and winter seasons. The hazard of wind erosion is moderately high.

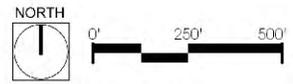
Riverwash consists of unablized and stratified layers of sand, silt, and gravel. It is so frequently flooded, reworked, and sorted that it supports little if any vegetation. No development is anticipated in these areas consisting of Arizo-Riverwash soils.

Exhibit II.J: Soils



LEGEND

- Site Boundary
- Jurisdictional Boundary



FILE NAME: BRT-07_soils.mxd
SOURCE: Pima County DOT GIS, 2011

K. Viewsheds and Visual Analysis

The Rio Verde Village is located in a developed area, surrounded by commercial/office developments, Tanque Verde Creek, single-family residences and multi-family apartment complexes. The following photographs show existing views onto and across the project site. Exhibit II.K: Photo Key Map, page 39, indicates the locations from which the photos were taken.



Photo 1: Looking southeast from River Road at the River Road/Calle Rosario intersection.



Photo 2: View looking southwest across the site from River Road.



Photo 3: Looking southeast across the site from the intersection of River and Craycroft Roads.



Photo 4: View looking northeast across the site from Craycroft Road.



Photo 5: Looking southwest at Tanque Verde Creek from Craycroft Road at the southeastern portion of the project site.



Photo 6: Looking south from River Road toward the onsite wash.



Photo 7: Looking southeast at the site from Calle Rosario.



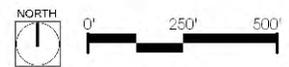
Photo 8: Looking south at the site from Walgreens across River Road.

Exhibit II.K: Photo Key Map



LEGEND

-  Site Boundary
-  Photo ID & location photo was taken
-  Jurisdictional Boundary



FILE NAME: BRT-07_photokeymap.mxd
SOURCE: Pima County DOT GIS, 2011

L. Paleontological and Cultural Sites, Structures and Districts

One cultural resource, an archaeological site with structural features, rock alignments and artifacts is identified within the project boundary. The Arizona State Museum recommends the following in a letter dated October 28, 2010, which was written prior to annexation into the City of Tucson: "Because Pima County has jurisdiction in this project area, the county will make its recommendations using its own search results as well as the Arizona State Museum's search results and/or others. Should the County require additional archaeological work in this project area, you will need to contact a qualified archaeological contractor." As the property has been annexed into the City of Tucson, the City Historic Preservation Officer will make recommendations and review archaeological work for the site. See Exhibit II.L: Arizona State Museum Letter, page 41.

Exhibit II.L: Arizona State Museum Letter



Arizona State Museum
NOV 23 2010

P.O. Box 210026
Tucson, AZ 85721-0026
Tel: (520) 621-6302
Fax: (520) 621-2976

PIMA COUNTY ARCHAEOLOGICAL SITE RECORDS SEARCH RESULTS

E-mail Request Received: 10/28/2010

Search Completed: 11/19/2010

Requester Name and Title: Raquel Goodrich, Project Manager
Company: The Planning Center
Address: 110 S. Church, Suite 6320
City, State, Zip Code: Tucson 85701
Phone/Fax/or E-mail: 623-6146

Project Name and/or Number	Project Description
BRT-07 / Parcels 10922-005C/D/E, -003J, -2810/20/30/40/50/60, & -0008B	Rezoning of 40 ac

Project Area Location: SEC River & Craycroft Roads, Pima County, Arizona.

Legal Description: portions of the S½, NW, & the N½, SW, S25, T13S, R14E, G&SR B&M, Pima Co, AZ.

Search Results: A search of the archaeological site files and records retained at the Arizona State Museum (ASM) indicated that some portions of the project area were inspected for cultural resources in 1979, 1980, 2002, and 2008. Records indicate that another portion of the project area was subjected to a "reconnaissance" survey in 1989; the 1989 survey report indicates that all visually open areas were inspected, but developed and graded areas were not. Thirty-five additional inspections were completed within a mile of the project area between 1979 and 2008. One cultural resource, an archaeological site with structural features, rock alignments, and artifacts, is identified within the currently proposed project area. Thirty-six additional cultural resources, including historic Fort Lowell, are identified as being within a mile of the project area. A color orthophotograph taken of the proposed project area in 2010, enclosed, depicts a ground surface showing both unmodified and modified areas. A residence or residences with outbuildings, paved access roads, landscaping, and pedestrian or recreational trails can be seen in one portion of the project area. Other areas seem to have been graded or bladed. Still others are relatively unmodified. A dry, shallow wash winds across the western portion of the project area.

Sites in Project Area: One, a prehistoric archaeological site. Other cultural resources could exist in the area but are unidentified, because the project area has not been completely surveyed.

Recommendations: Because Pima County has jurisdiction in this project area, the county will make its recommendations using its own search results as well as the ASM's search results and / or others. Should the county require additional archaeological work in this project area, you will need to contact a qualified archaeological contractor whose name is maintained on a list posted on the ASM website at the following address: <http://www.statemuseum.arizona.edu/crservices/permits/index.shtml>.

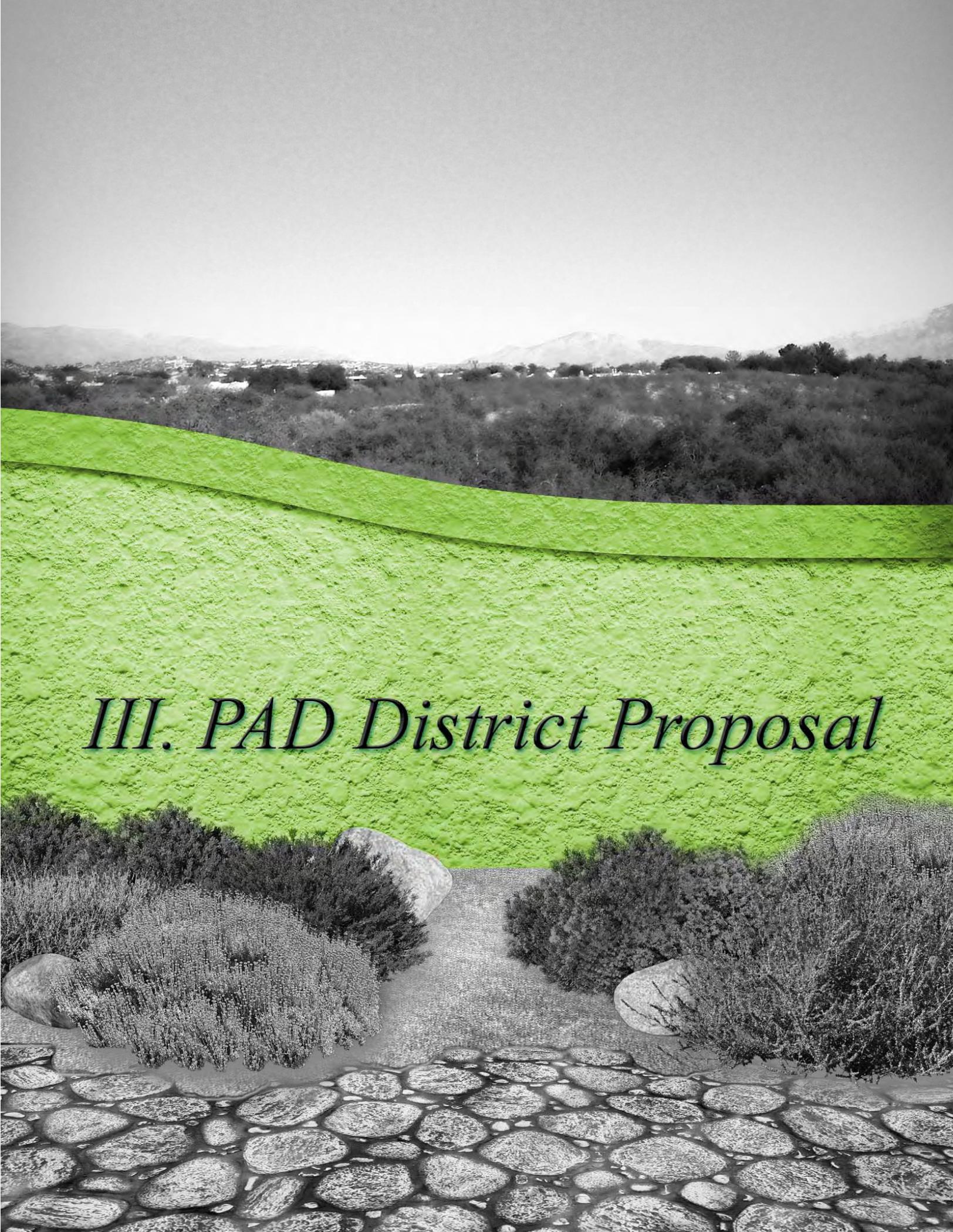
Pursuant to *Arizona Revised Statutes* §41-865 *et seq.*, if any human remains or funerary objects are discovered during your project work, all effort will stop within the area of the remains and Dr. Todd Pitezal, assistant curator of archaeology, will be contacted immediately at (520) 621-4795.

If you have any questions about the results of this records search, please contact me at the letterhead address or the phone number or e-mail address as follows.

Sincerely,

Nancy E. Pearson
Assistant Permits Administrator
(520) 621-2096
nepearso@email.arizona.edu





III. PAD District Proposal

A. Rio Verde Village PAD Districts

Rio Verde Village is a mixed use community providing a village atmosphere in the foothills of the Catalina Mountains. Uses at Rio Verde Village include shopping, dining, lodging, office, retail/commercial uses, housing and recreation.

The Rio Verde Village PAD consists of 40.32 acres of land divided into two districts based on modified C-2 Commercial and R-2 Residence Zones of Chapter 23, *Land Use Code*, of the Tucson Code in existence on the date that this PAD was adopted (*Land Use Code*). All development shall conform to the regulations and standards in the PAD. Where these regulations and standards vary from the LUC, Development Standards, City of Tucson Lighting Code, the PAD regulations and standards shall control. Where the PAD is silent, the LUC provisions for the C-2 and R-2 zone and other relevant City standards shall control.

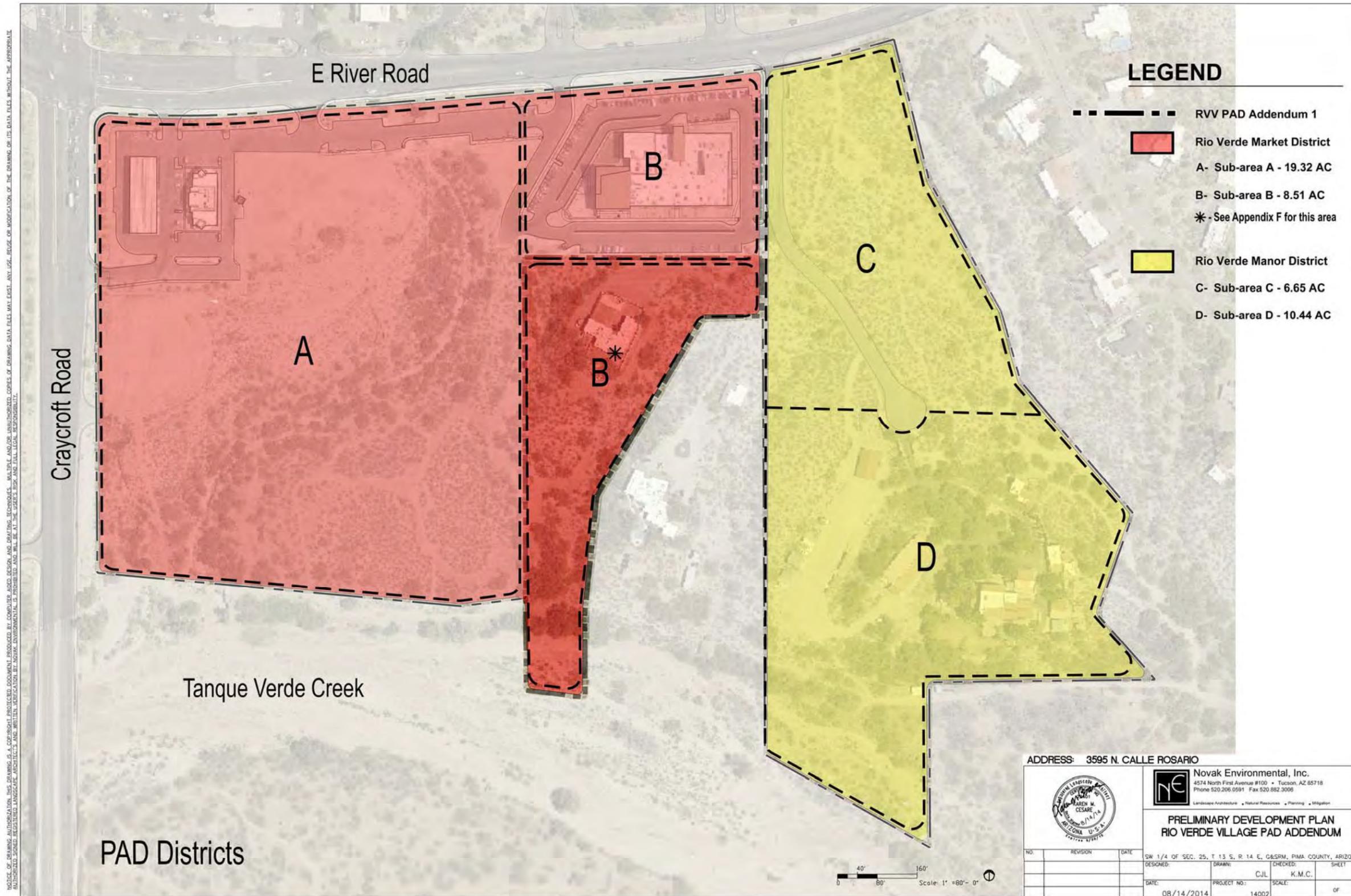
The Rio Verde Market District encompasses approximately twenty-three (23) acres on the western portion of the Rio Verde Village. The Market District is designed to provide a quality shopping and dining experience within the context of office and hospitality development. Uses within this District may include retail, commercial, office and hospitality.

The Rio Verde Manor District covers approximately seventeen (17) acres of the PAD. Uses within this District may include single-family residential, townhomes, and an assisted living community. See Exhibit III.A.1: PAD Districts, page 44 and see Sections III.B and III.C for a complete listing of permitted land uses.

A conceptual site plan (Exhibit III.A.2: Conceptual Site Plan, page 45) is provided to illustrate the proposed configuration of uses within the Rio Verde Village Market District. This plan is provided for conceptual purposes to represent one possible scenario of development under this PAD. Land uses and final layout/configuration is subject to change based upon market conditions and demand.

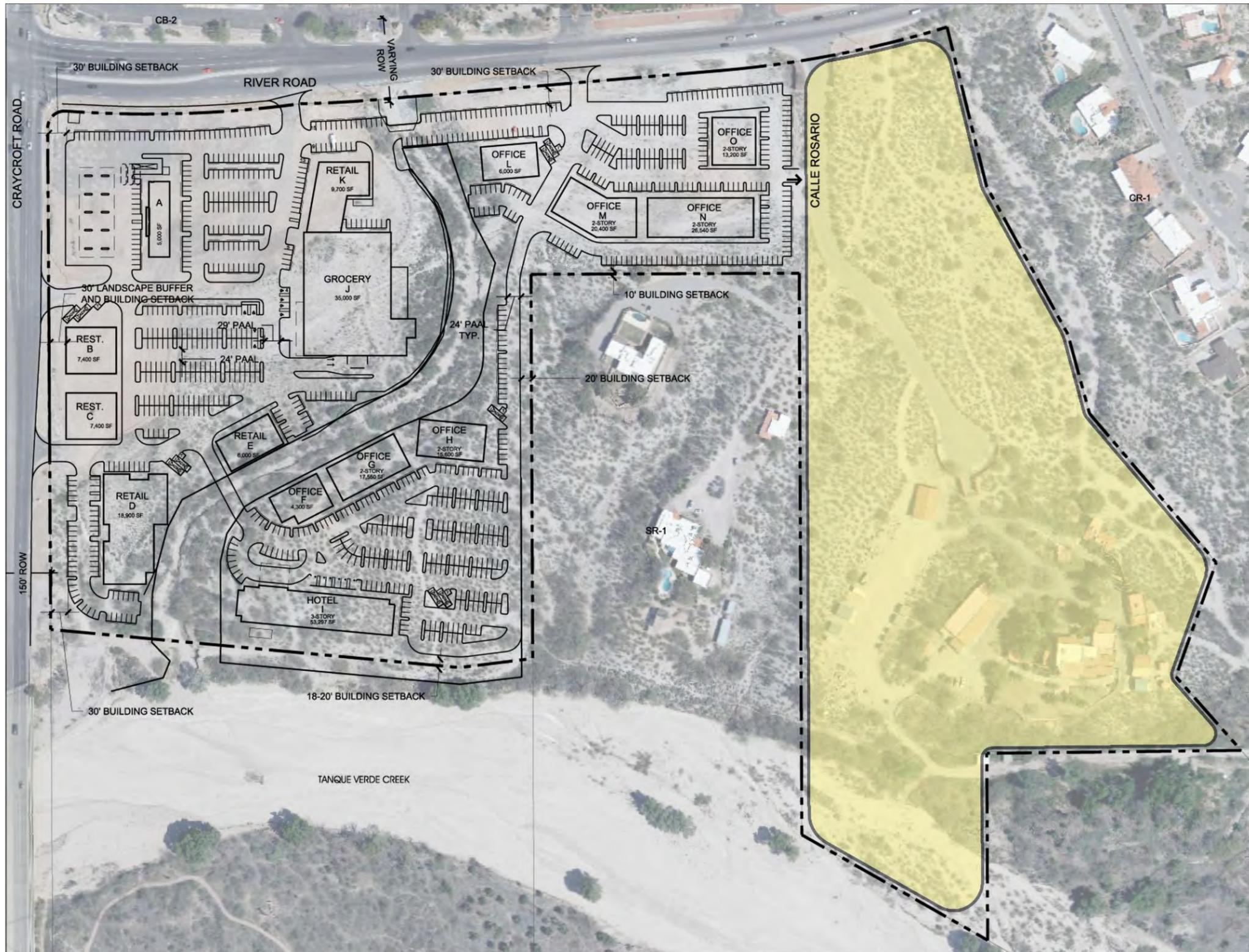
Five additional conceptual site plans (Concept A-E) are found on Exhibits III.A.3 to Exhibit III.A.7, pages 46 to 50) to illustrate the development scenarios possible for the Manor District. Manor District Conceptual Plans (A-E) are for conceptual purposes only and the final lotting/configuration is also subject to change based upon market conditions and demand.

Exhibit III.A.1: PAD Districts



NOTICE OF DRAWING AUTHORIZATION: THIS DRAWING IS A COPYRIGHT PROTECTED DOCUMENT PRODUCED BY COMPUTER AIDED DESIGN AND CREATING TECHNOLOGIES. MULTIPLE AND/OR UNAUTHORIZED COPIES OF DRAWING DATA FILE MAY EXIST. ANY USE, REUSE OR MODIFICATION OF THE DRAWING OR ITS DATA FILES WITHOUT THE APPROPRIATE AUTHORIZATION IS PROHIBITED. LANDSCAPE ARCHITECTS AND WRITERS, VERIFICATION BY NOVAK ENVIRONMENTAL IS PROHIBITED AND WILL BE AT THE USER'S RISK AND FULL LEGAL RESPONSIBILITY.

Exhibit III.A.2: Market District Conceptual Site Plan

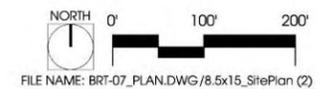


Legend

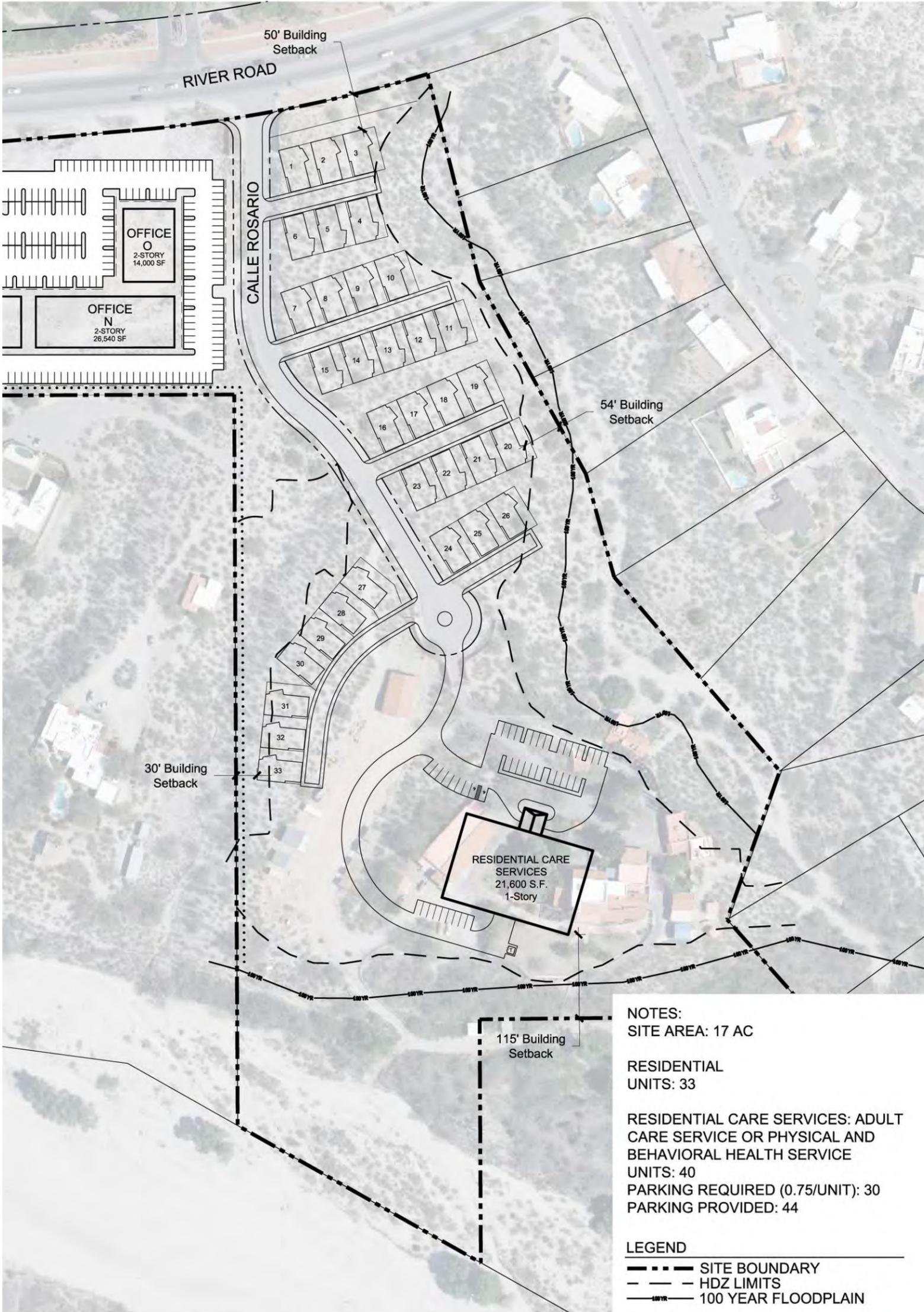
- Site Boundary
- Loading Zone
- Rio Verde Manor District

Notes

- Site Area: 40.32 AC
- Jurisdiction: City of Tucson
- Existing Zoning: SR, C-1 and RX-1
- Proposed Zoning: PAD
- Market District: 23.23 AC



CONCEPTUAL SITE PLAN A (GREEN COURT & RESIDENTIAL CARE)



NOTES:
 SITE AREA: 17 AC

RESIDENTIAL
 UNITS: 33

RESIDENTIAL CARE SERVICES: ADULT CARE SERVICE OR PHYSICAL AND BEHAVIORAL HEALTH SERVICE
 UNITS: 40
 PARKING REQUIRED (0.75/UNIT): 30
 PARKING PROVIDED: 44

LEGEND

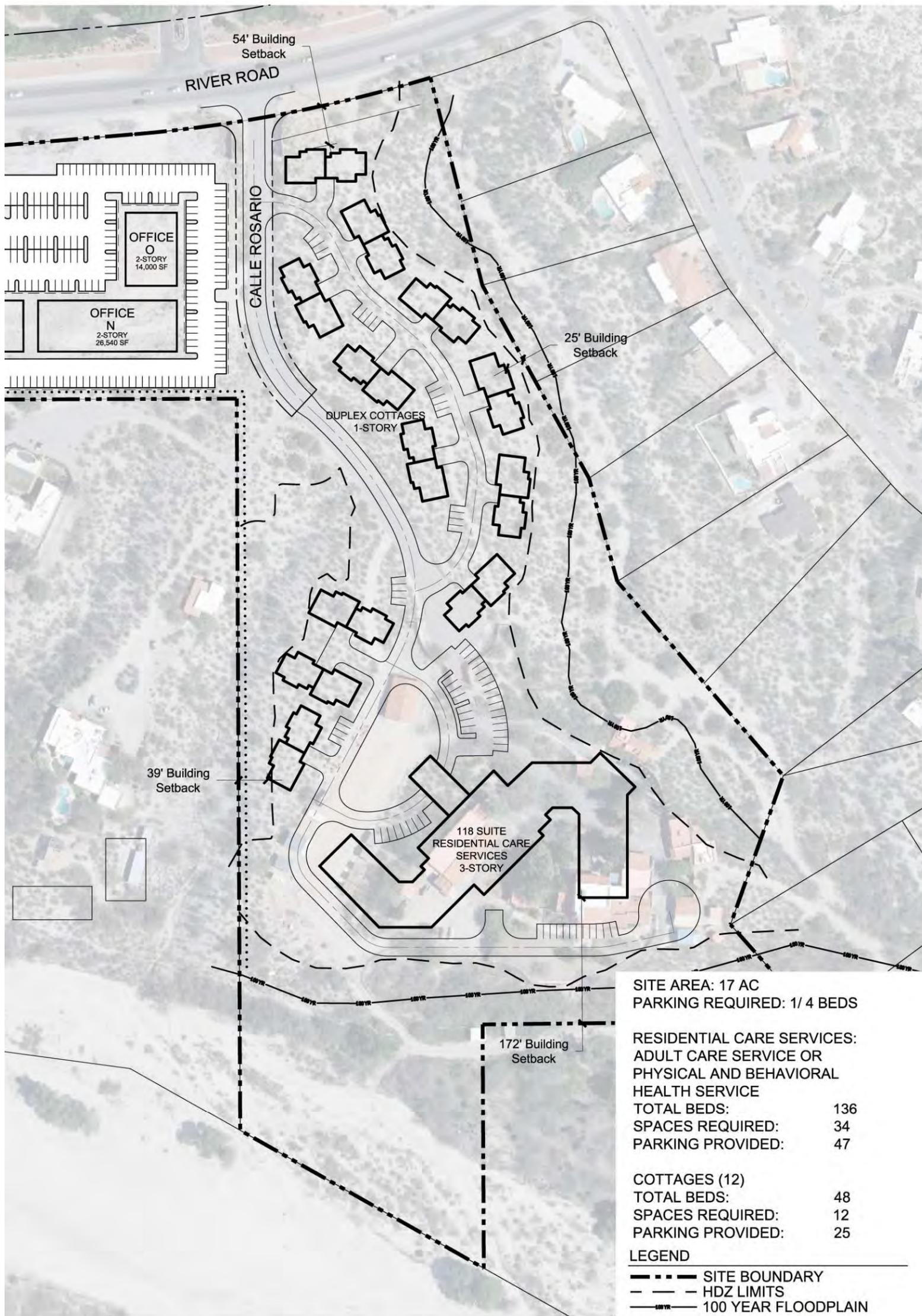
- SITE BOUNDARY
- - - HDZ LIMITS
- 100 YR 100 YEAR FLOODPLAIN

RIO VERDE VILLAGE

SCALE: 1"=120'-0"
 PROJECT: BRT-07 DATE: 2/23/12
 FILE NAME: BRT-07_RESIDENTIAL_1.DWG



CONCEPTUAL SITE PLAN B (RESIDENTIAL CARE SERVICES)



SITE AREA: 17 AC
PARKING REQUIRED: 1/ 4 BEDS

RESIDENTIAL CARE SERVICES:
 ADULT CARE SERVICE OR
 PHYSICAL AND BEHAVIORAL
 HEALTH SERVICE

TOTAL BEDS:	136
SPACES REQUIRED:	34
PARKING PROVIDED:	47

COTTAGES (12)

TOTAL BEDS:	48
SPACES REQUIRED:	12
PARKING PROVIDED:	25

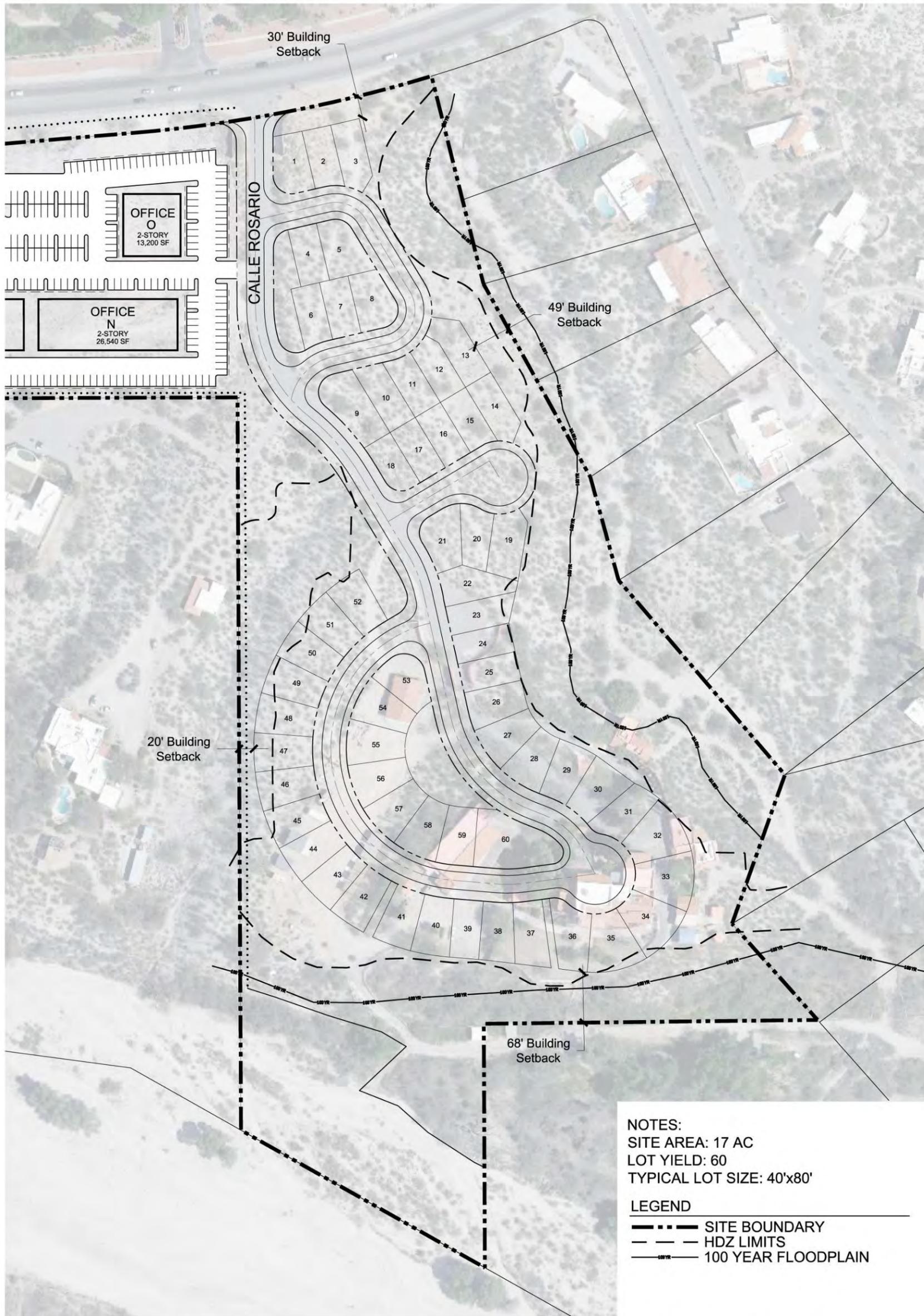
LEGEND

- SITE BOUNDARY
- - - HDZ LIMITS
- 100 YR 100 YEAR FLOODPLAIN

RIO VERDE VILLAGE

0' 60' 120' NCEM
 SCALE: 1"=120'-0"
 PROJECT: BRT-07 DATE: 2/23/12
 FILE NAME: BRT-07_RESIDENTIAL_2.DWG

CONCEPTUAL SITE PLAN C (RESIDENTIAL)



NOTES:
SITE AREA: 17 AC
LOT YIELD: 60
TYPICAL LOT SIZE: 40'x80'

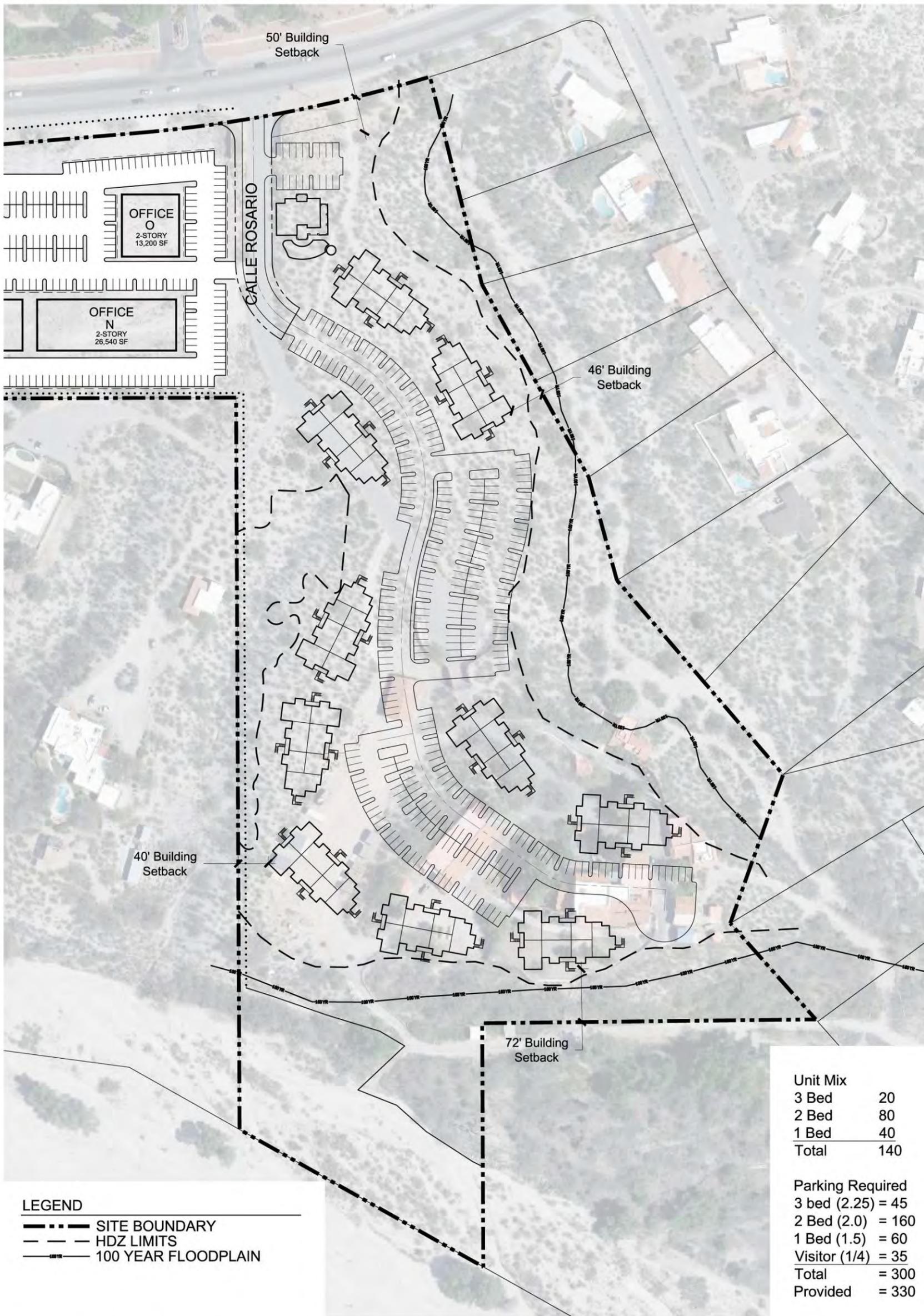
LEGEND
- - - - - SITE BOUNDARY
- - - - - HDZ LIMITS
- - - - - 100 YEAR FLOODPLAIN

RIO VERDE VILLAGE

SCALE: 1"=120'-0"
PROJECT: BRT-07 DATE: 10/11/11
FILE NAME: BRT-07_RESIDENTIAL_3.DWG

Exhibit III.A.6: Manor District Conceptual Site Plan D

CONCEPTUAL SITE PLAN D (MULTI-FAMILY)



LEGEND
 - - - - - SITE BOUNDARY
 - - - - - HDZ LIMITS
 - - - - - 100 YEAR FLOODPLAIN

Unit Mix	
3 Bed	20
2 Bed	80
1 Bed	40
Total	140

Parking Required	
3 bed (2.25)	= 45
2 Bed (2.0)	= 160
1 Bed (1.5)	= 60
Visitor (1/4)	= 35
Total	= 300
Provided	= 330

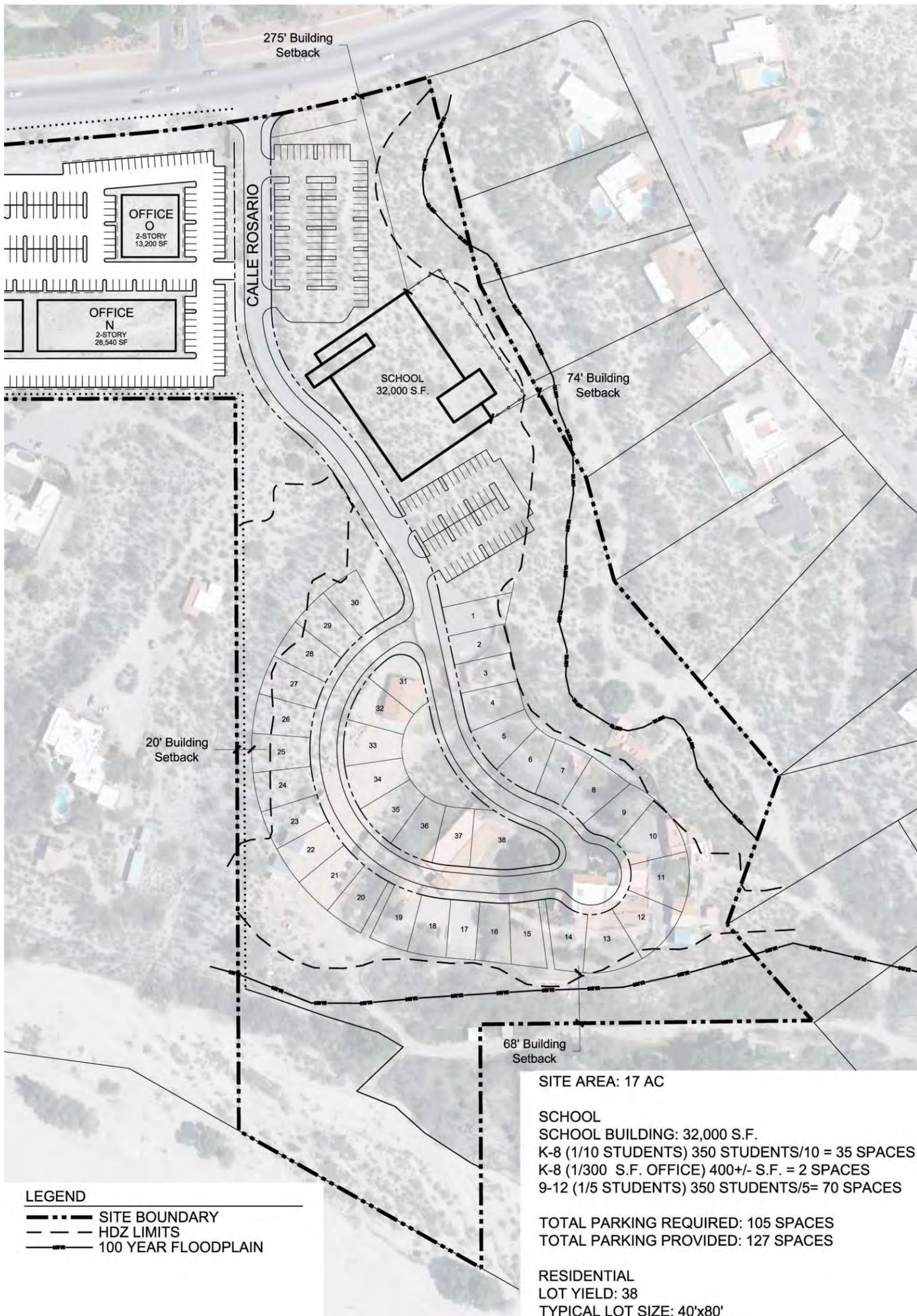
RIO VERDE VILLAGE

0' 60' 120' NORTH
 SCALE: 1"=120'-0"
 PROJECT: BRT-07 DATE: 10/11/11
 FILE NAME: BRT-07_RESIDENTIAL_4.DWG



Exhibit III.A.7: Manor District Conceptual Site Plan E

CONCEPTUAL SITE PLAN E (SCHOOL AND RESIDENTIAL)



RIO VERDE VILLAGE

B. Rio Verde Market

1. Purpose

The Rio Verde Market District (Subareas A & B) seeks to provide goods and services not currently available in the area and to enhance the local economy through job creation and increasing the local tax base. The Rio Verde Market District features shopping, dining, lodging, recreation, office and residential opportunities.

2. Permitted Land Uses

The following uses shall be permitted without a special exception review. These standards will supersede the standards in the *Land Use Code* in existence on the date that this PAD was adopted (including but not limited to Article 3. Development Regulations, Division 2. Development Criteria and Division 5. Performance Criteria) in accordance with Section 2.6.3 of the Land Use Code, except where specific references to such standards are provided in this section of the document. All uses not expressly listed as primary or secondary uses are prohibited unless considered an accessory use. Activity may occur outdoors for all uses allowed below.

a. Commercial Services Use Group

1. Administrative and Professional Office
2. Alcoholic Beverage Service
3. Animal Service, subject to: Sec. 3.5.4.1.C and .D
4. Automotive – Service and Repair
5. Building and Grounds Maintenance
6. Communications, subject to: Sec. 3.5.4.20.A or Sec. 3.5.4.20.B, .C, and .D.1 or .D.2 (Ord. No. 8813, §1, 3/3/97)
7. Construction Service
8. Day Care
9. Entertainment
10. Financial Service
11. Food Service, subject to: Sec. 3.5.4.6.C
12. Medical Service – Extended Health Care
13. Medical Service – Major
14. Medical Service - Outpatient
15. Parking
16. Personal Service
17. Research and Product Development
18. Technical Service
19. Trade Service and Repair, Minor
20. Traveler’s Accommodation, Lodging
21. Artisan Residence, subject to: Sec. 3.5.4.28.A, .B, .C, and .E

b. Retail Trade Use Group

1. Food and Beverage Sales

2. General Merchandise Sales
3. Seasonal Sales and Farmers Markets

c. Civic Use Group

1. Civic Assembly
2. Cultural Use
3. Educational Use: Elementary and Secondary Schools, subject to: Sec. 3.5.3.7.A, and .G
4. Educational Use: Postsecondary Institution
5. Educational Use: Instructional School
6. Membership Organization
7. Postal Service
8. Protective Service
9. Religious Use

d. Recreation Use Group

1. Neighborhood Recreation
2. Recreation
3. Open Space

e. Residential Use Group

1. Family Dwelling
2. Group Dwelling
3. Residential Care Services: Adult Care Service or Physical and Behavioral Health Service, subject to: Sec. 3.5.7.8.B.2, .C.4, and .D
4. Residential Care Services: Rehabilitation Service – children’s facilities, subject to: Sec. 3.5.7.8.A, .B.2, .C.4, and .D
5. Residential Care Services: Shelter Care – victims of domestic violence, subject to: Sec. 3.5.7.8.B.2, .C.4, and .D
6. Residential Care Services: Rehabilitation Service or Shelter Care, subject to: Sec. 3.5.7.8.B.2, .C.4, and .D

f. Storage Use Group

1. Commercial Storage, subject to: Sec. 3.5.10.1.A.1, and .A.2
2. Personal Storage, subject to: Sec. 3.5.10.3.C, and .F

g. Utilities Use Group

1. Distribution System, subject to: Sec. 3.5.11.1.I

3. Secondary Land Uses

Secondary Land Uses are those permitted under the C-2 Commercial Zone in *Land Use Code* Section 2.5.4.4 and subject to the provisions in *Land Use Code* Section 3.2.4.1.

4. Accessory Land Uses and Structures

Land uses and structures accessory to the Permitted Land Uses are permitted, subject to the provisions in *Land Use Code* Section 3.2.5.1.

In addition, the following uses can be allowed as accessory uses in conjunction with Residential Care Services:

a. Commercial Services Use Group

1. Alcoholic Beverage Service, subject to: Sec. 3.5.4.19.C
2. Entertainment
3. Financial Service, subject to: Sec. 3.5.4.5.C
4. Food Service, subject to: Sec. 3.5.4.6.C
5. Personal Service

b. Retail Trade Use Group

1. Food and Beverage Sales
2. General Merchandise Sales

5. Rio Verde Market Development Standards

a. Development Criteria

The Rio Verde Market District shall recognize the development criteria provided in Tables III.B.5.a, III.B.5.b and III.B.5.c below.

These standards will supersede the standards in the *Land Use Code* in existence on the date that this PAD was adopted and *Development Standards* in accordance with Section 2.6.3 Planned Area Development Zone of the *Land Use Code*, except where specific references to such standards are provided in this section of the document.

Table III.B.5.a: Rio Verde Market District Development Criteria for Nonresidential Land Uses

Minimum Lot Area	None
Minimum Lot Width	None
Maximum Lot Coverage	None
Maximum Floor Area Ratio	2.0
Separation Between Buildings	Governed by Building Code
Maximum Building Height³	75 feet in sub-area A ² except within 100' of Craycroft Road ROW height is limited to 30 feet 54 feet in sub-area B ²
Minimum Building Setback from any Public Street and/or MS&R	20 feet ¹
Minimum Building Setback from any Scenic Route	30 feet
Minimum Building Setback from Tanque Verde Creek	10 feet
Minimum Perimeter Wall Requirements	None
Landscape Buffers and Screening	See PAD Section III.J

¹The building setback shall be measured from the property line.

²See Exhibit III.A.1: PAD Districts for a description of the sub-areas.

³Buildings straddling sub-area A and B shall conform to the more restrictive building height limit of sub-area B.

Table III.B.5.b: Rio Verde Market District Development Criteria for Residential Land Uses (Excluding Residential Care Services)

Minimum Lot Area	None
Minimum Lot Width	None
Maximum Lot Coverage¹	80%
Maximum Building Height⁵	75 feet in sub-area A ² except within 100' of Craycroft Road ROW height is limited to 30 feet; 54 feet in sub-area B ²
Minimum Perimeter Yard Setbacks^{3,4}	Front 5 feet
	Side 0 feet
	Side – Street 3 feet
	Rear/Alley 3 feet
Maximum Development Density	36 RAC in sub-area A 24 RAC in sub-area B

¹Lot coverage shall be calculated on an individual per lot basis.

²See Exhibit III.A.1: PAD Districts for a description of the sub-areas.

³ Allowable setbacks shall be measured from the exterior face of vertical structural walls to the property line. Overhangs, bay windows, chimneys, exterior posts/columns, solar panels, mechanical equipment, light fixtures, pop-outs, other similar architectural features and second story livable space can extend a maximum of 2' into the allowable front and rear setbacks provided the setback is not reduced to less than three feet.

⁴Private drives and alleys that provide exclusive vehicular access to garages are not considered streets for the purposes of calculating minimum perimeter yard setbacks.

⁵Buildings straddling sub-area A and B shall conform to the more restrictive building height limit of sub-area B.

b. Roofing Material

To promote and practice sustainable building practices, roofing material shall be certified as a cool roof by the Cool Roof Rating Council or Energy Star rated per the Environmental Protection Agency; solar panels are an acceptable alternative.

Table III.B.5.c: Rio Verde Market District Development Criteria for Residential Care Services

Minimum Lot Area	None								
Maximum Floor Area Ratio¹	2.0								
Maximum Building Height⁴	75 feet in sub-area A ² except within 100' of Craycroft Road ROW height is limited to 30 feet; 54 feet in sub-area B ²								
Minimum Perimeter Yard Setbacks³	<table border="0"> <tr> <td>Front</td> <td>20 feet</td> </tr> <tr> <td>Side</td> <td>10 feet</td> </tr> <tr> <td>Side – Street</td> <td>5 feet</td> </tr> <tr> <td>Rear/Alley</td> <td>5 feet</td> </tr> </table>	Front	20 feet	Side	10 feet	Side – Street	5 feet	Rear/Alley	5 feet
Front	20 feet								
Side	10 feet								
Side – Street	5 feet								
Rear/Alley	5 feet								
Maximum Development Density	36 RAC in sub-area A 24 RAC in sub-area B								

¹Floor Area does not include any interior motor vehicle parking or off-street loading that is accessory to the principal use.

²See Exhibit III.A.1: PAD Districts for a description of the sub-areas.

³Allowable setbacks shall be measured from the exterior face of vertical structural walls to the property line. Overhangs, bay windows, chimneys, exterior posts/columns, solar panels, mechanical equipment, light fixtures, pop-outs, other similar architectural features and second story livable space can extend a maximum of 2' into the allowable front and rear setbacks provided the setback is not reduced to less than three feet.

⁴Buildings straddling sub-area A and B shall conform to the more restrictive building height limit of sub-area B.

C. Rio Verde Manor

1. Purpose

The Rio Verde Manor District (Sub-Areas C & D) will provide additional residential choices in the area. Civic-type services are also permitted so as to locate services in close proximity to residences. Uses within the Rio Verde Manor District may include single- and multi-family residential, townhomes, an assisted living community, bed and breakfasts', educational facilities and membership organizations.

2. Permitted Land Uses

The following uses shall be permitted without a special exception review. These standards will supersede the standards in the *Land Use Code* in existence on the date that this PAD was adopted (including but not limited to Article 3. Development Regulations, Division 2. Development Criteria and Division 5. Performance Criteria) in accordance with Section 2.6.3 of the Land Use Code, except where specific references to such standards are provided in this section of the document. All existing development at completion of the build-out will have to meet PAD standards. All uses not expressly listed as primary or secondary uses are prohibited unless considered an accessory use. Activity may occur outdoors for all uses allowed below.

a. Residential Use Group

1. Family Dwelling
2. Residential Care Services: Adult Care Service or Physical and Behavioral Health Service, subject to: Sec. 3.5.7.8.B.2, .C.4, and .D
3. Residential Care Services: Rehabilitation Service – children's facilities, subject to: Sec. 3.5.7.8.A, .B.2, .C.4, and .D
4. Residential Care Services: Shelter Care – victims of domestic violence, subject to: Sec. 3.5.7.8.B.2, .C.4, and .D

b. Agricultural Use Group

1. Crop Production, subject to: Sec. 3.5.2.2 (interim use only to accommodate existing residence onsite; no new agricultural uses)

c. Civic Use Group

1. Cultural Use
2. Educational Use: Elementary and Secondary Schools, subject to: Sec. 3.5.3.7.A, .D, and .G
3. Membership Organization
4. Postal Service
5. Protective Service, subject to: 3.5.13.6
6. Religious Use

d. Commercial Services Use Group

1. Travelers' Accommodation, Lodging

e. Recreation Use Group

1. Neighborhood Recreation
2. Recreation
3. Open Space

3. Secondary Uses

Secondary Land Uses are those permitted under the R-2 Residential Zone in *Land Use Code* Section 2.3.5.4 and subject to the provisions in *Land Use Code* Section 3.2.4.1 and 3.2.4.2.

4. Accessory Land Uses

Land uses accessory to the Permitted Land Uses are permitted, subject to the provisions in *Land Use Code* Section 3.2.5.1. In addition, the following uses can be allowed as accessory uses in conjunction with Residential Care Services:

a. Commercial Services Use Group

1. Alcoholic Beverage Service, subject to: Sec. 3.5.4.19.C
2. Entertainment
3. Financial Service, subject to: Sec. 3.5.4.5.C
4. Food Service, subject to: Sec. 3.5.4.6.C
5. Personal Service

b. Retail Trade Use Group

1. Food and Beverage Sales
2. General Merchandise Sales

5. Rio Verde Manor Development Standards

a. Development Criteria

The Rio Verde Manor District shall recognize the development criteria provided in Tables III.C.6.a, and III.C.6.b below.

The following standards will supersede the standards in the *Land Use Code* in existence on the date that this PAD was adopted and *Development Standards* in accordance with Section 2.6.3 of the *Land Use Code*, except where specific references to such standards are provided in this section of the document.

**Table III.C.5.a: Rio Verde Manor District Development Criteria
(Excluding Residential Care Services)**

Minimum Lot Area	None	
Minimum Lot Width	None	
Maximum Lot Coverage¹	80%	
Maximum Building Height	30 feet	
Minimum Perimeter Yard Setbacks^{3,4}	Front	5 feet
	Side	0 feet
	Side – Street	3 feet
	Rear/Alley	3 feet
Maximum Development Density	3.5 RAC	

¹Lot coverage shall be calculated on an individual per lot basis.

²See Exhibit III.A.1: PAD Districts for a description of the sub-areas.

³Allowable setbacks shall be measured from the exterior face of vertical structural walls to the property line. Overhangs, bay windows, chimneys, exterior posts/columns, solar panels, mechanical equipment, light fixtures, pop-outs, other similar architectural features and second story livable space can extend a maximum of 2' into the allowable front and rear setbacks provided the setback is not reduced to less than three feet.

⁴ Private drives and alleys that provide exclusive vehicular access to garages are not considered streets for the purposes of calculating minimum perimeter yard setbacks.

Table III.C.5.b: Rio Verde Manor District Development Criteria for Residential Care Services

Minimum Lot Area	None	
Maximum Floor Area Ratio¹	1.5	
Maximum Building Height	30 feet in sub-area C (see Exhibit III.A.1: PAD Districts);	
	54 feet in sub-area D (see Exhibit III.A.1: PAD Districts)	
Minimum Perimeter Yard Setbacks²	Front	20 feet
	Side	10 feet
	Side – Street	5 feet
	Rear/Alley	5 feet
Maximum Development Density	150 beds	

¹Floor Area does not include any interior motor vehicle parking or off-street loading that is accessory to the principal use.

²Allowable setbacks shall be measured from the exterior face of vertical structural walls to the property line. Overhangs, bay windows, chimneys, exterior posts/columns, solar panels, mechanical equipment, light fixtures, pop-outs, other similar architectural features and second story livable space can extend a maximum of 2' into the allowable front and rear setbacks provided the setback is not reduced to less than three feet.

b. Roofing Material

To promote and practice sustainable building practices, roofing material shall be certified as a cool roof by the Cool Roof Rating Council or Energy Star rated per the Environmental Protection Agency; solar panels are an acceptable alternative.

D. Scenic Corridor Zone

The following provisions of the Scenic Corridor Zone (SCZ) apply to any portion of all real properties or parcels which are within four hundred (400) feet of the future right-of-way line of any Scenic Route designated on the Major Streets and Routes (MS&R) Plan. These provisions and the provisions outlined in Section III.J.1 of this document supercede the provisions identified in Article II. Zones Division 8. Overlay Zone 2.8.2 Scenic Corridor Zone of the *Land Use Code* and Section 23A of the *Development Compliance Code*. No additional SCZ review process as referenced in LUC Section 2.8.2.11 Site Design Review will be required for development within this PAD. Public process requirements have been satisfied through the PAD approval process; no further public process is required.

1. Preservation and Reestablishment of Vegetation.

- a. A buffer area thirty (30) feet wide, adjacent to the MS&R right-of-way line, is established for the purposes of this Scenic Corridor Zone.
- b. Improvements to the site for the purposes of site development are allowed within the buffer area and the SCZ. Improvements may include trails, bike paths, decorative walls or fences. Walls or fences will be located within the back 10'-0" of the buffer. Walls or fences may jog or meander within this area.
- c. Landscaping within the buffer area along River Road and Craycroft Road shall be permitted to include native and low water using non-native plants from the City of Tucson's Drought Tolerant Plant List. The existing conditions of these areas are devoid of vegetation and therefore, preserving the existing conditions does not provide the aesthetic benefit envisioned by the SCZ. The ability to landscape with a wider plant pallet than only those plants found on or near the site, as provided for in the SCZ, allows the site to have the ability to develop a unique identity. At least 50 percent of the plants within the 30 foot SCZ will be native. The SCZ area may also be a receiving area for transplanted vegetation from the site.
- d. Vegetation within drainageways may be removed, replaced or supplemented. (Disturbance may require Army Corps of Engineers Section 404 permitting.)
- e. Pedestrian or bicycle paths, including trails or sidewalks, shall be allowed in the SCZ area at the discretion of the applicant. The paths may meander between the right-of-way on either River or Craycroft Roads and the buffer area. The paths may consist of concrete, pervious concrete, permeable pavers, compacted DG, porous asphalt, reclaimed asphalt pavement, asphalt, or other material. No more than 30 percent of the area shall be used for such features.
- f. All landscaping shall comply with Section III.J of this document.

2. Structure Height

Height of buildings within 100' of the Craycroft Road right-of-way is limited to 30 feet. Refer to Sections III.B.5 and III.C.5 of this document for additional building height criteria.

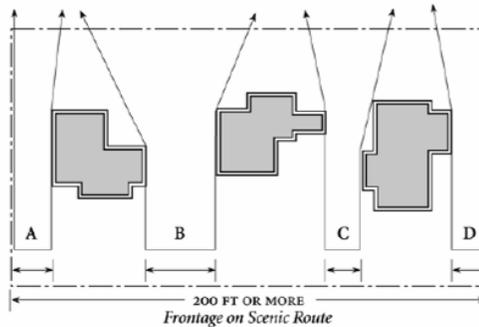
3. Siting

- a. The Rio Verde Village will be graded for the purposes of constructing the site.
- b. Modifications to drainageways are allowed to occur.
- c. The Rio Verde Village will be designed to incorporate view corridors along street frontage of Scenic Routes, with a combined width of at least twenty (20) percent of that frontage, which allows vision from at least one (1) point into and through that portion of the project that lies within the Scenic Corridor Zone, from the Scenic Route. (See Illustration III.D.3)

Illustration III.D.3: View Corridors in Scenic Corridor

View corridors must have a combined width of at least 20 percent of the width of the frontage.

$$\frac{A+B+C+D}{\text{WIDTH OF FRONTAGE}} = 20 \text{ PERCENT OR MORE}$$



4. Screening

Screening shall comply with Section III.J of this document.

5. Utilities

All new utilities for development on the site and on public right-of-way along Scenic Routes will be underground.

6. Additional Design Considerations

- a. Building or structure surfaces, which are visible from the Scenic Route, will have colors which are predominant within the surrounding landscape, such as desert and earth tones.
- b. Fencing and freestanding walls facing the Scenic Route will meet the material restrictions in Section III.J of this document.
- c. Additional fill dirt shall be permitted on-site.

E. Circulation Plan

The following provisions apply across the Rio Verde Village PAD except where specified.

1. Traffic Circulation

A Traffic Study prepared by Kimley Horn & Associates, Inc. (Appendix E) contains recommendations for improvements for the development of Rio Verde Village. Following are the major conclusions of this study:

- a. During the development plan stage, more detailed traffic impact studies will be needed to further refine the land uses and determine whether the intensities are compatible with these assumptions.
- b. Based on current traffic volumes, Craycroft Road has available capacity although it is currently approaching the current capacity of the 4-lane configuration south of River Road. Traffic volumes along River Road are above or near the current capacity of the 2-lane configuration.
- c. Trip generation for the planned uses results in 8,754 daily trips, with 408 trips occurring in the AM peak hour and 679 trips occurring in the PM peak hour.
- d. Based on future (2015) evaluation of the daily traffic volumes, all roadway segments are anticipated to operate above capacity levels, with the exception of Craycroft north of River Road.
- e. The existing River Road / Craycroft Road intersection was evaluated on the basis of future peak hour traffic projections. The intersection will operate at LOS C in the AM peak hour and LOS D in the PM peak hour. No intersection improvements are warranted.
- f. Preliminary analysis indicates that the existing center left turn lane along River Road east of Craycroft should be maintained to provide left-turn access to land uses on both the north and south sides of River Road. However, opportunities to limit outbound left-turns from parcels should be evaluated. In addition, it is recommended that the second eastbound through lane at the signalized intersection be extended along the frontage of the Market District to allow for safer merging opportunities as well as right-turn access into the Market District.
- g. It is recommended that the striped median that currently exists on Craycroft Road south of River Road be re-striped to provide a center left-turn lane. This will allow left-turn access into the site for southbound traffic. Right-turn lane improvements should also be evaluated during the development plan stage.
- h. Along Craycroft Road the northern access driveway into the development shall be restricted to right-in, right-out only. The median along Craycroft should be extended to assist in mitigating the left turning restriction. The timing of this improvement shall be determined by the traffic impact analysis for the first commercial project within the Market District approved under this PAD.

- i. It is recommended that more detailed traffic reports, Traffic Impact Studies, based on the *Transportation Access Management Guidelines for the City of Tucson* be prepared as development plans are submitted.
- j. Because Pima County currently controls the intersection of River Road and Craycroft Road, the developer/owner is responsible for coordinating and addressing with Pima County to ensure intersection improvements to River and Craycroft Roads, as warranted in the revised Traffic Study.
- k. As development plans are submitted, starting with the next development package submittal, traffic improvements as outlined in the Rio Verde Village PAD Sections III.E.1.a.-i. and including any further traffic improvements as warranted by more detailed traffic reports/studies, shall be addressed.

2. Proposed Vehicular Access

Access points to the Rio Verde Village will be provided along the northern and western boundaries of the site. Along River Road, two (2) access points will be provided into the Market District and one (1) access point will be provided into the Manor District. Along Craycroft Road, two (2) access points will be provided into the Market District. Vehicular access to the two residential out-parcels located between the Rio Verde Market and Rio Verde Manor Districts will continue to be via easement.

3. On-Site Vehicular Circulation

Circulation within the Rio Verde Village is designed to provide connectivity to all uses within the PAD while maintaining the flow of traffic, providing adequate locations for loading areas, and maximizing parking spaces in close proximity to buildings. See Exhibit III.E.3: On-Site Vehicular Circulation Plan, page 65. Cross access between the Manor and Market District is encouraged where such connectivity is appropriate, depending on the ultimate uses of the site.

4. On-site Pedestrian and Non-Motorized Circulation

Pedestrian circulation will be provided on-site to connect the various uses within the site to each other as well as providing a pedestrian connection to the existing river park west of the site. At a minimum, pedestrian trails will be provided as illustrated in Exhibit III.E.4.a: Non-vehicular Circulation, and per the associated cross sections "A" and "B" (Exhibits III.E.4.b and .c).

On-site pedestrian paths may be constructed of concrete, stabilized decomposed granite, pervious concrete, permeable pavers, concrete pavers, reclaimed asphalt pavement, asphalt or other materials which meet the intent of this section.

The provision of on-site path and pedestrian routes will provide an amenity to the development and will be used by people in the residential, office and commercial areas. Pedestrian routes will be established between the Manor and Market districts. The pedestrian routes are planned to provide access to the entrances to the buildings and minimize conflicts with vehicles.

See Exhibit III.E.4.a: Non-vehicular Circulation, page 66.

See Exhibit III.E.4.b: Cross Section “A” 10’ Pedestrian Trail Adjacent to Rio Verde Market, page 67.

See Exhibit III.E.4.c: Cross Section “B” 10’ Pedestrian Trail Adjacent to Rio Verde Manor, page 68.

Exhibit III.E.3: On-Site Vehicular Circulation Plan



Legend

- Site Boundary
- Proposed Circulation

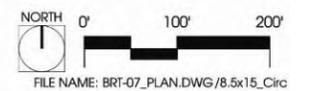


Exhibit III.E.4.a: Non-vehicular Circulation

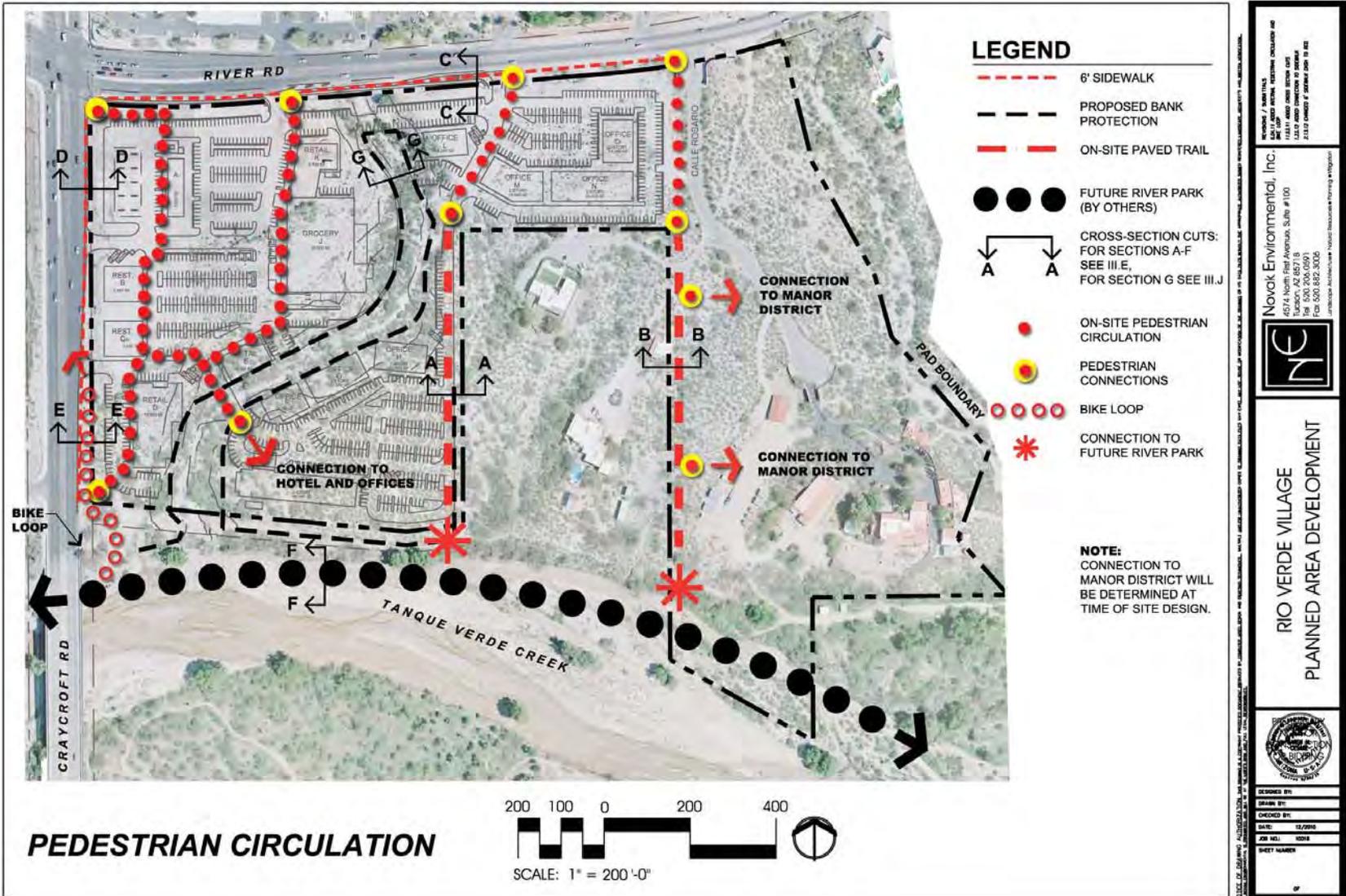


Exhibit III.E.4.b: Cross Section "A" 10' Pedestrian Trail Adjacent to Rio Verde Market

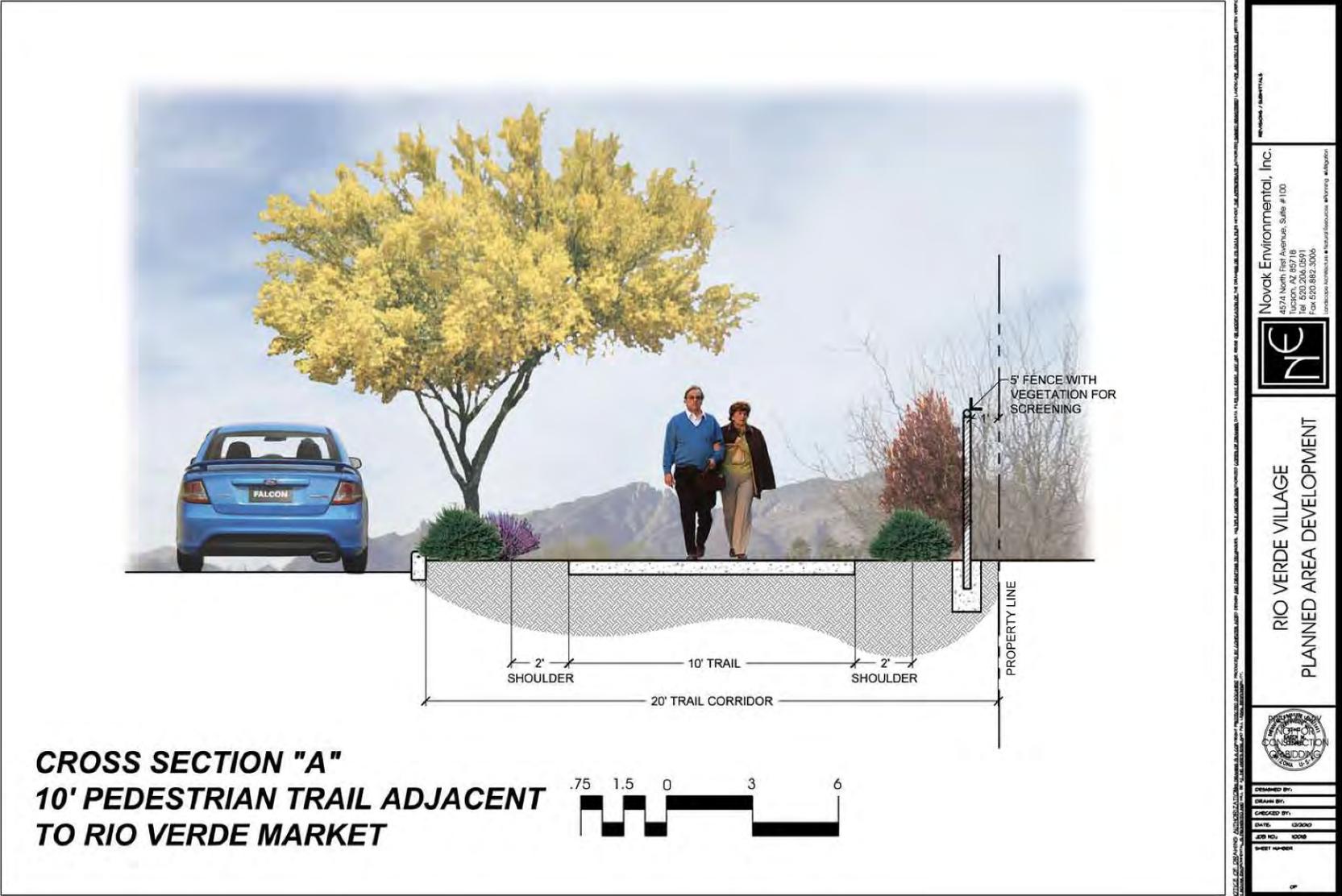
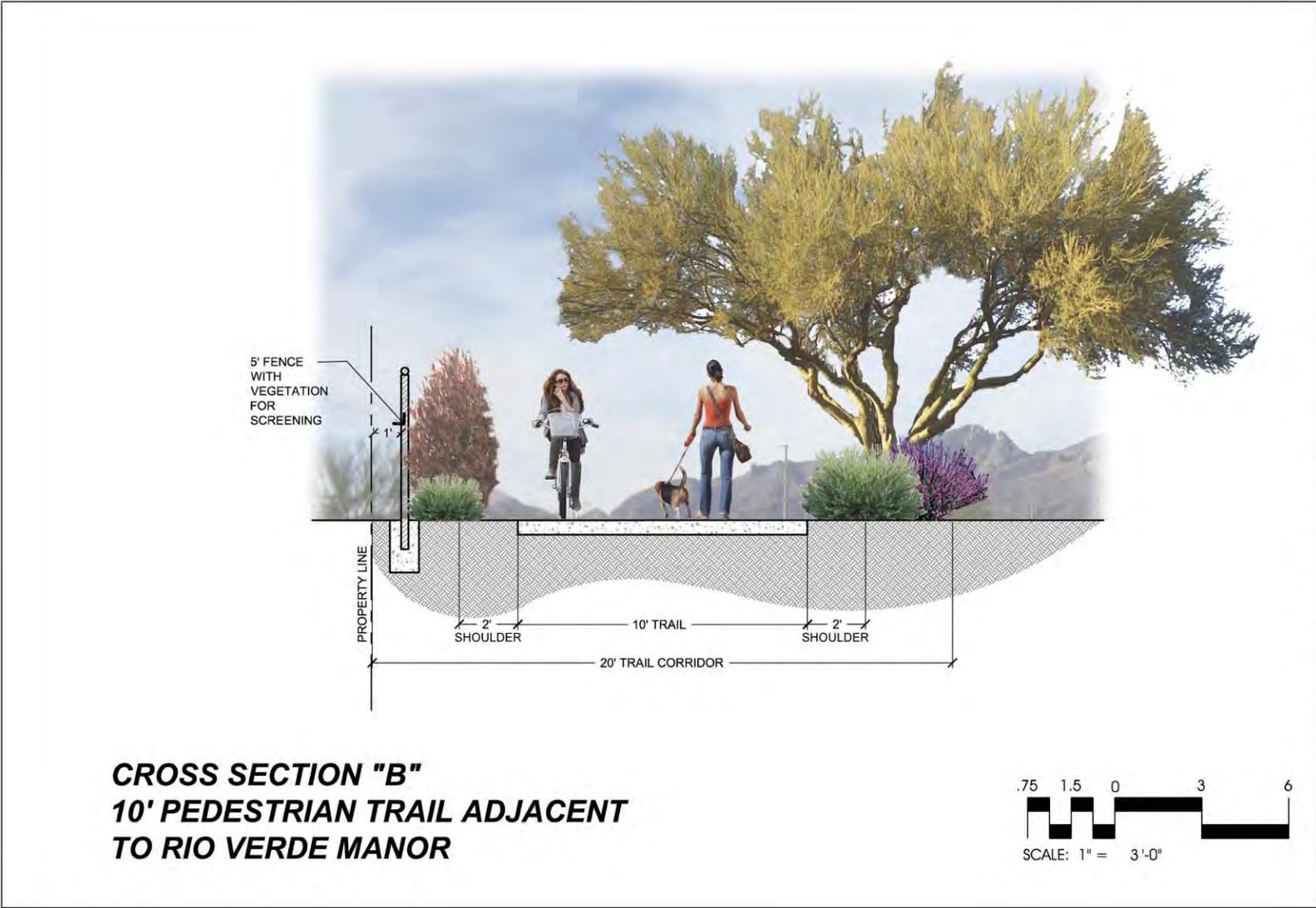


Exhibit III.E.4.c: Cross Section "B" 10' Pedestrian Trail Adjacent to Rio Verde Manor



NOTICE OF PREPARATION: AS SHOWN, ALL DESIGN, MEASUREMENTS, DIMENSIONS, MATERIALS, METHODS, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE INTERNATIONAL CODES AND STANDARDS, UNLESS OTHERWISE SPECIFIED. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.

REVISIONS / SUBMITTALS
 ALL REVISIONS MUST BE APPROVED BY THE DESIGNER.

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RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT

REGISTERED PROFESSIONAL ENGINEER
 CONSTRUCTION
 NO. 10018

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
DATE:	12/20/10
JOB NO.:	10018
SHEET NUMBER:	

5. Bicycle Circulation & River Park Development

Since the site is located immediately north of the Tanque Verde Creek, and just east of the existing Rillito River Park, planning for connections to the existing and future non-motorized paths, on the river park and along Craycroft Road, is part of this PAD document.

A bike loop connection between the existing river park path on the north bank of the Rillito River and the east side of Craycroft Road has been identified as an important regional bike feature by City of Tucson staff. A paved bike path making this connection is included as part of the PAD. If developed, this path shall be constructed to meet AASHTO safe bicycling standards and will be ADA compliant. In order to avoid having to construct landings, the slope of the paved bike path will be less than 5%. As shown on page 72, Exhibit III.E.5.d: Conceptual Bike Loop Plan, the bike path connection will be located parallel to the property line, within the Craycroft Road right-of-way. Due to the existing grade difference between the end of the existing path under the Craycroft Road bridge and the bike lanes on the east side of Craycroft Road, the access point for the bike path connection will be at or near the planned vehicular entrance north of the bridge on Craycroft.

Design and construction of the bike path connection as part of the PAD improvements provide a direct benefit to the public, therefore all design, engineering and associated construction costs expended by the developer are eligible for impact fee credits for the project.

In addition, there are future plans for developing the river park along the north bank of the Tanque Verde Creek from Craycroft Road upstream to Sabino Canyon Road. To construct this reach of the river park, acquisition of several properties not currently owned or under the control of the applicant is required. Therefore, this has been identified as a lower priority than the bike path connection to Craycroft Road.

Anticipating the potential river park extension, certain improvements (the construction of erosion control bank protection) are necessary for both the development of Rio Verde Village and to make construction of the future river park development along the Tanque Verde Creek possible. (See Section K: Post-Development Hydrology for more information.)

While the location of the buried erosion control bank protection is outside of the PAD boundary, it is located in a manner that will provide protection to future river park improvements which would be developed by others, as well as protection for an existing sewer line located between the existing bank of the Tanque Verde and the PAD boundary.

If the developer designs and constructs the erosion control bank protection as part of the PAD improvements, and the erosion control bank protection provides a direct benefit to the public, then the percentage of costs expended by the developer that benefit the trail and the public are eligible for impact fee credits for the project.

To illustrate that the PAD is not precluding future River Park development, a typical cross section and plan view are provided. These illustrations show the required River Park features, most importantly, a 12-foot paved trail with 2-foot shoulders and an un-paved 8-foot trail can be located in the existing available area between the PAD boundary and the existing natural bank of the Tanque Verde Creek.

The developer does not desire to be an obstacle to the extension of the bike trail along the north side of the Tanque Verde Creek from Craycroft Road to Sabino Canyon Roads. To that end, Developer will dedicate the amount of property required for the extension of the bike trail in the area south of the Market District at such time as all of the following conditions are met:

- Erosion hazard protection is constructed adjacent to the bike trail extension area discussed above;
- The County has funding available to construct the extension of the bike path from Craycroft to Sabino Canyon Roads along the north bank; and
- The County has secured public access, either through easements or dedications from all other property owners along the north bank of the Tanque Verde Creek, for the extension of the bike trail from Craycroft to Sabino Canyon Roads.

The trail dedication in the Manor District will occur on the earlier of either the approved plat for the Manor District or once all of the conditions above have been met.

See Exhibit III.E.5.d: Conceptual Bike Loop Plan, page 71.

See Exhibit III.E.5.e: Cross Section “C” Sidewalk within River Road Right-of-Way, page 72.

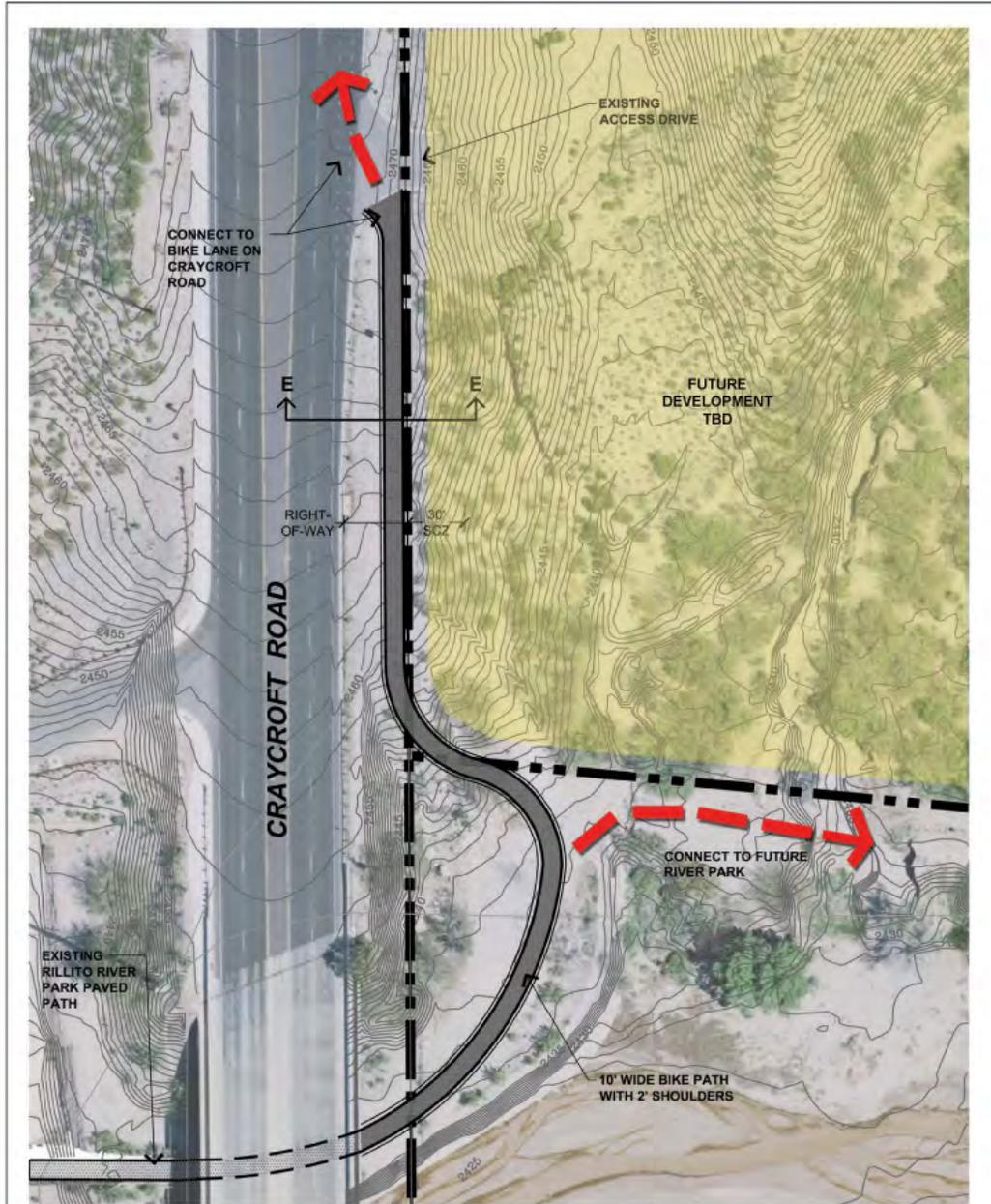
See Exhibit III.E.5.f: Cross Section “D” Sidewalk within Craycroft Road Right-of-Way, page 73.

See Exhibit III.E.5.g: Cross Section “E” Conceptual Bike Loop Ramp Section, page 74.

See Exhibit III.E.5.h: Cross Section “F” Typical River Park Trail Section, page 75.

See Exhibit III.E.5i: Typical Plan View of River Park, page 76.

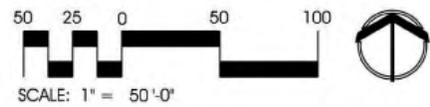
Exhibit III.E.5.a: Conceptual Bike Loop Plan



CONCEPTUAL BIKE LOOP PLAN

LEGEND

- PROPERTY LINE
- PROPOSED BANK PROTECTION
- EXISTING TOPOGRAPHY
- CROSS-SECTION CUT SEE III.E.5



<p>DATE: 07/15/10 DRAWN BY: [Name] CHECKED BY: [Name] DATE: 07/15/10 SCALE: AS SHOWN</p>	<p>RIO VERDE VILLAGE PLANNED AREA DEVELOPMENT</p>	<p>Novak Environmental, Inc. 4574 North First Avenue, Suite #100 Tucson, AZ 85718 Tel: 520.206.0591 Fax: 520.682.3006</p>	<p>REVISION / SUBMITTALS 1.3512 ROW DIMENSIONS & SECTION CUT</p>
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Exhibit III.E.5.b: Cross Section "C" Sidewalk within River Road Right-of-Way

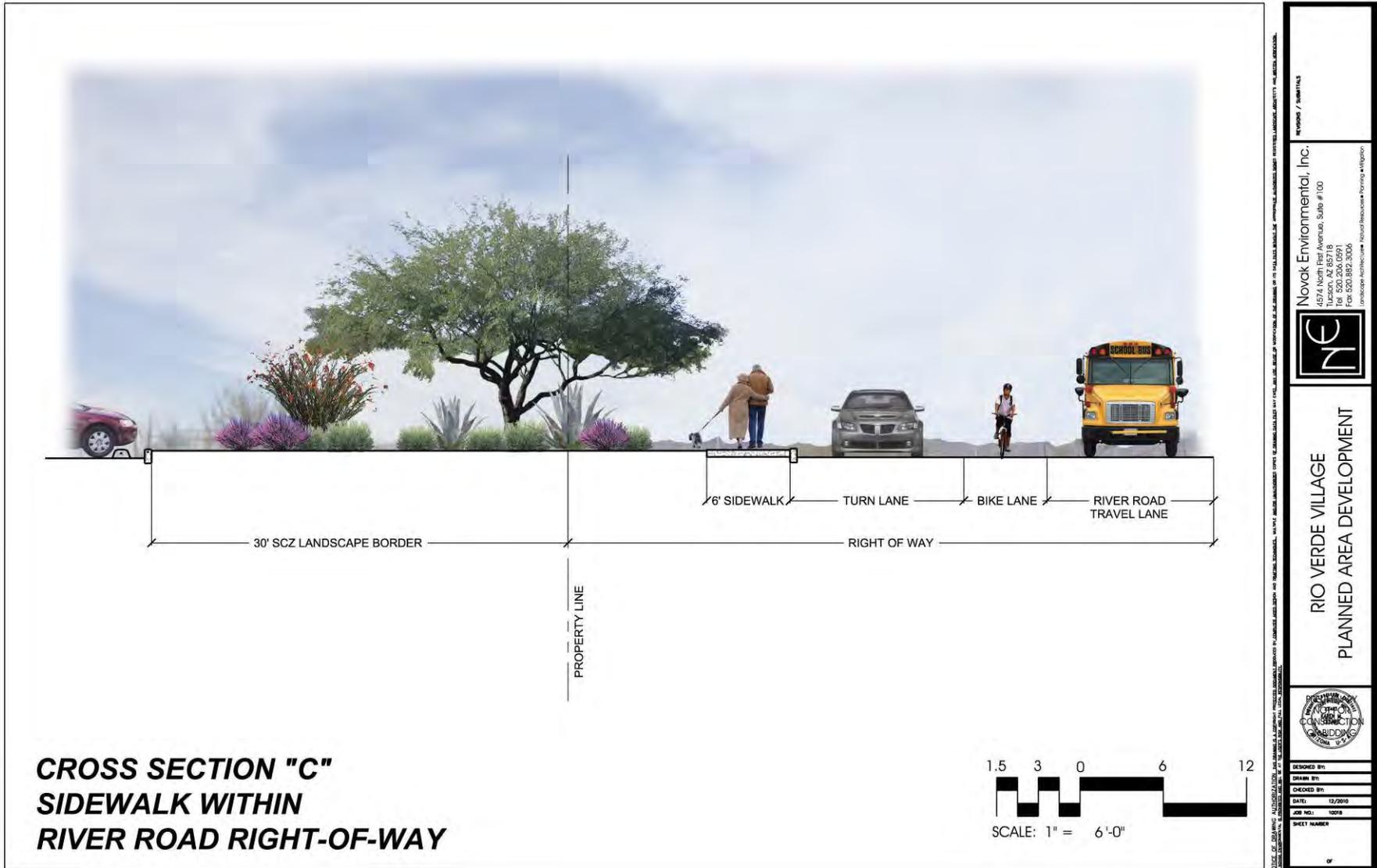
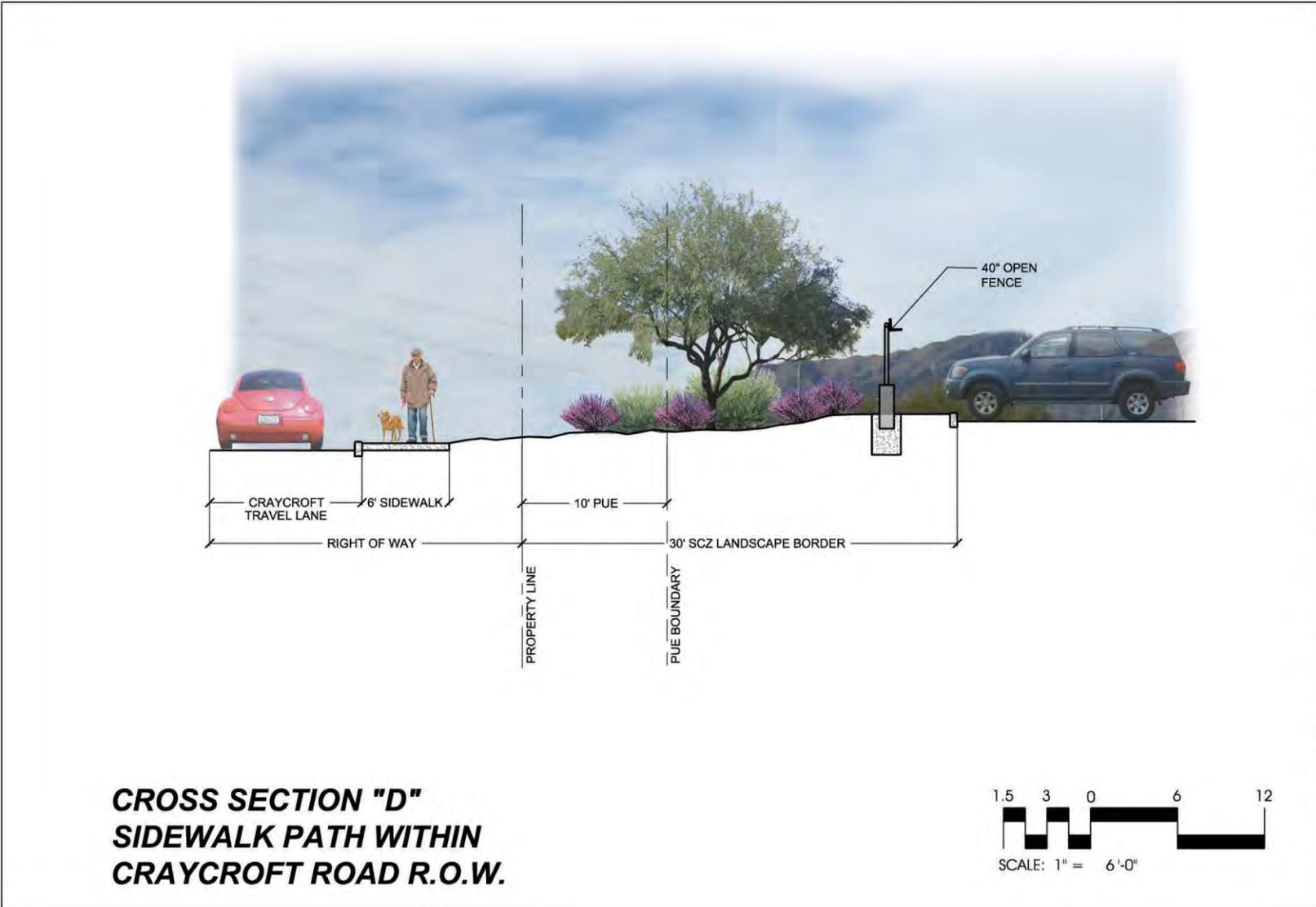


Exhibit III.E.5.c: Cross Section "D" Sidewalk within Craycroft Road Right-of-Way



NOTICE: ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

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Novak / 04/11/14

NE

**RIO VERDE VILLAGE
PLANNED AREA DEVELOPMENT**

DESIGNED BY: MJC
DRAWN BY: MJC
CHECKED BY: MJC
DATE: 8/20/11
JOB NO.: 10718
SHEET NUMBER

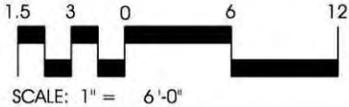
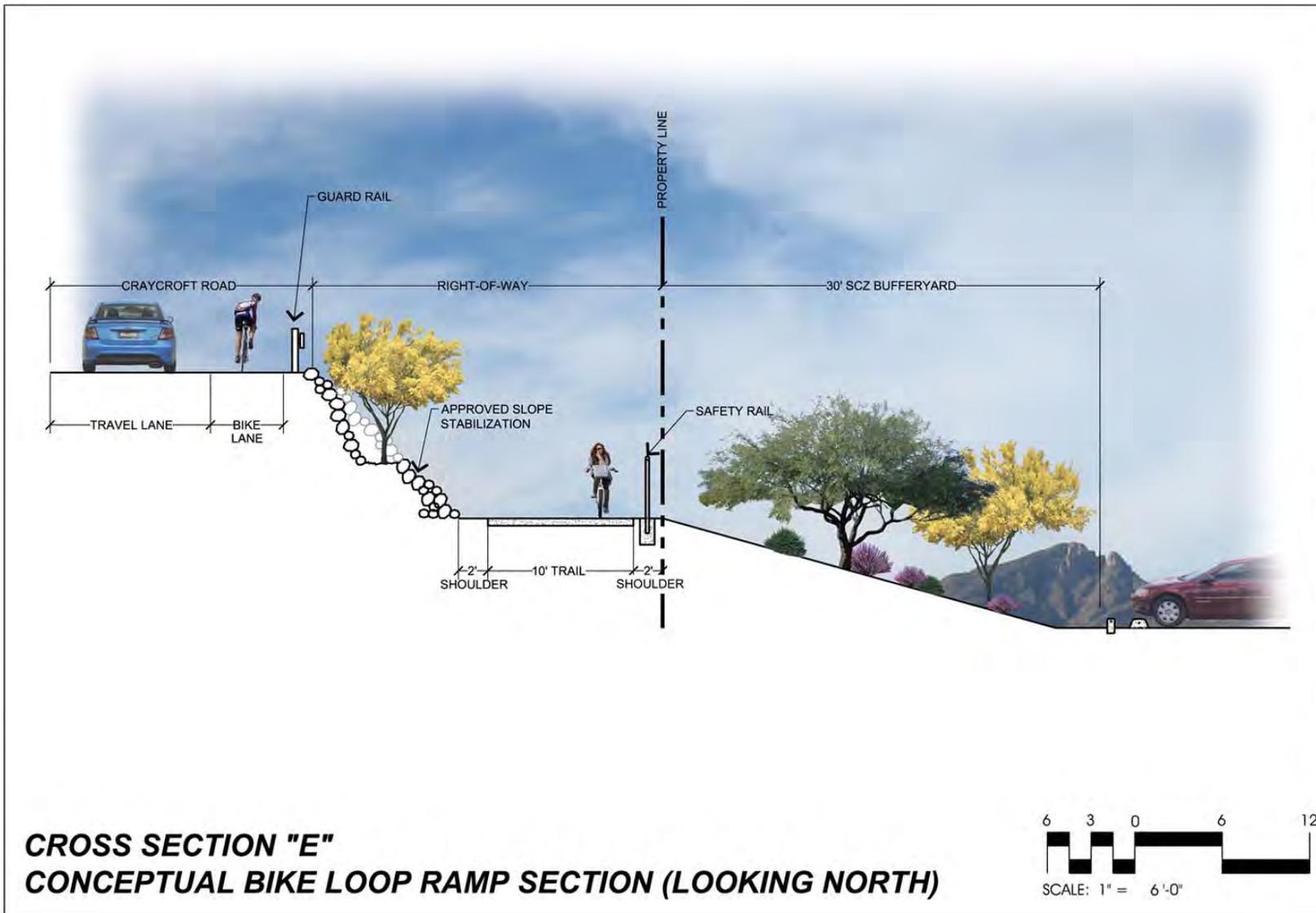


Exhibit III.E.5.d: Cross Section "E" Conceptual Bike Loop Ramp Section



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Novak Environmental, Inc.
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 @novak_electronics • Natural Resources • Planning • Design

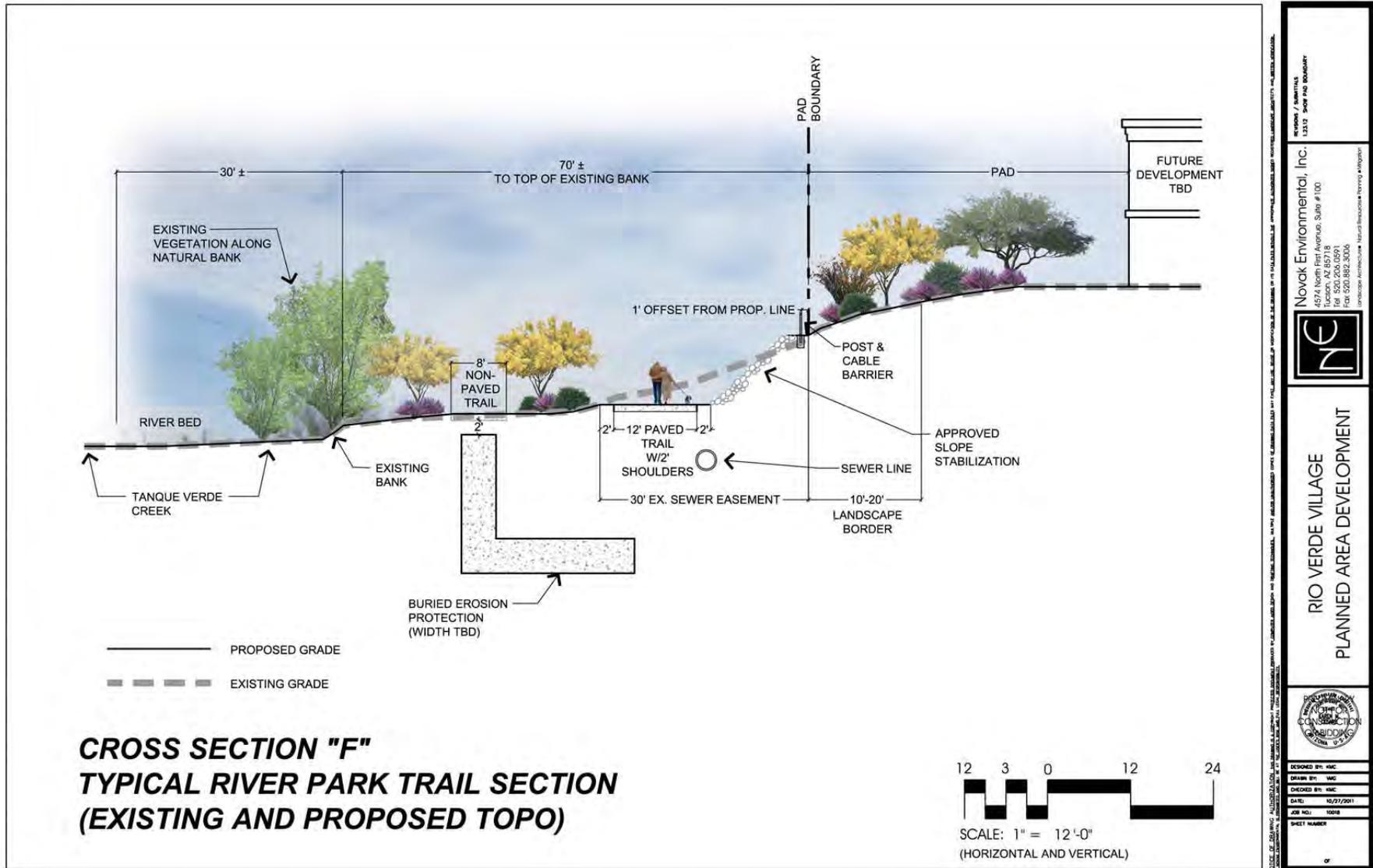

**RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT**



DRAWN BY:	
CHECKED BY:	
DATE:	11/2011
JOB NO.:	1004
SHEET NUMBER:	

OF

Exhibit III.E.5.e: Cross Section "F" Typical River Park Trail



NOVELTAS CONSULTING, INC. 1000 N. CENTRAL AVENUE, SUITE 100, PHOENIX, AZ 85004
 PHONE: 602.954.1000 FAX: 602.954.1001
 WWW.NOVELTASCONSULTING.COM

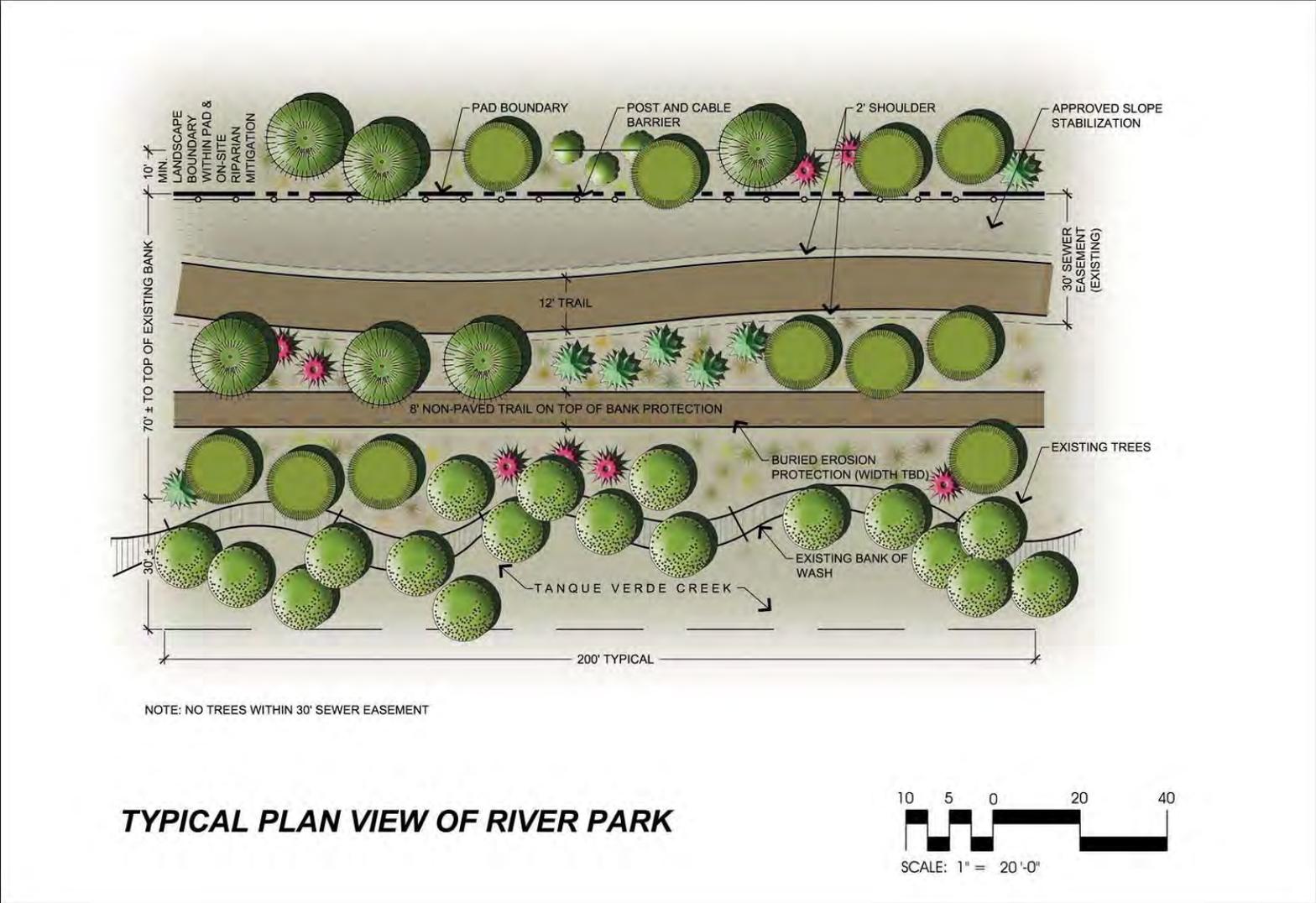
NOVAK ENVIRONMENTAL, INC.
 4574 NORTH FIRST AVENUE, SUITE #100
 TUCSON, AZ 85718
 TEL: 520.308.0591 FAX: 520.365.3006
 WWW.NOVAKECO.COM

REVIEW / SUBMITTAL
 12.17.2011 3:04 PM PAD BOUNDARY

RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT

DESIGNED BY: KMC
 DRAWN BY: KMC
 CHECKED BY: KMC
 DATE: 10/27/2011
 JOB NO.: 10018
 SHEET NUMBER: 8

Exhibit III.E.5.f: Typical Plan View of River Park



TYPICAL PLAN VIEW OF RIVER PARK

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 Tucson, AZ 85718
 Tel: 520.263.0991
 Fax: 520.682.3006
 novakenv.com

**RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT**

DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 12/2010
 JOB NO: 10018
 SHEET NUMBER: _____

F. Roadway Standards

This section shall modify Development Standard 3-01.0, Street Development Standard with specific reference to the modified sections below. The following provisions apply across the Rio Verde Village PAD except where specified.

1. Width Requirements (Development Standard 3-01.2.3 – Width Requirements)

- a. No additional pavement width is required for Calle Rosario. The existing pavement is 30'±. Preliminary discussions with City of Tucson Department of Transportation have acknowledged a smaller pavement section is acceptable.
- b. Development Standard 3-01. New private streets/alleys may be twenty feet (20') in width, with two (2) ten-foot (10') travel lanes.

2. Parking Lanes (Development Standard 3-01.2.4.D – Parking Lanes)

- a. On-street parking for existing/proposed streets/alleys is only required on the side of a street with direct lot frontage/access.

3. Sidewalk Area (Development Standard 3-01.2.7.A – Sidewalk Area)

- a. Sidewalks are not required along either/both sides of Calle Rosario.
- b. For proposed streets/alleys, construction of sidewalks are only required on the side of street with direct lot frontage/access.

4. Curbing (Development Standard 3-01.3.2.A – Curbing)

- a. Curbing is not required along either/both sides of Calle Rosario.
- b. For proposed streets/alleys, construction of a concrete header is allowed in lieu of curbing.

5. Alleys (Development Standard 3-01.6.6 – Alleys)

- a. Alleys may be utilized as a primary access to lots.

G. Parking Requirements

Motor Vehicle and Bicycle Parking Requirements of Article III. Division 3 of the *Land Use Code*, shall apply across the Rio Verde Village PAD with the following exceptions:

1. Parking Requirements for Non-Residential Uses

a. Calculation of Required Motor Vehicle Parking Spaces

Motor vehicle parking spaces for the residential uses shall be calculated per City of Tucson Land Use Code requirements.

b. Parking Area Access Lanes

Parking Area Access Lanes (PAALs) shall be a minimum of twenty (24) feet in width.

c. Paving Materials

Vehicle use areas shall be constructed utilizing materials and construction techniques in accordance with the recommendations of the geotechnical engineer and concurrence from City of Tucson staff. Pervious surfaces are encouraged to lessen the heat island effect, reduce stormwater runoff by using paving alternatives and decrease the overall amount of pavement throughout the development.

d. Handicapped Parking

Handicapped parking will be provided in accordance with ADA requirements from the 2006 IDC, Chapter 11 and ICC/ANSI 117.1, 2003 Edition. Accessible spaces and "Van Accessible" spaces will connect to the accessible route as required by the 2006 IDC, Chapter 11 and ICC/ANSI 117.1, 2003 Edition. All sidewalks, detectable warnings and curb ramps will comply with accessibility requirements as required.

e. Demonstrated Parking

As individual building permits are acquired, each permitted building must demonstrate that at least 80% of the required parking for that building is provided.

The entire circulation system will meet 100% of the required parking by the issuance of the last Certificate of Occupancy for the last new building to be built on-site.

2. Parking Requirements for Residential Uses

a. Motor Vehicle Parking Spaces per Dwelling Unit

Motor vehicle parking spaces for the residential uses shall be calculated per City of Tucson Land Use Code requirements.

b. Vehicular Maneuvering

Private alleys and streets are permitted to be primary vehicular access to any residential lots and guest parking spaces.

c. Parking Area Access Lanes

Parking Area Access Lanes (PAALs) shall be a minimum of twenty (20) feet in width.

d. Handicapped Parking

Handicapped parking will be provided in accordance with ADA requirements from the 2006 IDC, Chapter 11 and ICC/ANSI 117.1, 2003 Edition. Accessible spaces and "Van Accessible" spaces will connect to the accessible route as required by the 2006 IDC, Chapter 11 and ICC/ANSI 117.1, 2003 Edition. All sidewalks, detectable

warnings and curb ramps will comply with accessibility requirements as required.

e. Paving Materials

Vehicle use areas shall be constructed utilizing materials and construction techniques in accordance with the recommendations of the geotechnical engineer and concurrence from City of Tucson staff. Pervious surfaces are encouraged to lessen the heat island effect, reduce stormwater runoff by using paving alternatives and decrease the overall amount of pavement throughout the development.

H. Off-Street Loading Requirements for Commercial Uses

Off-Street Loading Requirements of Article III. Division 4 of the *Land Use Code* shall apply across the Rio Verde Village PAD with the following exceptions:

1. Designated Loading Areas

The PAD will comply with the Loading Requirements of Division 3 of Article 3 of the LUC with the following exceptions:

- Loading areas may be accommodated within standard off-street parking spaces.
- All loading areas may be provided at off-street parking spaces and at designated on-street locations posted for such use, provided that the loading space is located within 250 feet of the use it serves.
- Two or more principal uses within the same building and users on different sites within the Rio Verde Market District may share designated loading spaces provided that the loading area is located within 250 feet of each use's service entrance.

I. Solid Waste Disposal and Recycling

The City of Tucson's Development Standard Number 6-01.0 Solid Waste Disposal (Refuse) shall apply across the Rio Verde Village PAD with the following exceptions:

1. Solid Waste Disposal and Recycling Provider

Solid waste disposal and collection will be provided by the City of Tucson. Collection will be allowed between 7:00 a.m. and 7:00 p.m. in all areas of the Rio Verde Village.

2. Solid Waste Disposal and Recycling for Commercial Uses

Trash receptacles and recycling areas within the Rio Verde Village may have shared access and be shared between uses providing the volume of refuse is contained at all times.

3. Solid Waste Disposal and Recycling for Residential Uses

- a. Curb-side Disposal:** Curb-side solid waste disposal and recycling service will be provided using Automatic Plastic Containers (APC). APC storage will be within the garage or behind side yard screen walls.
- b. Alley-Loaded Residential Units:** For alley-loaded residential units, APCs will be located along the alley adjacent to each unit.
- c. Centralized Trash and Recycling Enclosures:** Although it is not anticipated, if the vehicular maneuvering requirements for APCs cannot be met, then centralized trash and recycling containers within screened enclosures may be provided. Where APCs cannot be accommodated, centralized containers may be located up to 300' from a residence. Centralized trash and recycling enclosures shall be screened on three sides by a solid wall and an opaque closing gate on the access side.

J. Landscape Program

This Landscape Program complies with the Scenic Corridor Zone provisions outlined in Section III.D of this document. The landscape border and screening for the site will comply with Article III. Development Regulations, Division 7. Landscaping and Screening Regulations and Development Standards 2-06.0 and 2-16.0. with the following modifications:

1. Landscape Borders and Screening Requirements

The Rio Verde Village PAD is exempt from the requirements outlined in Table 3.7.2-I of Article III. Division 7. Landscaping and Screening Regulations of the *Land Use Code*. Landscape screening along the boundaries adjacent to existing off-site residential development located between the Rio Verde Market and Rio Verde Manor sections of the PAD will be accomplished with a five foot fence located at the property line along with vegetation to provide a visual barrier. The fence location is necessary to allow for the proposed pedestrian paths along the north/south running property lines, while providing the existing off-site residences a visual buffer from the path and proposed non-residential development. The fence material may include masonry or tube-steel fencing. See Exhibit III.E.4.b: Cross Section “A” 10’ Pedestrian Trail Adjacent to Rio Verde Market, and Exhibit III.E.4.c: Cross Section “B” 10’ Pedestrian Trail Adjacent to Rio Verde Manor. Plant quantities shall be in accordance with the City of Tucson Landscape Border and Screening Code. Location of required screening elements shall be in accordance with these cross sections.

In general, there shall be no required screening between the river and the landscape border within the PAD immediately adjacent to the river area. It is beneficial to both the future river park (by others) and the PAD development to have a strong visual connection. The proposed landscape border shall be a minimum of 10 feet wide, but may be wider depending on the final site layout. The landscape border shall be landscaped in a manner that provides enhanced riparian habitat to the river, and may also serve as riparian habitat mitigation for impacts to the on-site wash. Any landscaping that is done adjacent to the future river park will use native vegetation.

Screening will be required in cases where unsightly uses are located adjacent to the future river park area. These uses include loading docks or service areas and dumpsters. In these cases, screening shall be done in compliance with City of Tucson Landscape Border and Screening Code.

Landscaping along the frontages of River Road and Craycroft Road, within the 30 foot SCZ buffer shall contain, at a minimum, the following quantity of plants per 100 linear feet of frontage:

Trees: 4
Shrubs/accents: 15
Ground covers: 15

See Exhibit III.J.1: Proposed Landscaping and Screening, page 85.

2. Water Harvesting

The site is proposed to comply with Development Standard 10-03.0.0 Commercial Rainwater Harvesting by passive water harvesting on site. Water harvesting shall be planned from the earliest design stages and will include directing runoff from paved areas in landscape islands and other areas.

The general direction of water runoff for the site throughout the Market District is shown in Exhibit III.J.2: Proposed Water Harvesting, page 86. Although not currently shown, passive water harvesting techniques will also be utilized in the Manor District where appropriate.

3. Native Plant Preservation

This site proposes to comply with the Development Standard 2-16.0 (the Native Plant Preservation Ordinance (NPPO) using the “full inventory” method. Areas subject to the NPPO shall include only those areas outside the areas identified as Regulated Riparian Habitat (RRH). Vegetation within the RRH shall be permitted to be mitigated off site as described in the following section.

This section shall modify Article III. Development Regulations Division 8. Native Plant Preservation Section 3.8.3.3 Concurrent Applicability of Divisions. Plants regulated under the Development Standard 9-06.0, Floodplain, Wash and Environmental Resource Zone (ERZ) Standards shall be removed from inventory and mitigation calculations of the NPPO.

4. Regulated Riparian Habitat (RRH)

This section shall modify Development Standard 9-06.0, Floodplain, Wash and Environmental Resource Zone (ERZ) Standards to achieve the intent expressed within the PAD. The specific sections include, but are not limited to the following:

- a. 9-06.2.5 - Development Restrictions. Impacts as shown in the PAD are allowed.
- b. 9-06.3.0 – Review. No Full Public Notice Procedure, as detailed in Chapter 23A-50 and 51, for impacts is required. The PAD process provides for public notice of intent to impact RRH.
- c. 9-06.3.2 - Review (No SAC or STAC Review).
- d. 9-06.5.0 - Request for DSMR. No public notice procedure for request for DSMR, Development Standard 1-01.4.7 is required. The PAD process provides for public notice of the intent to request Design Standard Modifications.
- e. Public process requirements have been satisfied through the PAD process; no further public process is required.

It is the intention to preserve as much existing vegetation as possible near the confluence of the no name wash and the Tanque Verde Creek, while allowing for the improvements needed for bank stabilization and erosion protection.

These proposed improvements include modification of the existing on-site wash to provide bank stabilization and flood and erosion protection to the development (see Section III.K. Post Development Hydrology). Impacts to the vegetation within the regulated riparian habitat will be necessary in order to construct the proposed drainage improvements. Impacts to the vegetation within the RRH will be provided both on-site and off-site as described in this section.

Impacts to RRH shall not be included in on-site NPPO compliance. Native plants subject to the NPPO, outside of the area identified as RRH, shall be mitigated according to the NPPO.

The project shall be permitted to impact existing RRH along the unnamed tributary wash as needed and be allowed to provide mitigation for impacts to the regulated riparian habitat both on-site and off-site on property owned or under control of the applicant that is located in the same general area of the site and provides enhanced riparian habitat and vegetation to the Tanque Verde Creek area.

a. On-Site Areas

On-site mitigation areas may include areas along the top of the no-name wash, the southern boundary adjacent to the future riverpark or other areas that meet the intent of riparian habitat mitigation. Low intensity development measures, such as use of alternate paving materials may also be considered.

b. Off-Site Areas

The off-site mitigation area is within the annexation district boundary located on the south side of the Tanque Verde Creek. The off-site area proposed for off-site mitigation is highly suitable to be used for this purpose. The site contains meso-riparian vegetation, dominated primarily with native mesquites. This area was subject to a wildfire in the 1990's, which damaged or destroyed much of the existing vegetation.

The proposed riparian habitat mitigation will include plant species that are of the same or similar to the habitat type in the receiving location.

By using this site as a receiving location for mitigation for on-site impacts to riparian habitat, the mitigation plantings will have a strong connection to the riparian habitat of the Tanque Verde Creek, be in proximity to the on-site riparian habitat impacts they are intended to mitigate and be located in an area able to support increased density of plants.

Impacts may include, but are not limited to bank stabilization along the unnamed wash and portion of the Tanque Verde Creek immediately south of the proposed PAD, crossing for vehicular and pedestrian or non-motorized circulation, enclosing of portions of the wash, specifically on the northern end of the wash, or site grading as needed to construct the development as shown in the preliminary development plan.

See Exhibit III.J.3: Regulated Riparian Habitat Impacts, page 87.

See Exhibit III.J.4: Riparian Mitigation Area Locations, page 88.

See Exhibit III.J.5: Conceptual Riparian Mitigation Plantings, page 89.

See Exhibit III.J.5: Cross-section "G"- "No Name Wash" Conceptual Riparian Mitigation Planting & Side Slope Treatment, page 89.

See Appendix B: Vegetation Survey Information for Regulation Riparian Habitat

Exhibit III.J.1: Proposed Landscaping and Screening

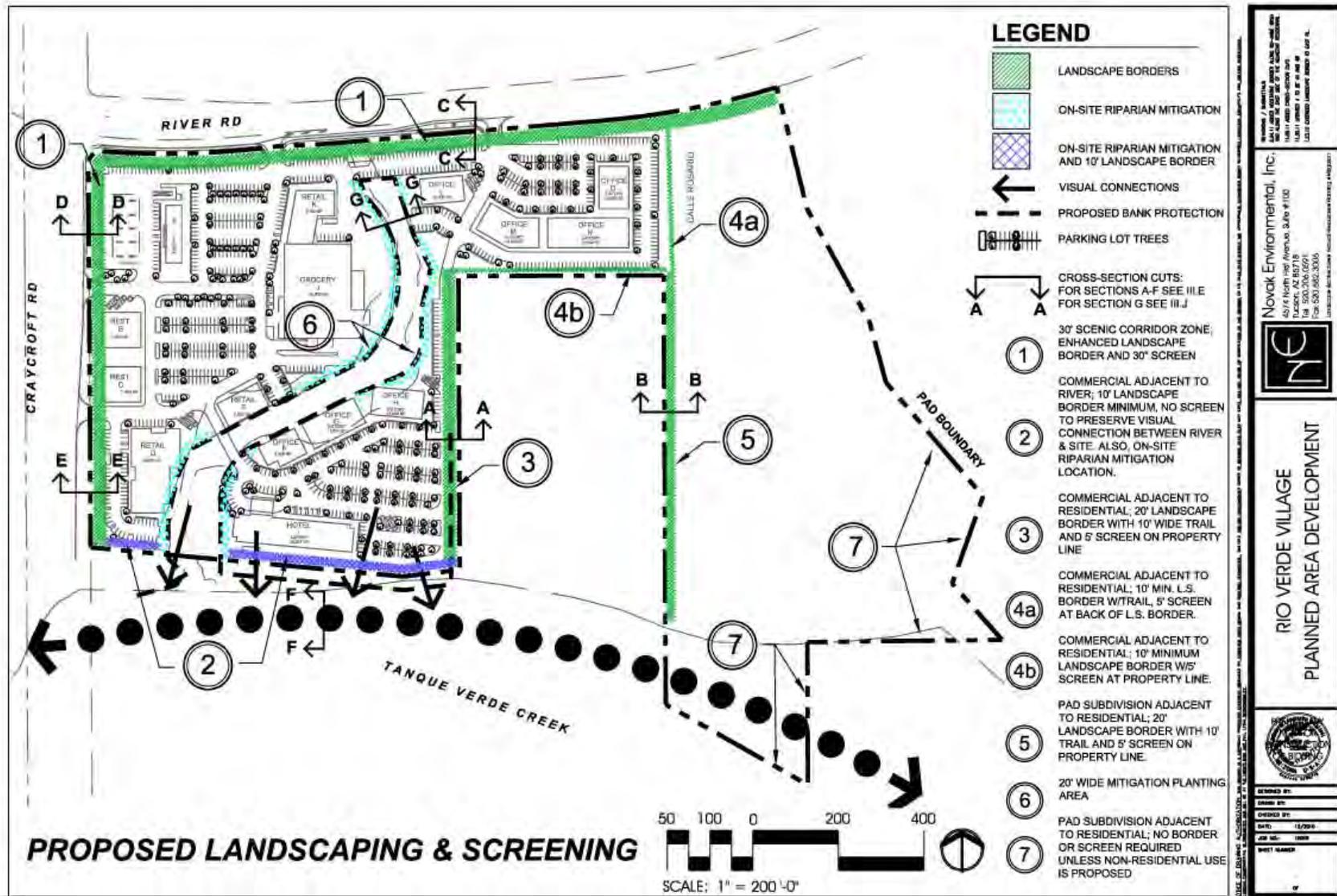
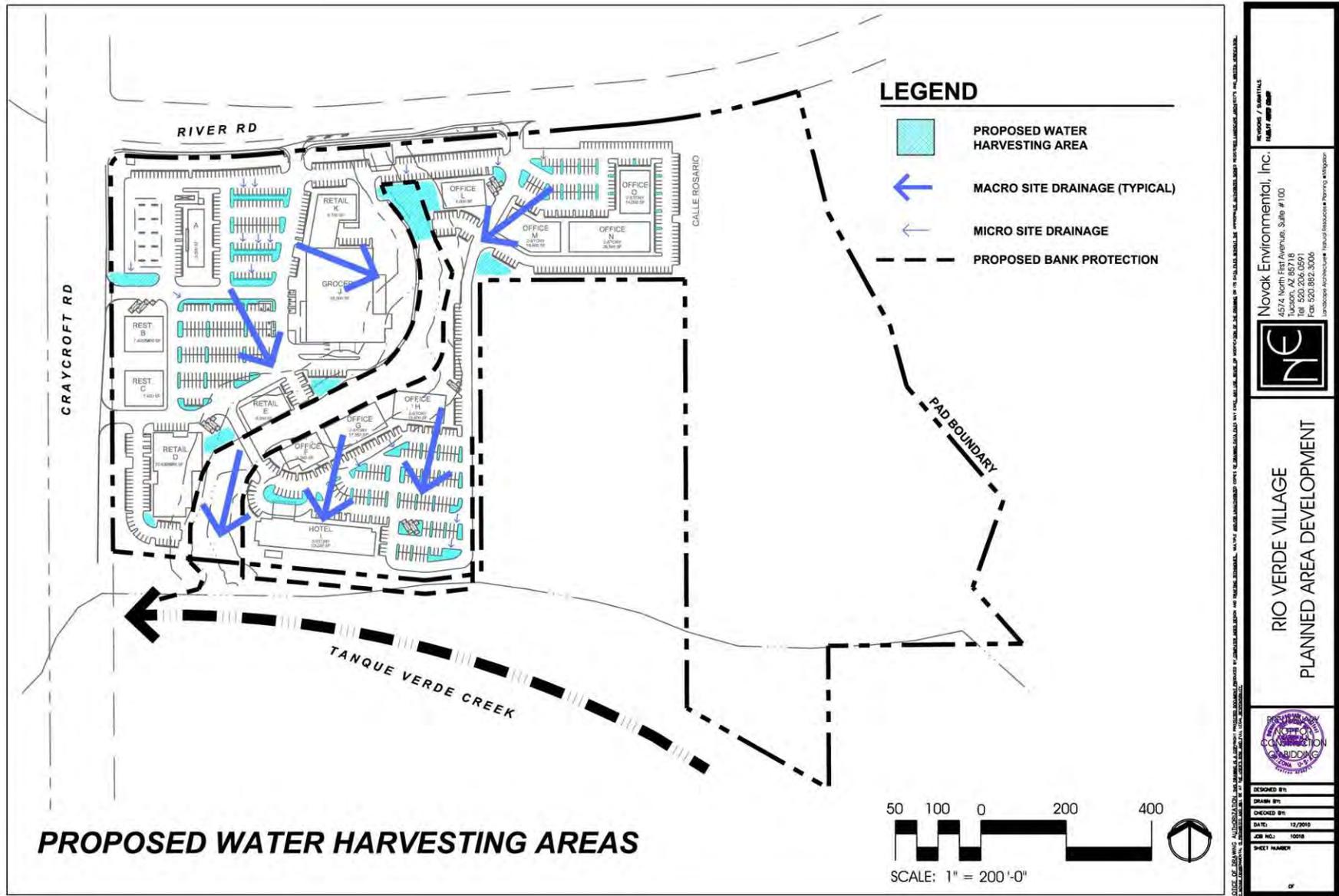


Exhibit III.J.2: Proposed Water Harvesting



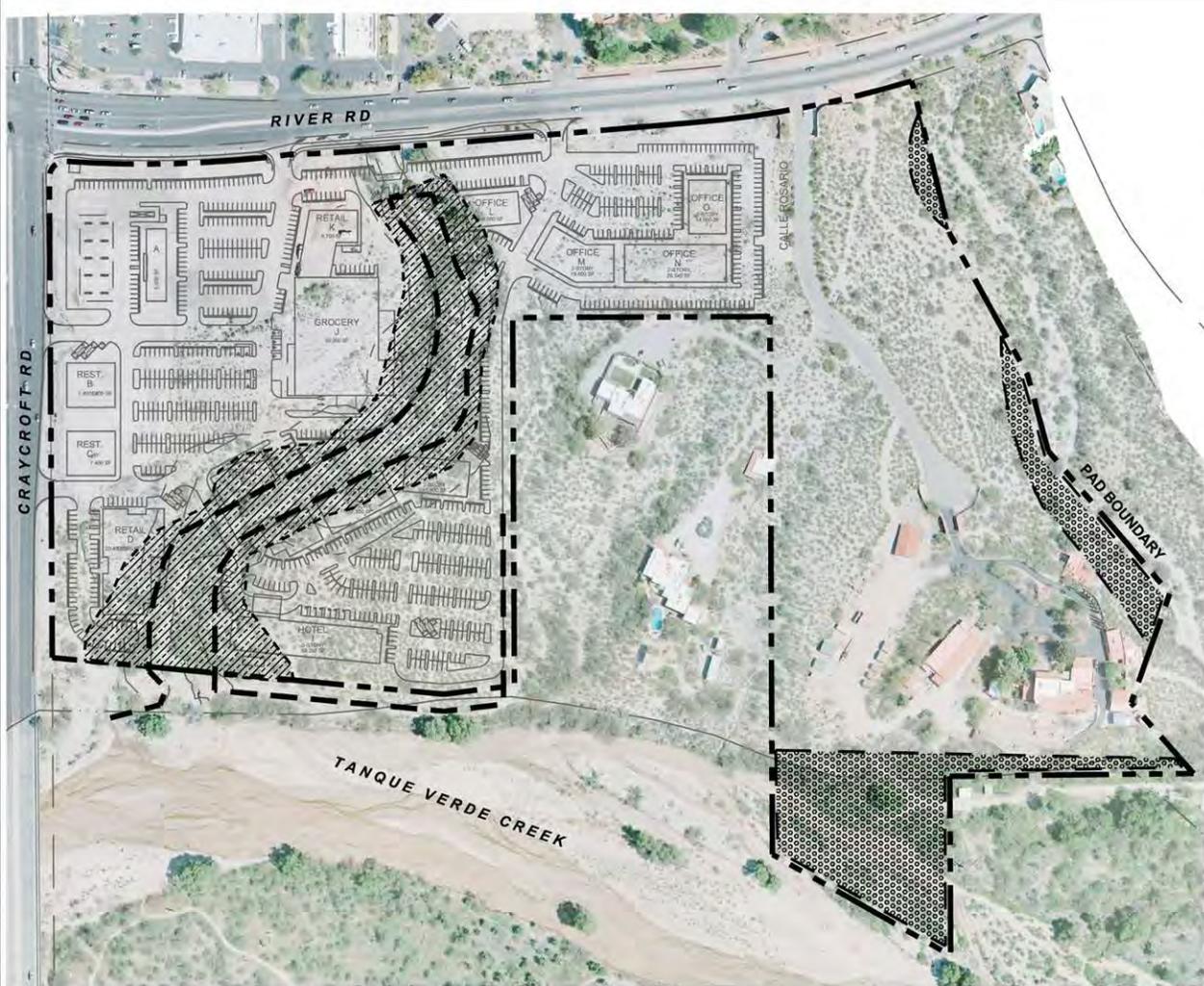
SOURCE: SEE DRAWING "ANALYSIS OF EXISTING CONDITIONS" FOR DETAILED INFORMATION ON EXISTING UTILITIES AND INFRASTRUCTURE. THIS PLAN IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE A CONTRACT. THE DESIGNER ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS. THE USER OF THIS PLAN ASSUMES ALL LIABILITY FOR ANY SUCH ERRORS OR OMISSIONS.

NOVOK ENVIRONMENTAL, INC.
 4574 North First Avenue, Suite # 100
 Tucson, AZ 85718
 Phone: 520.882.3000
 Fax: 520.882.3000
 www.novok.com

RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT

DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 12/2016
 JOB NO.: 16018
 SHEET NUMBER: 01

Exhibit III.J.3: Regulated Riparian Habitat Impacts

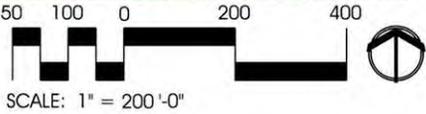


LEGEND

- LIMITS OF REGULATED RIPARIAN HABITAT
- PRESERVED RIPARIAN HABITAT - 3.0 ACRES
- ▨ DISTURBED RIPARIAN HABITAT - 5.0 ACRES
- PROPOSED BANK PROTECTION

IMPACTED RIPARIAN VEGETATION	
QTY	SPECIES
80	Acacia constricta
28	Acacia greggii
2	Celtis pallida
46	Cercidium floridum
25	Cercidium microphyllum
4	Condalia warnockii
3	Populus fremontii
67	Prosopis velutina
6	Zizyphus obtusifolia
261	TOTAL IMPACTED PLANTS

REGULATED RIPARIAN HABITAT IMPACTS



NOVAK ENVIRONMENTAL, INC. 4574 NORTH FIRST AVENUE, SUITE #100 TUCSON, AZ 85718 TEL: 520.200.0091 FAX: 520.882.3026



**RIO VERDE VILLAGE
PLANNED AREA DEVELOPMENT**



DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 12/2010
 JOB NO.: 10018
 SHEET NUMBER: _____

Exhibit III.J.4: Conceptual Mitigation Plantings

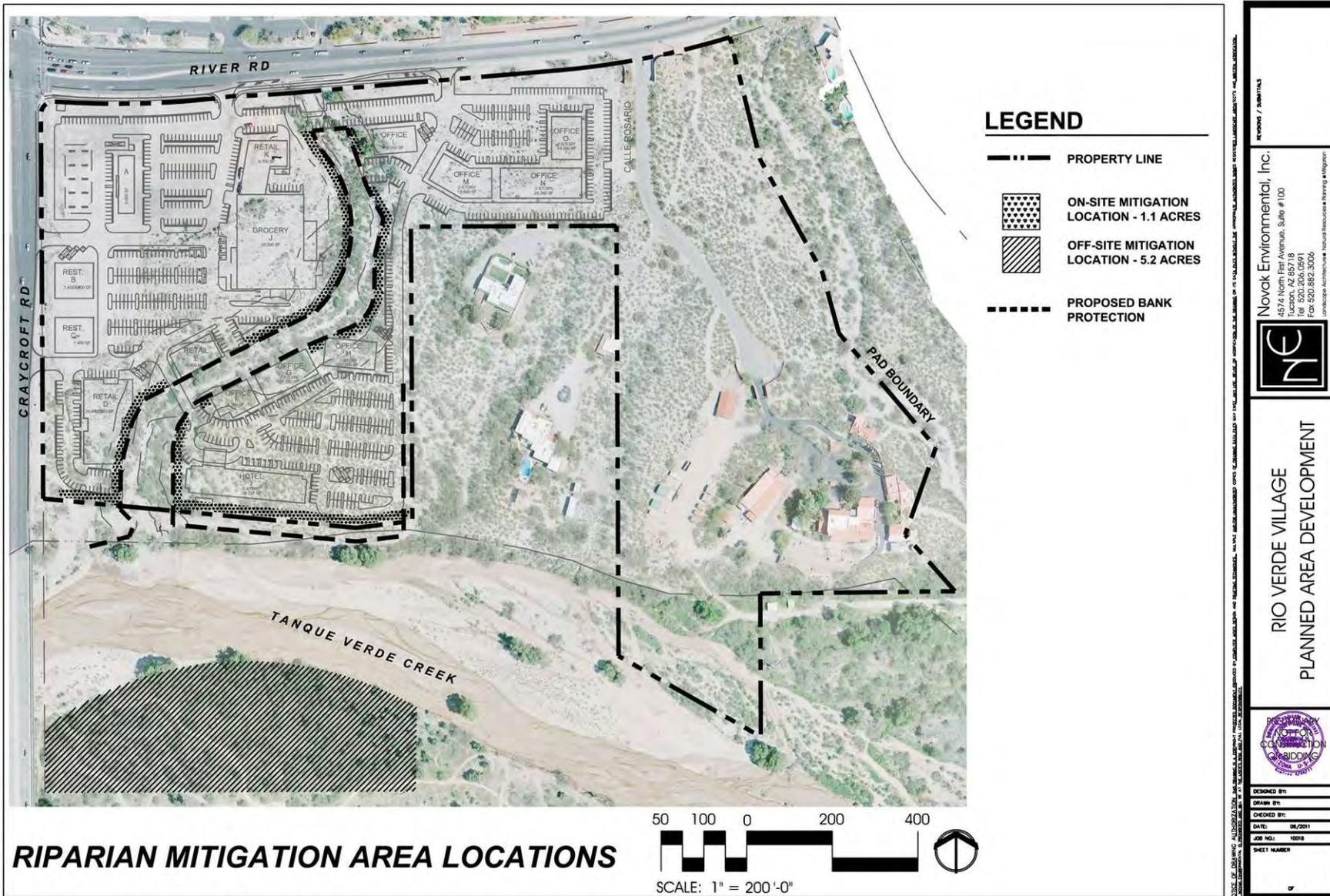
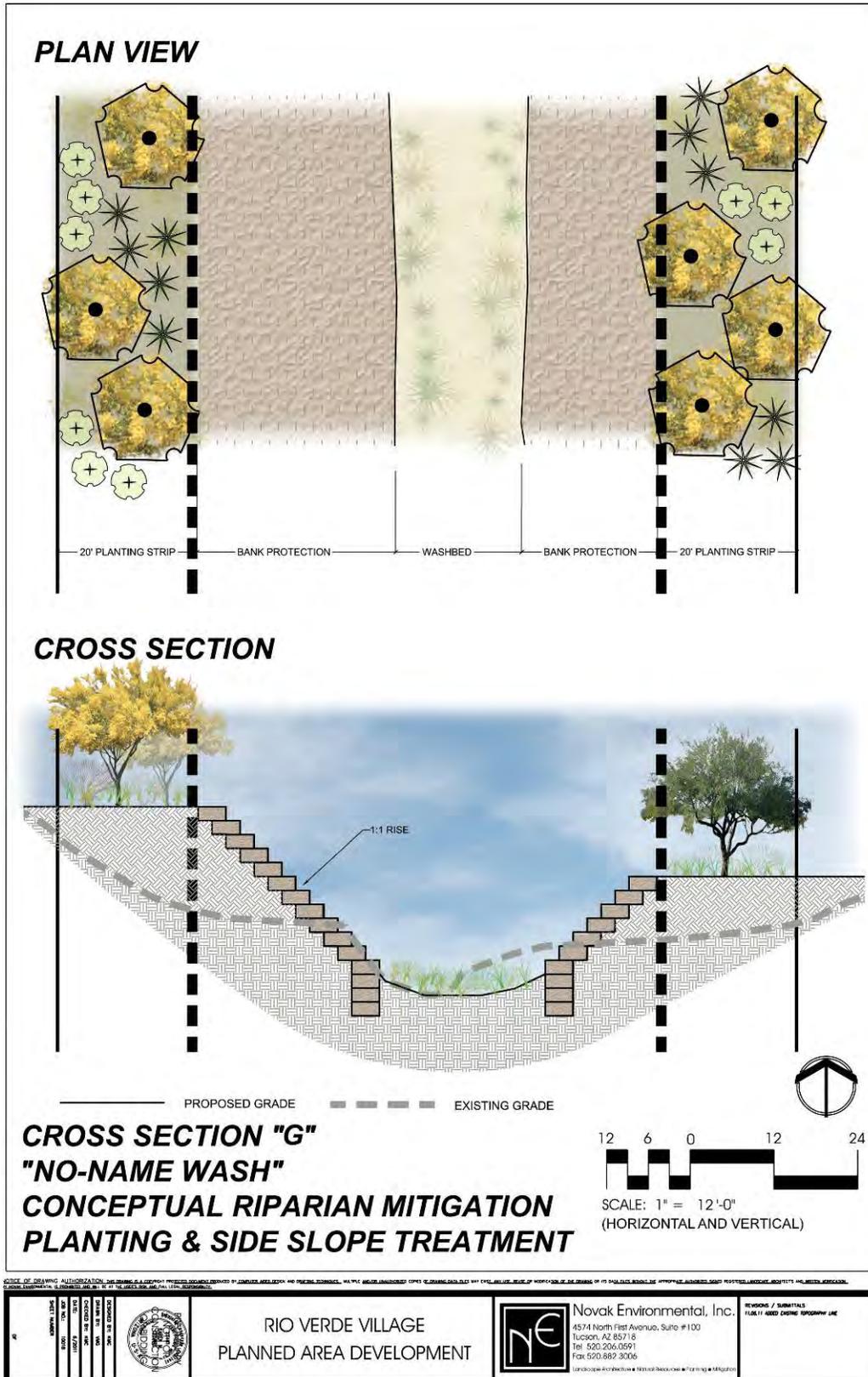


Exhibit III.J.5: Typical Plan and Cross Section "G" Riparian Mitigation Planting



K. Post-Development Hydrology

The following provisions apply across the Rio Verde Village PAD except where specified.

1. Erosion Protection Measures

As indicated under the Hydrology, Water Resources and Drainage section of the Site Analysis, this project lies directly adjacent to the north bank of the Tanque Verde Creek, which has a calculated 100 year discharge of 34,000 cfs, and based on City of Tucson methodology, the erosion hazard setback has been calculated to be 370 feet from the existing top of bank. As the southerly portion of the proposed commercial development lies within the setback area, erosion protection will be constructed. At this time, it is the preferred option that a buried, structurally engineered (concrete) erosion protection will be constructed in a location that lies between the existing earthen bank of the Tanque Verde Creek and the proposed development boundary. This erosion control protection will tie into the existing soil cement bank protection located near the Craycroft Road bridge on the west, as well as tying into the proposed bank protection for the local, onsite wash (as discussed below). A separate erosion protection measure will also be constructed along the eastern edge of the proposed commercial development to tie back to the erosion hazard setback line.

2. Environmental Resource Zone

The Environmental Resource Zone (ERZ), Land Use Code § 2.8.6 shall not apply to the Rio Verde Village property.

3. Watercourse Amenity Safety Hazard (WASH)

There are no designated WASH watercourses on the Rio Verde Village property.

4. Treatment of Washes

As also addressed under the Hydrology, Water Resources and Drainage section of the Site Analysis, the site is also affected by a local wash that bisects the site from River Road south to the Tanque Verde Creek. Based on the calculated flow in the wash, the existing topography, and accepted City engineering standards for erosion setbacks, under existing conditions, the width of the wash through the site would vary from 150 to 250 feet. Under developed conditions for the proposed commercial development, this PAD proposes the construction of bank protection along either side of the existing wash main flow channel to allow for encroachment of development within the existing 100 year floodplain and/or erosion hazard setback area. The proposed commercial development will be constructed such that all proposed buildings and parking areas will lie outside of the developed condition 100 year floodplain. Vertical or near vertical bank protection is proposed for the development. Gabion baskets and/or mattresses are the preferred method of protection for the onsite wash, the use of which will be dependent on the geotechnical conditions along the wash. Other treatments

may be utilized in these areas as well, and all options will be coordinated with the appropriate City staff at the time of the site development design. As shown on Exhibit III.K: Developed Condition Hydrology, page 94, as well as Exhibit III.A.2: Conceptual Site Plan, page 45, as practical, portions of the natural wash invert and vegetation shall remain for conveyance of the flow. Final determination of the extent of the preservation of the wash invert will be coordinated with the appropriate City staff at the time of the site development design. The final alignment & widths of the both the top and invert of the wash will be determined based on the final site layout design. Bottomless arch culverts are proposed for the two on-site vehicular circulation crossings to allow for a continuous natural wash invert from the Tanque Verde Creek up to the existing drainage structure at River Road.

Final construction materials and methodologies for these drainage measures have not been determined at this time, and will be addressed as part of the site development design for review and approval by the appropriate City of Tucson departments.

Under developed conditions, the proposed project site discharges from 6 locations to either existing, natural washes and then into the Tanque Verde Creek, or directly into the Tanque Verde Creek.

- a. A majority of the proposed commercial development discharges directly into the existing on-site wash, which runs generally through the middle of the project site. The 100 year peak discharge into the on-site wash increase from 96 cfs under existing conditions to 159 cfs under the proposed developed condition. However, there are no adverse impacts due to this increase as the wash discharges directly into the Tanque Verde Creek and this local increase does not cause the regional 100 year discharge to increase. Two other small areas from the proposed commercial development discharge from the site, either directly to the Tanque Verde Creek or to an adjacent natural wash. Developed condition discharge from the proposed development to the adjacent wash have been reduced from existing conditions, therefore no adverse impacts are anticipated to the adjacent property.
- b. The proposed residential development, located along both sides of Calle Rosario, discharges to the adjacent natural washes located along the perimeter of each of the proposed developed areas. The proposed portion of the development located along the easterly side of Calle Rosario will discharge into the adjacent wash along the eastern boundary of the project site. Discharge from this area is proposed to increase under developed conditions, but as this local increase does not cause the regional 100 year discharge of the wash to increase, there are no anticipated adverse impacts. Under developed conditions, the discharges for the proposed portion of development west of Calle Rosario will be reduced from the existing condition flows due to a smaller watershed area.

- c. The existing “compound” located south of Calle Rosario will have no significant change in watershed or discharge from existing to developed conditions, therefore no adverse impacts are foreseen.

5. Detention/Retention Requirements

Based on the proposed development configuration and drainage strategy to reduce discharges to the adjacent properties affected by the development, as well as the overall project’s location directly adjacent to the Tanque Verde Creek, no provision for detention or retention facilities are proposed or required.

Pima County currently designates this project as a balanced basin. Due to its direct proximity to the Tanque Verde Creek (classified as a “major channel” by Development Standard 10-01.2.3), and the ability through onsite drainage patterns to direct discharges directly or indirectly to the Tanque Verde Creek, the project meets the requirements for a detention waiver per Development Standard 10-01.2.3 - Location within Watershed, Criterion 1.

Because the Tanque Verde Creek will be significantly more effective (with its broad, sandy bottom) for groundwater-recharge than small, local man-made basins, Development Standard 10-01.2.2 - Threshold Retention, which requires threshold retention in order to mitigate the effects of urbanization upon increasing floodwater volumes, as well as for the purpose of enhancing groundwater-recharge potential, does not apply to the Rio Verde Village.

In those areas where the proposed development discharges to an adjacent property not controlled by this ownership, and then into Tanque Verde Creek, detention will not be required so long as the resultant discharges are decreased from existing conditions or do not raise the existing condition water surface elevations for the existing wash in adjacent properties by more than 0.1 feet.

All watershed boundaries and discharges have been identified on Exhibit III.K: Developed Condition Hydrology, page 94.

6. Onsite Grading

Due to the diverse topography of the project site under existing conditions, consistent with foothills terrain of hills and natural washes, based on the proposed development scheme for both the commercial and residential areas, significant grading and changes from the existing topography will be required. Due to the approximately 40’ change in elevation on the site from north to south, it is neither feasible nor desirable that the site be graded into a single level. Rather, a terraced grading approach will be utilized to allow individual pads to be constructed in a stepped manner, creating a series of smaller development pads that more closely follow the predevelopment grade and reducing the need for excessive amounts of cut/fill and high retaining walls.

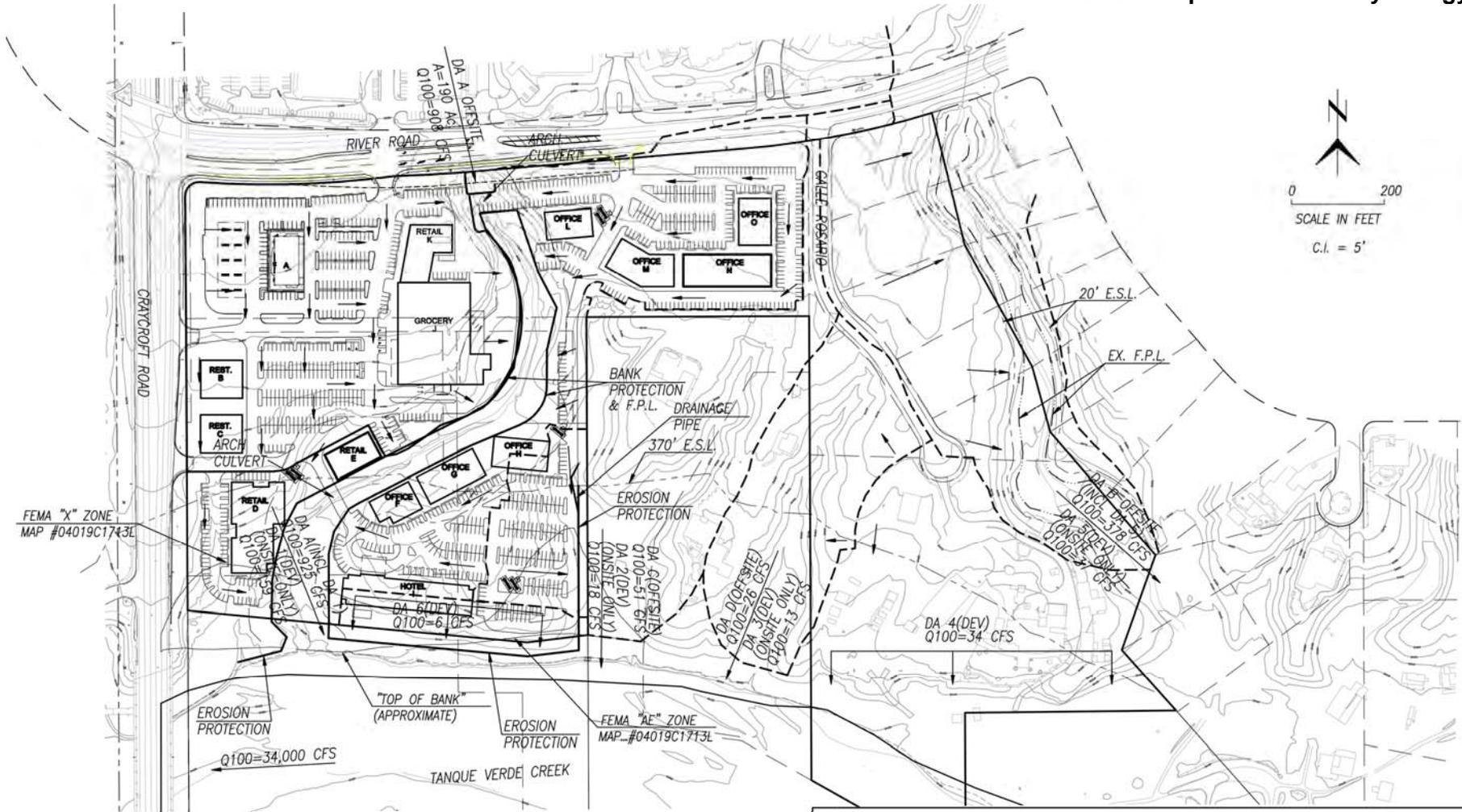
Per Section II.H, the average cross slope is less than 15% for the project, and although 15% slope areas occur within the site, per HDZ criteria this site would

not be categorized as an HDZ Overlay impacted area. In order to construct a developable site in the manner intended by the conceptual site plan, a maximum fill of approximately 10 (ten) feet may be required along the site perimeter, which exceeds the provisions of Development Standard 11-01.8.1 - General Requirements Criteria for Fill, within the first 100' of the property adjacent to the residentially zoning/uses. Zoning Examiner and Mayor and Council approvals shall substitute for PDSD Differential Grading approval of the mitigation for fills in excess of 2-ft for this PAD project site, that do not exceed the maximum grade differential, and shall be based on engineering justification that shall be reviewed during development review stages as outlined in DS Sec.11-01.8. Further, the PAD will allow the use of retaining walls, and allow all cut and fill slopes to be setback 2 feet (minimum & maximum) from the property lines along the project perimeters. Terracing of the retaining walls may be utilized at the discretion of the developer to help prevent excessive retaining wall heights. Finally, a temporary, limited disturbance, stockpile under a stockpile grading permit review may be considered on this project site as necessary prior to Tentative Plat/Development Plan approvals.

7. Wastewater

The owner/developer shall obtain written documentation from the Pima County Regional Wastewater Reclamation Department (PCRWRD) that treatment and conveyance capacity is available for any development within the rezoning area, no more than 90 days before submitting any tentative plat, development plan, sewer improvement plan or request for building permit for review. Should treatment and/or conveyance capacity not be available at that time, the owner/development shall have the option of funding, designing and constructing the necessary improvements to Pima County's public sewerage system at this or her sole expense or cooperatively with other affected parties. All such improvements shall be designed and constructed as directly by the PCRWRD.

Exhibit III.K: Developed Condition Hydrology



DEVELOPED CONDITION HYDROLOGY MAP
for
RIO VERDE VILLAGE
Baker & Associates Engineering, Inc.
3561 E. Sunrise Drive, Suite #225 Tucson, Arizona 85718 (520) 318-1950 Fax (520) 318-1930

L. Design Review Committee

Subsequent to PAD approval and prior to the submittal of any tentative subdivision plat or development plan within the PAD, a standing Design Review Committee (DRC) shall be established to review and approve architectural design within the Market and Manor Districts for compliance with the Rio Verde Village Development Regulations outlined in Section III of this PAD, including all homes, subdivision plats and improvements, development plans, landscaping and signage.

Design criteria for Rio Verde Village will be developed to provide a high quality, coordinated visual aesthetic. Materials used in building and site features will be compatible with the desert environment, compliment the existing development in the area and contain architectural details that provide interest and character to the development. Building architecture will be “four sided” ensuring views from all directions contain attractive facades. A complete set of design guidelines will be developed for the project and approved by the Rio Verde Village Design Review Committee.

The composition of the DRC shall consist of five (5) members as follows:

- One (1) representative from Broadway Realty and Trust
- One (1) architect or design professional (who has no conflict of interest with the development)
- One (1) landscape architect (who has no conflict of interest with the development)
- One (1) representative of the Old Fort Lowell Neighborhood Association
- One (1) at-large member

The DRC shall review all proposed architectural plans. Through a self-certification process, the DRC will provide a letter of approval to the City at the time of plan submittal.

The DRC shall remain in place through 100% of the initial build-out of the development. Beyond this point, the Committee’s function will survive through the Homeowners Associations of the residential subdivision or through the property owners association of the commercial center, at their respective discretion.

M. Interpretations and Amendments

1. Interpretation

The regulations and guidelines provided within this PAD, including the Scenic Corridor Zone requirements, supersede all existing regulations within the City of Tucson *Land Use Code*, Development Standards and other COT regulations (collectively "COT Regulations."). If a conflict arises between the PAD and COT Regulations, the intent of the PAD shall prevail as interpreted by the COT Zoning Administrator.

2. Amendments

Amendments to this PAD may be necessary over time to respond to the changing needs of this organization. Non-substantial changes to the PAD shall

be approved pursuant to LUC Section 2.6.3.11.B.5. Non-substantial changes include the following:

- Modifications to the permitted and secondary uses that do not change the overall intent of the PAD.
- Modifications to tax code parcel boundaries, including changes to interior boundaries or combining parcels, except that changes to the PAD perimeter boundary may not be considered a minor amendment or non-substantial change to the PAD.
- Modifications to the proposed site plan provided the Development Standards set forth in the PAD are maintained.
- Any other items not expressly defined as substantial based on LUC Section 2.6.3.11.B.3.

Substantial changes (as defined in LUC Section 2.6.3.11.B.3), are subject to the amendment process outlined in LUC Section 2.6.3.11.B.4.

N. Bibliography

Aerial Photographs, Pima Association of Governments, 2008.

Balanced and Critical Basin Map, Pima County.

City of Tucson Catalina Foothills Subregional Plan, 1995.

City of Tucson Development Standard No. 1-07.0 Rezoning Procedures.

City of Tucson General Plan, ratified 2003.

City of Tucson Land Use Code, 1995.

City of Tucson Northside Area Plan, 1987.

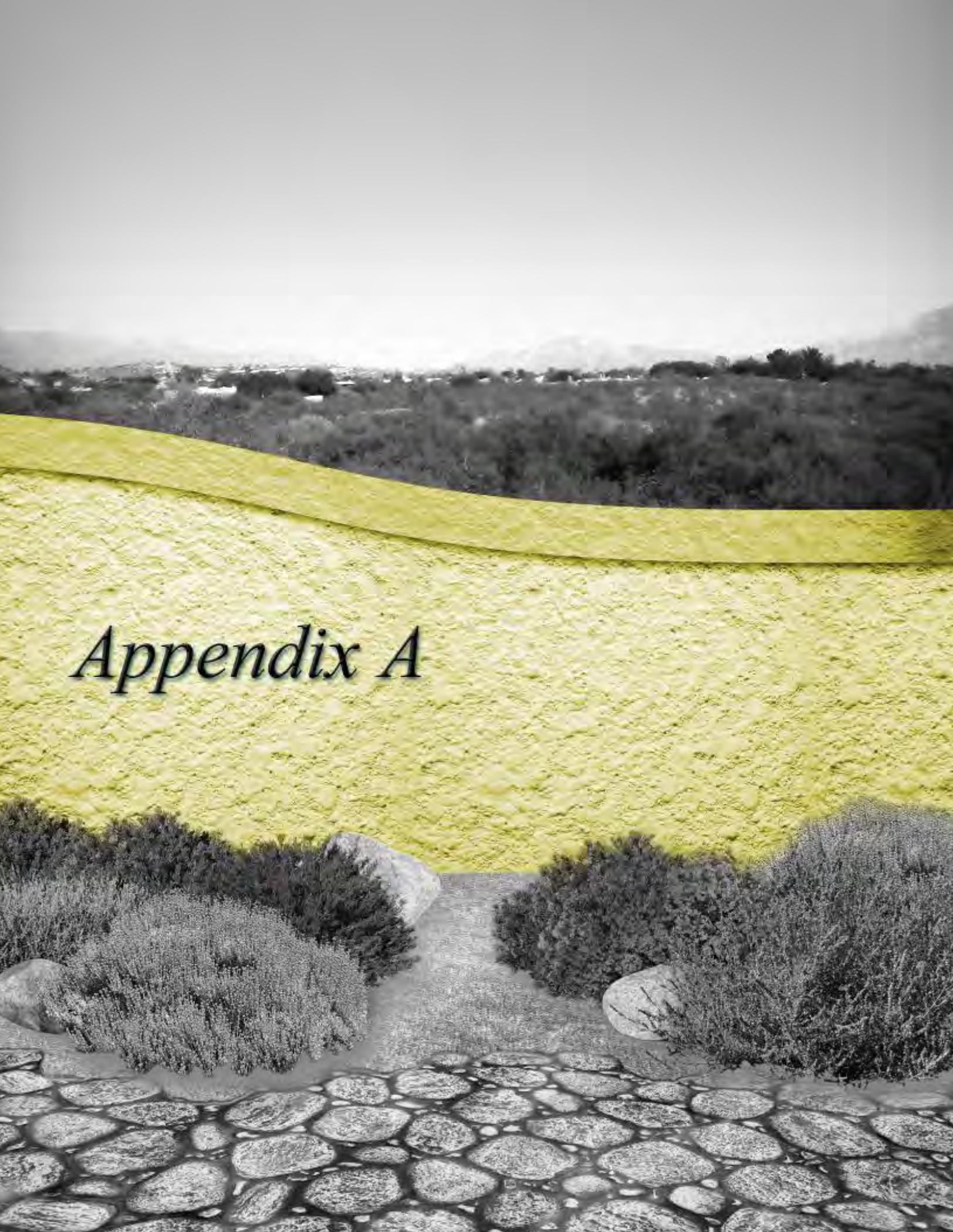
FEMA Flood Insurance Rate Map, Pima County, Arizona.

Institute of Transportation Engineers, Trip Generation Manuals, 7th Edition, Volumes 1 & 3, 2003.

MapGuide, Pima County Department of Transportation, 2010.

Stormwater Detention/Retention Manual, City of Tucson.

USGS Topographic Map, Jaynes Quadrangle.

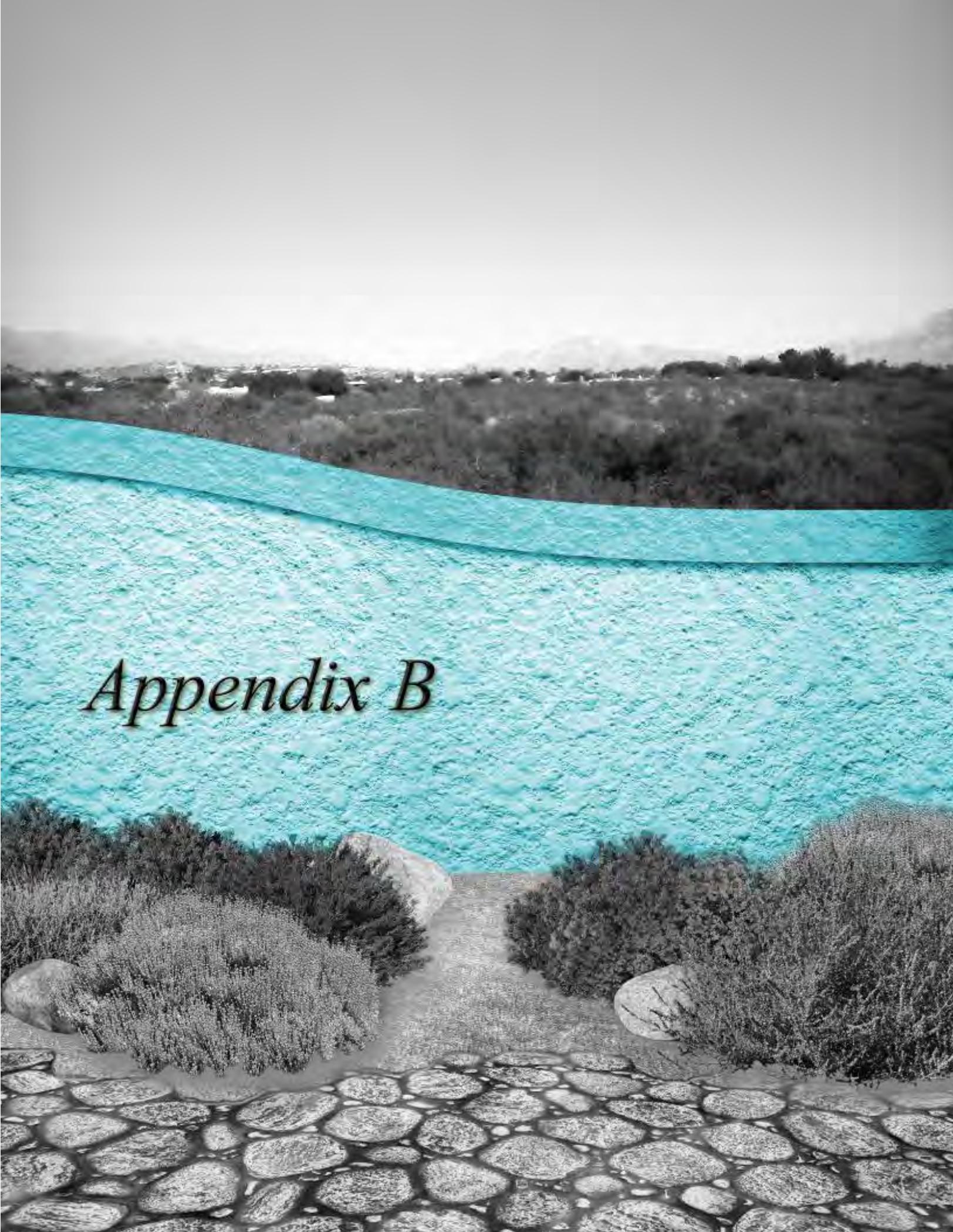


Appendix A

Appendix A: Definitions

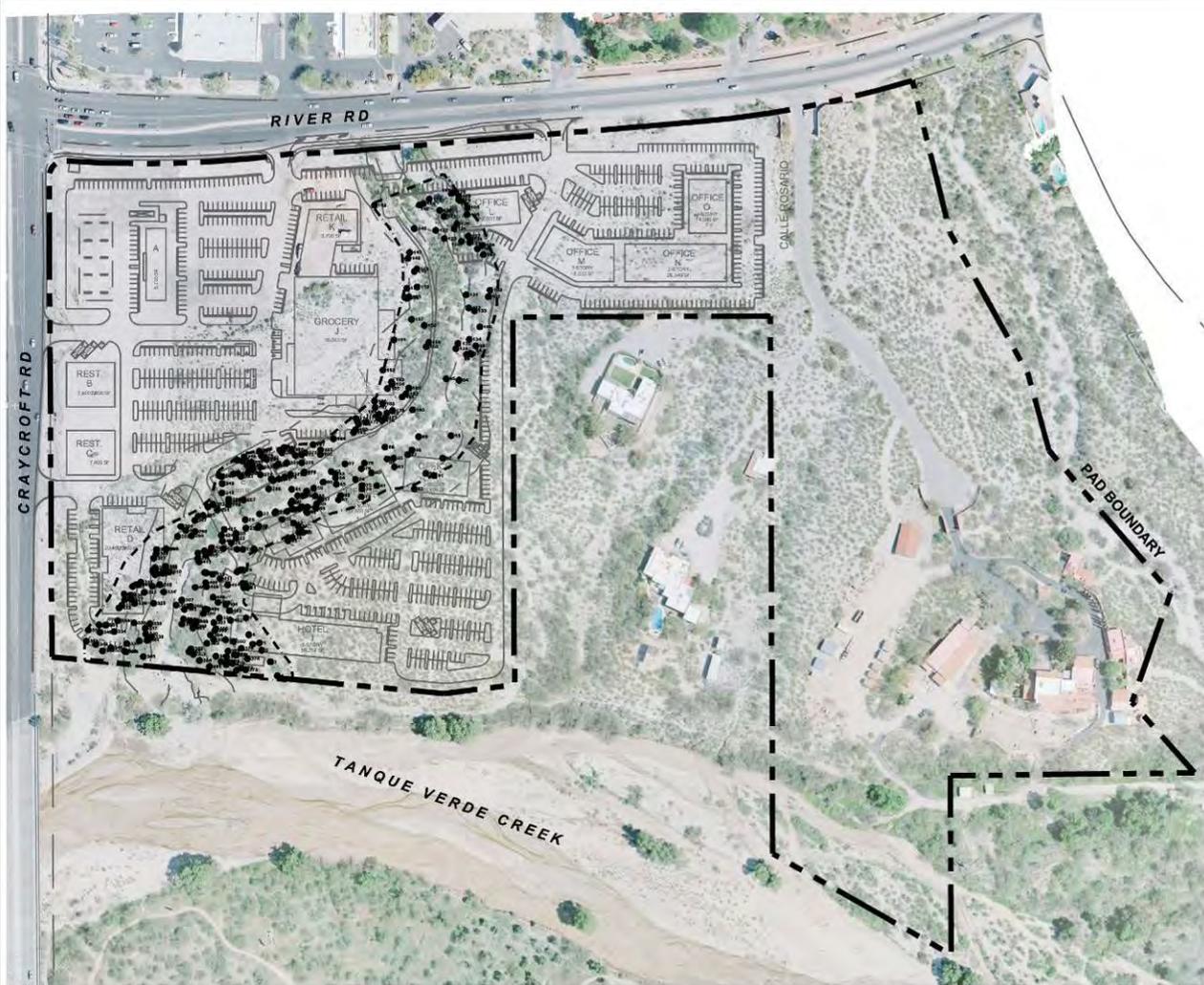
Principal Structure: A structure housing the main or principal use of the lot on which the structure is situated.

Seasonal Sales and Farmers Markets: Seasonal sales and farmers markets are occasional or periodic commercial activities held in an open area or enclosed structure where sellers rent space on a short-term basis to display or sell goods to the public.

A landscape photograph featuring a vibrant turquoise river with white water rapids in the center. In the foreground, a stone path made of irregular, flat stones leads towards the river. The background shows a town or village nestled in a valley, surrounded by dry, scrubby vegetation and hills under a clear sky.

Appendix B

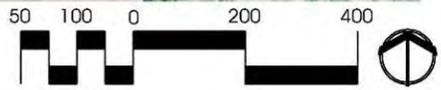
Appendix B: Riparian Habitat Inventory Plan



LEGEND

- PROPERTY LINE
- 201 IMPACTED RIPARIAN VEGETATION
- REGULATED RIPARIAN HABITAT LIMITS

**IMPACTED RIPARIAN VEGETATION-
NO-NAME WASH**



Novack Environmental, Inc.
 4574 North First Avenue, Suite #100
 Tucson, AZ 85718
 Tel: 520.202.9591
 Fax: 520.882.3006
 Landscape Architecture | Riparian Assessment | Pottery & Mazonia

**RIO VERDE VILLAGE
 PLANNED AREA DEVELOPMENT**

DESIGNED BY:	
CHECKED BY:	
DATE:	08/08/10
SUB NO.:	1000
SHEET NUMBER:	01

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
1	Prosopis velutina	10	9	H		M	
2	Prosopis velutina	18	12	L	dead wood, insects, mistletoe	L	large
3	Prosopis velutina	20	12	M	some dead wood, insects	L	large
4	Prosopis velutina	20	14	L	dead wood, insects, mistletoe	L	large
5	Prosopis velutina	44	7	L	dead wood, insects, mistletoe	L	large
6	Prosopis velutina	24	12	L	dead wood, insects, mistletoe	L	large
7	Prosopis velutina	16	12	L	dead wood, insects, mistletoe	L	large
11	Acacia constricta	2	4	H		H	
12	Acacia constricta	3	4	M	some dead wood	M	
14	Acacia constricta	3	6	M	some dead wood	M	
15	Zizyphus obtusifolia	3	6	M	some dead wood	M	
16	Prosopis velutina	14	12	L	dead wood, insects, mistletoe	L	
17	Prosopis velutina	20	14	L	dead wood, insects, mistletoe	L	large
18	Zizyphus obtusifolia	3	6	M	some dead wood	M	
19	Prosopis velutina	30	16	L	dead wood, insects, mistletoe	L	pack-rat midden
20	Prosopis velutina	18	8	L	dead wood, insects, mistletoe	L	
21	Prosopis velutina	14	10	L	dead wood, insects, mistletoe	L	
22	Acacia constricta	3	6	M	some dead wood	L	interference
23	Cercidium floridum	10	14	H		H	
24	Cercidium floridum	8	10	M	some dead wood	M	
25	Prosopis velutina	12	12	L	dead wood, insects, mistletoe	L	
26	Prosopis velutina	30	16	M	some dead wood, insects	L	large
27	Prosopis velutina	30	15	M	some dead wood, insects	L	large
28	Acacia constricta	2	6	H		H	
29	Acacia constricta	2	7	H		H	
30	Acacia constricta	8	14	M	some dead wood	L	interference
31	Prosopis velutina	24	12	L	dead wood, insects, mistletoe	L	large
32	Prosopis velutina	18	8	L	dead wood, insects, mistletoe	L	large
33	Acacia greggii	12	10	M	some dead wood	L	slope
34	Prosopis velutina	20	10	L	dead wood, insects, mistletoe	L	large
35	Acacia greggii	3	5	H		H	
36	Prosopis velutina	12	6	L	dead wood, insects, mistletoe	L	
38	Acacia constricta	3	6	H		M	
39	Acacia constricta	6	4	L	dead wood	L	
40	Acacia constricta	3	6	H		M	
41	Acacia constricta	10	14	H		M	interference
42	Acacia constricta	5	10	M	some dead wood	L	

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
43	Acacia constricta	5	8	L	dead wood	L	
44	Acacia constricta	3	8	M	some dead wood	L	interference
45	Acacia constricta	6	10	M	some dead wood	L	interference
46	Prosopis velutina	12	9	L	dead wood, insects, mistletoe	L	
47	Acacia constricta	18	8	L	dead wood	L	
48	Acacia constricta	4	7	L	dead wood	L	pack-rat midden
49	Acacia constricta	5	7	M	some dead wood	L	interference
50	Acacia greggii	8	12	M	some dead wood	L	interference
51	Acacia greggii	10	12	M	some dead wood	L	interference
52	Acacia constricta	8	8	M	some dead wood	L	
53	Acacia constricta	10	12	M	some dead wood, mistletoe	L	
54	Cercidium floridum	8	12	M	some dead wood	L	
55	Acacia constricta	6	8	M	some dead wood	L	
56	Acacia constricta	5	9	M	some dead wood	M	
57	Acacia constricta	16	14	M	some dead wood	L	sprawl, large
58	Acacia constricta	10	10	M	some dead wood	L	
59	Acacia constricta	14	14	L	dead wood	L	
60	Prosopis velutina	24	16	M	some dead wood, insects	L	sprawl, large
61	Acacia constricta	12	12	L	dead wood	L	cut bank
62	Prosopis velutina	4	8	L	dead wood, insects, mistletoe	L	interference
63	Prosopis velutina	30	14	L	dead wood, insects, mistletoe	L	pack-rat midden
64	Acacia constricta	6	12	L	dead wood	L	
65	Acacia greggii	20	14	M	some dead wood	L	sprawl, large
66	Acacia constricta	12	10	M	some dead wood	L	
67	Prosopis velutina	18	10	L	dead wood, insects, mistletoe	L	
73	Cercidium floridum	6	10	H		H	
74	Acacia greggii	4	6	H		H	
75	Acacia greggii	2	6	H		H	
76	Prosopis velutina	24	14	L	dead wood, insects, mistletoe	L	pack-rat midden
77	Cercidium floridum	20	16	L	in decline	L	large
78	Acacia greggii	14	11	H		L	interference
79	Prosopis velutina	36	14	L	dead wood, insects, mistletoe	L	sprawling
80	Acacia greggii	16	14	H		L	sprawl, large
81	Prosopis velutina	14	12	H		H	
82	Prosopis velutina	16	14	L	dead wood, insects, mistletoe	L	large
83	Acacia constricta	10	9	M	some dead wood	L	interference
84	Acacia constricta	4	7	L	dead wood	L	
85	Acacia greggii	10	8	M	some dead wood	L	interference
86	Acacia greggii	16	16	M	some dead wood	L	sprawl

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
87	Acacia constricta	12	10	L	dead wood	L	
88	Acacia constricta	10	9	L	dead wood	L	
89	Acacia greggii	14	9	L	dead wood	L	sprawling
90	Acacia constricta	5	9	H		H	
91	Acacia constricta	2	6	H		H	
92	Prosopis velutina	20	16	M	some dead wood, insects	L	large
93	Acacia greggii	30	14	M	some dead wood	L	large
94	Prosopis velutina	22	14	M	some dead wood, insects	L	sprawl
95	Acacia constricta	10	14	L	dead wood	L	pack-rat midden
96	Acacia constricta	8	9	M	some dead wood	L	interference, slope
97	Acacia constricta	10	8	L	dead wood	L	
98	Acacia greggii	18	10	M	some dead wood	L	slopes
99	Prosopis velutina	24	12	L	dead wood, insects, mistletoe	L	large
100	Acacia constricta	16	8	M	some dead wood	L	slopes
101	Cercidium microphyllum	20	14	L	dead wood	L	slopes
102	Prosopis velutina	18	14	M	some dead wood, insects	L	interference
103	Cercidium floridum	20	14	M	some dead wood	L	large
104	Cercidium floridum	8	12	H		L	interference, slope
105	Cercidium floridum	12	10	H		M	interference
106	Cercidium floridum	8	8	H		M	
107	Cercidium floridum	4	8	H		L	slope
108	Cercidium floridum	10	10	H		L	slope
109	Cercidium microphyllum	4	6	H		H	
110	Cercidium microphyllum	5	7	H		H	
111	Cercidium microphyllum	8	7	H		L	slope
116	Acacia constricta	12	12	M	some dead wood	L	interference
117	Acacia constricta	6	9	M	some dead wood	L	interference
118	Populus fremontii	16	20	H		L	large
119	Acacia constricta	4	8	L	dead wood	L	
120	Populus fremontii	22	24	H		L	large
121	Populus fremontii	24	25	H		L	large
122	Cercidium floridum	4	8	H		L	cut bank
123	Cercidium floridum	4	8	H		L	cut bank
124	Cercidium floridum	8	9	H		L	interference
125	Cercidium floridum	6	8	H		L	interference
126	Cercidium floridum	8	10	H		L	interference
127	Cercidium floridum	16	13	H		L	interference
128	Cercidium floridum	4	9	H		L	
129	Cercidium floridum	4	9	H		L	

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
130	Cercidium floridum	4	9	H		L	interference
131	Prosopis velutina	36	14	M	some dead wood, insects	L	large
132	Acacia constricta	3	7	M	some dead wood	L	interference
133	Acacia constricta	2	8	M	some dead wood	L	
134	Prosopis velutina	20	12	M	some dead wood, insects	L	large
135	Celtis pallida	6	7	L	dead wood	L	
136	Acacia greggii	12	10	M	some dead wood	L	interference
142	Cercidium microphyllum	6	8	H		L	cut bank
146	Cercidium microphyllum	8	10	L	dead wood	L	access
147	Cercidium floridum	16	14	H		L	access
148	Cercidium floridum	12	12	H		L	access
149	Acacia constricta	12	14	M	some dead wood	L	access
150	Cercidium floridum	4	12	H		L	access
151	Cercidium floridum	4	10	H		L	access
152	Cercidium floridum	4	10	H		L	access
153	Cercidium floridum	4	8	H		L	interference
154	Cercidium floridum	4	9	H		L	interference
155	Acacia constricta	8	10	L	insects	L	
156	Cercidium floridum	10	10	H		L	
157	Acacia constricta	14	16	M	some dead wood	L	interference
158	Cercidium floridum	30	18	L	in decline	L	large
159	Cercidium floridum	30	16	L	in decline	L	large
160	Acacia greggii	20	16	L	dead wood, insects, mistletoe	L	
161	Acacia constricta	10	12	H		L	interference
162	Acacia constricta	3	8	M	some dead wood	L	
163	Acacia constricta	2	6	M	some dead wood	L	access
164	Acacia constricta	10	7	M	some dead wood	L	access
165	Acacia constricta	3	6	H		H	
166	Acacia constricta	3	6	H		H	
167	Acacia constricta	3	7	M	some dead wood	L	pack-rat midden
168	Acacia constricta	10	10	M	some dead wood	L	
169	Acacia greggii	12	10	M	some dead wood	L	
170	Cercidium microphyllum	10	8	L	in decline	L	transplanted for prior NPPP
171	Acacia constricta	3	6	M	some dead wood	L	interference
172	Cercidium microphyllum	12	8	L	transplanted for prior NPPP	L	
173	Cercidium microphyllum	4	6	M	some dead wood	L	transplanted for prior NPPP
174	Cercidium microphyllum	6	6	M	some dead wood	L	transplanted for prior NPPP
175	Acacia constricta	10	10	M	some dead wood	L	
176	Acacia greggii	10	12	M	some dead wood	L	access

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
177	Acacia greggii	12	10	M	some dead wood	L	interference
178	Zizyphus obtusifolia	3	7	M	some dead wood	L	interference
179	Condalia warnockii	3	6	M	some dead wood	L	access
180	Acacia greggii	20	16	M	some dead wood, mistletoe	L	large
181	Acacia constricta	6	8	M	some dead wood	L	interference
182	Acacia greggii	10	8	M	some dead wood	L	interference
183	Cercidium floridum	20	20	L	in decline	L	large
192	Prosopis velutina	16	12	L	dead wood, insects, mistletoe	L	sprawl
193	Acacia greggii	10	9	M	some dead wood	L	
194	Cercidium floridum	14	14	M	some dead wood	L	interference
195	Cercidium floridum	36	22	L	in decline	L	large
196	Acacia constricta	8	12	M	some dead wood	L	interference
197	Acacia constricta	12	9	L	dead wood	L	
206	Acacia constricta	10	10	H		M	
207	Acacia constricta	10	8	M	some dead wood	M	
208	Acacia constricta	12	9	M	some dead wood	L	
209	Acacia constricta	9	7	H		H	
245	Zizyphus obtusifolia	10	8	M	some dead wood	L	sprawl
246	Cercidium floridum	12	12	M	some dead wood	L	interference
247	Cercidium floridum	12	12	M	some dead wood	L	interference
248	Prosopis velutina	24	10	L	dead wood, insects, mistletoe	L	large
253	Acacia constricta	10	10	M	some dead wood	L	
256	Cercidium floridum	6	12	M	some dead wood	M	
257	Acacia constricta	2	6	L	dead wood, insects, mistletoe	L	sprawling
258	Acacia constricta	8	12	H		M	
259	Acacia constricta	6	7	M	some dead wood	L	
260	Acacia constricta	3	6	L	dead wood, insects, mistletoe	L	sprawling
261	Acacia constricta	3	7	L	dead wood, insects, mistletoe	L	sprawling
262	Cercidium floridum	4	8	H		L	interference
263	Acacia constricta	14	10	L	dead wood	L	
264	Cercidium floridum	4	9	M	some dead wood	L	interference
265	Acacia greggii	3	6	H		L	interference
266	Acacia constricta	4	8	M	some dead wood	L	
267	Acacia constricta	10	7	M	some dead wood	L	
268	Ferocactus wislizenii		1.5	M		L	browning
269	Carnegiea gigantea		3.5	M	damaged	L	base eaten
270	Prosopis velutina	16	12	L	dead wood, insects, mistletoe	L	
271	Cercidium floridum	12	12	M	some dead wood	L	
272	Acacia constricta	16	12	M	some dead wood	L	large

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
273	Cercidium floridum	4	10	H		H	
274	Acacia constricta	6	7	L	dead wood	L	
275	Prosopis velutina	24	12	L	dead wood, insects, mistletoe	L	large
276	Acacia constricta	3	7	L	dead wood, insects, mistletoe	L	sprawling
277	Acacia constricta	9	14	L	dead wood	L	
278	Acacia constricta	10	9	L	dead wood	L	
279	Cercidium floridum	3	10	H		L	interference
280	Cercidium floridum	14	10	M	some dead wood	L	
281	Cercidium floridum	12	14	M	some dead wood	L	large
282	Cercidium floridum	14	14	M	some dead wood	L	large
283	Acacia constricta	3	7	M	some dead wood	L	sprawl
284	Acacia constricta	8	10	M	some dead wood	L	
285	Acacia greggii	8	8	H		L	sprawl
286	Prosopis velutina	28	16	L	dead wood, insects, mistletoe	L	large
287	Cercidium floridum	50	25	L	in decline	L	large, aged
288	Cercidium floridum	4	8	M	some dead wood	L	interference
289	Cercidium floridum	6	8	H		L	interference
290	Acacia constricta	4	8	L	in decline	L	
291	Acacia constricta	2	5	H		H	
292	Cercidium floridum	10	14	H		H	
293	Acacia constricta	6	12	H		L	access
295	Acacia greggii	24	12	H		L	sprawl, large
296	Acacia constricta	10	12	M	some dead wood	L	
297	Acacia constricta	8	12	L	dead wood	L	
298	Acacia greggii	12	7	M	some dead wood	L	
299	Acacia greggii	8	8	M	some dead wood	L	access
300	Prosopis velutina	24	14	L	dead wood, insects, mistletoe	L	large
301	Acacia constricta	18	16	L	dead wood	L	large
302	Acacia greggii	18	14	H		L	large
303	Prosopis velutina	30	16	L	dead wood, insects, mistletoe	L	large
304	Condalia warnockii	3	4	L		L	
305	Cercidium microphyllum	14	12	L	transplanted for prior NPPP	L	
306	Acacia constricta	4	7	L	dead wood	L	
307	Acacia constricta	6	7	M	transplanted for prior NPPP	L	
308	Prosopis velutina	20	16	L	dead wood, insects, mistletoe	L	large
309	Acacia constricta	6	5	L	dead wood	L	
310	Prosopis velutina	16	14	L	dead wood, insects, mistletoe	L	large
311	Prosopis velutina	20	16	L	dead wood, insects, mistletoe	L	large
312	Cercidium microphyllum	16	10	L	transplanted for prior NPPP	L	

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
313	Cercidium microphyllum	14	9	M	some dead wood	L	transplanted for prior NPPP
314	Cercidium microphyllum	10	12	M	some dead wood	L	transplanted for prior NPPP
315	Cercidium microphyllum	14	9	M	some dead wood	L	transplanted for prior NPPP
316	Cercidium microphyllum	8	7	M	some dead wood	L	transplanted for prior NPPP
317	Cercidium microphyllum	16	10	L	transplanted for prior NPPP	L	
318	Prosopis velutina	20	12	L	dead wood, insects, mistletoe	L	large
319	Cercidium microphyllum	10	7	M	some dead wood	L	
320	Cercidium microphyllum	10	8	L	transplanted for prior NPPP	L	
321	Cercidium microphyllum	8	8	L	transplanted for prior NPPP	L	
322	Prosopis velutina	18	14	L	dead wood, insects, mistletoe	L	large
323	Prosopis velutina	26	14	L	dead wood, insects, mistletoe	L	large
324	Prosopis velutina	28	12	L	dead wood, insects, mistletoe	L	large
325	Prosopis velutina	20	12	L	dead wood, insects, mistletoe	L	large
326	Cercidium microphyllum	12	8	M	some dead wood	L	transplanted for prior NPPP
327	Cercidium microphyllum	14	10	L	transplanted for prior NPPP	L	
328	Prosopis velutina	16	14	L	dead wood, insects, mistletoe	L	large
329	Acacia constricta	8	7	M	some dead wood	L	transplanted for prior NPPP
330	Cercidium microphyllum	16	10	M	some dead wood	L	transplanted for prior NPPP
331	Prosopis velutina	20	14	L	dead wood, insects, mistletoe	L	large
332	Cercidium microphyllum	12	10	L	transplanted for prior NPPP	L	
333	Prosopis velutina	18	12	L	dead wood, insects, mistletoe	L	large
334	Acacia greggii	18	12	M	some dead wood	L	large
335	Prosopis velutina	30	16	L	dead wood, insects, mistletoe	L	large
336	Prosopis velutina	26	12	L	dead wood, insects, mistletoe	L	large
337	Prosopis velutina	28	16	L	dead wood, insects, mistletoe	L	large
338	Prosopis velutina	20	14	L	dead wood, insects, mistletoe	L	large
339	Prosopis velutina	28	18	L	dead wood, insects, mistletoe	L	large
340	Zizyphus obtusifolia	2	7	M	some dead wood	L	interference
341	Cercidium floridum	18	16	H		L	large
342	Prosopis velutina	20	12	L	dead wood, insects, mistletoe	L	large
343	Cercidium floridum	28	18	H		L	
344	Cercidium floridum	4	12	H		L	
345	Cercidium floridum	16	18	L	dead wood	L	large
346	Prosopis velutina	18	16	L	dead wood, insects, mistletoe	L	large
347	Prosopis velutina	30	18	L	dead wood, insects, mistletoe	L	large
348	Prosopis velutina	26	18	L	dead wood, insects, mistletoe	L	large
349	Prosopis velutina	26	18	L	dead wood, insects, mistletoe	L	large
350	Prosopis velutina	14	12	L	dead wood, insects, mistletoe	L	
351	Prosopis velutina	30	16	L	dead wood, insects, mistletoe	L	large

**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
352	Cercidium floridum	4	6	H		H	
357	Acacia constricta	3	7	H		H	
358	Acacia constricta	3	7	M	some dead wood	L	
361	Zizyphus obtusifolia	3	7	M	some dead wood	L	cut bank
362	Acacia greggii	3	7	H		L	interference
363	Prosopis velutina	4	7	L	dead wood, insects	L	
364	Cercidium floridum	14	14	M	some dead wood, insects	L	bad base
365	Prosopis velutina	14	12	L	damage, dead wood	L	
366	Acacia greggii	16	14	H		L	sprawl
367	Acacia greggii	6	12	H		L	sprawl
368	Zizyphus obtusifolia	2	7	M	some dead wood	L	access
369	Prosopis velutina	12	10	L	dead wood, insects	L	
370	Prosopis velutina	24	14	L	dead wood, insects	L	large
371	Prosopis velutina	10	10	L	dead wood, insects	L	interference
372	Zizyphus obtusifolia	3	7	M	some dead wood	L	interference
373	Prosopis velutina	14	12	M	some dead wood, insects	L	interference
374	Prosopis velutina	14	14	L	dead wood, insects	L	interference
375	Prosopis velutina	16	12	L	dead wood, insects	L	interference
376	Prosopis velutina	4	9	L	dead wood, insects	L	interference
377	Prosopis velutina	10	12	L	dead wood, insects	L	
378	Prosopis velutina	8	12	L	dead wood, insects	L	interference
379	Acacia constricta	4	8	M	some dead wood	L	
380	Prosopis velutina	6	6	L	dead wood, insects	L	bad base
381	Acacia greggii	18	14	H		L	sprawl, large
382	Acacia greggii	2	6	H		L	interference
383	Prosopis velutina	24	14	L	dead wood, insects, mistletoe	L	large
384	Zizyphus obtusifolia	2	6	M	some dead wood	L	interference
385	Prosopis velutina	10	9	L	dead wood, insects	L	bad base
386	Condalia warnockii	3	6	H		M	
387	Celtis pallida	10	8	M	some dead wood	L	sprawl
388	Acacia greggii	8	7	M	some dead wood	L	
389	Prosopis velutina	10	12	L	dead wood, insects	L	leaning
390	Prosopis velutina	16	14	L	dead wood, insects	L	bad base
391	Acacia greggii	14	14	L	dead wood, insects	L	pack-rat midden
392	Prosopis velutina	20	16	L	dead wood, insects, mistletoe	L	large
393	Prosopis velutina	24	16	L	dead wood, insects, mistletoe	L	large
394	Prosopis velutina	30	16	L	dead wood, insects, mistletoe	L	large
395	Zizyphus obtusifolia	4	7	H		L	interference
396	Acacia constricta	12	8	H		L	on cut bank

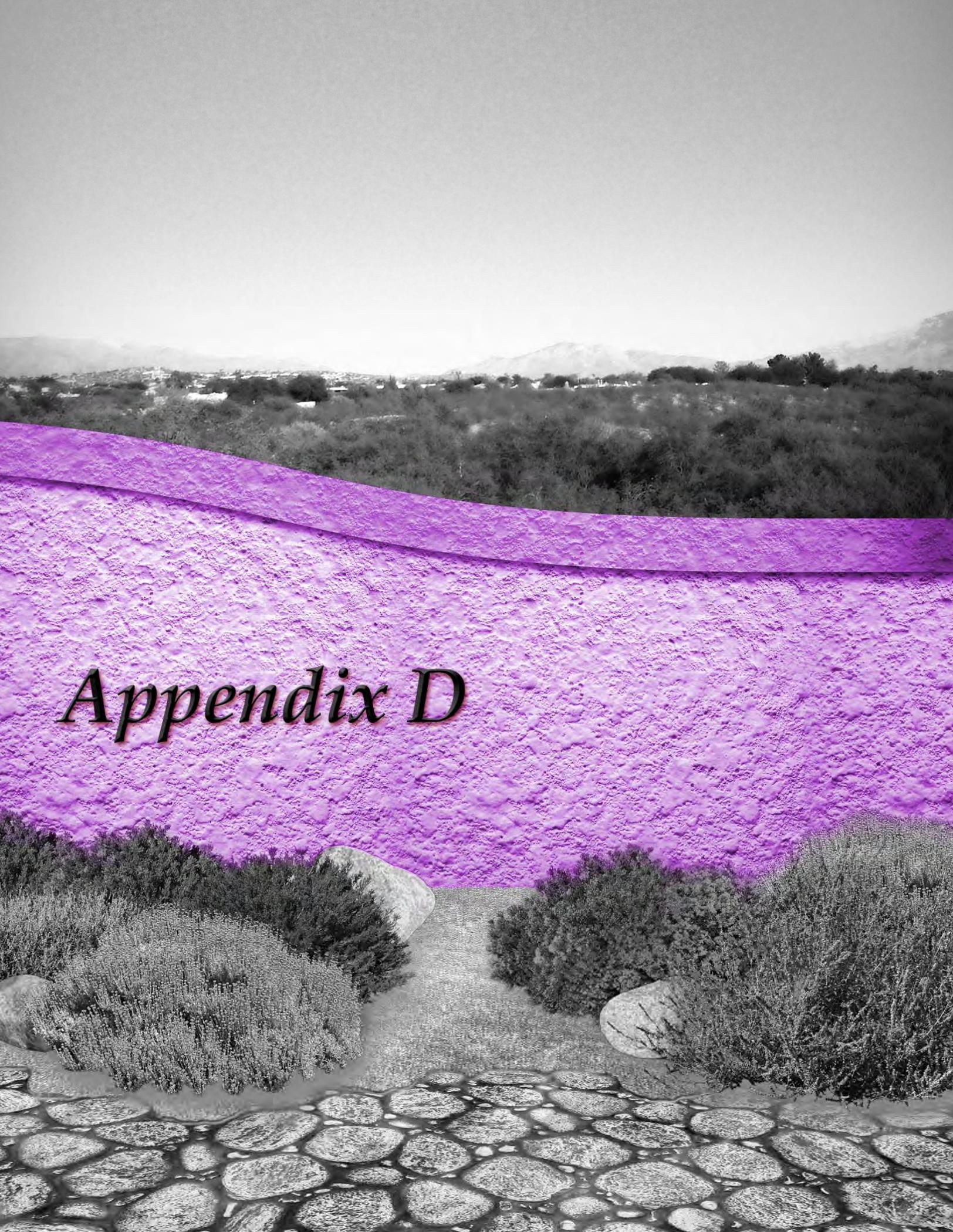
**Rio Verde Village
Regulated Riparian Habitat
Plant Inventory**

I.D.#	Botanical Name	Caliper	Height Feet	In-situ Viability	Notes	Transplant Rating	Notes
397	Acacia greggii	6	6	H		M	
398	Prosopis velutina	30	14	L	dead wood, insects, mistletoe	L	large
399	Condalia warnockii	2	5	H		H	
400	Condalia warnockii	4	7	H		H	
401	Zizyphus obtusifolia	2	6	M	some dead wood	L	
402	Prosopis velutina	20	12	L	dead wood, insects	L	large
403	Celtis pallida	12	8	H		L	large
404	Cercidium floridum	16	12	H		M	
405	Acacia greggii	8	7	M	some dead wood	L	
406	Prosopis velutina	24	16	L	dead wood, insects, mistletoe	L	large
407	Prosopis velutina	24	16	L	dead wood, insects	L	large
408	Acacia greggii	3	7	M	some dead wood	L	
409	Prosopis velutina	30	16	L	dead wood, insects	L	large
410	Prosopis velutina	24	16	L	dead wood, insects	L	large
411	Acacia constricta	6	10	L	dead wood, insects	L	
412	Acacia greggii	6	8	M	some dead wood	L	sprawl
413	Acacia greggii	8	8	M	some dead wood	L	interference
414	Prosopis velutina	24	14	L	dead wood, insects	L	large
415	Acacia constricta	3	8	M	some dead wood	L	
416	Acacia greggii	4	7	M	some dead wood	L	interference
417	Acacia constricta	6	8	L	dead wood, insects	L	interference
418	Prosopis velutina	20	14	L	dead wood, insects	L	bad base
419	Prosopis velutina	26	16	L	dead wood, insects	L	large
420	Zizyphus obtusifolia	3	6	M	some dead wood	L	
421	Acacia greggii	16	14	M	some dead wood	L	sprawl
422	Acacia greggii	6	12	M	some dead wood	L	
423	Prosopis velutina	14	10	L	dead wood, insects	L	
424	Prosopis velutina	24	14	L	dead wood, insects	L	bad base
425	Acacia constricta	2	7	H		L	on cut bank



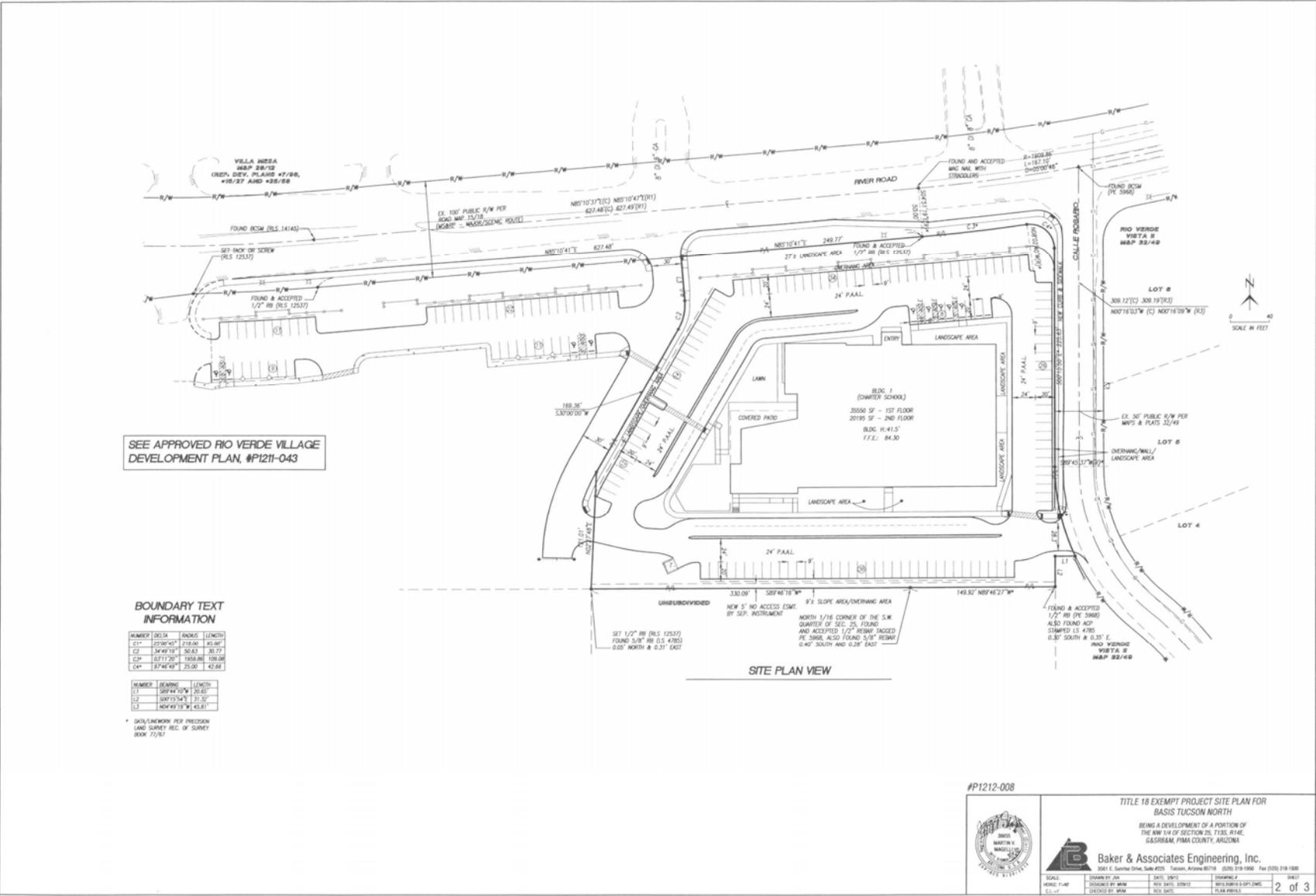
Appendix C

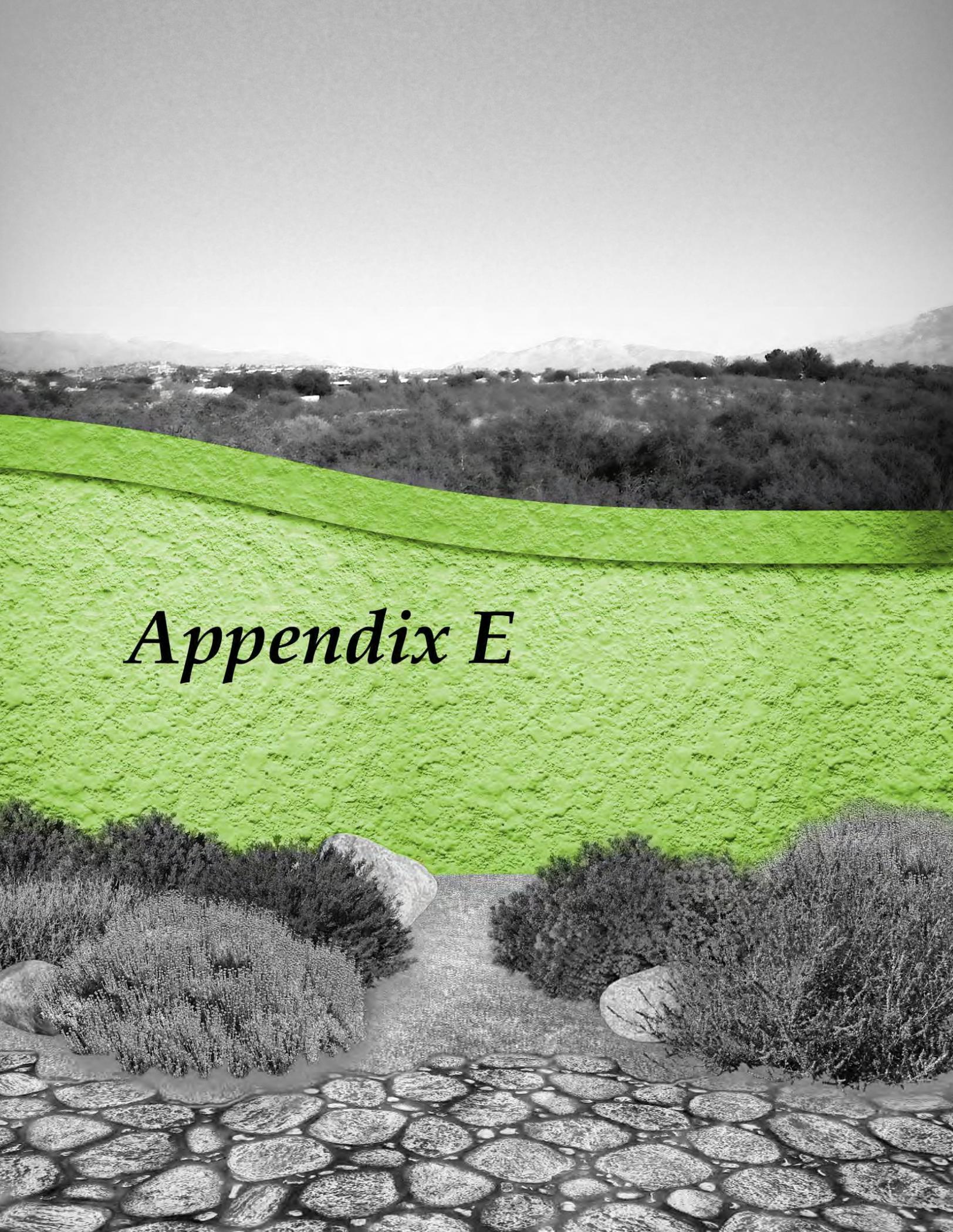
*Please see inside pocket cover. The contents include a CD containing all City Code References pertaining to this document.

A grayscale landscape photograph featuring a wide, wavy purple band with a pebbled texture across the middle. Below this band, a stone path leads through scrubby bushes and rocks. In the background, a town and mountains are visible under a clear sky.

Appendix D

Appendix D: Basis School Site Plan



The image features a landscape with a prominent, bright green field in the foreground. A path of irregularly shaped stones leads from the bottom center towards the green field. In the background, there is a town or village with buildings, surrounded by dark, scrubby vegetation. The sky is a uniform, overcast grey. The text "Appendix E" is written in a black, italicized serif font across the middle of the green field.

Appendix E

Appendix F

*Rio Verde Village
Planned Area Development
Addendum 1*



City of Tucson

April 2015

**Rio Verde Village
Planned Area Development
Addendum 1**

River Road and Craycroft Road
Tucson, Arizona

Submitted to:

**City of Tucson
Planning & Development Services Department
201 North Stone Avenue
Tucson, Arizona 85701**

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April 21, 2015

I.	Introduction	
A.	Background	1
B.	Project Overview	1
C.	Intent of Land Use Regulation	1
D.	Conformance with Plan Tucson – the Tucson General Plan	1
E.	Compatibility with Adjoining Land Uses	3
II.	Site Analysis	
A.	Existing On-Site Development	7
B.	Existing Off-Site Development	7
C.	Existing Zoning.....	9
D.	Public, Educational, Community and Cultural Facilities	11
1.	Schools Abutting the Property	11
2.	Parks, Trails and Public Land	11
3.	Fire Stations	12
4.	Police Stations	12
5.	Hospitals	12
E.	Existing Infrastructure	15
1.	Sewer	15
2.	Water	15
3.	Solid Waste Disposal and Recycling	15
4.	Private Utilities	16
F.	Major Transportation and Circulation	20
1.	Adjacent Roadways	20
2.	Current and Future Right-of-Way	20
3.	Scenic Corridor Zone	20
4.	Access Points	20
5.	Alternate Modes of Transportation	20
6.	Roadway Characteristics	21
G.	Hydrology, Water Resources and Drainage	23
1.	Off-Site Watersheds	23
H.	Topography and Slope	25
I.	Vegetation and Wildlife	26
1.	Vegetative Communities and Plant Associations On-Site	26
a.	Sonoran Desert Upland	26
b.	Unregulated Xeroriparian Habitat	26
c.	Hydro/Meso Riparian Habitat	27
d.	Mixed Native and Non-Native Landscape	27
e.	Disturbed Area	27
2.	Wildlife Habitats	28
J.	Soils	31
K.	Viewsheds and Visual Analysis.....	34
L.	Paleontological and Cultural Sites, Structures and Districts.....	37
III.	PAD District Proposal	
	Rio Verde Village PAD Addendum 1	40
B.	Rio Verde Market	40

2.	Permitted Land Uses	40
a.	Commercial Services Use Group	40
5.	Rio Verde Market Development Standards	40
a.	Development Criteria	40
E.	Circulation Plan	40
2.	Proposed Vehicular Access	40
3.	On-Site Vehicular Circulation	41
4.	On-Site Pedestrian and Non-Vehicular Circulation	41
F.	Roadway Standards.....	48
3.	Sidewalk Area (Development Standard 3-01.2.7.A – Sidewalk Area)	48
J.	Landscape Program.....	48
1.	Landscape Borders and Screening Requirements	48
2.	Water Harvesting	48
4.	Regulated Riparian Habitat	48
K.	Post-Development Hydrology.....	55
1.	Erosion Protection Measures	55

Appendix E: Traffic Study 57

List of Exhibits

Exhibit I.A: Regional Context	4
Exhibit I.B: Local Context.....	5
Exhibit II.A: Existing Development	8
Exhibit II.C: Zoning.....	10
Exhibit II.D.1: Existing Schools	13
Exhibit II.D.2: Public Facilities and Services	14
Exhibit II.E.1.a: Existing Utilities.....	17
Exhibit II.E.1.b: Wastewater Service Letter.....	18
Exhibit II.E.2: Water Service Letter	19
Exhibit II.F: Existing Circulation	22
Exhibit II.G.1: Existing Condition Hydrology	24
Exhibit II.I.1: Vegetative Communities	29
Exhibit II.I.2: Arizona Game and Fish Letter	30
Exhibit II.J: Soils.....	33
Exhibit II.K: Photo Key Map	36
Exhibit II.L: Arizona State Museum Letter.....	38
Exhibit III.B.1: PAD Districts.....	42
Exhibit III.B.2: Market District Conceptual Site Plan A.....	43
Exhibit III.B.3: Market District Conceptual Site Plan B.....	44
Exhibit III.B.4: Market District Conceptual Site Plan C.....	45
Exhibit III.E.1: On-Site Vehicular Circulation.....	46
Exhibit III.E.2: Non-Vehicular Circulation	47
Exhibit III.F.1: Cross Section “G”	49
Exhibit III.J.1.a: Proposed Landscaping and Screening	50
Exhibit III.J.1.b: Cross Section “A” Landscape Border Adjacent to Residential Property.....	51
Exhibit III.J.1.c: Cross Section “A’ ” Landscape Border Adjacent to Residential Property.....	52
Exhibit III.J.2: Proposed Water Harvesting	53
Exhibit III.J.3: Regulated Riparian Habitat Impacts.....	54
Exhibit III.K.1: Developed Condition Hydrology	56

List of Tables

Table II.B: Existing Uses	7
Table II.C: Adjacent Zoning.....	9
Table II.D: Existing Schools within a One-mile Radius.....	11

1. *Introduction*



I. Introduction

A. Background

This 4.6 acre site adjoins The Rio Verde Village (“RVV”) Planned Area Development (“PAD”), PAD-22) and is located within the Catalina Foothills near the southeast corner of River Road and Craycroft Road (the “Property”). The Property was recently annexed into the City of Tucson, with the Original Zoning designation of Suburban Ranch (“SR”). When the RVV PAD was approved by Mayor and Council on July 10, 2012, one of the conditions required cross-access to be provided between the Market and Manor Districts, which contemplated the inclusion of the Property.

See Exhibit I.A: Regional Context, page 4.

B. Project Overview

The Property has now been acquired and this rezoning request seeks to 1) include the Property within the boundary of the RVV PAD and 2) change the zoning from SR to Planned Area Development (PAD-22), Market District, Sub-Area B. The Property will be subject to the development conditions approved in the RVV PAD and this rezoning.

See Exhibit I.B: Local Context, page 5.

C. Intent of Land Use Regulation

The RVV PAD (PAD-22) serves as the primary mechanism for controlling the development of the southeast corner of River and Craycroft, which will now include the Property. In accordance with Section 2.6.3 of the *Land Use Code*, the PAD standards herein supersede the standards of the LUC and/or UDC. Where specific references to LUC or UDC standards are provided, those reference the LUC standards in existence on the date the RVV PAD was approved by the Mayor and Council. The City of Tucson Development Standards shall apply except where modified herein. Where the PAD is silent, the LUC provisions for the C-2 and R-2 zone and other relevant City standards shall control.

D. Conformance with Plan Tucson – the General Plan

Since the adoption of the RVV PAD in 2012, The City of Tucson has completed an update to the General Plan. *Plan Tucson*, effective November 13, 2013, provides the relevant policy guidance for new land use decisions.

The inclusion of the Property into the PAD is in conformance with *Plan Tucson*. *Plan Tucson* supports a mix of commercial, office and residential uses near the intersections of major transportation corridors.

In addition, *Plan Tucson* supports cross-access for commercial sites, the inclusion of pedestrian and bicycle facilities specifically along the Rillito River and Tanque Verde Creek, and sensitivity to the site and surrounding neighborhoods.

Specifically the Property will provide cross-access between the established Manor and Market District of the PAD that was not available at the time of the approval of the PAD.

Additionally, sensitivity to the surrounding neighborhoods is demonstrated through the provision of large landscape buffers between the Property and an adjacent off-site single-family residence.

Plan Tucson has four focus areas: The Social, Economic, Natural, and Built Environments. The Property is in conformance with the goals and applicable policies in each of these areas. *Plan Tucson* includes several goals that help define what Tucson “strives for” (From Plan Tucson, City of Tucson, 2013) in each focus area.

Examples include:

The Social Environment:

Goal #1: A mix of well-maintained, energy-efficient housing options with multi-modal access to basic goods and services, recognizing the important role of homeownership to neighborhood stability.

The Property will, as part of the RVV PAD Market District, provide more options for new multi-family housing or elder-care that has direct access to stores, office/employment areas, schools, restaurants, transit, and multi-modal facilities such as the Rillito River Park.

The Economic Environment:

Goal #9: An economy that supports existing businesses and attracts new businesses to increase employment opportunities, raise income levels, expand the tax base, and generate public and private investment leading to a high quality of life for the community.

The Property will, as part of the RVV PAD Market District, provide new business opportunities to reinforce the existing businesses that have recently been established in and near the Property. This level of private investment in the community will expand the tax base and increase the quality of life in the area. The intersection of River Road and Craycroft has already experienced new life with the completion of the Basis School, QuikTrip, Whole Foods, and Petco.

The Natural Environment:

Goal #15: A reduction in the community’s carbon footprint, and greater energy independence.

The Property will, as part of the RVV PAD Market District, support the ability of people to work, provide for their basic daily needs, recreate and connect to the rest of the City all while reducing the need to travel great distances by car. This connectivity will result in a reduction of the community’s

carbon footprint, while fostering a greater sense of community that comes with getting out of your car and interacting with your neighbors face to face.

The Built Environment:

Goal #25: An urban form that conserves natural resources, improves and builds on existing public infrastructure and facilities, and provides an interconnected multi-modal transportation system to enhance the mobility of people and goods

The Property will, as part of the RVV PAD, further this goal because it adds to an existing mixed-use development and provides for more opportunities for interconnectedness. The ability to locate a vibrant, mixed-use project on the banks of the Tanque Verde Creek, a large natural open space, brings together the best of the natural and the built environment.

E. Compatibility with Adjoining Land Uses

The Property will become part of the RVV PAD, which was approved on July 10, 2012 pursuant to City of Tucson Ordinance Number 11009. The PAD adjoins the Property on the Property's entire north and west boundaries and partially on the east boundary.

To the south of the Property is the Tanque Verde Creek, and the RVV PAD already contains policies that address this interface.

To the east of the Property is an existing off-site single-family residential property with a detached guest house/office. Care has been given to the uses and design on the Property to ensure compatibility with the off-site single-family residence. Specific features, such as the removal of a north/south pedestrian trail on the new eastern boundary of the Market District adjacent to the off-site single-family residential property and the inclusion of a larger landscape buffer in the area immediately adjacent to the off-site residence (the house) itself, provide appropriate buffering and ensure compatibility with the adjoining land use.

See Exhibit II.A: Existing Development, page 8.

Exhibit I.A: Regional Context

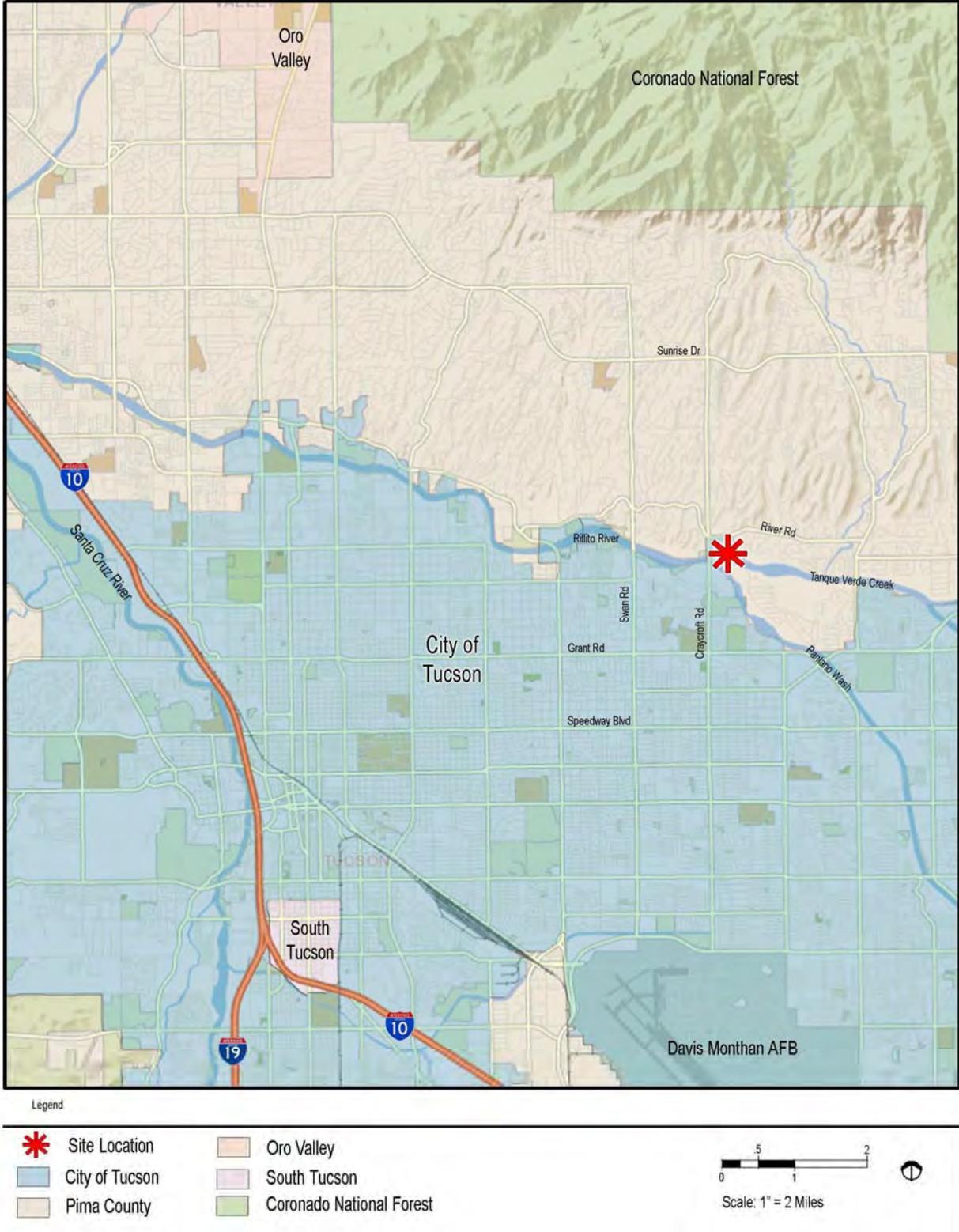
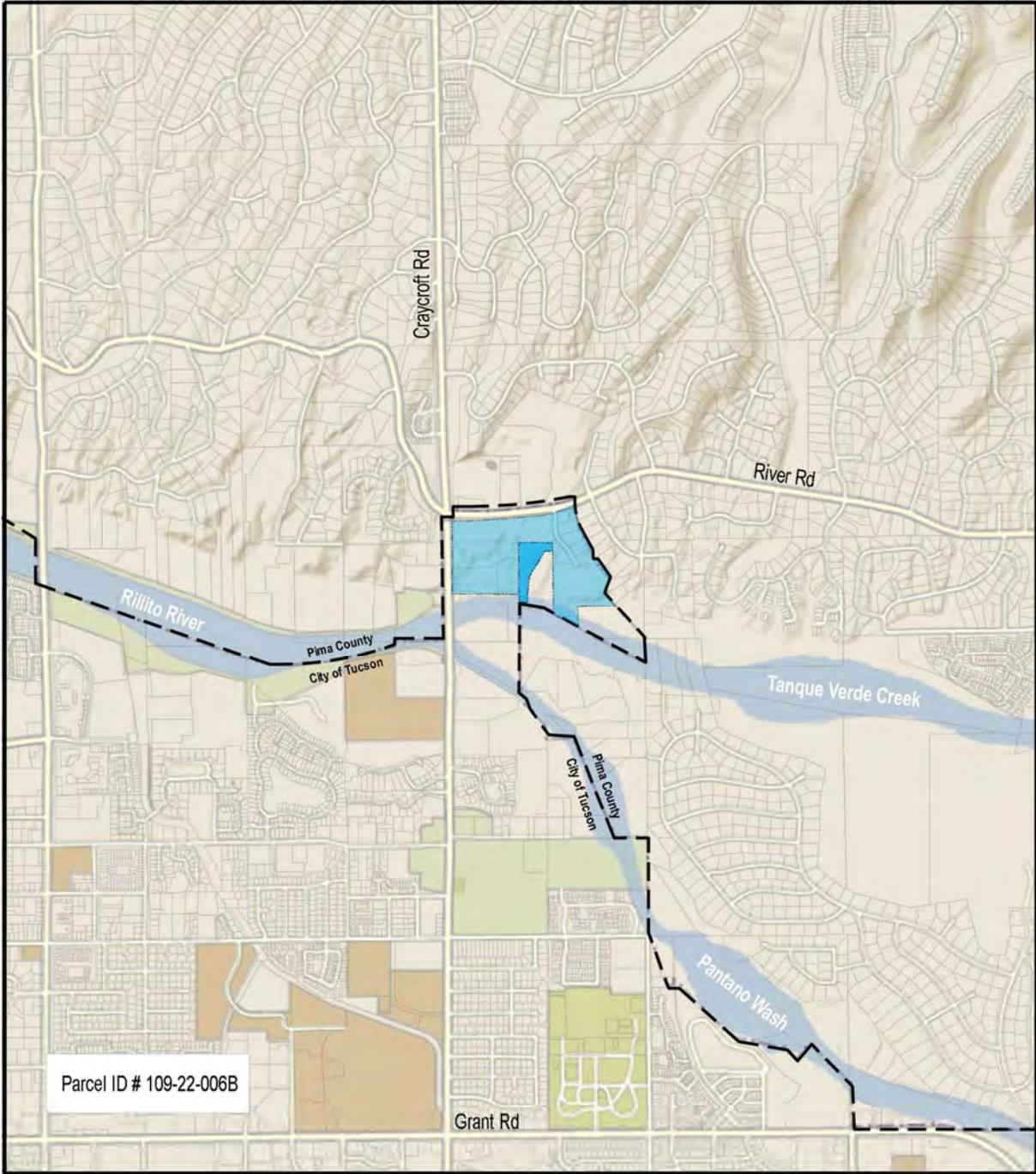
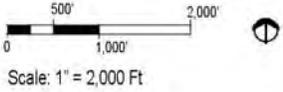


Exhibit I.B: Local Context



- Legend**
- RVV PAD Addendum 1
 - Rio Verde Village PAD
 - Jurisdictional Boundary

Notes:
Project Site is located at:
Township 13S, Range 14E, Section 25
Site Boundary Acreage: 4.5 AC





2. Site Analysis



II. Site Analysis

A. Existing On-Site Development

A vacant, single-family residence currently exists on the north central part of the Property. This structure will be demolished to facilitate redevelopment and incorporation of the Property into the RVV PAD as approved by Mayor and Council in July 2012.

See Exhibit II.A: Existing Development, page 8.

B. Existing Off-Site Development

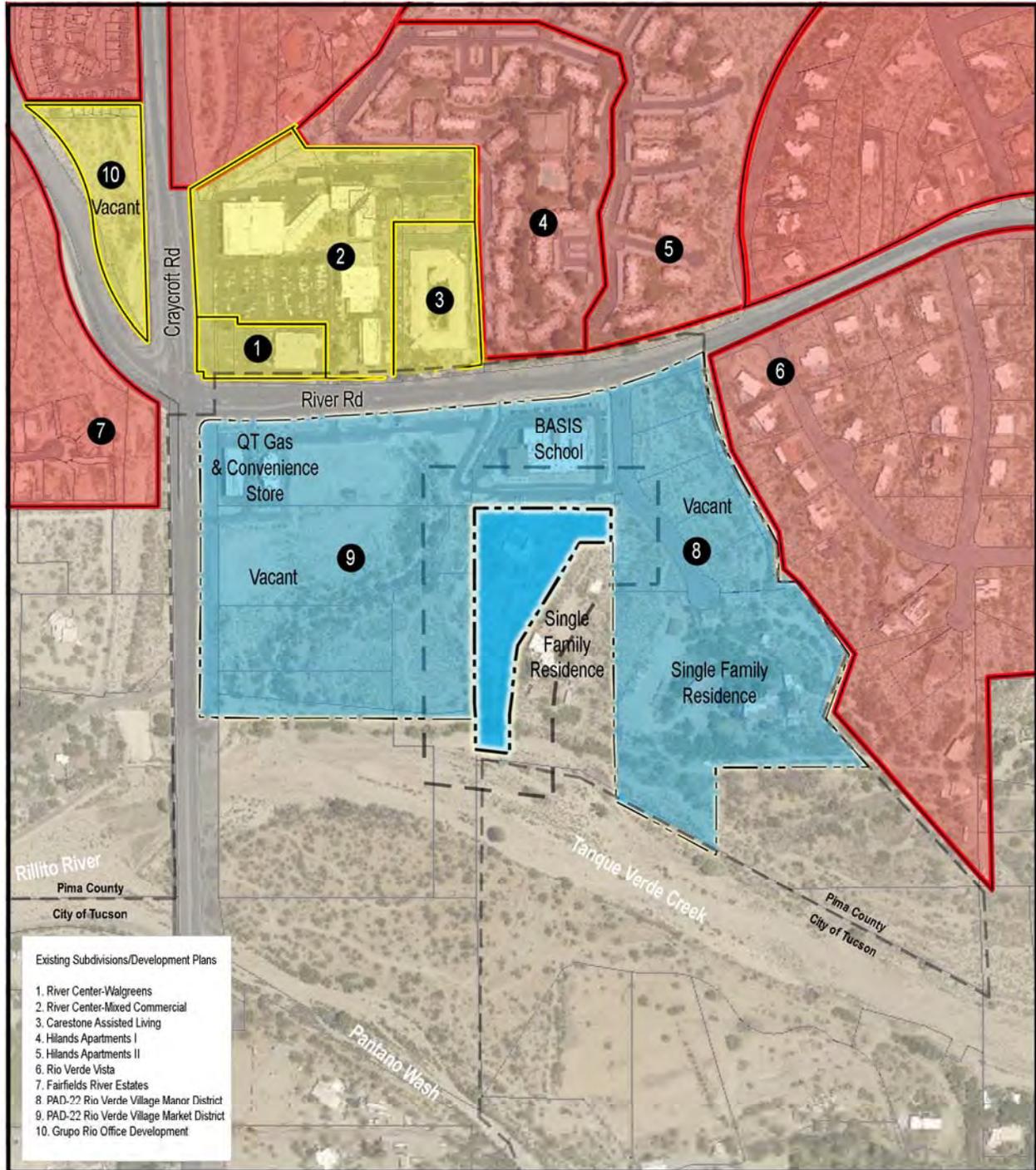
The Property is surrounded on three sides by the RVV PAD. Currently, the northwest corner of the RVV PAD has been developed with a QuikTrip gas and retail store. Directly north of the Property is BASIS School, which has now been operating into its third academic year. The remainder of the RVV PAD is vacant with the exception of a single-family residence located in the southeastern corner of the property in the Manor District.

Directly to the east of the Property is an off-site single-family residence with a detached guest house/office. The Tanque Verde Creek is located to the south of the site. See Exhibit II.A: Existing Development, page 8.

Table II.B: Existing Uses

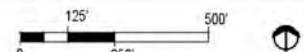
Property	Single-Family Residential
North	BASIS Tucson North (RVV PAD)
South	Tanque Verde Creek
East	Single-Family Residence, RVV PAD
West	RVV PAD QuikTrip gas and convenience store

Exhibit II.A: Existing Development



Legend

- RVV PAD Addendum 1
- Rio Verde Village PAD
- Jurisdictional Boundary
- Approved Subdivision Plan
- Approved Development Plan
- 150-Foot Radius



Scale: 1" = 500 Ft

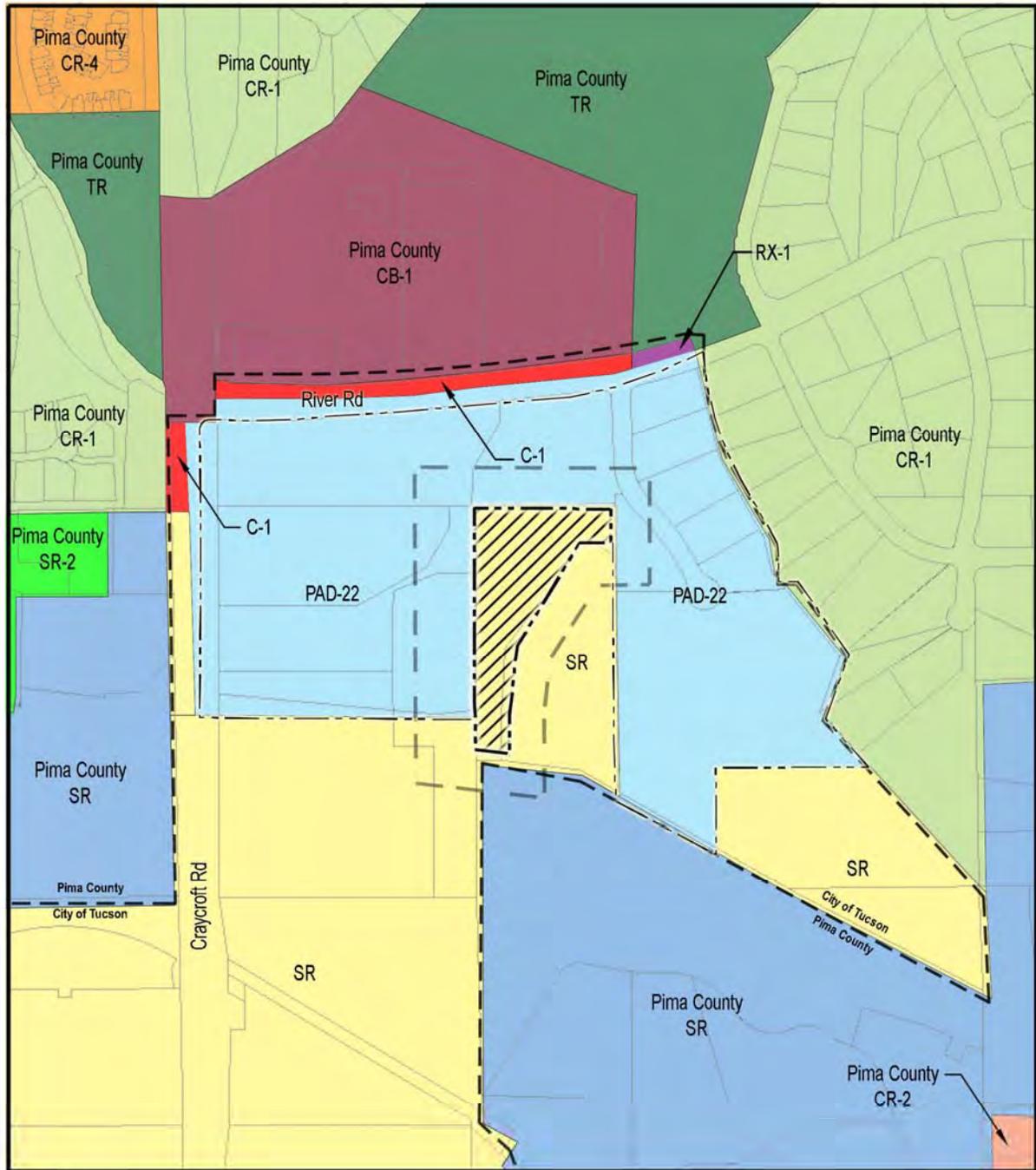
C. Existing Zoning

The existing zoning designation on the Property is “SR,” Suburban Ranch. The zoning designations of surrounding properties, as depicted in Exhibit II.C: Zoning, on page 10, are as follows:

Table II.C: Adjacent Zoning

North	City of Tucson: PAD-22 Rio Verde Village
South	Pima County & City of Tucson: SR (Suburban Ranch Zone)
East	City of Tucson: SR (Suburban Ranch Zone)/PAD-22 Rio Verde Village
West	City of Tucson: PAD-22 Rio Verde Village

Exhibit II.C: Zoning



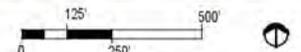
Legend

RVV PAD Addendum 1

Rio Verde Village PAD

Jurisdictional Boundary

150-Foot Radius



Scale: 1" = 500 Ft

D. Public, Educational, Community and Cultural Facilities

1. Schools Abutting the Property

The Property falls within the Tucson Unified School District. Schools located within a mile of the Property are listed in the following table:

Table II.D: Existing Schools within a One-mile Radius

School	Type	Class
BASIS Tucson North	Charter	5-12
The Gregory School	Private	6-12
Castlehill Country Day School	Charter	Pre-K - 5
Whitmore Elementary School	Public	Elementary
Unity School of Creative Learning	Charter	Pre-K

See Exhibit II.D.1: Existing Schools, page 13.

2. Parks, Trails and Public Land

The City of Tucson’s Fort Lowell Park is located approximately 0.6 miles from the southern boundary of the Property. Fort Lowell Park features racquetball courts, an historical museum, a jogging path, public art and a pond. Features in Fort Lowell Park also include a swimming pool, lighted soccer fields, tennis courts and baseball fields.

To the west of Craycroft Road is the Rillito River Park. The Rillito River Park winds through the City of Tucson along the Rillito riverbed. An asphalt trail is constructed along the north side of the river and is used by walkers, joggers, skaters and cyclists. The path includes underpass ramps under major roadways to provide grade separated crossings for users.

West of the Craycroft Road Bridge at the Rillito River Park there is a fully developed trail head. This trail head includes parking, restrooms, plazas, seating areas, and multiple access points to the River Park.

East of Craycroft Road, the Rillito branches into two watercourses, the Tanque Verde Creek and the Pantano Wash. The Tanque Verde Creek is located directly south of the Property.

The land on the Tanque Verde Creek and the Pantano Wash, immediately upstream from the Craycroft Road Bridge, is privately owned. There is no public trail in this area and no trail improvements; although master plans indicate future trails along both the Tanque Verde and Pantano Wash. Nevertheless, the wash is used by equestrians and some pedestrians.

See Exhibit II.D.2: Public Facilities and Services, page 14.

3. Fire Stations

There are no fire stations within a one-mile radius of the Property.

4. Police Stations

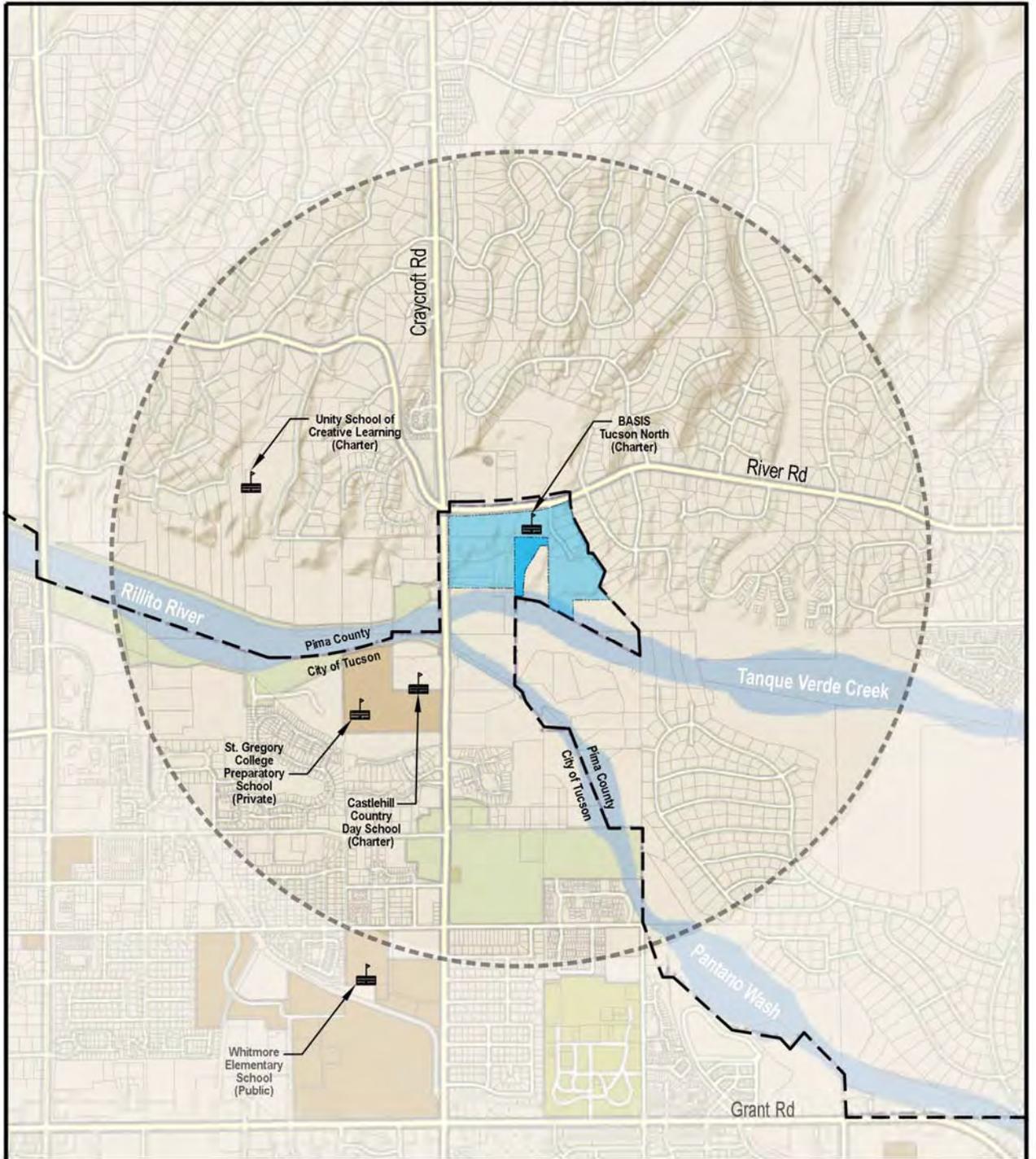
The police station that will provide service to the Property is the City of Tucson's Rincon Substation, located at 9670 East Golf Links Road.

5. Hospitals

The nearest hospital is Tucson Medical Center, located at 5301 East Grant Road, approximately 1.75 miles southwest of the Property. A private hospital, Tucson Medical Center has 650 licensed beds at the Grant Road location.

See Exhibit II.D.2: Public Facilities and Services, page 14.

Exhibit II.D.1: Existing Schools



Legend

- RVV PAD Addendum 1
- Rio Verde Village PAD
- Jurisdictional Boundary
- One-Mile Radius

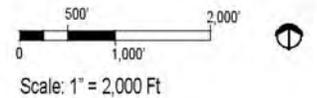
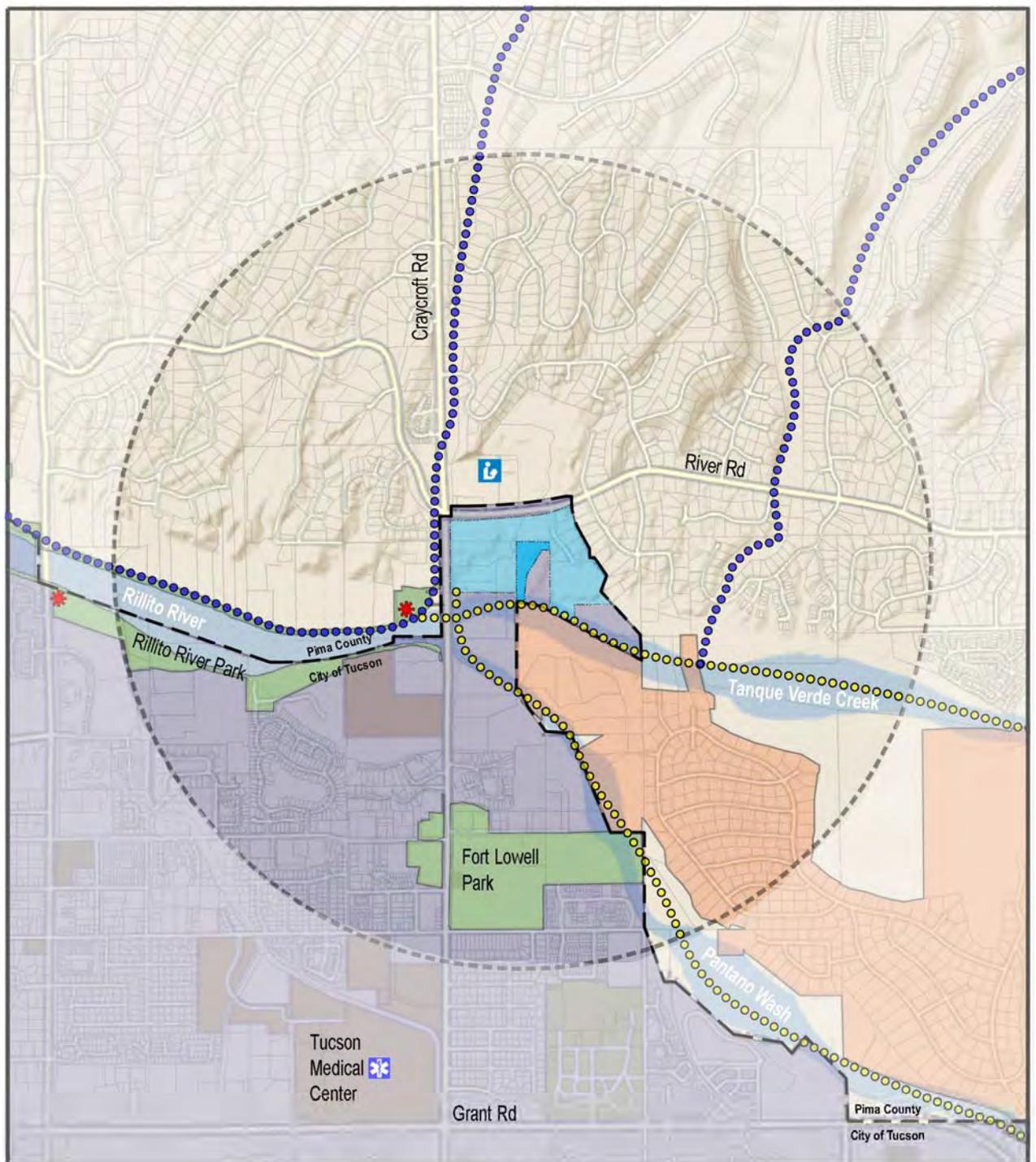


Exhibit II.D.2: Public Facilities and Services



E. Existing Infrastructure

1. Sewer

A 30" gravity main sewer line, G-68-25, runs along the southern portion of the RVV PAD and an 8" gravity main, G-79-62, runs within the RVV PAD within Calle Rosario. A sewer stub-out was provided at the northwest corner of the RVV PAD area as part of the Craycroft Road intersection improvements by plan G-2006-131, to serve the northwesterly portion of the project. An existing 8" sewer main (M-485) runs within the Property as well.

Pima County Regional Wastewater Reclamation Department allocates system capacity at the Ina Road Water Reclamation Facility to new developments on a first-come/first-serve basis. Capacity is currently available at several points around the Property.

See Exhibit II.E.1.a: Existing Utilities, page 17 and Exhibit II.E.1.b: Wastewater Service Letter, page 18.

2. Water

According to the Pima County Department of Transportation Geographical Information Services and Arizona Department of Water Resources (ADWR), there is one well located approximately 1,000 feet southwest of the Property, #514359. The well is currently registered for domestic water production. See Exhibit II.E.1.a: Existing Utilities, page 17.

The closest reclaimed water line is located at The Gregory School, located approximately 2,000 feet from the Property.

The City of Tucson Water Department stated in a letter dated October 16, 2014 that Tucson Water will provide water service to the Property based on the subject zoning. Tucson Water has an assured water supply (AWS) designation from ADWR. Multiple water stub-outs were provided along Craycroft and River Roads as part of the Craycroft Road intersection improvements to serve the anticipated water needs for the RVV PAD including the Property, as well as existing water infrastructure within Calle Rosario and the previously developed areas of the RVV PAD. See Exhibit II.E.2: Water Service Letter, page 19. As a result of annexation into the City of Tucson, Tucson Water provides water service to the RVV PAD, as well as the Property. A water service agreement will be required to establish service to the Property.

3. Solid Waste Disposal and Recycling

Solid waste and recycling will be provided by the City of Tucson.

4. Private Utilities

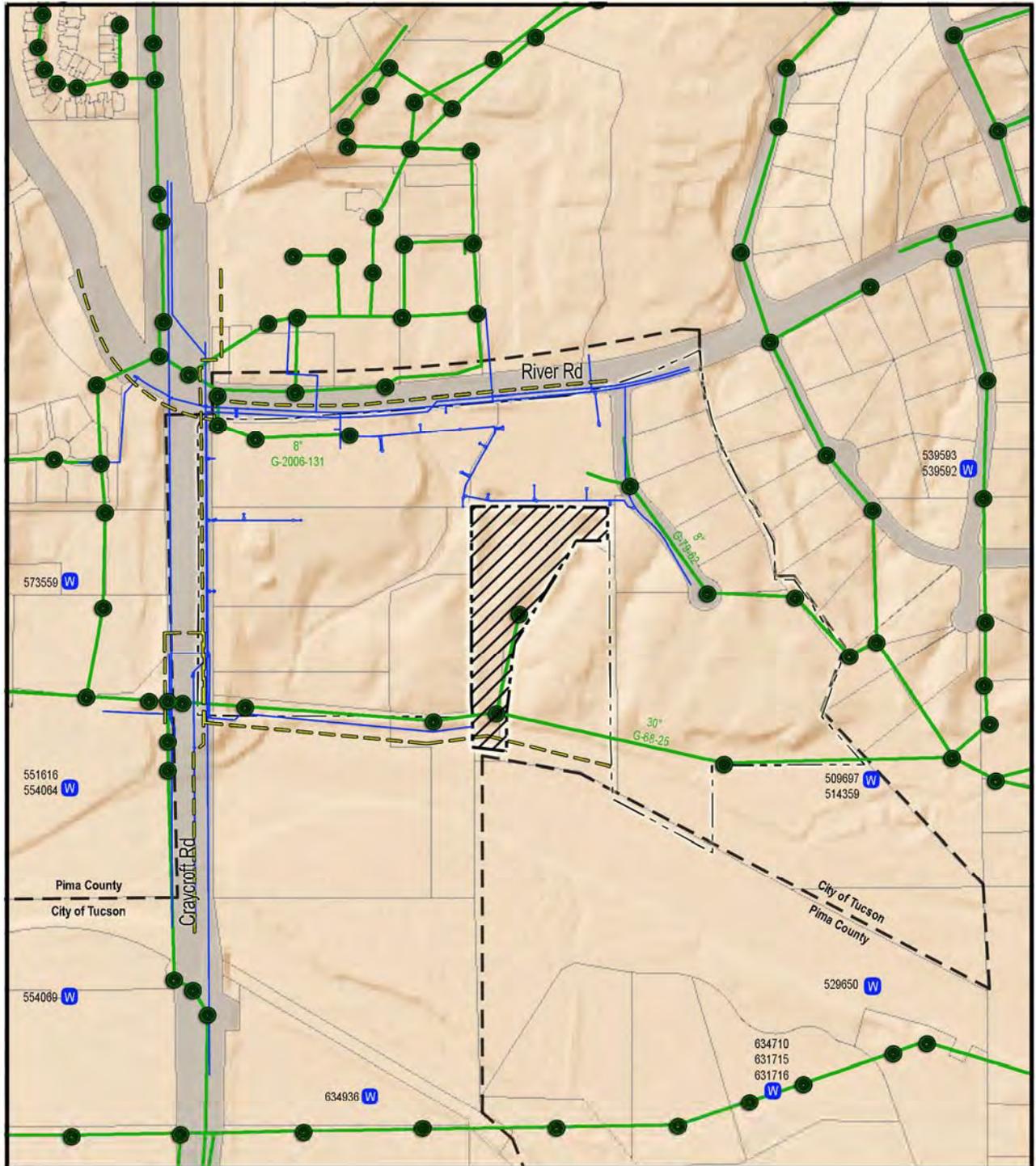
Facilities currently exist along Craycroft and River Roads, directly adjacent to the RVV PAD which will also be available to the Property. Electricity, natural gas and telecommunications will be extended to the Property at the time of development through agreements with individual utility companies. The following utility companies currently serve the area:

Electricity: Tucson Electric Power

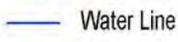
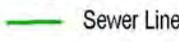
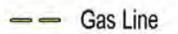
Natural Gas: Southwest Gas

Telephone: Cox Communications

Exhibit II.E.1.a: Existing Utilities



Legend

- | | | |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|  RVV PAD Addendum 1 |  Registered Well |  Manholes |
|  Rio Verde Village PAD |  Water Line |  Sewer Line |
|  Jurisdictional Boundary |  Gas Line | |

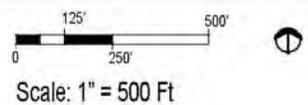


Exhibit II.E.1.b: Wastewater Service Letter



REGIONAL WASTEWATER RECLAMATION DEPARTMENT
201 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1207

JACKSON JENKINS
DIRECTOR

PH: (520) 724-6500
FAX: (520) 724-9635

October 16, 2014

Martin V Magelli, P.E.
Baker & Associates Engineering, Inc
3561 E Sunrise Drive, #225
Tucson, AZ 85718

Sewerage Capacity Investigation No. 2014-249 Type I

**RE: Rio Verde Village (Porter Parcel Addition), Parcel 10922006B
Estimated Flow 4,000 gpd (ADWF).**

Greetings:

The above referenced project is tributary to the Tres Rios Wastewater Reclamation Facility via the North Rillito Interceptor.

Capacity is currently available for this project in the public sewer G-68-025, downstream from manhole 1714-03.

This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is an analysis of the system as of this date and valid for one year. Allocation of capacity is made by the Type III Capacity Response.

If further information is needed, please feel free to contact us at (520) 724-6642.

Reviewed by: Kurt Stemm

Exhibit II.E.2: Water Service Letter

October 16, 2014



Baker & Associates Engineering, Inc.
3561 E. Sunrise Dr., # 225
Tucson, AZ 85718

Attn: Martin Magelli, P.E.

CITY OF
TUCSON
TUCSON WATER
DEPARTMENT

**SUBJECT: Water Availability for project: Rio Verde Village, APN: 10922006B,
Case #:WA1645, T-13, R-14, SEC-25, Lots: 9999, Location Code:TUC , Total Area: 4.0
Zoning: SR**

WATER SUPPLY

Tucson Water will provide water service to this project based on the subject zoning of the above parcels. Tucson Water has an assured water supply (AWS) designation from the State of Arizona Department of Water Resources (ADWR). An AWS designation means Tucson Water has met the criteria established by ADWR for demonstration of a 100-year water supply – it does not mean that water service is currently available to the subject project.

WATER SERVICE

The approval of water meter applications is subject to the current availability of water service at the time an application is received. The developer shall be required to submit a water master plan identifying, but not limited to: 1) Water Use; 2) Fire Flow Requirements; 3) Offsite/Onsite Water Facilities; 4) Loops and Proposed Connection Points to Existing Water System; and 5) Easements/Common Areas.

Any specific area plan fees, protected main/facility fees and/or other needed facilities' cost, are to be paid by the developer. If the existing water system is not capable of meeting the requirements of the proposed development, the developer shall be financially responsible for modifying or enhancing the existing water system to meet those needs.

This letter shall be null and void two years from the date of issuance.

Issuance of this letter is not to be construed as agency approval of a water plan or as containing construction review comments relative to conflicts with existing water lines and the proposed development.

If you have any questions, please call New Development at 791-4718.

Sincerely,

Handwritten signature of Richard A. Sarti in cursive.

Richard A. Sarti, P.E.
Engineering Manager
Tucson Water Department

RS:ka
CC:File



P.O. BOX 27320 • TUCSON, AZ 85726-7320
(520) 791-3242 • FAX: (520) 791-5466 • TTY (520) 791-2639 • www.cityoftucson.org



F. Major Transportation and Circulation

1. Adjacent Roadways

There are no roadways adjacent to the Property. Access to the Property is provided via an easement from Calle Rosario, a minor local road.

2. Current and Future Right-of-Way

There is no current or future right-of-way planned for the Property. Due to its future location inside the RVV PAD, right-of-ways are not required as access will be provided as part of the incorporation into the RVV PAD.

See Exhibit II.F: Existing Circulation, page 22.

3. Scenic Corridor Zone

The Scenic Corridor Zone (SCZ) extends four hundred (400) feet south from River Road and places additional restrictions on development such as requirements for structure height limitations, siting specifications and signage restrictions. Within the area subject to the SCZ, the building height has been limited to 54' pursuant the RVV PAD development standards for the market district sub-area B.

4. Access Points

Existing access to the Property is via an easement from Calle Rosario on the eastern edge of the Property. Future access points are planned from within the adjacent RVV PAD. Calle Rosario does not have curbs; therefore there are no existing or proposed curbcuts. No adjacent off-site structures will require relocation.

Existing access to the existing off-site single-family residential property is also via an easement from Calle Rosario. Access to the off-site single-family residential property will be provided through a new easement from Calle Rosario. The final configuration of the access will be included in the final layout of the Property.

5. Alternate Modes of Transportation

Bike lanes are located along River and Craycroft Roads adjacent to the RVV PAD. On the west side of Craycroft Road, the Rillito River Park has its eastern most trail head and the start of the river park trail system. The river park provides an east-west corridor for cyclists and pedestrians. SunTran operates an existing public transit route, Craycroft/Fort Lowell Route #34 just under one (1) mile from the Property. The route incorporates a planned stop at Craycroft Road and East Glenn Street, also just under one (1) mile from the Property.

See Exhibit II.F: Existing Circulation, page 22.

6. Roadway Characteristics

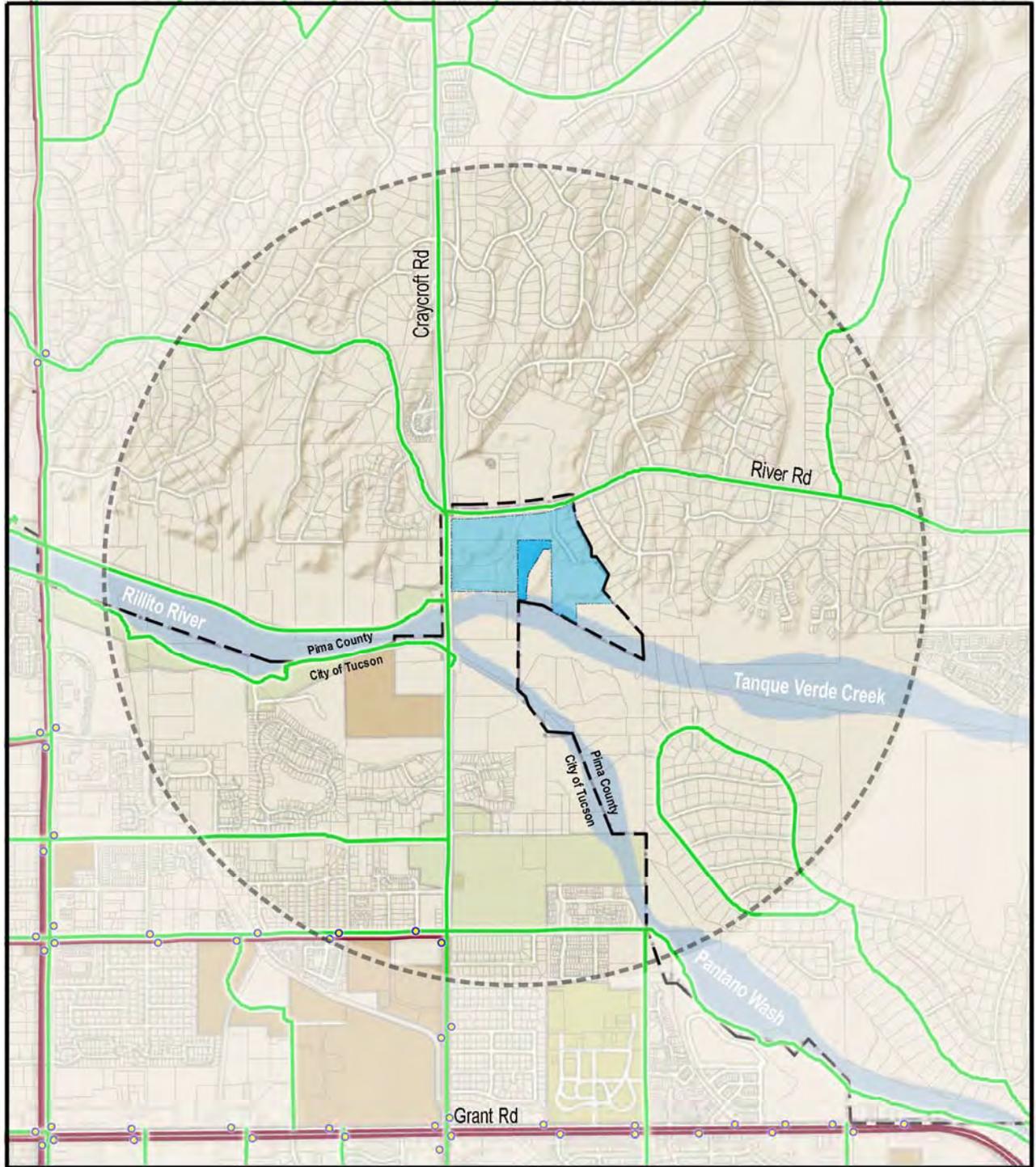
Based on the Pima County Geographic Information System (GIS) and the Federal Highway Administration's Functional Classification Map for Pima County, River Road is classified as an Urban Minor Arterial. South of River Road, Craycroft Road is classified as an Urban Principal Arterial. North of River Road, Craycroft Road is classified as an Urban Minor Arterial. According to the Pima County Major Streets and Routes Map, both River and Craycroft Roads are classified as Scenic Major Routes.

The surrounding transportation network is indicated on Exhibit II.F: Existing Circulation, page 22.

Additional information regarding traffic volumes and levels of service has been provided in the updated Traffic Study for the Property prepared on September 29, 2014, by Kimley-Horn and Associates, Inc.

See Appendix E: Traffic Study, page 57.

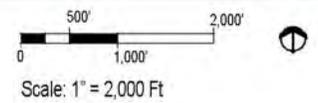
Exhibit II.F: Existing Circulation



Legend

- RVV PAD Addendum 1
- Rio Verde Village PAD
- Jurisdictional Boundary

- Bicycle Routes
- Bus Routes (Sun Tran)
- Bus Stop



G. Hydrology, Water Resources and Drainage

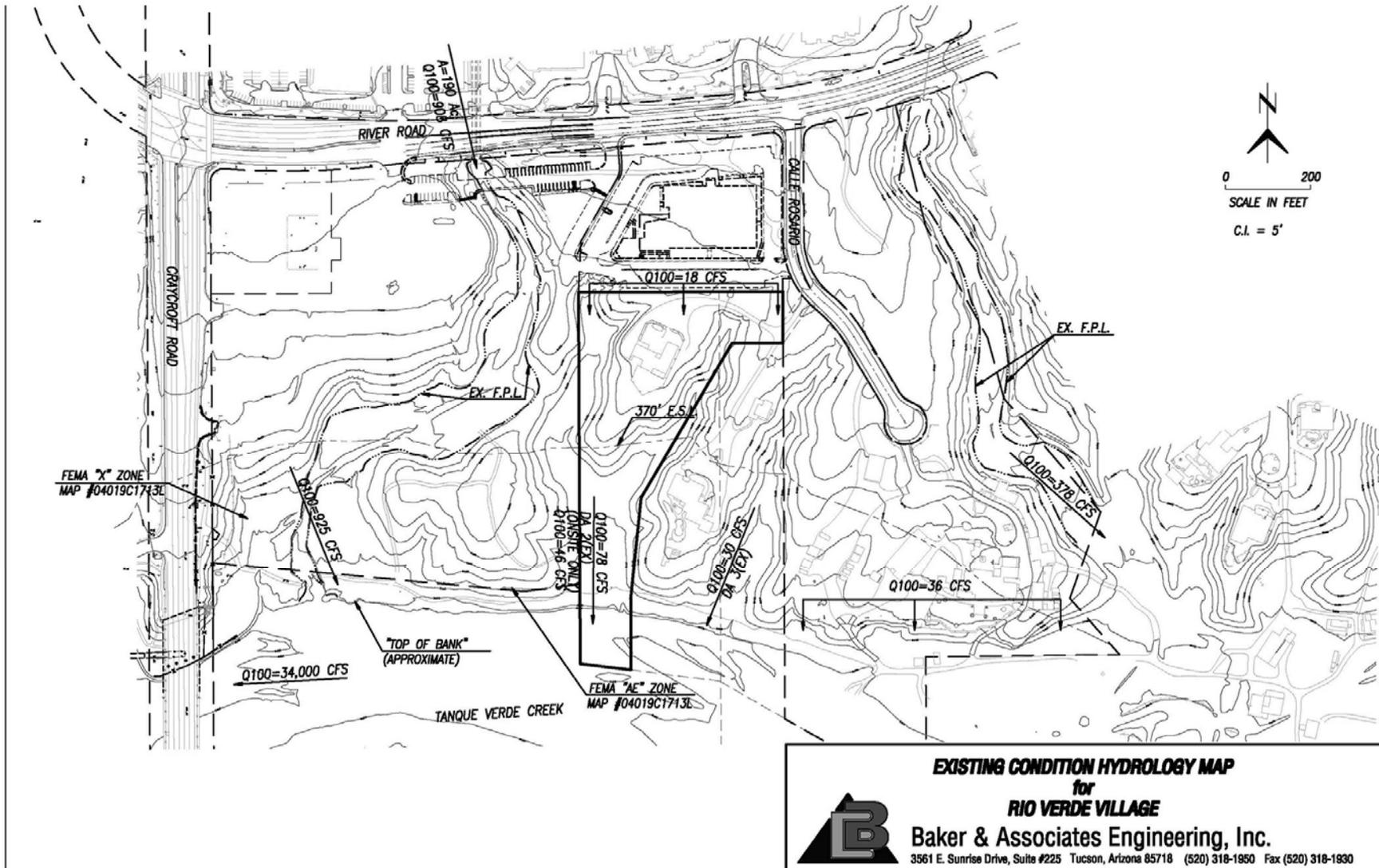
1. Off-Site Watersheds

There are 3 off-site watersheds that affect all or portions of the Property:

- The first is the Tanque Verde Creek, which is located along/near the southerly boundary of the RVV PAD and the Property. Per FEMA's Flood Insurance Study of June 16, 2011, the Tanque Verde Creek along the Property's southern boundary is estimated to have a 100-year discharge of 34,000 cfs, and per FIRM panel #04019C11713L, the FEMA "AE" floodplain is generally contained within the existing banks or low-lying overbank areas. Per the City of Tucson standards, an erosion hazard setback for this wash has been calculated at 370 feet from the existing top of bank as identified on Exhibit II.G.1: Existing Condition Hydrology, page 24.
- Runoff from the BASIS Tucson North property discharges into the Property at two locations, in the northwest and northeast corners. The total runoff from the BASIS site is 18 cfs.
- There is some minor runoff from the RVV PAD area to the west of the Property that under existing conditions discharges through the existing wash that straddles the west boundary of the Property.

Under existing conditions, the Property discharges from one (1) location as noted above to the Tanque Verde Creek. Runoff to and through the property to the Tanque Verde Creek is 78 cfs, and therefore is not regulated by the Floodplain Ordinance. All watershed boundaries and discharges have been identified on Exhibit II.G.1: Existing Condition Hydrology, page 24.

Exhibit II.G.1: Existing Condition Hydrology



H. Topography and Slope

The Property generally slopes from north to south, with elevations ranging from 2,475 feet at the northern boundary to 2,430 feet along the southern boundary.

The average cross slope of the parcel is 11.22%, as calculated by performing the following calculation:

$$ACS = \frac{I \times L \times 0.0023}{A} \times \frac{(N-1)}{N}$$

$$I = 5'$$

$$L = 4,725$$

$$A = 4.6 \text{ Ac}$$

$$N = 20$$

$$ACS = \frac{5 \times 4,725 \times 0.0023}{4.6} \times \frac{(20-1)}{20}$$

$$ACS = 11.22\%$$

I. Vegetation and Wildlife

1. Vegetative Communities and Plant Associations On-Site

There are four different vegetative communities and/or plant associations that cover the Property, along with areas that are heavily graded or disturbed or contain no vegetation. They are: a) Sonoran Desert Upland, b) Unregulated Xeroriparian, c) Hydro/Meso Riparian Habitat, and d) Mixed Native and Non-Native Landscape.

a. Sonoran Desert Upland

The Sonoran Desert Upland community is mostly comprised of Creosote Bush (*Larrea tridentata*) with limited amounts of Barrel Cacti (*Ferocactus wislizenii*) and Foothills Palo Verde (*Cercidium microphyllum*). In general, the existing vegetation is in fair to good health. The Sonoran Desert Upland community occupies approximately 2.6 acres (approximately 57%) of the Property and is located mostly on the central part of the Property and surrounding the existing single-family residence.

The upland vegetation does not provide significant scenic value or screening as it is located away from the two major roadways. The upland vegetation provides some wildlife habitat value since it is located on the edge of a larger natural area, but since the Property is also in close proximity to existing commercial and high-density residential developments on the north side of road and existing single-family residential developments and a charter school immediately adjacent to the Property, the overall wildlife habitat of the upland vegetation is not especially important to the region.

b. Unregulated Xeroriparian Habitat

Unregulated xeroriparian habitat occurs in a small (under 100 CFS) drainageway on the southeast side of the Property adjacent to the Tanque Verde Creek. The majority of the vegetation in this portion of the Property includes typical xeroriparian species of Catclaw Acacia (*Acacia greggii*), Whitethorn Acacia (*Acacia constricta*), Velvet Mesquite (*Prosopis velutina*), and Desert Hackberry (*Celtis pallida*). This area is approximately .5 acres (approximately 10% of the Property).

This area is of low importance to scenic value from view points off the Property. This is due to the existing topography of the Property which has the unregulated riparian habitat mostly within the banks of the drainageway, out of view of the two major roadways north and west of the Property.

This area also provides only limited wildlife value. The vegetation does not continue up the slope to the larger portion of the Property and abruptly ends because of the adjacent, off-site, single-family residence to the east. The drainage way is not connected to the north but ends at the existing chip seal road that provides access to the existing residence. The southern end of the drainage way does have its confluence with the Tanque Verde Creek and provides marginal habitat for wildlife that reside in the creek.

c. Hydro/Meso Riparian Habitat

The Hydro/Meso Riparian Habitat occurs at the confluence of the drainage way and extends into the river bed of the Tanque Verde Creek. It includes Cottonwoods (*Populus fremontii*) and Velvet Mesquite (*Prosopis velutina*). This area is approximately .5 acres (approximately 10% of the Property).

This area, while possessing some large trees, is not visible from most of the Property or River Road, but is somewhat visible from the Craycroft Road Bridge. It provides limited value as screening for adjacent properties.

As Hydro/Meso Riparian Habitat, it has value to the surrounding area, and no impacts to this area are proposed.

d. Mixed Native and Non-Native Landscape

The Property includes an area that contains both mixed native and non-native vegetation in a residential landscape context. This vegetation is associated with an existing residence and is in a poor state due to no occupancy or maintenance of the residence. This area includes a few different species of non-native plants including bermuda grass, pyrocantha, lantana, California pepper trees and other ornamental landscape plants typical of residential development from the 1980's. This area is approximately .2 acres (or approximately 4%) of the Property.

e. Disturbed Area

The remainder of the Property is disturbed area and contains no vegetation. The disturbed areas are located north of the existing

residence and wrap around the east side of the building to the south. This area is approximately .7 acres (or roughly 15% of the Property.)

See Exhibit II.I.1: Vegetative Communities, page 29.

2. Wildlife Habitats

The Arizona Game and Fish Department's Online Environmental Review Tool was accessed and current records show there are three special status species that have been documented within two miles of the Property: Mexican Long-tongued Bat, Arizona Myotis and Stag-horn Cholla. The Federal Wildlife Status listed the Mexican Long-tongued Bat and the Arizona Myotis as Species of Concern (SC). The United States Fish and Wildlife Service and the Bureau of Land Management listed the Mexican Long-tongued bat as sensitive (S), and the State of Arizona listed the Mexican Long-tongued bat as wildlife of special concern (WSC) in Arizona and salvage restricted (SR). The Stag-horn Cholla is listed by the State of Arizona as salvage restricted (SR).

Existing conditions on the Property do not support any of these species and none would be expected to be found on this site.

See Exhibit II.I.2: Arizona Game and Fish Letter, page 30.

Exhibit II.I.1: Vegetative Communities



Exhibit II.I.2: Arizona Game and Fish Letter

Arizona's On-line Environmental Review Tool

Search ID: 20140929024597
 Project Name: RVV PAD addendum
 Date: 9/29/2014 2:28:25 PM

Project Location



The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 3 miles of Project Vicinity:

Name	Common Name	FWS	USFS	BLM	State
Bat Colony					
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S	WSC
Myotis occultus	Arizona Myotis	SC		S	
Opuntia versicolor	Stag-horn Cholla				SR

Project Name: RVV PAD addendum
 Submitted By: Chris Laria
 On behalf of: OTHER
 Project Search ID: 20140929024597
 Date: 9/29/2014 2:28:16 PM
 Project Category: Development Within Municipalities (Urban Growth), Residential subdivision and associated infrastructure, New construction
 Project Coordinates (UTM Zone 12-NAD 83): 512102.554, 3570591.429 meter
 Project Length: 779.152 meter
 County: PIMA
 USGS 7.5 Minute Quadrangle ID: 1726
 Quadrangle Name: SABINO CANYON
 Project locality is not anticipated to change

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

J. Soils

The information provided in this section is based on best data available from the Soil Survey for Pima County, Arizona, Eastern Part, 1999 and generalized soil maps based on Soil Survey data available through Pima County Department of Transportation. According to these sources, the Property contains two soil types.

Exhibit II.J: Soils, page 33, shows soils associations within the Property. The following descriptions from the United States Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey for Pima County provide information about the characteristics of each soil.

Pinaleno-Stagecoach Complex, 5 to 16 Percent Slopes

This map unit is on strongly sloping fan terraces. The unit is 40 percent Pinaleno very cobbly sandy loam and 35 percent Stagecoach very gravelly sandy loam. Pinaleno soils are on crests and shoulders that have gradients of 5 to 10 percent, Stagecoach soils are on shoulders and backslopes that have gradients of 5 to 16 percent. Included in this unit are small areas of Tubac and Mohave soils on broad summits and Palo Verdes and Jaynes soils on relict fan terraces. Also included are small areas of rubble and talus at the footslopes of mountains. In these areas the rock fragments are 3 to 36 inches or more in diameter. Included areas make up about 25 percent of the total acreage.

The Pinaleno soil is very deep and well drained. Typically, the surface is covered by 30 percent cobble and stones and 20 percent gravel. The surface layer is brown, very cobbly, sandy loam about 2 inches thick. The upper 28 inches of the subsoil is reddish brown and red, extremely cobbly, sandy clay loam. The lower 30 inches is pink, extremely gravelly, sandy clay loam. These soils generally are noneffervescent in the upper solum. In some areas, the surface layer is very gravelly, sandy loam.

Permeability of the Pinaleno soil is moderately slow and available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is medium, and the hazard of water erosion is slight. The hazard of wind erosion is very slight.

Arizo-Riverwash Complex, 0 to 3 percent slopes

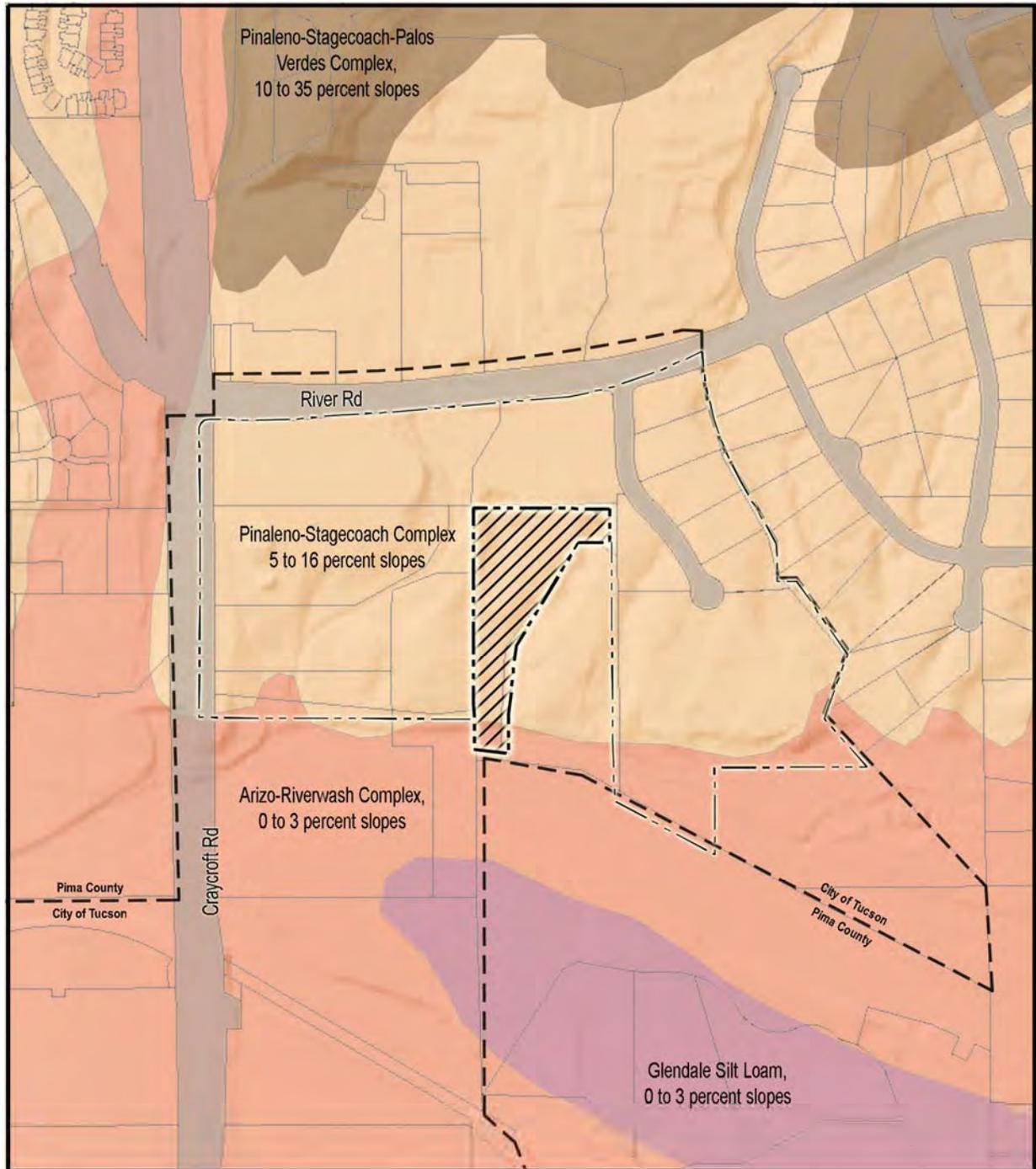
This map unit is 50 percent Arizo gravelly, loamy sand and 20 percent Riverwash. Arizo soils and Riverwash occupy bar and channel flood plain physiography. Arizo soils are on higher-lying bars, and Riverwash is in the channel bottoms. Included in this unit are small areas of nearly vertical scarps that have Glendale and Anthony soils on flood plains and stream terraces above Arizo soils. Included areas make up about 30 percent of the total acreage.

The Arizo soil is very deep and excessively drained. Typically, the surface layer is yellowish brown, gravelly, loamy sand about 18 inches thick. The lower part to a depth of 60 inches or more is light yellowish brown, very gravelly, loamy sand. These soils are moderately alkaline and calcareous throughout. In some areas, the substratum has less gravel and cobble than is typical. In places, the soil has less lime in the upper part than is typical.

Permeability of the Arizo soil is very rapid. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is very slow except during convective thunderstorms in the summer and frontal storms in the winter when runoff from higher positions causes flash flooding. Hazard of water erosion is very high during flash floods. This soil is subject to frequent but brief periods of flooding in both the summer and winter seasons. The hazard of wind erosion is moderately high.

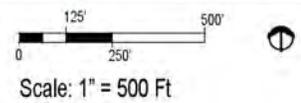
Riverwash consists of unablized and stratified layers of sand, silt, and gravel. It is so frequently flooded, reworked, and sorted that it supports little if any vegetation. No development is anticipated in these areas consisting of Arizo-Riverwash soils.

Exhibit II.J: Soils



Legend

-  RVV PAD Addendum 1
-  Rio Verde Village PAD
-  Jurisdictional Boundary



K. Viewsheds and Visual Analysis

The Property is located in a developed area, surrounded by commercial developments, single-family residences, multi-family apartment complexes and the Tanque Verde Creek. The following photographs show existing views onto and across the Property. Exhibit II.K: Photo Key Map, page 36, indicates the locations from which the photos were taken.



Photo 1: Looking south along eastern property line from northeast property corner



Photo 2: View looking southeast across drainageway to adjacent property (off-site residence)



Photo 3: Looking east across drainageway to adjacent property (off-site residence)



Photo 4: View looking south toward Tanque Verde Creek from south end of existing on-Property residence



Photo 5: Looking south toward Tanque Verde Creek from north end of unregulated xeroriparian habitat



Photo 6: Looking east along south end of property



Photo 7: Looking north at existing on-Property residence from middle of drainageway slope



Photo 8: Looking northeast from RVV PAD across west boundary of Property. BASIS School in background

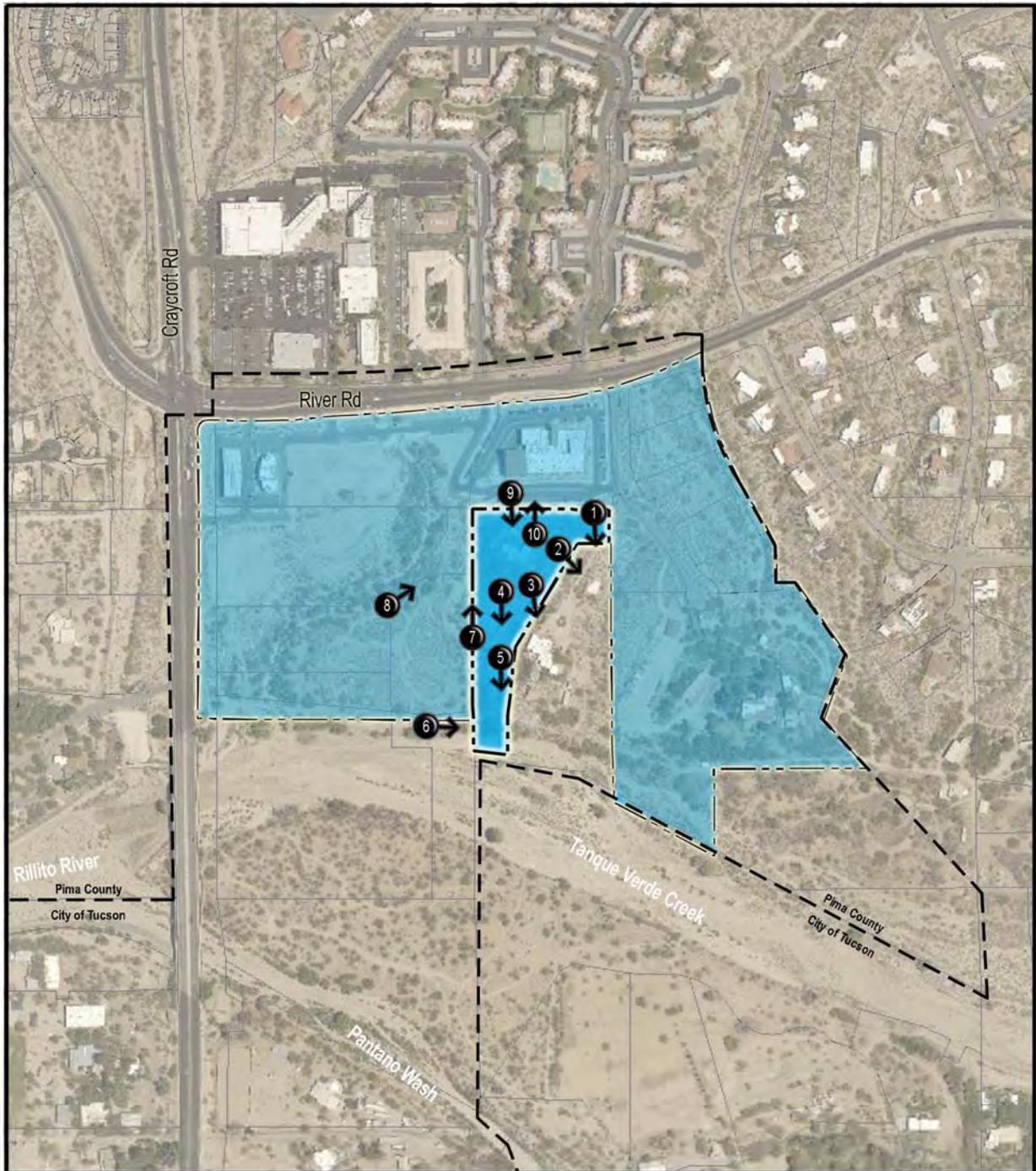


Photo 9: Looking south from north property boundary with existing on-Property residence



Photo 10: Looking north from existing on-Property residence towards BASIS School

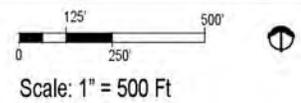
Exhibit II.K: Photo Key Map



Legend

- RVV PAD Addendum 1
- Rio Verde Village PAD
- Jurisdictional Boundary

Photo ID & location photo was taken



L. Paleontological and Cultural Sites, Structures and Districts

One cultural resource, a pre-historical archaeological site crosses the southern edge of the Property. The Arizona State Museum recommends, in part, the following in a letter dated August 28, 2014: "...a qualified archaeological contractor be consulted before any ground disturbance begins". See Exhibit II.L: Arizona State Museum Letter, page 38.

Exhibit II.L: Arizona State Museum Letter



1013 E. UNIVERSITY BLVD.
TUCSON, AZ 85721

ARCHAEOLOGICAL SITE RECORDS SEARCH

**This report documents the results of an archaeological site-records check.
It does not constitute a cultural resources clearance.*

Request Received: 8/28/2014

Search Completed: 9/5/2014

Requester Name: G.T. Alley
Company: Broadway Realty & Trust, Inc.
Address: P.O. Box 12863
City, State, Zip Code: Tucson, AZ 85732
Phone/FAX/or E-mail: (520) 747-5700

Project Name and/or Number:
SEC of River & Craycroft / Parcel #109-22-006B

Project Description:
Development

Project Area Location:
3595 N. Calle Rosario, Tucson, Arizona 85750

Legal Description: T13S R14E S25

Search Results:

According to a search of the archaeological records retained at the Arizona State Museum (ASM), 38 survey projects were conducted within a one-mile-radius of the area of potential effect (APE) between 1979 and 2008. Portions of the southern and western edges of the APE were surveyed in 1979 and 2002. The general area is archaeologically rich with a range of site types including prehistoric habitation and rock features, historic irrigation and farming areas, the historic Fort Lowell, and numerous prehistoric and historic artifact scatters. Additionally, an area defined as the "Fort Lowell Archaeological Sensitivity Zone" is present south of the project area (Lindeman 2012)

Sites in Project Area:

A prehistoric archaeological site is crosses the southern edge of the APE and a possible prehistoric habitation site has been recorded less than ¼-mile west of the project area.

Recommendations:

The majority of the project area has not yet been surveyed and the surveys that have been conducted within the APE were completed over 10 years ago. Therefore, the ASM recommends a qualified archaeological contractor be consulted before any ground disturbance begins. A list of qualified contractors is maintained on the ASM website at the following address: <http://www.statemuseum.arizona.edu/crservices/permits/index.shtml>.

Pursuant to *Arizona Revised Statutes* §41-865 *et seq.*, if any human remains or funerary objects are discovered during your project work, all work will stop within the area of the remains and Dr. Todd Pitezel, ASM assistant curator of archaeology, will be contacted immediately at (520) 621-4795.

If you have any questions about the results of this records search, please contact me.

Sincerely,

Shannon Twilling, M.A.

Shannon D. Twilling, M.A.
Research Specialist
Archaeological Records Office
Arizona State Museum
(520) 621-1271
twilling@email.arizona.edu

3. PAD District Proposal



III. PAD District Proposal

Rio Verde Village PAD Addendum 1

The Property will comply with and be subject to the requirement of the RVV PAD Market District, Sub-Area B with the modifications for the Property as discussed below. All sections listed below are numbered the same as the original RVV PAD sections with language either amending or adding those sections as noted. Therefore, numbering of sections is not sequential.

B. Rio Verde Market

2. Permitted Land Uses

a. Commercial Services Use Group

Language Added

All uses in the PAD for the Market District will be allowed except 2.a.4. Automotive – Service and Repair.

Revised Exhibit:

See Exhibit III.B.1: PAD Districts, page 42.

Added Exhibits:

Exhibits III.B.2, page 43; III.B.3, page 44; and III.B.4, page 45 (Market District Conceptual Site Plans A, B, and C) illustrate three land use concepts and how they could be integrated into the RVV PAD.

5. Rio Verde Market Development Standards

a. Development Criteria

Revised Exhibit

Landscape Border and Screening for the Property shall be as shown on Exhibit III.J.1.a: Proposed Landscaping and Screening, page 50.

E. Circulation Plan

2. Proposed Vehicular Access

Access to the Property will be provided from Calle Rosario via a cross-access PAAL (Parking Area Access Lane). Additionally, access to the existing off-site residential property will be provided via a new easement from Calle Rosario. See Exhibit III.E.1: On-Site Vehicular Circulation Plan, page 46.

3. On-Site Vehicular Circulation

On-site vehicular circulation will include a 24' PAAL that runs east/west along the north boundary of the Property. This will fulfill the cross-access required in the RVV PAD. On-site circulation will be determined based on the development. See Exhibit III.E.1: On-Site Vehicular Circulation Plan, page 46.

4. On-Site Pedestrian and Non-Vehicular Circulation

Pedestrian circulation will be provided on the north side of the Property connecting the Market and Manor Districts along the new access road as contemplated in the originally adopted PAD-22. The addition of the Property to the PAD eliminates the need for the north/south pedestrian trail on the east side of the Market District. Access to the future River Park will still be provided from the Manor District and the Market District at locations shown on Exhibit III.E.2: Non-Vehicular Circulation, page 47.

Future development within the Market District is encouraged to provide additional access points to the future River Park, understanding that uses may be developed that require controlled/private access. Although encouraged, any additional public access points from within the Market District will not be required as the proposed public pedestrian circulation is sufficient.

See Exhibit III.E.2: Non-Vehicular Circulation, page 47.

Exhibit III.B.1: PAD Districts

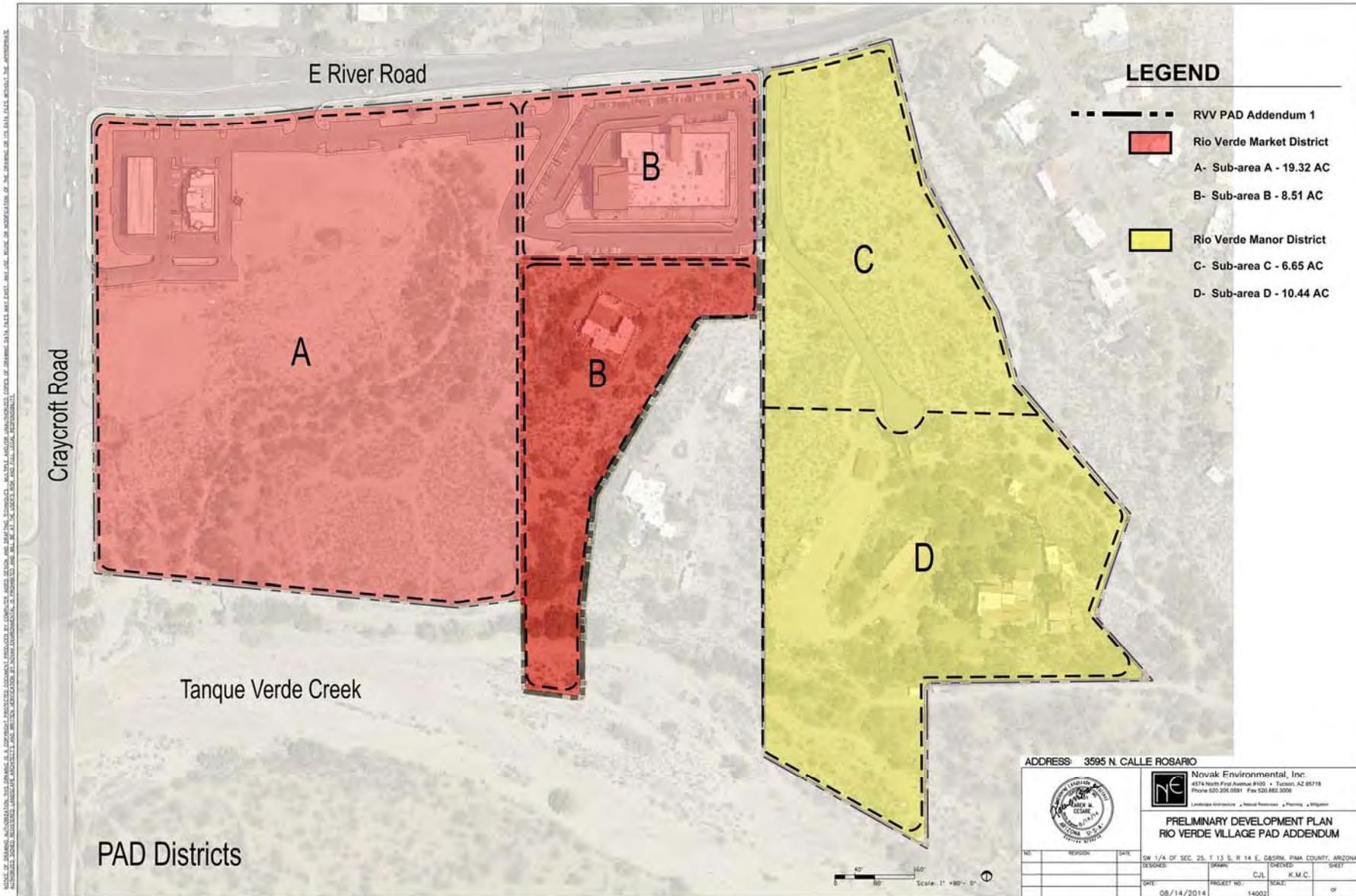


Exhibit III.B.2: Market District Conceptual Site Plan A

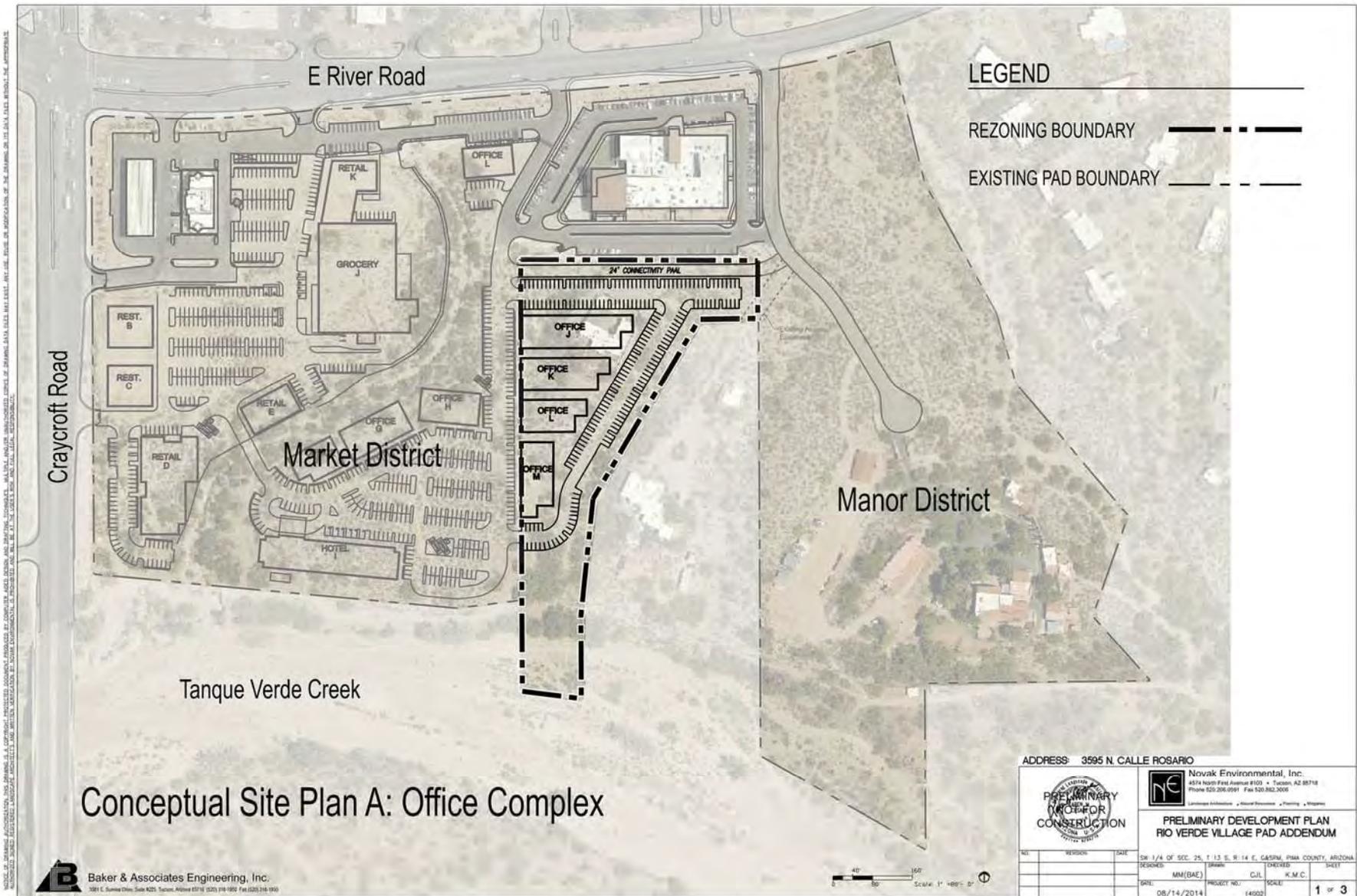


Exhibit III.B.3: Market District Conceptual Site Plan B



Exhibit III.E.1: On-Site Vehicular Circulation

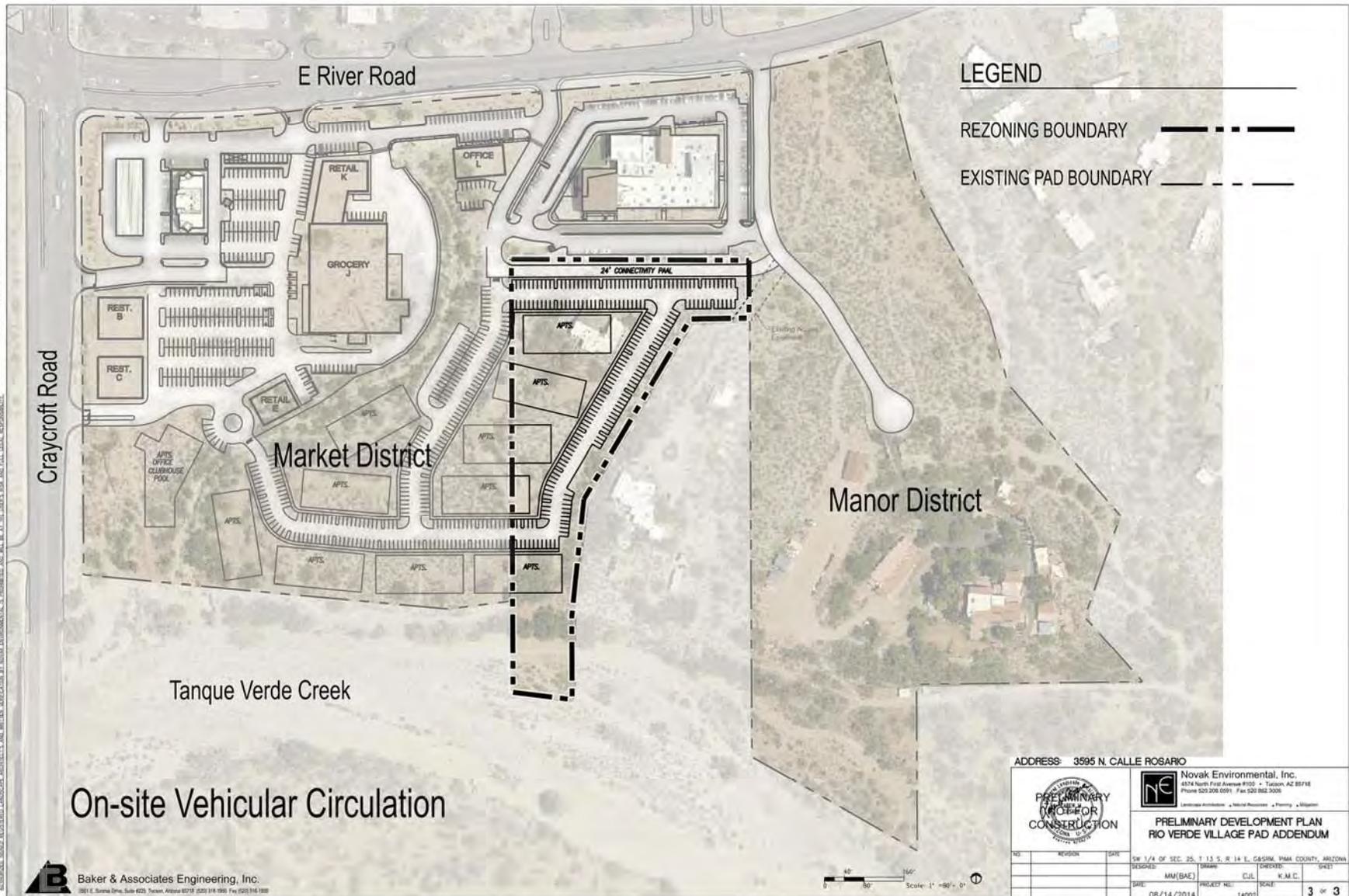
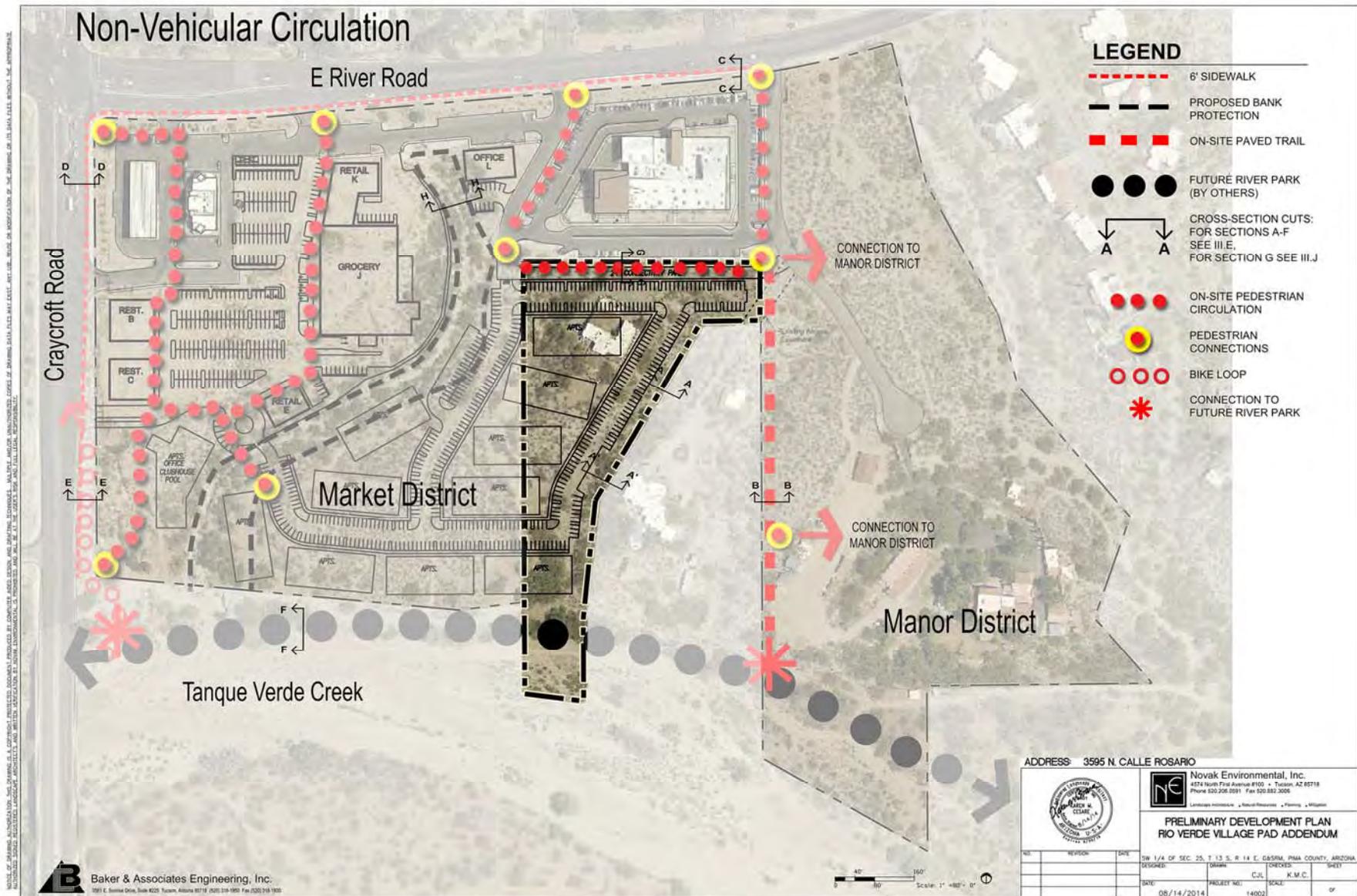


Exhibit III.E.2: Non-Vehicular Circulation



F. Roadway Standards

Section F from the RVV PAD applies to property in its entirety with modifications as noted below.

3. Sidewalk Area (Development Standard 3-01.2.7.A – Sidewalk Area)

- a. For the proposed 24' PAAL connecting Calle Rosario to the RVV PAD Market district, a sidewalk will be provided along either the north or south side of the PAAL. Final location will be determined at time of development. See Exhibit III.F.1: Cross section G, page 49. Sidewalks are required along the west side of Calle Rosario.

J. Landscape Program

1. Landscape Borders and Screening Requirements

Language Added:

Landscape screening along the eastern boundary of the Property adjacent to existing off-site residential property will be provided to protect privacy. A five-foot fence will be located at the eastern property line of the Property. The fence material may include masonry or tube-steel fencing.

Native vegetation, in accordance with the Landscape Border and Screening Ordinance, will provide a visual barrier. The landscape border shall be 20' wide for all areas except in the area immediately adjacent to the residential dwelling unit itself, where a 40' landscape buffer will be provided. See Exhibits III.J.1.a: Proposed Landscaping and Screening, page 50; III.J.1.b and III.J.1.c: Cross Sections "A" and A' "Landscape Border Adjacent to Residential Property, pages 51 and 52, respectively.

2. Water Harvesting

Language Added:

The general direction of water runoff for the Property is shown in Exhibit III.J.2: Proposed Water Harvesting, page 53.

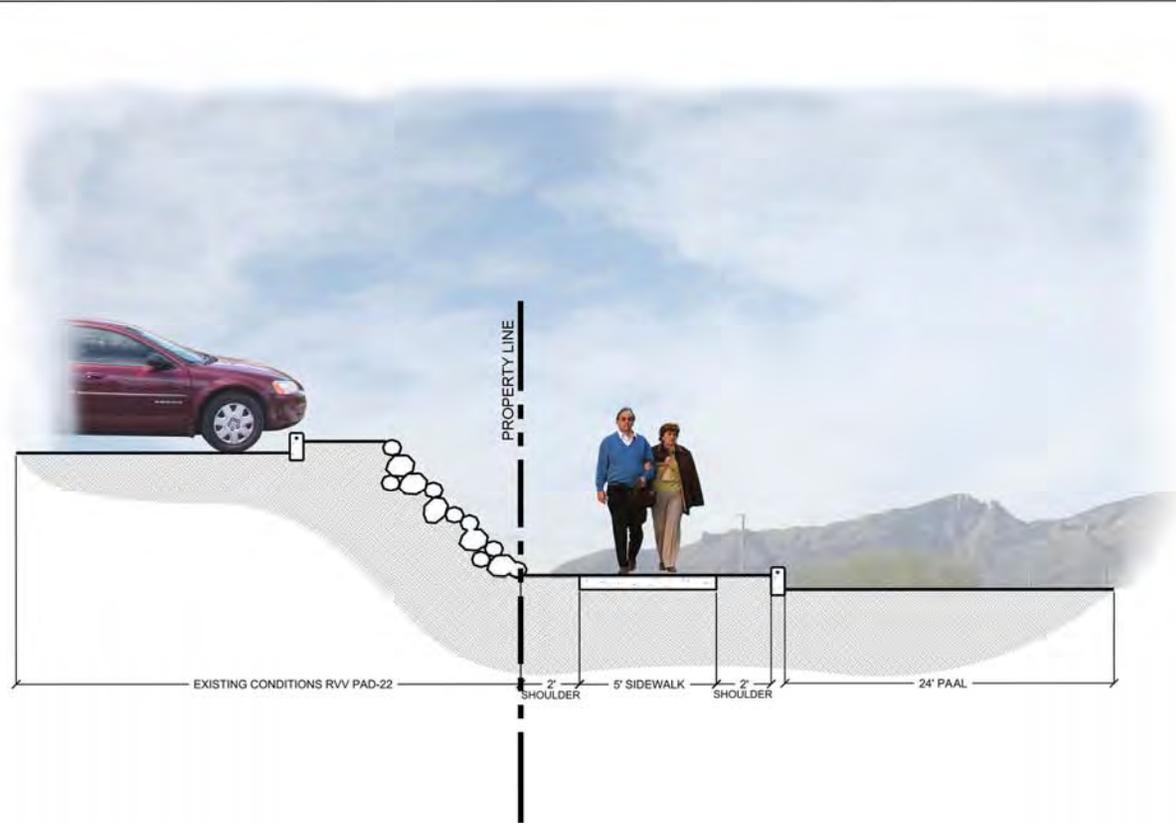
4. Regulated Riparian Habitat

Language Added:

The southern most portion of the Property contains regulated riparian habitat. This area will be preserved as shown in Exhibit III.J.3: Regulated Riparian Habitat Impacts, page 54.

Exhibit III.F.1: Cross Section "G"

NOTICE: NOVEL INFORMATION HAS BEEN PROVIDED TO THE PUBLIC. ANY REVISIONS TO THIS DOCUMENT SHALL BE MADE BY THE DESIGNER. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED. THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED.



CROSS SECTION G
 SIDEWALK AND 24' PAAL ADJACENT
 TO EXISTING BASIS SCHOOL



ADDRESS: 3595 N. CALLE ROSARIO

		Novak Environmental, Inc. 4374 North First Avenue #103 • Tucson, AZ 85718 Phone 520.266.0591 Fax 520.882.3006	
		Landscape Architecture • Natural Resources • Planning • Mitigation	
PRELIMINARY DEVELOPMENT PLAN RIO VERDE VILLAGE PAD ADDENDUM			
NO.	REVISION	DATE	BY
SHEET: 1/4 OF SEC. 25, T 13 S, R 14 E, GERM, PIMA COUNTY, ARIZONA		DESIGNED:	DRAWN:
		MM(BAE)	C.J.L.
DATE: 10/8/2014		PROJECT NO:	SCALE: K.M.C.
		14002	OF

Exhibit III.J.1.a: Proposed Landscaping and Screening

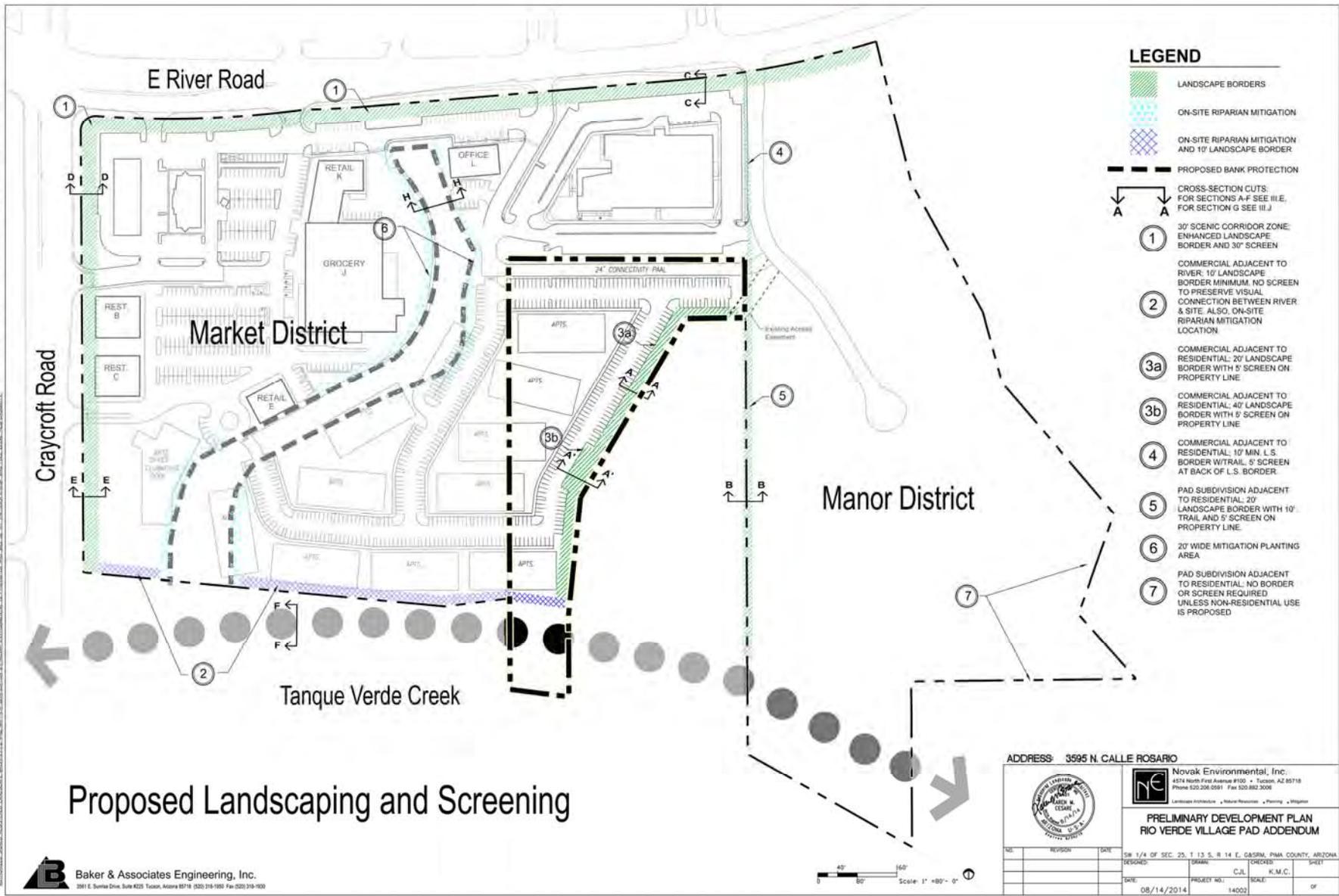


Exhibit III.J.1.b: Cross Section "A" Landscape Border Adjacent to Residential Property

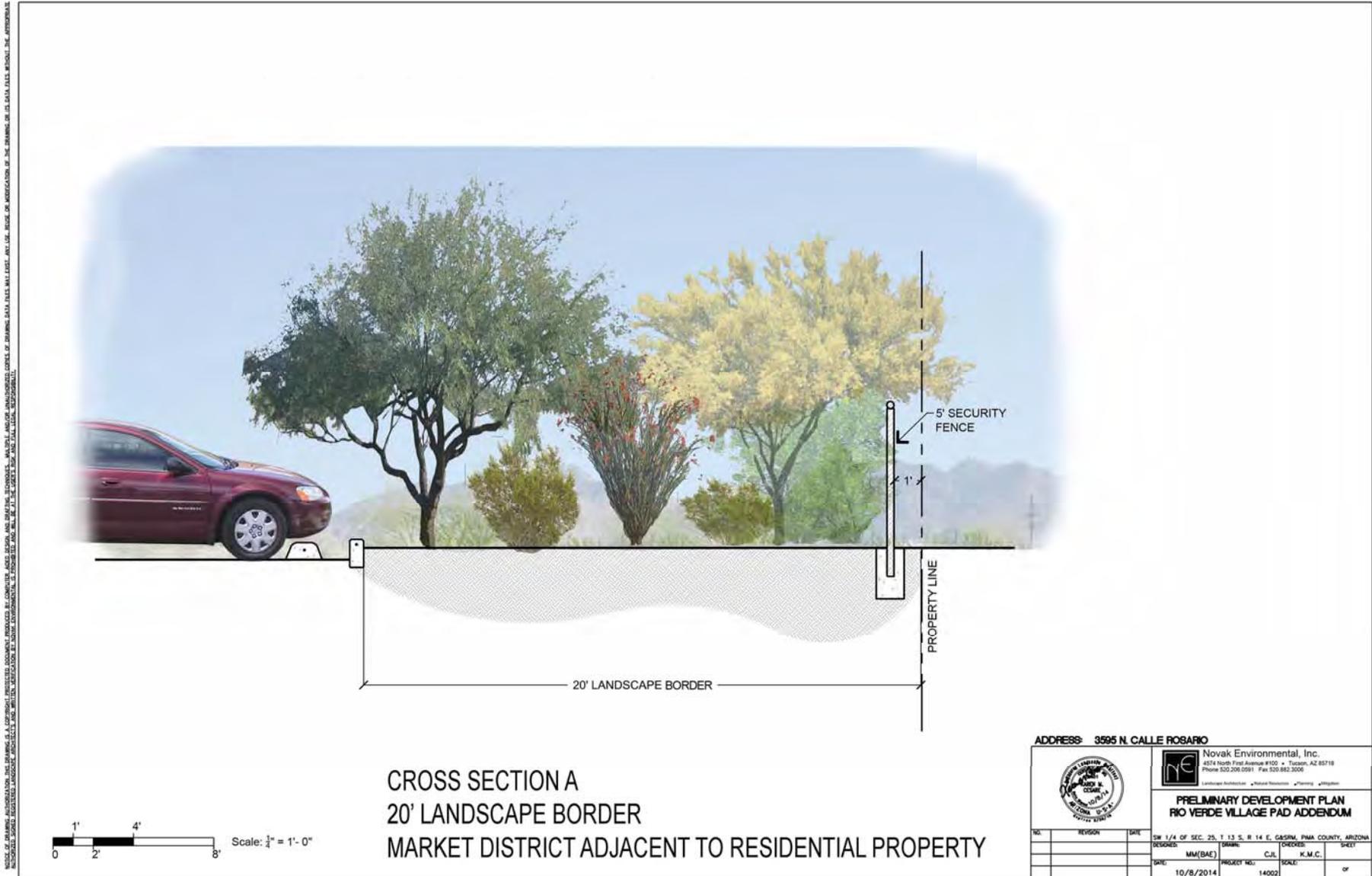


Exhibit III.J.1.c: Cross Section "A" Landscape Border Adjacent to Residential Property



Exhibit III.J.2: Proposed Water Harvesting

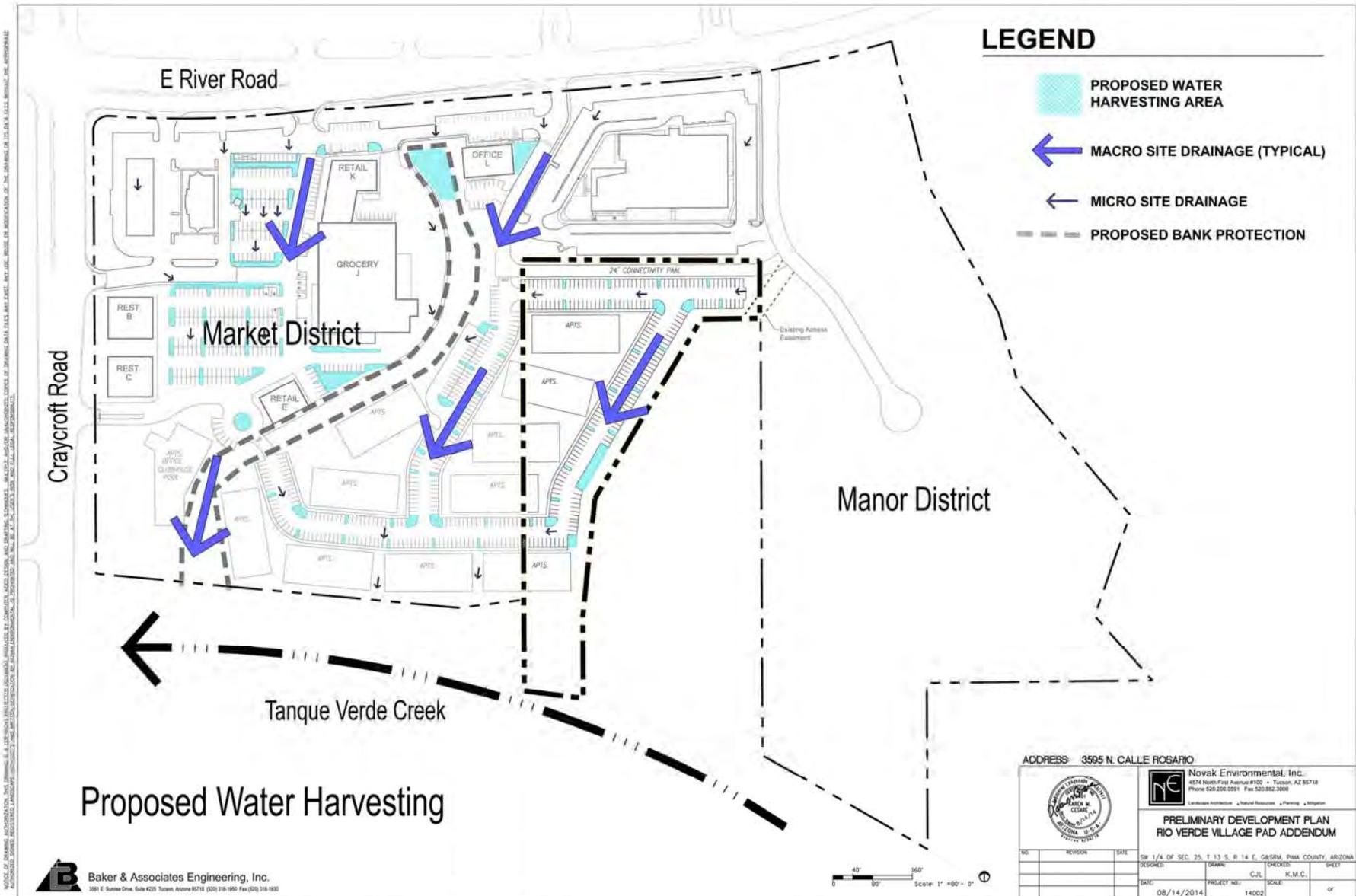
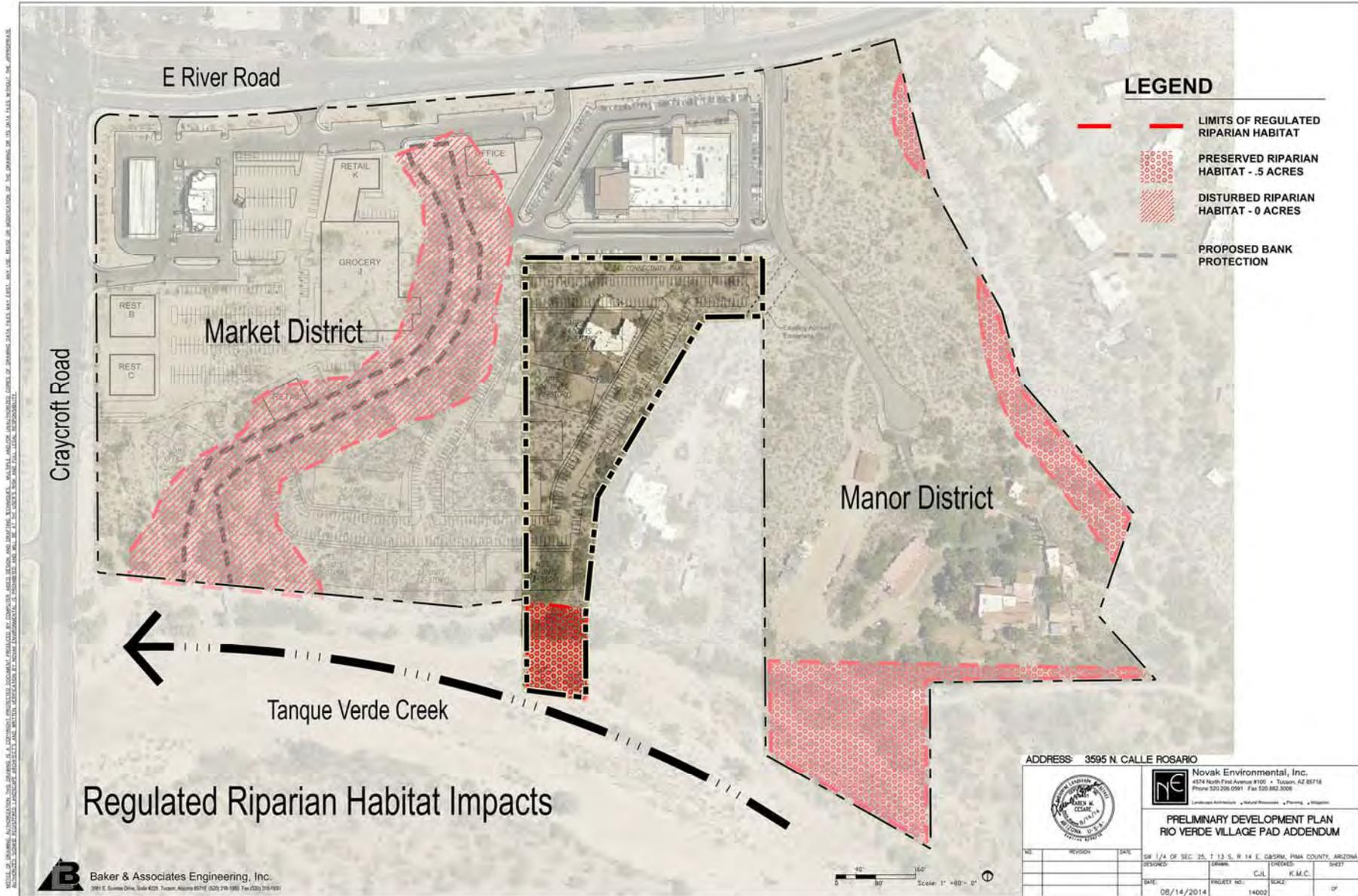


Exhibit III.J.3: Regulated Riparian Habitat Impacts



K. Post-Development Hydrology

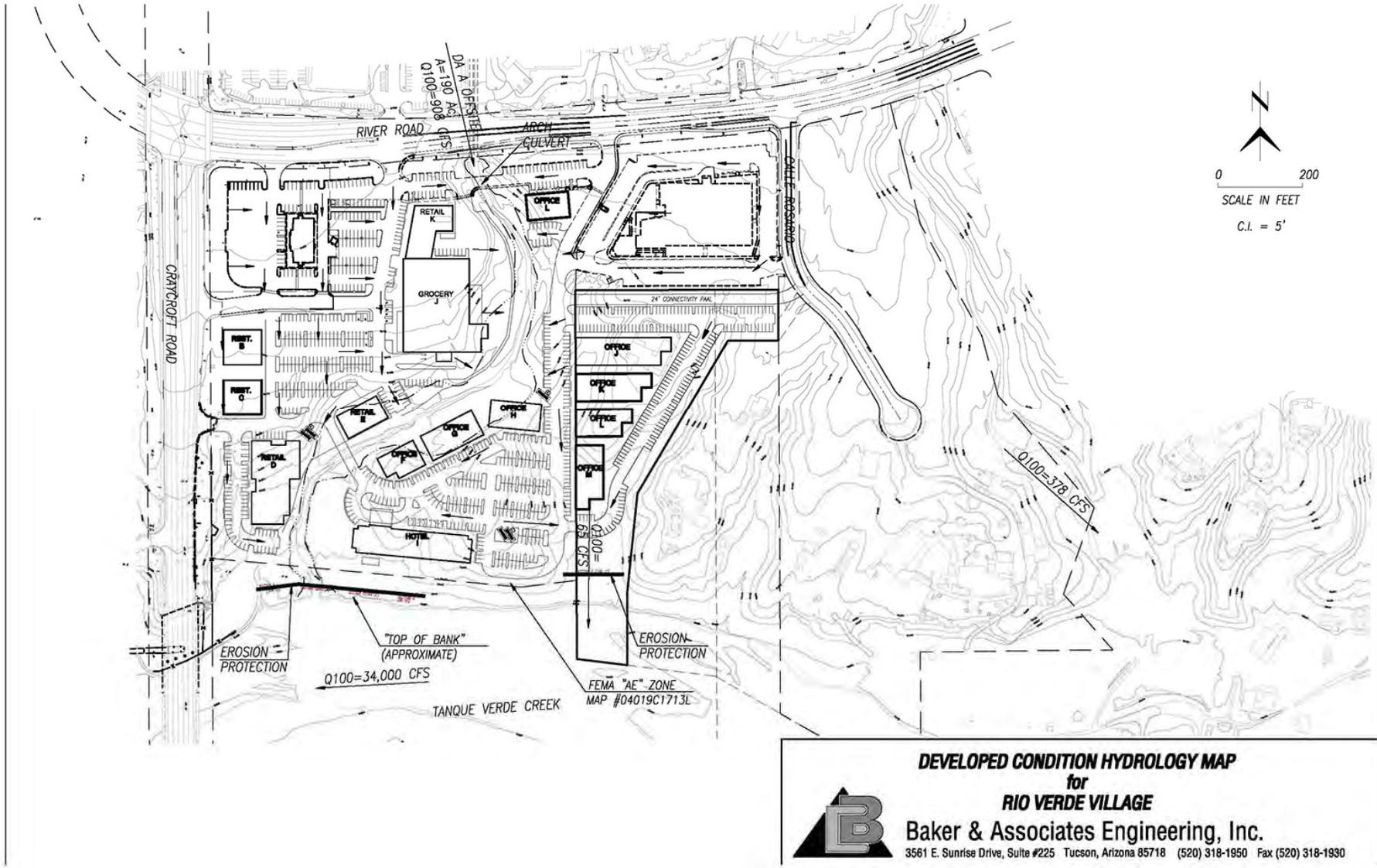
1. Erosion Protection Measures

Language Added:

As indicated under the Hydrology, Water Resources and Drainage section of the Site Analysis, the Property lies directly adjacent to the north bank of the Tanque Verde Creek, which has a calculated 100-year discharge of 34,000 cfs, and based on City of Tucson methodology, the erosion hazard setback has been calculated to be 370 feet from the existing top of bank. As the southerly portion of the Property lies within the erosion hazard setback area, erosion protection will be constructed. At this time, the owner has been coordinating with City of Tucson Engineering and Building Codes staff to provide a reduction in the erosion hazard setback along portions of the Property based on geotechnical considerations. Where needed, based on engineering analysis, a buried, structurally engineered (concrete) erosion protection will be constructed in a location that lies behind the existing earthen bank of the Tanque Verde Creek.

See Exhibit III.K.1: Developed Condition Hydrology, page 56.

Exhibit III.K.1: Developed Condition Hydrology



Appendix E - Traffic Study





MEMORANDUM

To: Gordon Thomas (G.T.) Alley, III, Broadway Realty & Trust, Inc.
Date: September 29, 2014
RE: Rio Verde Village Planned Area Development (RVVPAD) Addendum

This memorandum serves as an Addendum to the approved Traffic Study for the Rio Verde PAD Along River Road and Craycroft Road, previously prepared by Kimley-Horn (July 2012). The 2012 Traffic Study documented the analysis of an approximate 40.3 acre Planned Area Development (PAD) on the southeast corner of River Road and Craycroft Road in the City of Tucson, Arizona. This development consists of mixed use retail, restaurants, hotel, gas station and offices on the west portion of the property (Market District) and residential on the eastern portion (Manor District). The build-out year of this development is 2017.

The purpose of this Addendum is to analyze the impacts of an addition of 4.57 acres of development to the Rio Verde Village PAD. There are three proposed development concepts. The three development concepts are attached to this document and are described below:

- **Conceptual Site Plan A, Office Complex:** Four office buildings are proposed to be added to the eastern portion of the Market District totaling approximately 42,000 square feet. There are no other changes to the Market District.
- **Conceptual Site Plan B, Assisted Living Facility:** An assisted living facility proposed to be added to the eastern portion of the Market District. This consists of an approximate 50,000 square foot main building with 400-900 square foot casitas. With the addition of the assisted living facility, three out of the four office buildings totaling approximately 42,000 square feet and a hotel of approximately 53,000 square feet are removed from the Market District.
- **Conceptual Site Plan C, Multi-Family Housing:** Multi-family housing is proposed to be added to the eastern portion of the Market District consisting of approximately 240 dwelling units. With the addition of the multi-family housing, three out of the four office buildings totaling approximately 42,000 square feet and a hotel of approximately 53,000 square feet are removed from the Market District.

The following tables summarize the estimated trip generation for each of the three Conceptual Site Plans for the approximate 40.3 acre PAD plus the 4.57 acre addition. Trip generation calculations are attached.

Within the tables, blue/dark shaded represents the additional land use. Light shade/tan represents other land uses that were modified as compared to the 2012 Traffic Study.



September 26, 2014,
Page 2

Table 1: 2012 Traffic Study for Rio Verde PAD Total Trip Generation

Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Total Trips									
Apartment	140	DU	972	14	58	72	62	33	95
General Office Building	50	1000 SF	782	95	13	108	23	112	135
Shopping Center	70	1000 SF	5,386	76	49	125	245	256	501
Hotel	100	Rooms	522	25	16	41	31	28	59
Quality Restaurant	15	1000 SF	1,331	6	6	12	74	37	111
Private School (K-8)	1,060	Students	1,699	526	431	957	302	340	642
Gas/Service Station with Convenience Market	20	Fuel Positions	3,256	101	101	201	134	134	268
Total			13,948	844	673	1,516	872	939	1811
Pass-By									
Shopping Center				0	0	0	83	87	170
Gas Station				63	63	125	83	83	166
Quality Restaurant				0	0	0	32	16	48
Total				63	63	125	190	178	368
Internal Capture				16	16	32	49	49	98
Subtotal			13,948	765	594	1,359	632	713	1,345

Table 2: Conceptual Site Plan A, Office Complex Trip Generation

Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Total Trips									
Apartment	140	DU	972	14	58	72	62	33	95
General Office Building	50	1000 SF	782	95	13	108	23	112	135
Shopping Center	70	1000 SF	5,386	76	49	125	245	256	501
Hotel	100	Rooms	522	25	16	41	31	28	59
Quality Restaurant	15	1000 SF	1,331	6	6	12	74	37	111
Private School (K-8)	1,060	Students	1,699	526	431	957	302	340	642
Gas/Service Station with Convenience Market	20	Fuel Positions	3,256	101	101	201	134	134	268
General Office Building	42	1000 SF	680	84	12	96	21	104	125
Total			14,628	927	686	1,612	892	1,044	1,936
Pass-By									
Shopping Center				0	0	0	83	87	170
Gas Station				63	63	125	83	83	166
Quality Restaurant				0	0	0	32	16	48
Total				63	63	125	190	178	368
Internal Capture				16	16	32	49	49	98
Subtotal				848	607	1,455	653	817	1,470



Table 3: Conceptual Site Plan B, Assisted Living Facility Trip Generation

Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Total Trips									
Apartment	140	DU	972	14	58	72	62	33	95
General Office Building	6	1000 SF	156	18	2	20	14	71	85
Shopping Center	70	1000 SF	5,386	76	49	125	245	256	501
Hotel	0	Rooms	0	0	0	0	0	0	0
Quality Restaurant	15	1000 SF	1,331	6	6	12	74	37	111
Private School (K-8)	1,060	Students	1,699	526	431	957	302	340	642
Gas/Service Station with Convenience Market	20	Fuel Positions	3,256	101	101	201	134	134	268
Assisted Living Facility	150	Beds	400	14	7	21	15	18	33
Total			13,200	755	654	1,408	846	889	1,735
Pass-By									
Shopping Center				0	0	0	83	87	170
Gas Station				63	63	125	83	83	166
Quality Restaurant				0	0	0	32	16	48
Total				63	63	125	198	186	384
Internal Capture				13	13	26	46	46	92
Subtotal				679	578	1,257	602	657	1,259

Table 4: Conceptual Site Plan C, Multi-Family Housing Trip Generation

Land Use	Intensity	Units	Daily Total	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Total Trips									
Apartment	140	DU	972	14	58	72	62	33	95
General Office Building	6	1000 SF	156	18	2	20	14	71	85
Shopping Center	70	1000 SF	5,386	76	49	125	245	256	501
Hotel	0	Rooms	0	0	0	0	0	0	0
Quality Restaurant	15	1000 SF	1,331	6	6	12	74	37	111
Private School (K-8)	1,060	Students	1,699	526	431	957	302	340	642
Gas/Service Station with Convenience Market	20	Fuel Positions	3,256	101	101	201	134	134	268
Apartment	240	DU	1,578	24	97	121	97	53	150
Total			14,378	765	744	1,508	928	924	1,852
Pass-By									
Shopping Center				0	0	0	83	87	170
Gas Station				63	63	125	83	83	166
Quality Restaurant				0	0	0	32	16	48
Total				63	63	125	190	178	368
Internal Capture				13	13	26	46	46	92
Subtotal				689	668	1,357	692	700	1,392



The total project traffic from the previous 2012 Traffic Study for build-out year 2017 can be seen in **Figure 1**.

A comparison of Tables 2, 3, and 4 show that, Conceptual Site Plan A, Office Complex Trip Generation is the "maximum" use (development concept that generates the most vehicle trips) and will be used in this analysis. The proposed addition of an approximate 42,000 square foot office complex is anticipated to generate 680 daily weekday trips. Of these, 96 trips are expected to occur during the AM peak hour and 125 trips are expected to occur during the PM peak hour.

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, and the proposed access system for the project. Consistent with the 2012 Traffic Study, the directional distribution assumed that 30 percent of project traffic will be generated from the west along River Road, 36 percent from the south along Craycroft Road, 20 percent from the east along River Road and 14 percent from the north along Craycroft Road. The anticipated project trip distribution is shown in attached **Figure 2**.

Based on the assumed trip distribution, project traffic assignment for Conceptual Site Plan A, Office Complex (net additional trips to the 2012 PAD) was calculated and can be seen in **Figure 3**. The net additional trips were added to the total 2012 PAD project traffic for build-out year 2017 for the morning and afternoon peak hours. The new total project traffic for build-out year 2017 for the Rio Verde Village Planned Area Development can be seen in **Figure 4**.

Within the approved 2012 PAD Traffic Study, all area roadways were evaluated for build-out year (2017). The level of service is based on future traffic projections and future roadway capacities.

Conceptual Site Plan A, Office Complex, add 96 site generated vehicles to River Road (east of Craycroft), 272 vehicles to River Road (west of Craycroft), 245 vehicles to Craycroft Road (south of River Road) and 68 vehicles to Craycroft Road (north of River Road). **Table 5** shows the study area roadways and the future traffic volumes and level of service with the addition of Conceptual Site Plan A, Office Complex.

With the addition of Conceptual Site Plan A, Office Complex, three of the four roadway segments are anticipated to operate at a level of service of F without additional capacity improvements. Within the 2012 PAD Traffic Study, these roadways also operated at LOS F.

Table 5: Arterial Level of Service Analysis (Total Development Buildout, 2017)

Roadway	Number of Lanes	Estimated Future Daily Traffic Volume (vehicles/day)	Daily Site-Generated Traffic Volume (vehicles/day)	Total Daily Traffic Volume (vehicles/day)	Estimated Capacity (vehicles/day)	Level of Service
River Road (east of Craycroft)	2	18,918	1,322	20,240	16,380	F
River Road (west of Craycroft)	2	15,765	3,774	19,539	15,600	F
Craycroft Road (south of River Road)	4	31,530	3,396	34,927	32,900	F
Craycroft Road (north of River Road)	4	13,663	943	14,607	32,900	C or better

The existing River Road / Craycroft Road intersection was evaluated based on future peak hour traffic projections. The intersection was analyzed using Synchro 8.0 which utilizes the methodologies outlined in the Highway Capacity Manual 2010. The results of the traffic analysis with the addition of Conceptual Site Plan A, Office Complex, are shown in **Table 6**.



Table 6: Intersection Level of Service Analysis (Existing Intersection Configuration, Total Development Buildout, 2017)

Local Intersection	EB			WB			NB			SB			Intersection LOS	Traffic Control
	L	T	R	L	T	R	L	T	R	L	T	R		
River Road / Craycroft Road														
AM Peak Hour	D	D	D	C	C	C	C	C	B	C	D	A	C	Signalized
PM Peak Hour	C	E	C	C	C	B	C	D	D	E	D	A	D	

As shown in Table 6, it is projected that the River Road / Craycroft intersection will operate at LOS C in the AM peak hour and LOS D in the PM peak hour in opening year of 2017. All intersection movements will operate at LOS D or better except for the eastbound through and southbound left-turn movements which both operate at LOS E during PM peak hour. The 2012 PAD Traffic Study analysis employed a 90 second cycle length and northbound right-turn permissive phasing. This analysis assumes today's (2014) signal operations which consists of a 120 second cycle length and right-turn permissive-overlap phasing.

The 2012 PAD Traffic Study evaluated dual left-turn lanes striping improvements on all four intersection River Road/Craycroft approaches. These improvements were also evaluated with the addition of Conceptual Site Plan A: Office Complex. The LOS results are shown in **Table 7**. The results show that dual left-turn lanes on northbound and southbound approaches significantly improve traffic operations (improved NB LT from LOS C to LOS B, and SB LT from LOS E to LOS C for pm peak period). This is consistent with the findings from the 2012 PAD Traffic Study.

Table 7: Intersection Level of Service Analysis (Total Development Buildout, 2017, With Dual Left-Turn Improvements)

Local Intersection	EB			WB			NB			SB			Intersection LOS	Traffic Control
	L	T	R	L	T	R	L	T	R	L	T	R		
River Road / Craycroft Road														
AM Peak Hour	C	D	D	C	C	C	B	C	B	B	C	A	C	Signalized
PM Peak Hour	C	D	C	C	C	B	B	C	D	C	C	A	C	

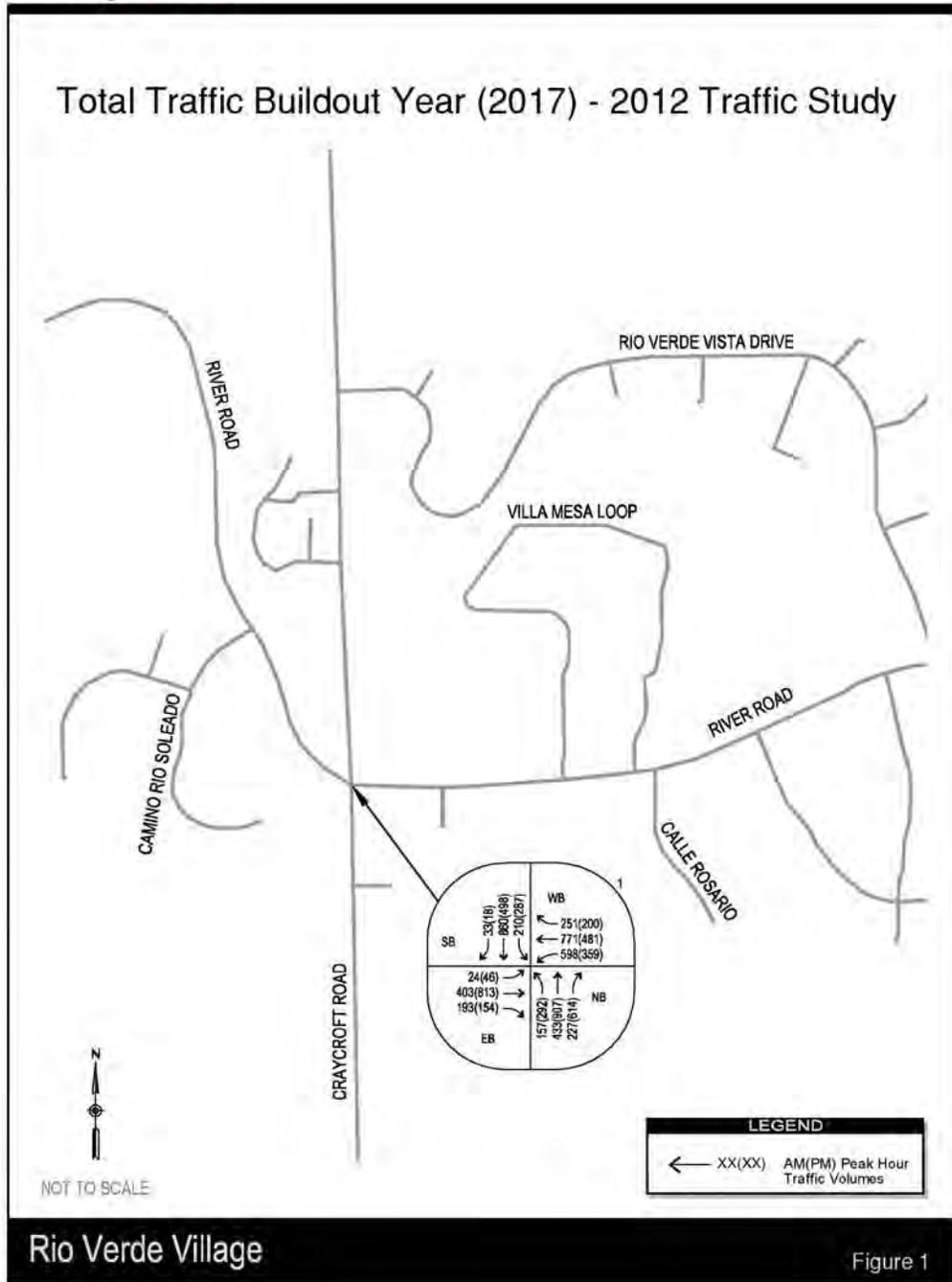
Based on the analysis presented in this report evaluating the additional impact of Conceptual Site Plan A, Office Complex, there are no material changes to recommendations from the 2012 PAD Traffic Study. The recommendations are:

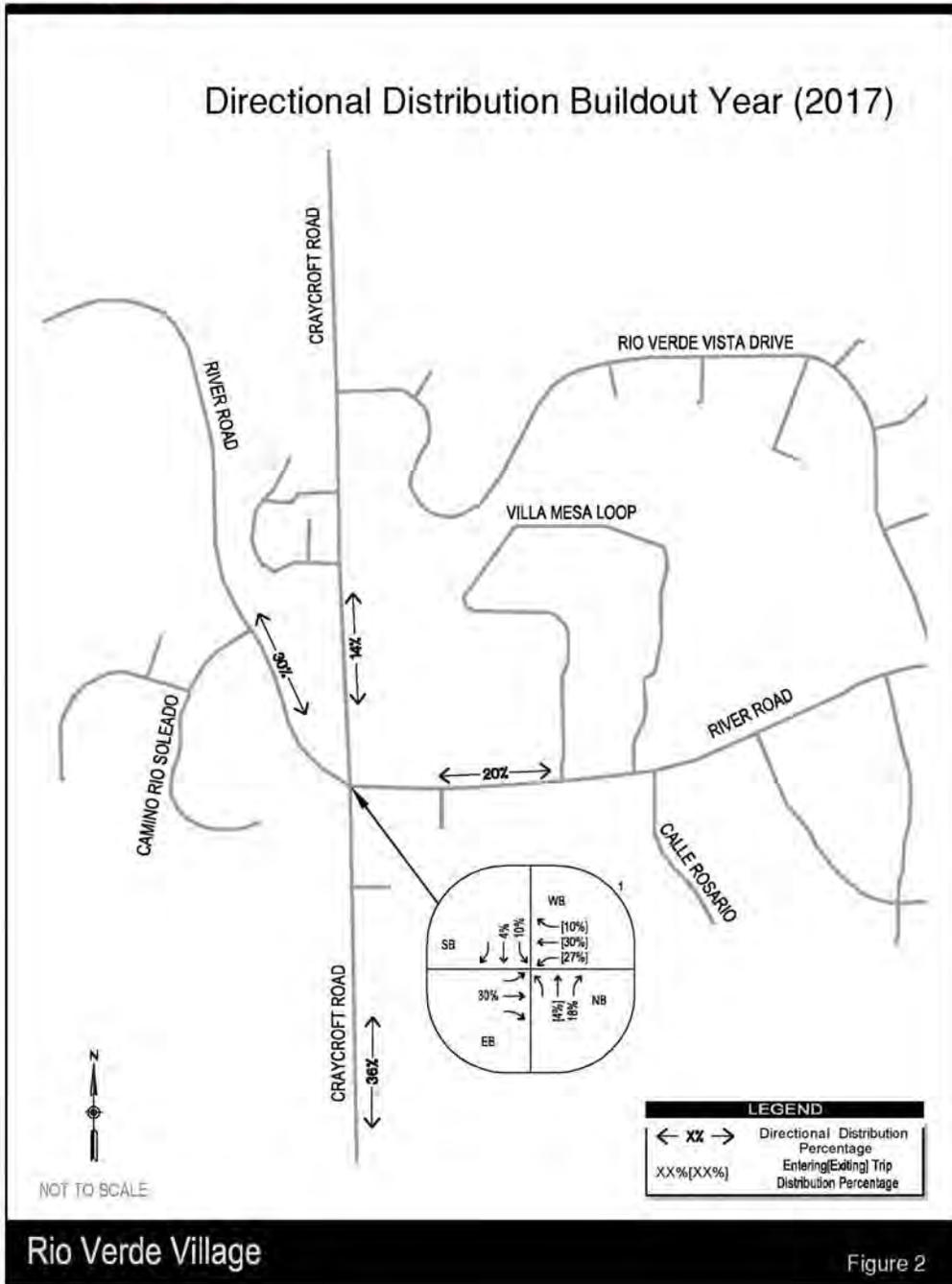
- The PAD has two districts: the Market District for commercial development on the west portion of the land and the Manor District for residential on the east portion of the property. The Market District would include approximately 70,000 square feet of retail uses, 92,000 square feet of office with the addition of Conceptual Site Plan A: Office Complex, 14,800 square feet a restaurant, a 53,000 square feet hotel, and a gas station with 20 fuel positions. The Manor District has four concepts. Concept A proposes a Green Court and Residential Care facility with thirty-three (33) units. Concept B proposes a Residential Care Facility with one hundred and thirty-six (136) beds. Concept C proposes sixty (60) single family residential units. Concept D proposes Multi-family residential with one hundred and forty (140) dwelling units. The planning level traffic analysis utilized Concept D which will have the highest trip generation for the analysis. In addition, Basis School with 1060 students is located in between the two districts. During the development plan stage, more detailed traffic impact studies will be needed to further refine the land uses and determine whether the intensities are compatible with these assumptions.
- Based on traffic volume data, Craycroft Road has available capacity although it is currently approaching the capacity of the 4-lane configuration north of River Road. Traffic volumes on River Road are above or near the current capacity of the 2-lane configuration.

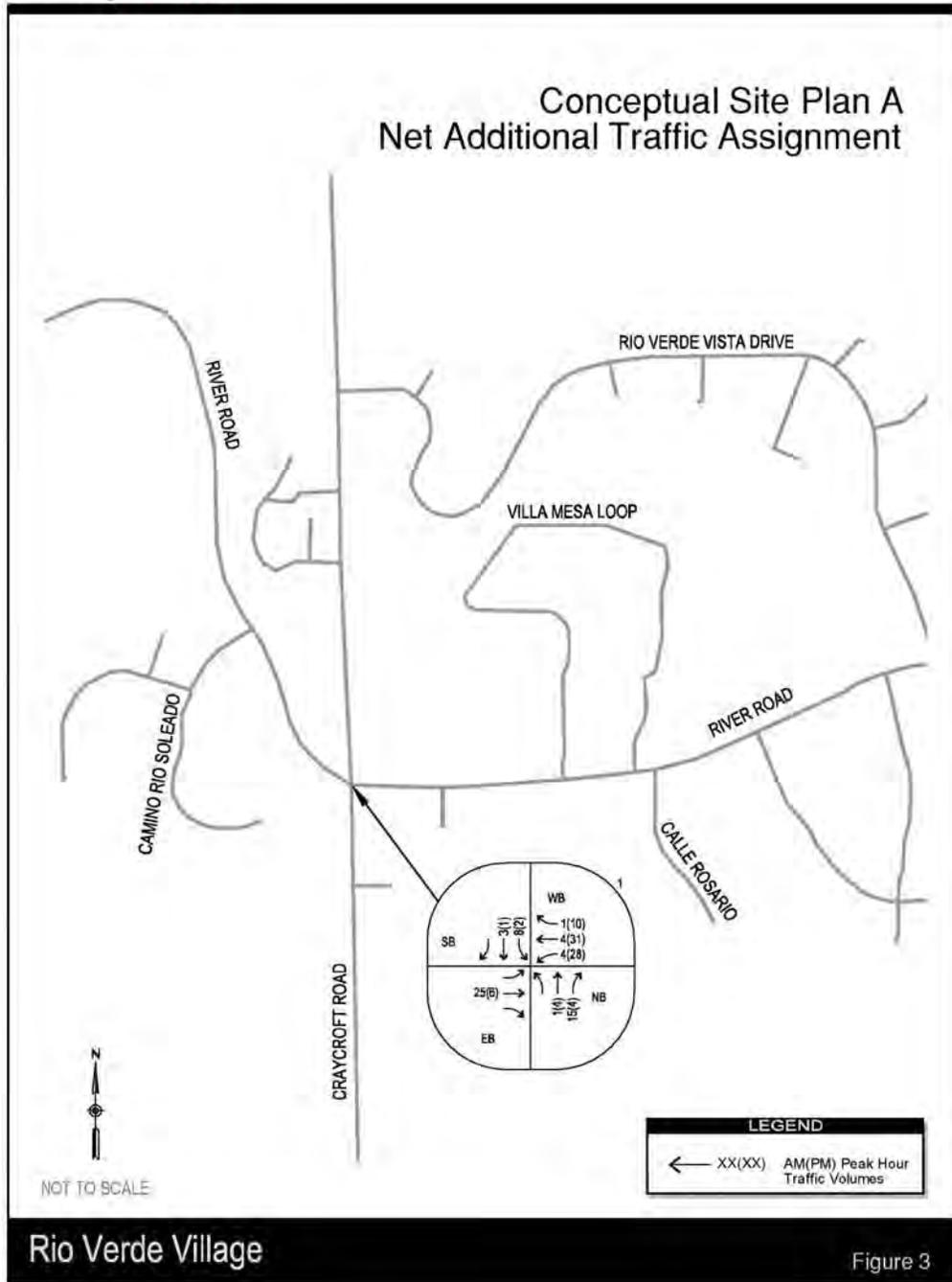


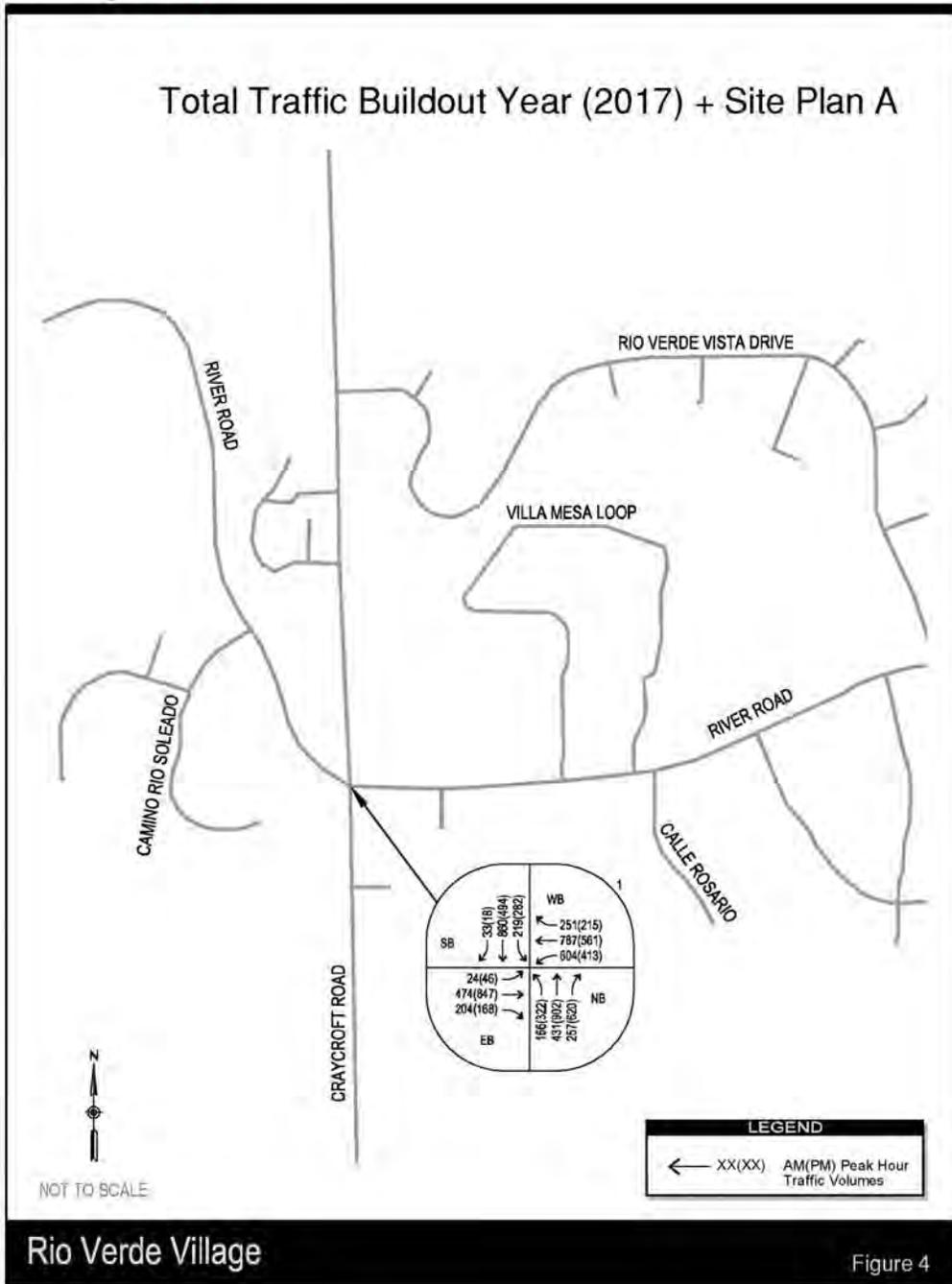
September 26, 2014,
Page 6

- The trip generation for the build-out scenario including the existing gas station, BASIS School, 140 apartment units, and Conceptual Site Plan A: Office Complex results in 14,628 daily trips, with 1,455 trips occurring in the AM peak hour and 1,470 trips occurring in the PM peak hour.
- Based on future (2017) evaluation of the daily traffic volumes, all roadway segments are anticipated to operate at over capacity levels, with the exception of Craycroft north of River Road.
- The existing River Road / Craycroft Road intersection was evaluated on the basis of future peak-hour traffic projections. The intersection will operate at LOS C in the AM peak hour and LOS D in the PM peak hour. The southbound left-turn will operate at LOS E in PM peak hour. The intersection will require dual left-turn lanes for northbound and southbound approaches by 2017. With the dual left-turn improvements the intersection will operate at LOS C in both AM and PM peak hour in the opening year of 2017.
- Craycroft Road has two access points south of River Road for the planned development. During a field review, vehicles were observed making illegal left turns from the northern access point to southbound Craycroft. It is recommended that the Craycroft Road center median island be extended further south to prohibit left turns onto southbound Craycroft from the northern access point and to make this right in and right out only. There is a second driveway located further 625' south River Road. The City of Tucson Transportation Access Policy allows median openings at 650' spacing. The access into the development with left turns from Craycroft Road meets the policy requirements. The access for left turns out of the development will be determined based on a future Traffic Impact Analysis. The requirements of the City of Tucson Access Policy need to be met for the left turn access out of the development to be approved.
- Preliminary analysis indicates that the existing center left turn lane along River Road east of Craycroft should be maintained in order to provide left-turn access to land uses on both the north and south sides of River Road. However, opportunities to limit outbound left-turns from parcels should be evaluated and may require a median or a diverter. In addition, a future Traffic Impact Analysis should include a review of crash data. City of Tucson Access Policy requirements will need to be met for the left turn access out of the development to be approved.
- It is recommended that right-turn lane improvements should also be evaluated during the development plan stage.
- It is recommended that the cross access between the Manor District and Market District be maintained. This will allow for access to Craycroft Road for the Manor District and reduce left turn traffic out from Calle Rosario onto River Road.
- It is recommended that at build-out of the PAD, that Craycroft Road and River Road intersection be reconfigured for dual-left turn lanes on all intersection approaches.
- It is recommended that a detailed Traffic Impact Analysis be prepared as development plans are submitted.









HCM 2010 Signalized Intersection Summary Buildout AM - Existing Intersection Configuration
 1: Craycroft Road & River Road 9/26/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↶	↶	↶↶	↶↶	↶	↶	↶↶	↶	↶	↶↶	↶
Volume (veh/h)	24	474	204	604	787	251	166	431	257	219	860	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow (veh/h)	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	202	714	501	895	1335	739	361	1366	897	448	1304	607
Arrive On Green	0.03	0.19	0.19	0.20	0.36	0.36	0.13	0.37	0.37	0.11	0.35	0.00
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	26	515	222	657	855	273	180	468	279	238	935	0
Grp Sat Flow(s),veh/h/mn	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.4	15.6	13.4	13.8	22.9	13.3	6.9	10.9	11.1	10.1	26.1	0.0
Cycle Q Clear(g_c), s	1.4	15.6	13.4	13.8	22.9	13.3	6.9	10.9	11.1	10.1	26.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	714	501	895	1335	739	361	1366	897	448	1304	607
W/C Ratio(X)	0.13	0.72	0.44	0.73	0.64	0.37	0.50	0.34	0.31	0.53	0.72	0.00
Avail Cap(c_a), veh/h	202	714	501	895	1335	739	361	1366	897	448	1304	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.6	45.5	32.6	25.2	32.1	20.6	22.0	27.5	13.7	20.8	33.8	0.0
Incr Delay (d2), s/veh	1.3	6.2	2.8	5.3	2.4	1.4	4.9	0.7	0.9	4.5	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/mn	0.7	8.1	5.8	5.5	11.1	5.4	3.4	5.2	4.4	4.9	12.8	0.0
Lane Grp Delay (d), s/veh	37.9	51.7	35.4	30.6	34.4	22.0	26.8	28.2	14.6	25.3	37.3	0.0
Lane Grp LOS	D	D	D	C	C	C	C	C	B	C	D	
Approach Vol, veh/h		763			1785			927			1173	
Approach Delay, s/veh		46.5			31.1			23.8			34.8	
Approach LOS		D			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.0	27.0		28.0	47.0		19.0	48.0		17.0	46.0	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	4.0	23.0		24.0	43.0		15.0	44.0		13.0	42.0	
Max Q Clear Time (g_c+1), s	3.4	17.6		15.8	24.9		8.9	13.1		12.1	28.1	
Green Ext Time (p_c), s	0.0	4.2		1.7	10.9		0.2	13.9		0.1	8.7	
Intersection Summary												
HCM 2010 Ctrl Delay				33.1								
HCM 2010 LOS				C								
Notes												

HCM 2010 Signalized Intersection Summary Buildout PM - Existing Intersection Configuration
 1: Craycroft Road & River Road 9/26/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕↕	↵	↵↵	↕↕	↵	↵	↕↕	↵	↵	↕↕	↵
Volume (veh/h)	46	847	168	413	561	215	322	902	620	282	494	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow (veh/h)	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Cap, veh/h	290	993	726	662	1428	818	515	1180	739	318	962	462
Arrive On Green	0.03	0.27	0.27	0.15	0.38	0.38	0.19	0.32	0.32	0.13	0.26	0.00
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	50	921	183	449	610	234	350	980	674	307	537	0
Grp Sat Flow(s),veh/h/mn	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.4	28.9	8.5	9.5	14.5	10.1	14.0	29.3	38.0	15.3	15.0	0.0
Cycle Q Clear(g_c), s	2.4	28.9	8.5	9.5	14.5	10.1	14.0	29.3	38.0	15.3	15.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	993	726	662	1428	818	515	1180	739	318	962	462
W/C Ratio(X)	0.17	0.93	0.25	0.68	0.43	0.29	0.68	0.83	0.91	0.96	0.56	0.00
Avail Cap(c_a), veh/h	290	993	726	662	1428	818	515	1180	739	318	962	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	42.9	19.9	28.3	27.3	16.4	20.9	38.0	29.7	30.5	38.6	0.0
Incr Delay (d2), s/veh	1.3	15.6	0.8	5.5	0.9	0.9	7.0	6.9	17.5	42.1	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/mn	1.2	15.8	3.5	3.8	7.0	4.0	6.9	14.9	22.1	10.4	7.4	0.0
Lane Grp Delay (d), s/veh	31.5	58.5	20.7	33.8	28.2	17.3	27.9	44.9	47.2	72.7	40.9	0.0
Lane Grp LOS	C	E	C	C	C	B	C	D	D	E	D	
Approach Vol, veh/h		1154			1293			2004			844	
Approach Delay, s/veh		51.3			28.2			42.7			52.5	
Approach LOS		D			C			D			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.0	36.0		22.0	50.0		27.0	42.0		20.0	35.0	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	4.0	32.0		18.0	46.0		23.0	38.0		16.0	31.0	
Max Q Clear Time (g_c+1), s	4.4	30.9		11.5	16.5		16.0	40.0		17.3	17.0	
Green Ext Time (p_c), s	0.0	1.0		1.0	15.7		0.6	0.0		0.0	10.4	
Intersection Summary												
HCM 2010 Ctrl Delay			42.6									
HCM 2010 LOS			D									
Notes												

HCM 2010 Signalized Intersection Summary Buildout AM - Improved Intersection Configuration
 1: Craycroft Road & River Road 9/26/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔	↕↕	↗
Volume (veh/h)	24	474	204	604	797	251	166	431	257	219	860	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow (veh/h)	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	344	779	409	774	1272	632	596	1606	924	815	1636	727
Arrive On Green	0.02	0.21	0.21	0.15	0.34	0.34	0.05	0.43	0.43	0.06	0.44	0.00
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	26	515	222	657	855	273	180	468	279	238	935	0
Grp Sat Flow(s), veh/h	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	0.6	13.5	12.9	12.3	20.9	13.4	3.1	8.7	9.5	4.0	20.1	0.0
Cycle Q Clear(g_c), s	0.6	13.5	12.9	12.3	20.9	13.4	3.1	8.7	9.5	4.0	20.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	779	409	774	1272	632	596	1606	924	815	1636	727
W/C Ratio(X)	0.08	0.66	0.54	0.85	0.67	0.43	0.30	0.29	0.30	0.29	0.57	0.00
Avail Cap(c_a), veh/h	404	873	449	1056	1606	774	748	1606	924	875	1636	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.2	38.7	34.1	21.8	30.0	23.3	17.2	19.8	11.2	15.0	22.4	0.0
Incr Delay (d2), s/veh	0.1	1.6	1.1	5.0	0.8	0.5	0.3	0.5	0.8	0.2	1.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/m	0.3	6.6	5.3	9.5	10.0	5.3	1.3	4.1	3.7	1.7	9.4	0.0
Lane Grp Delay (d), s/veh	32.3	40.3	35.2	26.8	30.8	23.8	17.5	20.2	12.1	15.2	23.9	0.0
Lane Grp LOS	C	D	D	C	C	C	B	C	B	B	C	
Approach Vol, veh/h		763			1735			927			1173	
Approach Delay, s/veh		38.6			28.3			17.2			22.1	
Approach LOS		D			C			B			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.1	26.3		20.3	40.4		9.3	50.0		10.1	50.9	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	4.0	25.0		25.0	46.0		10.0	46.0		8.0	44.0	
Max Q Clear Time (g_c+1), s	2.6	15.5		14.3	22.9		5.1	11.5		6.0	22.1	
Green Ext Time (p_c), s	0.0	6.8		2.0	12.7		0.2	14.6		0.2	11.7	
Intersection Summary												
HCM 2010 Ctrl Delay				26.2								
HCM 2010 LOS				C								
Notes												

HCM 2010 Signalized Intersection Summary Buildout PM - Improved Intersection Configuration
 1: Craycroft Road & River Road 9/26/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	847	168	413	561	215	322	902	620	282	494	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow (veh/h/lane)	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	2	1	2	2	1	2	2	1	2	2	1
Cap, veh/h	566	1138	618	578	1424	726	836	1343	739	476	1311	604
Arrive On Green	0.03	0.31	0.31	0.11	0.38	0.38	0.08	0.36	0.36	0.08	0.35	0.00
Sat Flow, veh/h	3442	3725	1583	3442	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	50	921	183	449	610	234	350	980	674	307	537	0
Grp Sat Flow(s), veh/h/lane	1721	1863	1583	1721	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(q_s), s	1.0	24.0	8.4	7.8	12.7	9.9	6.6	24.1	38.0	5.9	11.5	0.0
Cycle Q Clear(q_c), s	1.0	24.0	8.4	7.8	12.7	9.9	6.6	24.1	38.0	5.9	11.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	566	1138	618	578	1424	726	836	1343	739	476	1311	604
W/C Ratio(X)	0.09	0.81	0.30	0.78	0.43	0.32	0.42	0.73	0.91	0.64	0.41	0.00
Avail Cap(c_a), veh/h	596	1202	645	964	1874	917	903	1343	739	508	1311	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.8	33.8	22.2	22.5	24.0	18.1	19.0	29.2	26.1	23.7	25.8	0.0
Incr Delay (d2), s/veh	0.1	4.1	0.3	2.3	0.2	0.3	0.3	2.0	15.6	2.6	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/m	0.4	12.0	3.3	6.2	6.0	3.8	2.8	11.5	19.2	4.3	5.4	0.0
Lane Grp Delay (d), s/veh	23.9	37.8	22.4	24.8	24.3	18.4	19.3	31.3	41.7	26.3	26.1	0.0
Lane Grp LOS	C	D	C	C	C	B	B	C	D	C	C	
Approach Vol, veh/h		1154			1293			2004			844	
Approach Delay, s/veh		34.8			23.4			32.7			26.1	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.1	36.2		15.2	44.3		12.9	42.0		12.0	41.1	
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Max Green Setting (Gmax), s	4.0	34.0		23.0	53.0		11.0	38.0		9.0	36.0	
Max Q Clear Time (q_c+1), s	3.0	26.0		9.8	14.7		8.6	40.0		7.9	13.5	
Green Ext Time (p_c), s	0.0	6.1		1.4	17.8		0.3	0.0		0.1	14.8	
Intersection Summary												
HCM 2010 Ctrl Delay				29.8								
HCM 2010 LOS				C								
Notes												





NOTICE: THIS PLAN IS PRELIMINARY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USER OF THIS PLAN SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION SHOWN HEREON. THE USER OF THIS PLAN SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS PLAN SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS PLAN SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

LEGEND

REZONING BOUNDARY

EXISTING PAD BOUNDARY

Conceptual Site Plan B: Assisted Living Facility

ADDRESS: 3595 N. CALLE ROSARIO

	Novak Environmental, Inc. 2024 South First Avenue #100 • Tucson, AZ 85716 Phone 520.285.0501 • Fax 520.952.3000	
	PRELIMINARY DEVELOPMENT PLAN RIO VERDE VILLAGE PAD ADDENDUM	
NO.	REVISION	DATE
		SW 1/4 OF SEC. 25, T. 13 S., R. 14 E., GUAJARO, PIMA COUNTY, ARIZONA
	DESIGNED BY	CHECKED BY
	DATE	SCALE
	08/14/2014	1:8000

Baker & Associates Engineering, Inc.
 1301 E. Santa Cecilia Suite 402 • Tucson, Arizona 85714 • 520.756-0828 • Fax 520.756-0829



