

SITE ANALYSIS REPORT

PLANNING AND ZONING COMMISSION DRAFT COPY

Co9-12-05

FOR

AERIE AT RIVER ROAD AND SABINO CANYON ROAD

Southwest Corner of River Road and Sabino Canyon Road
Pima County, Arizona



SITE ANALYSIS REPORT
PLANNING AND ZONING COMMISSION DRAFT COPY

Co9-12-05

FOR

AERIE AT RIVER ROAD AND SABINO CANYON ROAD

Southwest Corner of River Road and Sabino Canyon Road

Pima County, Arizona

Respectfully submitted to:

Pima County
Development Services – Planning Division
201 North Stone Avenue
Tucson Arizona 85701

Prepared for:

Aerie Development LLC
Alta Vista Communities, Sabino-River West, LLC
1785 E Skyline Drive, Suite 31
Tucson, AZ 85718
(520) 977-5456

Prepared by:

STAR Consulting of Arizona, Inc.
5405 E Placita Hayuco
Tucson, Arizona 85718
(520) 529-1240

December 2012
Revised: April 2013



TABLE OF CONTENTS

TABLE OF CONTENTS	3
LIST OF EXHIBITS	7
PART I - SITE INVENTORY:	9
I-A EXISTING LAND USES	9
1. LOCATION AND REGIONAL CONTEXT	9
2. EXISTING DEVELOPMENT	9
3. AERIAL PHOTO	10
4. SURROUNDING DEVELOPMENT	10
I-B TOPOGRAPHY AND GRADING	19
1. TOPOGRAPHIC FEATURES	19
2. AVERAGE CROSS SLOPE	19
I-C HYDROLOGY	22
1. OFFSITE WATERSHEDS	22
2. OFFSITE FEATURES	24
3. ACREAGE OF OFF-SITE WATERSHEDS	24
4. ON-SITE HYDROLOGY	24
5. DOWNSTREAM DRAINAGE CONDITIONS	26
I-D BIOLOGICAL RESOURCES	27
1. CONSERVATION LAND SYSTEMS	27
2. CRITICAL LANDSCAPE CONNECTIONS	27
3. PIMA PINEAPPLE CACTUS	27
4. NEEDLE-SPINED PINEAPPLE CACTUS	27
5. CACTUS FERRUGINOUS PYGMY OWL AND WESTERN BURROWING OWL	27
6. SPECIAL STATUS SPECIES	30
7. SAGUAROS	40
8. HABITAT PROTECTION AND COMMUNITY OPEN SPACE	42
9. OTHER IMPORTANT VEGETATION	42
10. VEGETATION COMMUNITIES/ASSOCIATIONS	42
I-E VIEWSHEDS	44
1. VISIBILITY AREAS	44
2. PHOTOS	44
I-F TRANSPORTATION	56
1. EXISTING/PLANNED OFF-SITE STREETS	56
2. DISTANCES TO EXISTING DRIVES/INTERSECTIONS	57
3. PUBLIC TRANSIT	57

I-G	SEWERS.....	64
1.	EXISTING PUBLIC SEWER.....	64
2.	SITE CONSTRAINTS FOR SEWER	64
I-H	RECREATION AND TRAILS.....	67
1.	EXISTING PARKS AND TRAILS.....	67
2.	EASTERN PIMA COUNTY TRAIL SYSTEM MASTER PLAN	69
I-I	CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES.....	71
1.	ARIZONA STATE MUSEUM.....	71
2.	ARCHEOLOGICAL AND HISTORIC SITES.....	71
3.	FIELD SURVEY.....	71
I-J	AIR QUALITY.....	74
I-K	COMPOSITE MAP	75
PART II – LAND USE PROPOSAL.....		77
II-A	PROJECT OVERVIEW	78
1.	PROPOSED ZONING BOUNDARIES	78
2.	PROJECT DESCRIPTION	78
3.	CONFORMANCE WITH SELECTED ORDINANCES.....	82
II-B	PRELIMINARY DEVELOPMENT PLAN (PDP).....	85
1.	PRELIMINARY DEVELOPMENT PLAN.....	85
2.	PDP SUPPORT DATA.....	85
II-C	TOPOGRAPHY AND GRADING.....	89
1.	DEVELOPMENT/MITIGATION ON STEEP SLOPES.....	89
2.	NATURAL AREAS UNDER HDZ.....	89
3.	AREAS TO BE DISTURBED, REVEGETATED AND NATURAL.....	89
4.	CHANGES TO NATURAL GRADE.....	89
5.	ENGINEERING/DESIGN FEATURES FOR MITIGATION	90
II-D	HYDROLOGY.....	92
1.	RESPONSE TO HYDRAULIC CONSTRAINTS	92
2.	REASONS FOR FLOODPLAIN ENCROACHMENT	92
3.	POST DEVELOPMENT DISCHARGE.....	92
4.	ENGINEERING/DESIGN FEATURES FOR MITIGATION	93
5.	CONFORMANCE WITH APPLICABLE POLICIES	93
II-E	BIOLOGICAL RESOURCES.....	95
1.	IMPACTS TO BIOLOGICAL RESOURCES.....	95
2.	PROTECTION OF LANDSCAPE CONNECTIVITY.....	95
II-F	LANDSCAPE AND BUFFER PLAN.....	96
II-G	VIEWSHEDS.....	98

1.	IMPACTS TO VIEWS	98
2.	MITIGATION OF VISUAL IMPACTS	98
1.	PROPOSED INGRESS AND EGRESS.....	106
2.	OFF-SITE IMPROVEMENTS.....	106
3.	CHANGES TO ADT	106
4.	TRAFFIC IMPACTS ON SURROUNDING LOCAL STREETS	106
5.	BICYCLE AND PEDESTRIAN PATHWAYS.....	106
6.	PROPOSED ROADS.....	107
7.	CONCURRENCY CONFORMANCE	107
8.	TRAFFIC IMPACT STUDY.....	107
9.	ALTERNATE MODES	107
II-J	SEWERS.....	112
1.	CAPACITY RESPONSE LETTER	112
2.	METHOD OF PROVIDING SEWER.....	112
3.	SEWER EASEMENTS	112
4.	MITIGATION OF SITE CONSTRAINTS.....	112
II-K	WATER.....	114
1.	WATER CONTEXT MAP	114
2.	EXISTING AND HISTORIC WATER USE.....	117
3.	PROPOSED WATER USE	117
4.	WATER SUPPLY OPTIONS	117
5.	WATER DEMAND PROJECTIONS	127
6.	PROXIMITY TO RENEWABLE AND POTABLE WATER SUPPLIES.....	128
7.	GROUNDWATER-DEPENDANT ECOSYSTEMS	128
8.	GROUNDWATER DEPTHS AND TRENDS.....	128
9.	GEOLOGIC AND HYDROGEOLOGIC DATA.....	128
10.	AREA WATER SUPPLY	128
11.	WELL TEST DATA	128
12.	DRAWDOWN ANALYSIS	128
II-L	SCHOOLS	129
1.	ACCESS TO ADJACENT OR ON-SITE SCHOOLS	129
2.	SCHOOL CAPACITY ANALYSIS AND LETTER.....	129
3.	AGREEMENT WITH SCHOOL DISTRICT FOR MITIGATION	129
II-M	RECREATION AND TRAILS.....	131
1.	ON-SITE RECREATION	131
2.	OWNERSHIP OF RECREATION AREAS	131
3.	PROPOSED TRAILS ON OR OFF-SITE	131

II-N	CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES.....	133
1.	PROTECTION OF KNOWN CULTURAL RESOURCES.....	133
2.	MITIGATION MEASURES OF POTENTIAL RESOURCES	133
3.	CULTURAL RESOURCES MITIGATION PLAN	133
II-O	ENVIRONMENTAL QUALITY	134
1.	METHODS OF CONTROLLING DUST POLLUTION.....	134
2.	AIR QUALITY AND HAZARDOUS MATERIALS FOR NON-RESIDENTIAL PROJECTS	134
II-P	AGREEMENTS.....	135

LIST OF EXHIBITS

EXHIBIT I-A.1: LOCATION AND REGIONAL CONTEXT	12
EXHIBIT I-A.2.B: EXISTING EASEMENT	13
EXHIBIT I-A.3: AERIAL PHOTO	14
EXHIBIT I-A.4.A: SURROUNDING ZONING	15
EXHIBIT I-A.4.B: SURROUNDING LAND USES	16
EXHIBIT I-A.4.C: NUMBER OF STORIES	17
EXHIBIT I-A.4.E: SURROUNDING COMPREHENSIVE PLAN	18
EXHIBIT I-B.1: TOPOGRAPHIC CHARACTERISTICS	20
EXHIBIT I-B.2: AVERAGE CROSS SLOPE CALCULATION	21
TABLE I-C.1: OFFSITE WATERSHED SUMMARY	22
EXHIBIT I-C.1: OFFSITE DRAINAGE MAP	23
TABLE I-C.2: ONSITE EXISTING WATERSHED SUMMARY	24
EXHIBIT I-C.4: ON-SITE HYDROLOGY	25
EXHIBIT I-D.1: CONSERVATION LAND SYSTEMS (CLS)	28
EXHIBIT I-D.5: PRIORITY CONSERVATION AREA FOR THE CACTUS FERRUGINOUS PYGMY OWL	29
EXHIBIT I-D.6: AZ GAME AND FISH	31
EXHIBIT I-D.7: SAGUAROS	41
EXHIBIT I-E.2: GROUND-LEVEL PHOTOS	45
EXHIBIT I-F.1: EXISTING OFF-SITE STREETS ADT	58
EXHIBIT I-F.2: DISTANCES TO EXISTING DRIVES/INTERSECTIONS	59
EXHIBIT I-F.3: PUBLIC TRANSIT	60
EXHIBIT I-G.1: EXISTING PUBLIC SEWERS	65
EXHIBIT I-H.1: EXISTING RECREATION FACILITIES	68
EXHIBIT I-H.2: EASTERN PIMA COUNTY TRAIL SYSTEM MASTER PLAN	70
EXHIBIT I-I.1: ARIZONA STATE MUSEUM SEARCH RESULTS	72
EXHIBIT I-K.1: COMPOSITE MAP (WITH ACETATE OVERLAY)	76
EXHIBIT II-A.3: CO20-13-02 DRC DECISION LETTER	83
EXHIBIT II-B.1.1: PRELIMINARY DEVELOPMENT PLAN (WITH ACETATE OVERLAY)	87
EXHIBIT II-B.1.2: PRELIMINARY DEVELOPMENT PLAN W/O TOPO (WITH ACETATE OVERLAY)	88
EXHIBIT II-C.4: CHANGES TO NATURAL GRADE	91
EXHIBIT II-D.1: DEVELOPED CONDITIONS DRAINAGE	94
EXHIBIT II-IF BUFFERYARD PLAN	97
EXHIBIT II-G.2: PRELIMINARY BUILDING ELEVATIONS	99
EXHIBIT II-H.1: PROPOSED INGRESS/EGRESS	108
EXHIBIT II-H.5: BICYCLE AND PEDESTRIAN PATHWAYS	109
EXHIBIT II-H.9: ALTERNATE MODES	110

EXHIBIT II-J.1: CAPACITY RESPONSE LETTER	113
EXHIBIT II-K.1: WATER CONTEXT MAP	115
EXHIBIT II-K.4.1 METRO WATER - WATER SUPPLY OPTIONS	118
EXHIBIT II-K.4.2 TUCSON WATER - WATER SUPPLY OPTIONS.....	125
EXHIBIT II-L.2 SCHOOL CAPACITY RESPONSE	130
EXHIBIT II-M.1: ON-SITE RECREATION.....	132
EXHIBIT II-P.1 11/29/12 VOLUNTARY NEIGHBORHOOD MEETING SIGN-IN SHEET	137

PART I - SITE INVENTORY:

The site inventory serves to identify and describe existing characteristics and conditions of the site. This section of the report will identify both development constraints and development opportunities of the site prior to the actual site design process.

I-A EXISTING LAND USES

1. LOCATION AND REGIONAL CONTEXT

The subject parcel is located in the region of Pima County northeast of the City of Tucson. Parcel 114-33-002E is located in the northwest quarter of the southwest quarter of Section 20, Township 13 South, Range 15 East. The parcel is located southwest of the River Road and Sabino Canyon Road intersection, bound by both roads. Please see Exhibit 1-A.1 for a mapped description of the Location and Regional Context.

2. EXISTING DEVELOPMENT

- a. The existing land use on the subject property is vacant. Because the site is currently vacant, an exhibit has not been provided.
- b. A review of the Title Commitment No. 06174633 as prepared by First American Title Insurance Company, by B. Whipple, Title Officer, and dated September 11, 2012 revealed one easement. A Slope and Maintenance Easement was recorded in Docket 9490 at Page 398 and Docket 9959 at Page 479. The County has indicated no objections to abandoning this easement. No existing access or utility easements are known to be located on the subject property. Please see Exhibit 1-A.2.b for a mapped description of the location of the Existing Easement.
- c. The subject property is designated entirely with a Comprehensive Plan Land Use Intensity of Medium Intensity Urban (MIU). The Comprehensive Plan offers the following description of the MIU Land Use Intensity Category:
 - a) *Purpose: To designate areas for a mix of medium density housing types and other compatible uses.*
 - b) *Objective: These area provide an opportunity for a variety of residential types, including cluster option developments, and single family attached dwellings. Special attention should be given in site design to assure that uses are compatible with adjacent lower density residential uses.*
 - c) *Residential Gross Density: Only land area zoned and planned for residential use, or natural or cluster option open spaces areas, shall be included in gross density calculations... Residential gross density shall conform with the following:*

- 1) *Minimum = none*
- 2) *Maximum = 10 RAC*
- d) *Residential Gross Densities for Developments Using Transfer of Development Rights (TDR): Not Applicable*
- e) *Zoning Districts: Only the following zoning districts shall be deemed in conformance with the land use plan...*
 - 6) *CR-4 Mixed-Dwelling Type Zone*
 - 7) *CR-5 Multiple Residence Zone*

The property is located with the Catalina Foothills subregion. Furthermore, the property is within the Comprehensive Plan Rezoning and Special Area Policies - Part 2, Area Policy S-2. Special Area Policy, S-2 Catalina Foothills states the following policy:

No construction of building exceeding 24 feet in height shall be permitted without specific authorization from the Board of Supervisors. The Board of Supervisors reserves the right to limit construction to one story.

3. AERIAL PHOTO

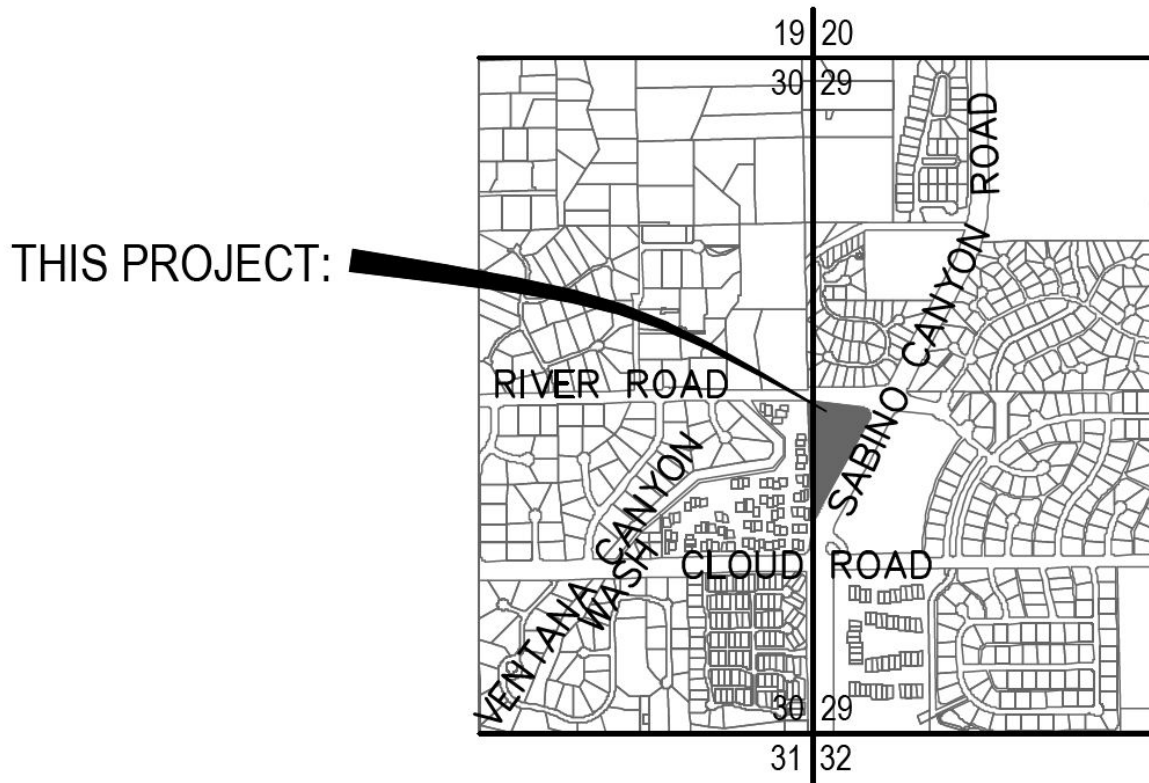
An Aerial Photo that clearly shows the subject property and surrounding properties within 600 feet of the subject property is provided as Exhibit 1-A.3.

4. SURROUNDING DEVELOPMENT

- a. The subject property is bounded by CR-4 zoning to the north (across River Road) and to the west. The subject property is bounded by SR zoning to the southeast (across Sabino Canyon Road). The property immediately south of the subject parcel (across Cloud Road) is zoned CR-5. Within a one-quarter mile radius, zones SR, CR-1, CR-2, CR-3, CR-4 and CR-5 exist as shown on Exhibit 1-A.4.a.
- b. The surrounding land use for the subject parcel is entirely residential with one exception. The St. Albans Episcopal Church of Tucson is located approximately 1000 feet north of the subject property on Sabino Canyon Road. One undeveloped parcel is located east of the subject parcel, directly across on Sabino Canyon Road. The density of the existing residential developments varies from 1 resident per acre (RAC) to 10 RAC with lower density housing further away from the River Road and Sabino Canyon Road intersection. Please see Exhibit 1-A.4.b for additional information.
- c. The existing neighborhoods surrounding the site are comprised of one and two story single family residential developments. The structure styles range from detached to attached duplexes and triplexes to the immediate west of the site. The height of the existing homes also ranges from low slung ranch style homes to pitched roof, box on box, 2-story

construction. The average height of the one story homes range from 14' to 18' and the two story homes range in height from 20' to 24'.

- d. The applicant is not aware of any pending or conditionally approved rezonings and subdivisions and/or development plan under review at the time of application.
- e. The subject property is bounded by Medium Intensity Urban to the north (across River Road), to the west and to the south (across Cloud Road). The subject property is bounded by Low Intensity Urban to the southeast (across Sabino Canyon Road). An area of Resource Transition designated space is west of the subject parcel, along the Ventana Canyon Wash. The designation does not cross into the subject property. The subject property and surrounding area is located entirely within the Catalina Foothills subregion. Please see Exhibit 1-A.4.e for additional information.



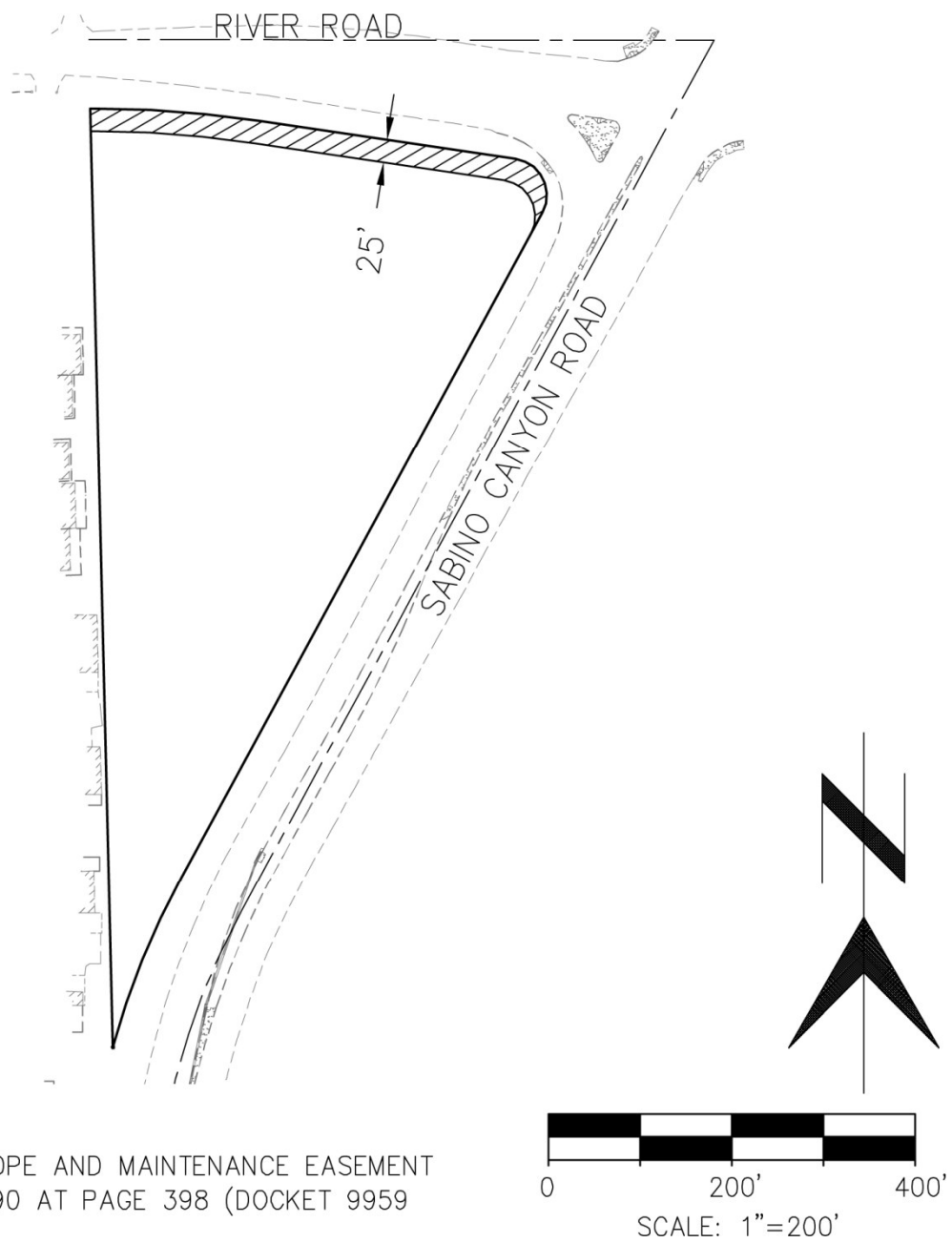
LOCATION MAP

SECTION 29, T13S, R15E, G&SRM
PIMA COUNTY, ARIZONA

Project Site is located in:
Section 29 of Township 13 South, Range 15 East

SUBJECT PROPERTY ACREAGE: 5.9 acres
REZONING AREA ACREAGE: 5.9 acres

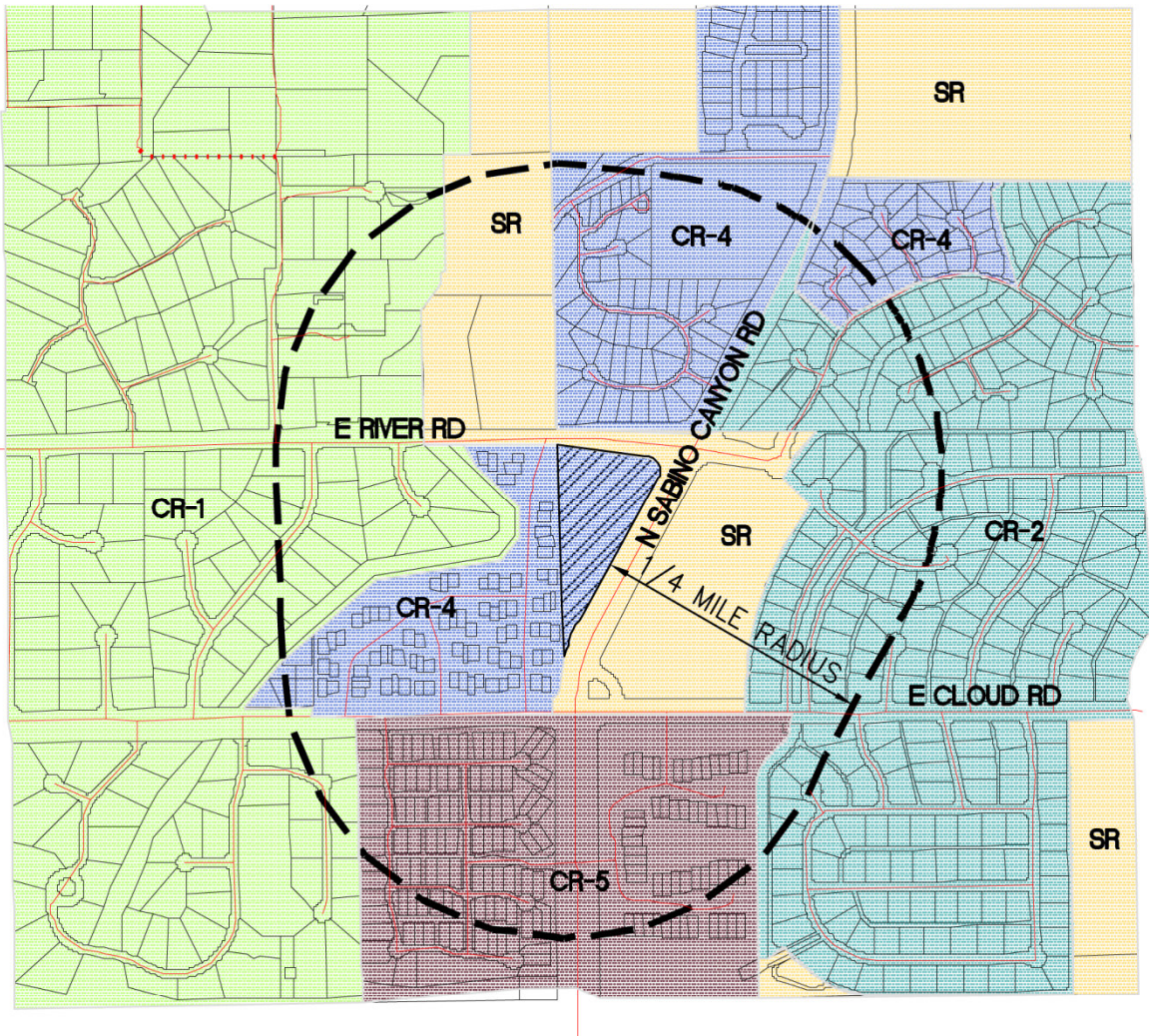
Assessor Parcel Number: 114-33-002E



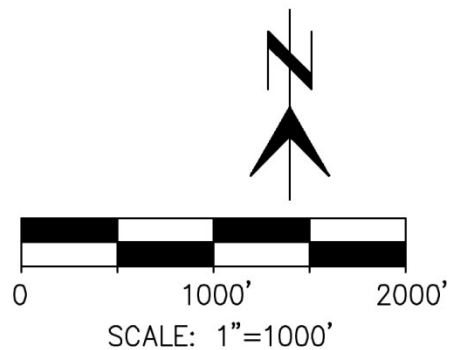
EXISTING 25' SLOPE AND MAINTENANCE EASEMENT
PER DOCKET 9490 AT PAGE 398 (DOCKET 9959
AT PAGE 479)

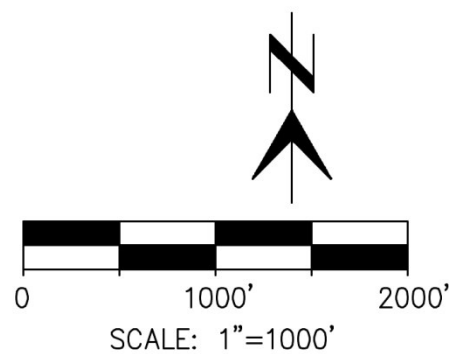
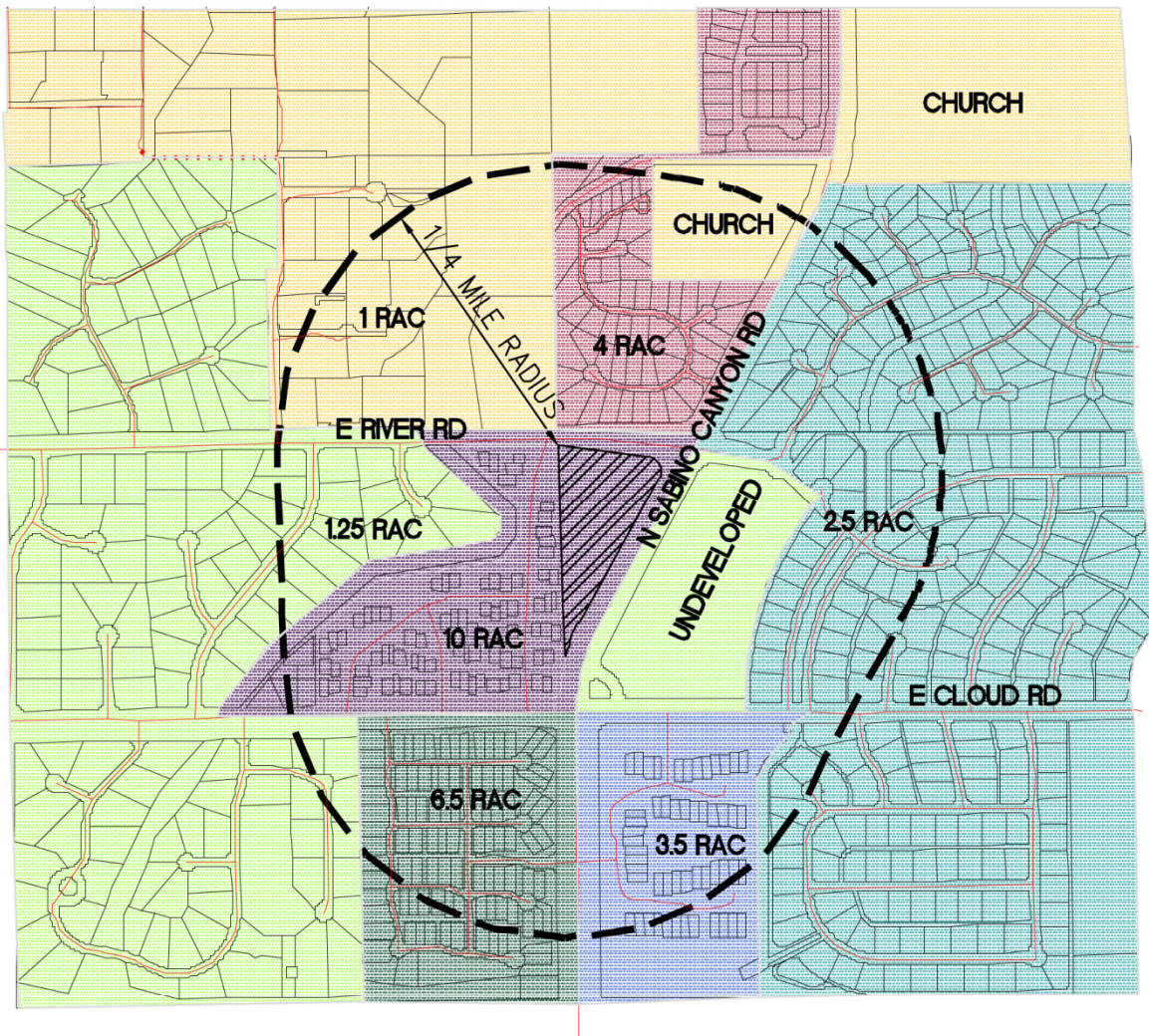
SOURCE: ALTA SURVEY 10/16/12

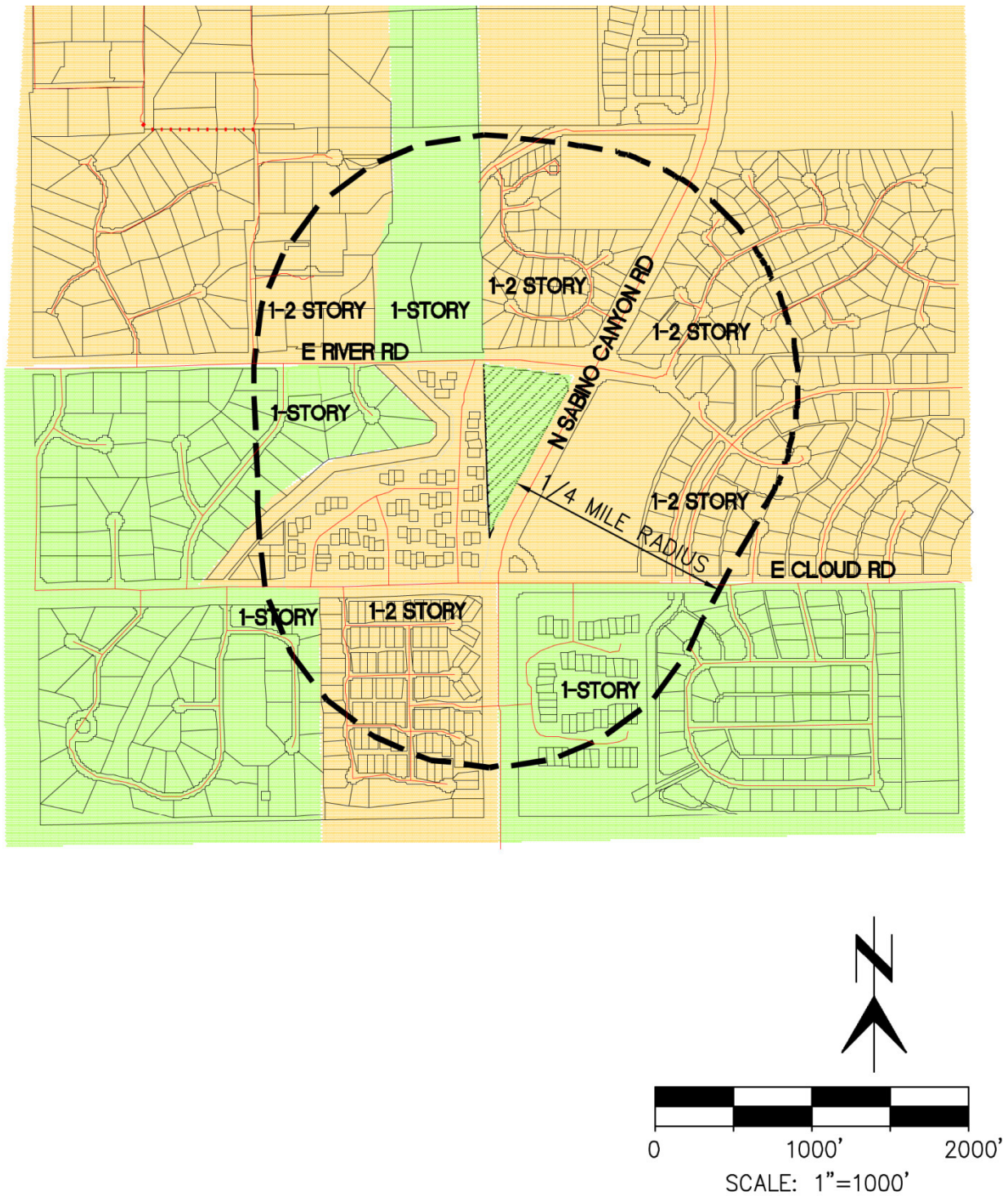


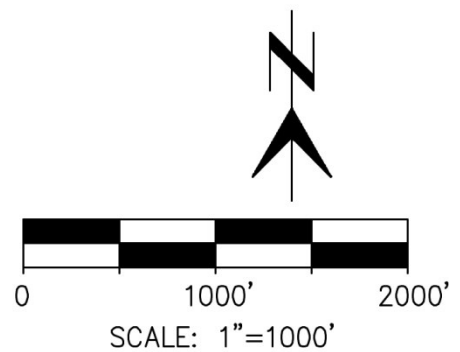
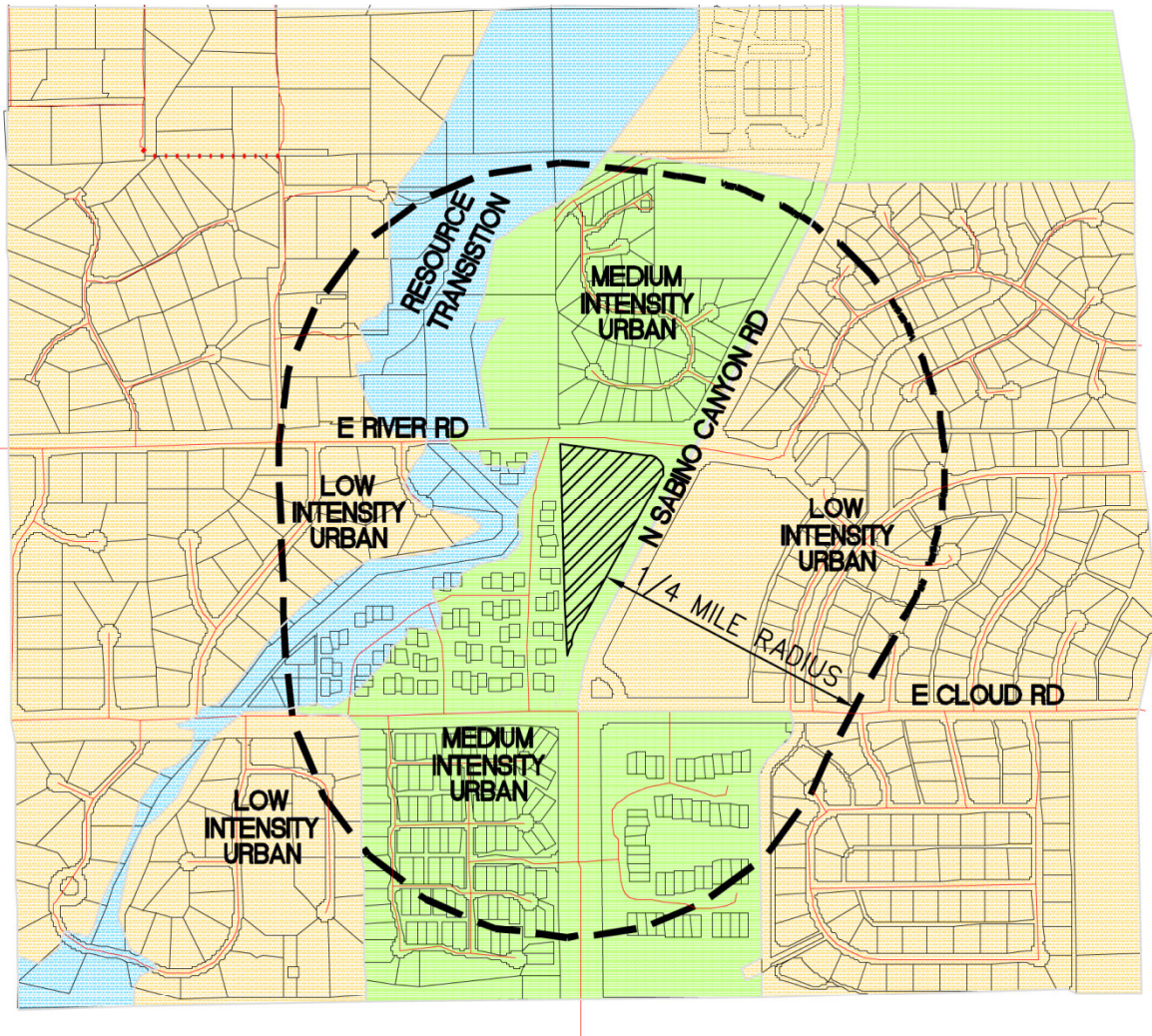


THE EXISTING SURROUNDING ZONING INCLUDES A MIX OF CR-5, CR-4, CR-2, CR-1 AND SR. THE IMMEDIATELY ADJACENT DEVELOPMENTS ARE PRIMARILY CR-4 AND CR-5 WITH AN UNDEVELOPED PARCEL ZONE SR ACROSS SABINO CANYON ROAD.









I-B TOPOGRAPHY AND GRADING

1. TOPOGRAPHIC FEATURES

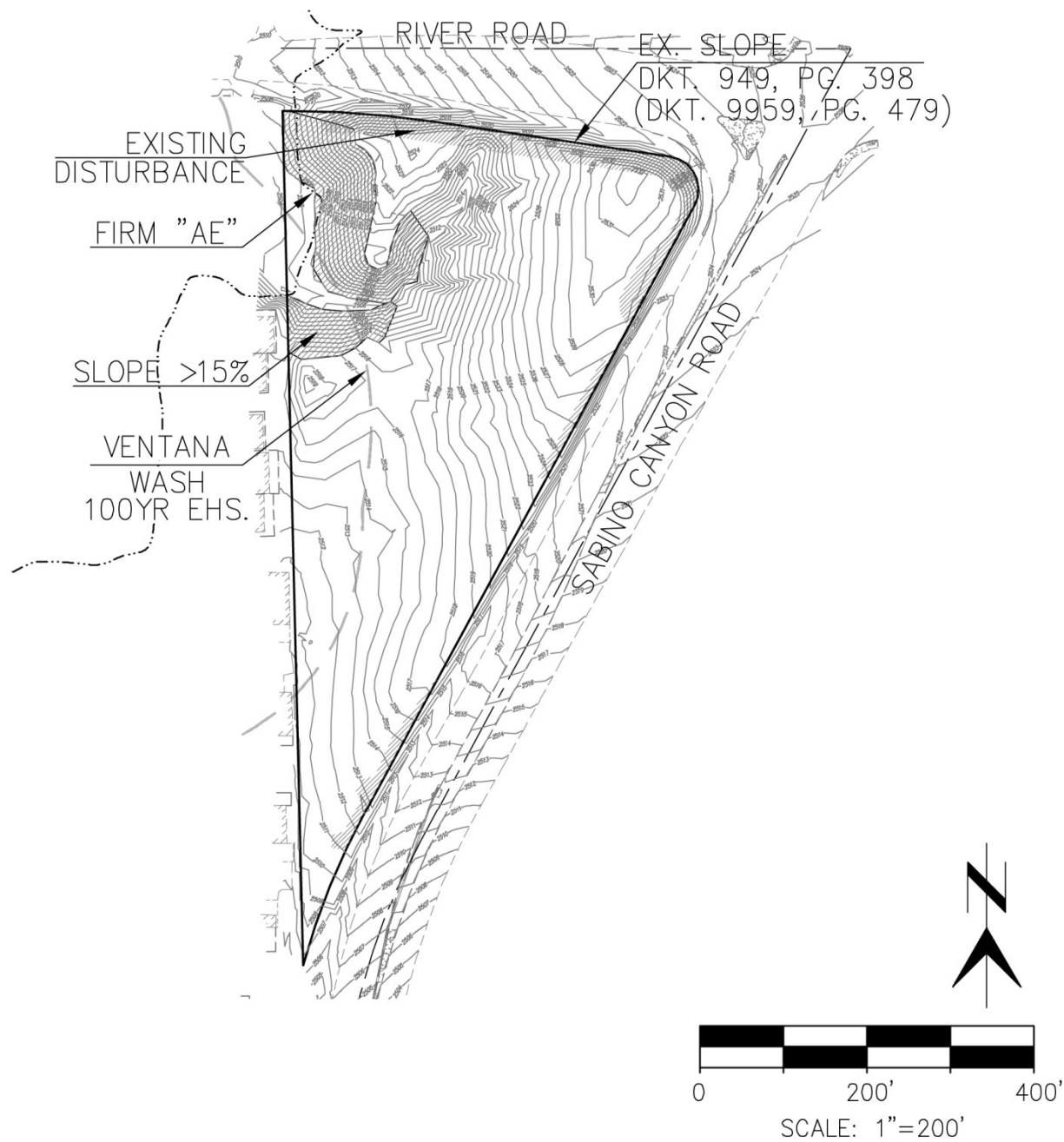
The site is gently sloping to the south and west under existing conditions with minimal significant topographic features.

- a. There are no restricted peaks or ridges present on the site.
- b. There are no rock outcrops or talus slopes present on the site.
- c. There are slopes greater than 15% present on the site. There is an area near the northwest corner of the site that has small section of cut slopes from the existing drainage patterns. These areas meet the requirements of the definition of HDZ slopes.
- d. The site is generally located in the FEMA FIRM Panel Zone X - areas determined to be outside of the 0.2% annual chance floodplain. An area of Zone AE is located near the northwest corner of the site. This area has been identified on Exhibit 1-B.1. The site is also impacted by the existing road slope along the northern property line, the right of way of River Road. The area of slope is also identified on Exhibit 1-B.1.
- e. There is only minimal existing ground disturbance on the site, primarily along the public rights of way and the western property line. The site is generally native desert vegetation.

2. AVERAGE CROSS SLOPE

The predevelopment average cross slope is 9.91% (rounded to 10%) as shown on the Pima County GIS Average Cross Slope Calculation. Please see Exhibit 1-B.2 for a copy of this calculation.

EXHIBIT-B.1: TOPOGRAPHIC CHARACTERISTICS



SOURCE: ALTA SURVEY 10/16/12

Parcel Average Cross Slope

Pima County Zoning Code
[Chapter 18.61, Hillside Development Overlay Zone](#)

Calculations are derived from GIS data and are estimated.
 Accuracy is limited to that of the underlying GIS data.
 All data is subject to this [disclaimer](#).

Parcel

11433002E - [Parcel detail](#)
 (See parcel detail for address info.)
 SABINO CANYON RD PROPERTIES LLC

Areas

Area Type	Acres	Square Feet
Parcel Area	5.6179	244,715
Exclusion Area(s)	(none)	(none)
Cross Slope Area	5.6179	244,715

Contour Lengths - 2 Foot Intervals, Year 1998

Contour	Feet
Parcel contour length	12,108.1
Exclusion contour length	(none)
Cross slope contour length	12,108.1

Project Average Cross Slope

$$(L \times 0.0023) / A = \text{AverageCrossSlope}$$

$$(2 \times 12,108.1 \times 0.0023) / 5.6179 = \mathbf{9.91 \text{ percent (10 percent rounded)}}$$

I-C HYDROLOGY

1. OFFSITE WATERSHEDS

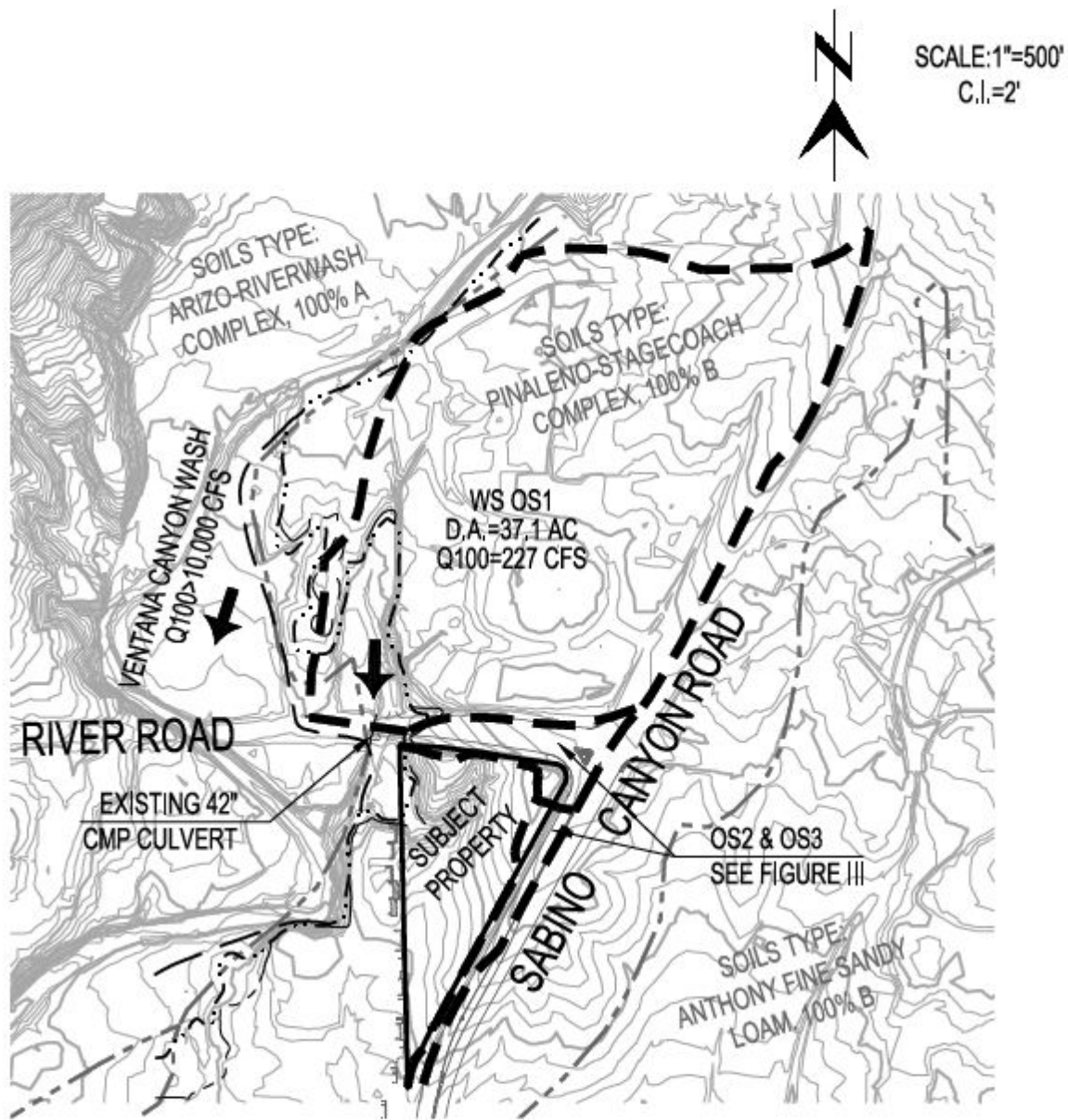
Two large upstream drainage areas contribute significant runoff to the immediate project vicinity. The Ventana Canyon Wash crosses River Road at a bridge located approximately 525 feet west of the subject property. Runoff from the Sabino Vista Village subdivision crosses River Road at a culvert crossing approximately 80 feet west of the subject property. In addition, smaller drainage areas within River Road and Sabino Canyon Road generate runoff which flows along the frontage along both the northern and eastern property boundaries.

The JE Fuller study includes detailed hydraulic analysis and mapping, which defines the limits of flooding and water surface elevations in the project vicinity.

The three drainage areas immediately upstream of the project were delineated into three watersheds using 2' interval topography, (PAG 1998, NAVD 88), newly generated 1' interval topography and recent aerial photography, (Pima County MapGuide, Spring 2010). The resulting offsite watershed boundaries are presented on Exhibits I-C.1 and I-C.4. 100-year peak storm water runoff estimates for each of the three offsite watersheds, (OS1, OS2 and OS3), were prepared utilizing the PCHydro software, which computes runoff following the Pima County Hydrology Method. The NRCS soils types for the project area are mapped and identified on Exhibit I-C.1, (Pima County MapGuide). Watershed characteristics for each drainage area were estimated based on recent aerial photography. A summary of the watershed characteristics and computed runoff is provided in Table I-C.1 of this report. Runoff from OS1 is conveyed under River Road in a 42" CMP culvert and released into a constructed channel within the Riverbend Estates subdivision. Runoff from OS2 collects in an existing shoulder swale along the south side of River Road and crosses the northwestern property corner into Riverbend Estates. Runoff from OS3 collects in an existing shoulder swale along the west side of Sabino Canyon Road and drains south into the storm drain system in Cloud Road.

TABLE I-C.1: OFFSITE WATERSHED SUMMARY

Watershed	D.A. (ac.)	Slope (%)	Basin Factor	Tc (min.)	Q ₁₀₀ (cfs)
OS1	37.1	2.1	0.032	7.5	227
OS2	2.1	2.7	0.035	5	19
OS3	1.3	1.9	0.035	5	10



LEGEND

	CONCENTRATION POINT		FEMA SFHA ZONE AE
	WATERSHED BOUNDARY		FEMA SFHA ZONE X (SHADED)
	SOILS TYPE BOUNDARY		FEMA FLOODWAY
	PROJECT BOUNDARY		

2. OFFSITE FEATURES

Runoff from the areas upstream of the property, north of River Road, is conveyed under the roadway in bridge and culvert crossings immediately west of the subject property. The Ventana Canyon Wash, (designated as flood Zone AE), is located west of the property. The Ventana Canyon Wash has been previously evaluated by JE Fuller in support of a LOMR request which was issued in April 2010, (Case # 09-09-2406P). The results of that LOMR were included in the most recent FIRM update, June 2011. The JE Fuller study computed a 100-year peak discharge of 13,613 cfs at the River Road bridge.

3. ACREAGE OF OFF-SITE WATERSHEDS

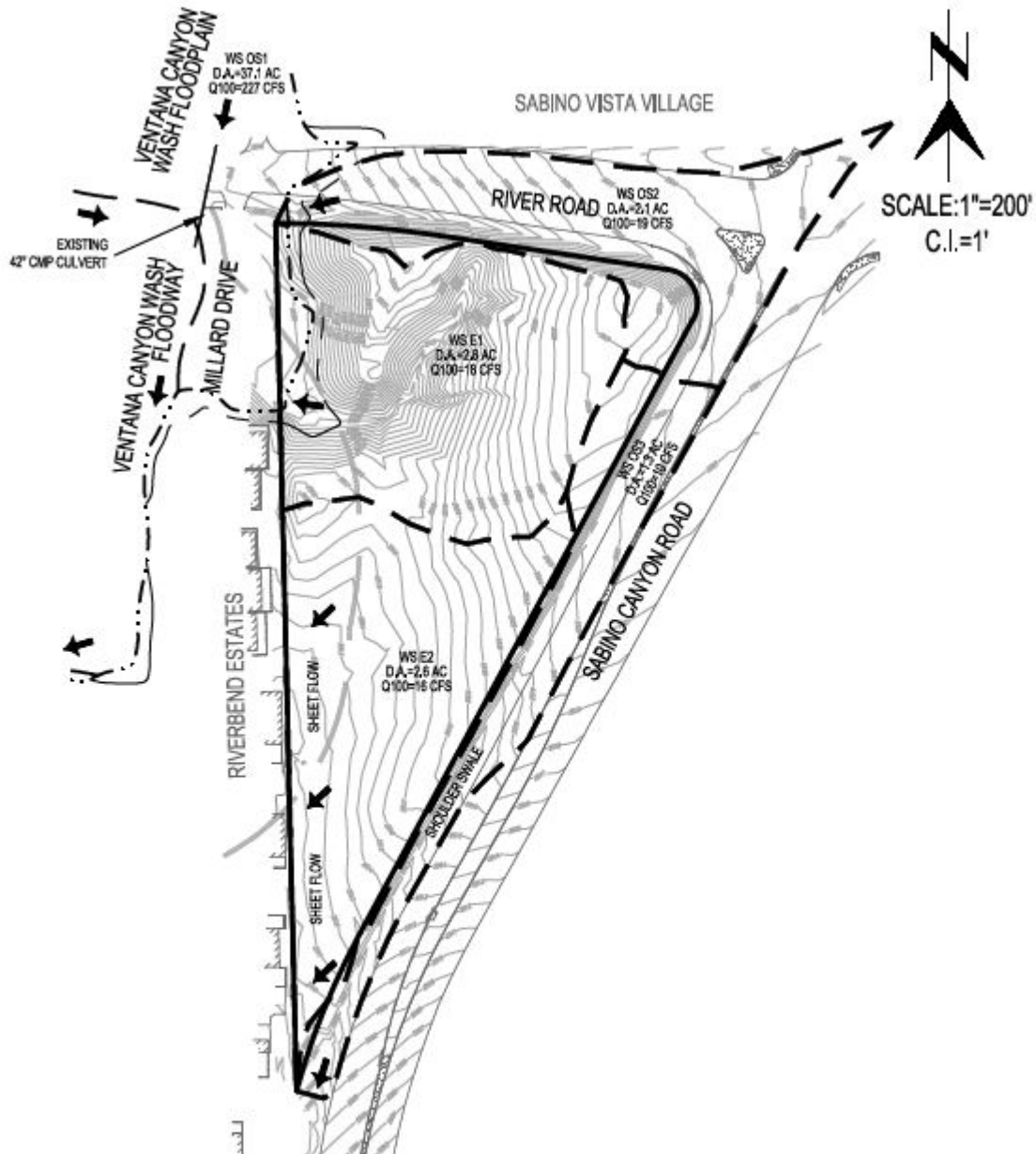
Drainage areas for each of the three offsite watersheds are provided in Table I-C.1 of this report.

4. ON-SITE HYDROLOGY

The drainage areas within the project were delineated into two watersheds using 1' interval topography from a recent ground survey. The resulting watersheds are presented on Exhibit I-C.4. Runoff from both watersheds drains toward the west where it is released into the neighboring subdivision, Riverbend Estates, as shallow sheet flow or within a natural stream channel. 100-year peak storm water runoff estimates for each of existing, onsite watersheds were prepared utilizing the PCHydro software. A summary of the watershed characteristics and computed runoff is provided in Table I-C.2 of this report. Peak runoff computation summary sheets are provided in the Appendix.

TABLE I-C.2: ONSITE EXISTING WATERSHED SUMMARY

Watershed	D.A. (ac.)	Slope (%)	Q ₁₀₀ (cfs)
E1	2.8	5.6	18
E2	2.6	3.8	16



LEGEND

	CONCENTRATION POINT		FEMA SFHA ZONE AE
	WATERSHED BOUNDARY		FEMA SFHA ZONE X (SHADED)
	PROJECT BOUNDARY		FEMA FLOODWAY
	EROSION HAZARD SETBACK		

5. DOWNSTREAM DRAINAGE CONDITIONS

Runoff from the northern portion of the subject property which enters Riverbend Estates in the natural stream channel, (E1, $Q_{100}=18\text{cfs}$), is collected in a low-lying area east of Millard Drive and conveyed under the roadway in multiple culvert crossings. These culverts outlet into the constructed channel running west of Millard Drive, combining with runoff from OS1, and draining into the Ventana Canyon Wash approximately 350' downstream of River Road. Runoff from the southern portion of the subject property which enters Riverbend Estates in a sheet flow manner, (E2, $Q_{100}=16\text{cfs}$), combines with internal subdivision runoff and drains toward the southwest entering a storm drain system at Cloud Road.

I-D BIOLOGICAL RESOURCES

1. CONSERVATION LAND SYSTEMS

Exhibit I-D.1 shows the regional context of the site in the Conservation Land System. This exhibit is taken from the Pima County GIS system. As shown, the site is not impacted by any Conservation Land Systems, including Special Species Management Areas, Scientific Research Areas, Agriculture In holdings, Biological Core Management Areas, Important Riparian Areas, and Multiple Use Management Areas.

A swath of Important Riparian Area follows the Vetana Wash to the west of the site and the Tanque Verde Wash south of the site.

2. CRITICAL LANDSCAPE CONNECTIONS

The site is not located within or adjacent to any of the six Critical Landscape Connections as shown on the Conservation Land Systems Map.

3. PIMA PINEAPPLE CACTUS

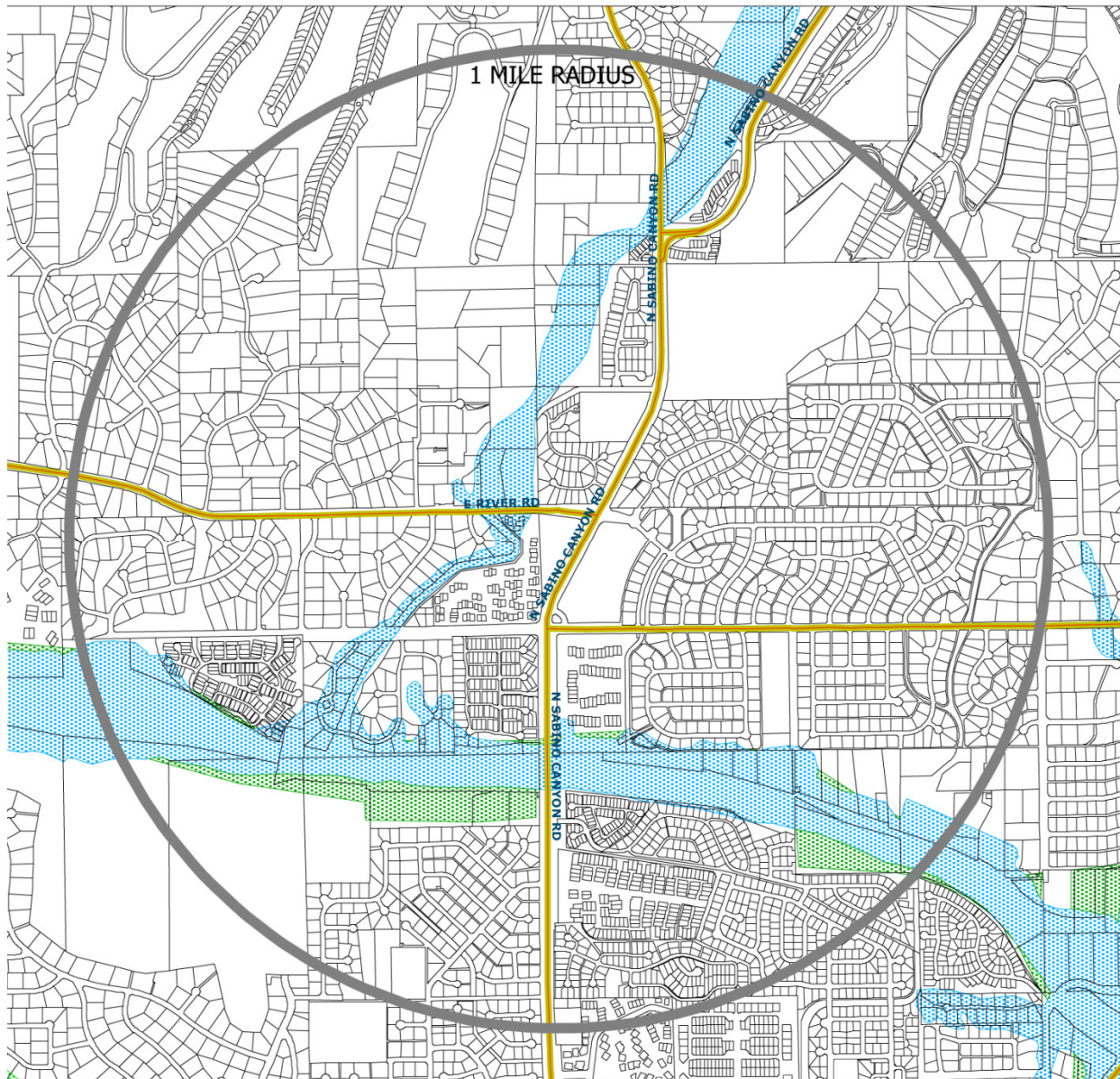
The site is not located within or adjacent to the Priority Conservation Area for the Pima Pineapple Cactus, as displayed on the Sonoran Desert Conservation Plan MapGuide. As such, an exhibit as not been provided.

4. NEEDLE-SPINED PINEAPPLE CACTUS

The site is not located within or adjacent to the Priority Conservation Area for the Needle-Spined Pineapple Cactus, as displayed on the Sonoran Desert Conservation Plan MapGuide. As such, an exhibit as not been provided.

5. CACTUS FERRUGINOUS PYGMY OWL AND WESTERN BURROWING OWL

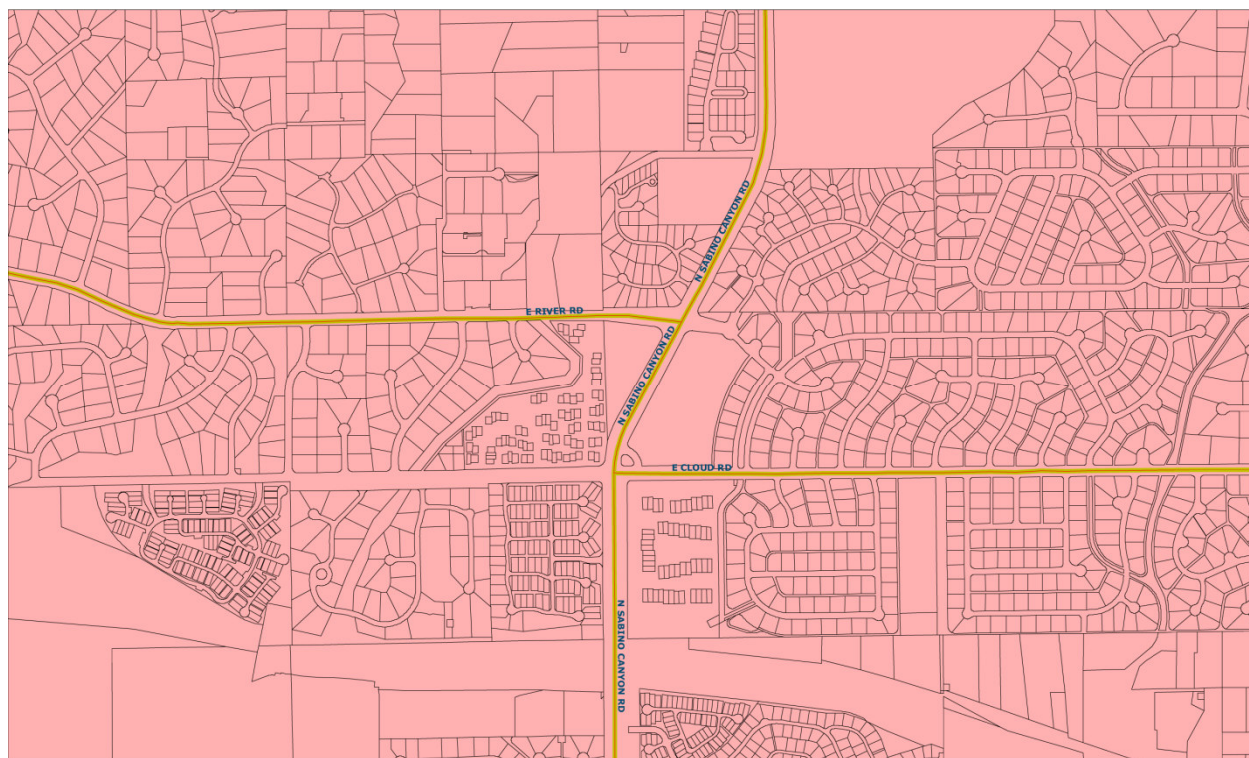
This site is located entirely within the Priority Conservation Area, Priority 1, for the Cactus Ferruginous Pygmy Owl. The site is not located within or adjacent to the Priority Conservation Area for the Western Burrowing Owl, as displayed on the Sonoran Desert Conservation Plan MapGuide. Exhibit I-D.5 shows the Priority Conservation Area for the Cactus Ferruginous Pygmy Owl within and surrounding the site.



The areas of blue hatch indicate areas of Important Riparian Area.
The areas of green hatch indicate areas of Biological Core Management Areas.

Source: Pima County GIS

EXHIBIT I-D.5: PRIORITY CONSERVATION AREA FOR THE CACTUS FERRUGINOUS PYGMY OWL



The areas of pink hatch indicate areas within the Priority Conservation Area, Priority 1, for the Cactus Ferruginous Pygmy Owl.

Source: Pima County GIS

6. SPECIAL STATUS SPECIES

Exhibit I-D.6 shows the results of the Arizona Game and Fish Department On-line Environmental Review Tool as well as the response letter from the Department.

No special status including federally listed threatened, endangered species or highly safeguarded species of plant life were identified on the site.



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

GOVERNOR
JANICE K. BREWER
COMMISSIONERS
CHAIRMAN, ROBERT R. WOODHOUSE, ROLL
NORMAN W. FREEMAN, CHINO VALLEY
JACK F. HUSTED, SPRINGVILLE
J.W. HARRIS, TUCSON
ROBERT E. MANSELL, WINSLOW
DIRECTOR
LARRY D. VOYLES
DEPUTY DIRECTORS
GARY R. HOVATTFER
BOB BROSCHEID



October 17, 2012

Geoff W. Harris, P.E.
STAR Consulting
5405 East Placita Hayuco
Tucson, AZ 85718

Re: Aerie at Sabino and River
Environmental Review under ESA/NPDES

Dear Mr Harris:

The Arizona Game and Fish Department (Department) has reviewed your request, dated September 25, 2012, regarding the preparation of a Storm Water Pollution Prevention Plan for the proposed new development of an apartment building complex on a 5.6 acre parcel on the southwest corner of the intersection of Sabino Canyon Road and River Road in Pima County, Arizona.

We have reviewed the information packet provided to us in your letter. Since the proposed project is located within previously disturbed areas, the Department does not anticipate any significant adverse impacts to wildlife resources would occur as a result of this project. The receipt identifies Sonoran Desert Tortoise in your project area. I have enclosed a copy of the Department's Guidelines for Handling Desert Tortoises Encountered on Development Projects. We request you ensure the construction crews are familiar with and follow these guidelines.

The receipt you received from the On-Line Environmental Review Tool should provide general recommendations and additional contact information. The Department appreciates the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with the project activities. If you have any questions regarding this letter, please contact me at (623) 236-7486.

Sincerely,

Chip Young
Project Evaluation Specialist

cc: Laura Canaca, Project Evaluation Program Supervisor
John Windes, Habitat Program Manager, Region V
AGFD #M12-09270915

AN EQUAL OPPORTUNITY REASONABLE ACCOMMODATIONS AGENCY

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES
ENCOUNTERED ON DEVELOPMENT PROJECTS
Arizona Game and Fish Department
Revised October 23, 2007

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran population of desert tortoises occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist.

Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40° Celsius (105° Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 40° Celsius (105° Fahrenheit), the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

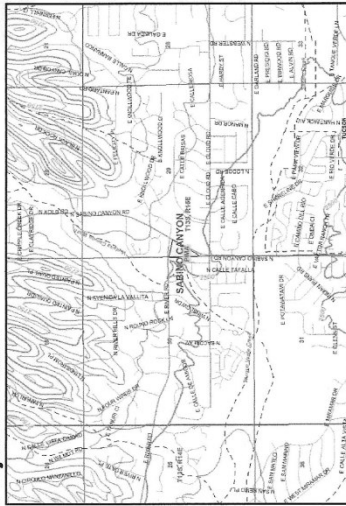
Please keep in mind the following points:

- . These guidelines do not apply to the Mojave population of desert tortoises (north and west of the Colorado River). Mojave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.
- . These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.
- . Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

Arizona's On-line Environmental Review Tool

Search ID: 20120925018751
Project Name: Aerie @ Sabino and River
Date: 9/25/2012 9:16:56 AM

Project Location



Project Name: Aerie @ Sabino and River

Submitted By: Geoff Harris

On behalf of: PRIVATE

Project Search ID: 20120925018751

Date: 9/25/2012 9:16:51 AM

Project Category: Development Outside Municipalities (Rural Development), Residential subdivision and associated infrastructure, New construction

Project Coordinates (UTM Zone 12-NAD 83): 515012.941, 3570543.583 meter

Project Area: 6.102 acres

Project Perimeter: 750.794 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
Argia sabino	Sabino Canyon Dancer	SC	S		
Bat Colony					
Cheerowsteris mexicana	Mexican Long-tongued Bat	SC	S	S	WSC
Glaucidium brasilianum cactorum	Cactus Fernigulous Pygmy-owl	SC	S	S	WSC
Gopherus agassizii (Sonoran Population)	Sonoran Desert Tortoise	C	S		WSC
Lasurus blisevilli	Western Red Bat		S		WSC
Lasurus xanthinus	Western Yellow Bat		S		WSC
Muhlenbergia duboides	Box Canyon Muli		S		
Notholaena lemmonii	Lemmon Oak Fern	SC			
Nyctinomops femorosaccus	Pocketed Free-tailed Bat		S		
Opuntia versicolor	Stag-horn Cholla				SR

APPLICATION INITIALS: GH

Page 1 of 7

Arizona's On-line Environmental Review Tool
 Search ID: 20120925018751
 Project Name: Aerie @ Sabino and River
 Date: 9/25/2012 9:16:56 AM

Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.
2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.
3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: <http://arizonaes.fws.gov/>.

Phoenix Main Office
 2321 W. Royal Palm Road, Suite 103
 Phoenix, AZ 85021
 Phone 602-242-0210
 Fax 602-242-2513

Tucson Sub-Office
 201 North Bonita, Suite 141
 Tucson, AZ 85745
 Phone 520-670-6144
 Fax 520-670-6154

Flagstaff Sub-Office
 323 N. Leroux Street, Suite 101
 Flagstaff, AZ 86001
 Phone 928-226-0614
 Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

Page 2 of 7 APPLICATION INITIALS: SWA

Arizona's On-line Environmental Review Tool
 Search ID: 20120925018751
 Project Name: Aerie @ Sabino and River
 Date: 9/25/2012 9:16:56 AM

management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

Project Category: Development Outside Municipalities (Rural Development), Residential subdivision and associated infrastructure, New construction

Project Type Recommendations:

All degraded and disturbed lands should be restored to their natural state. Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Based on the project type entered; coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Based on the project type entered; coordination with Arizona Department of Water Resources may be required (<http://www.water.az.gov/adwr/>)

Based on the project type entered; coordination with County Flood

Control districts may be required.

Based on the project type entered; coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>)

Based on the project type entered; coordination with U.S. Army Corps of Engineers may be required (<http://www.spl.usace.army.mil/regulatory/phonedir.html>)

Communities can actively support the sustainability and mobility of wildlife by incorporating wildlife planning into their regional/comprehensive plans, their regional transportation plans, and their open space/conservation land system programs. An effective approach to wildlife planning begins with the identification of the wildlife resources in need of protection, an assessment of important habitat blocks and connective corridors, and the incorporation of these critical wildlife components into the community plans and programs.

Community planners should identify open spaces and habitat blocks that can be maintained in their area, and the necessary connections between those blocks to be preserved or protected. Community planners should also work with State and local transportation planning entities, and planners from other communities, to foster coordination and cooperation in developing compatible development plans to ensure wildlife habitat connectivity. The Department's guidelines for incorporating wildlife considerations into community planning and developments can be found at <http://www.azgfd.gov/hgts/guidelines.aspx>.

Development plans should provide for open natural space for wildlife movement, while also minimizing the potential for wildlife-human interactions through design features. Please contact Project Evaluation Program for more information on living with urban wildlife.

During planning and construction, minimize potential introduction or spread of exotic invasive species. Invasive species can be plants,

Arizona's On-line Environmental Review Tool

Search ID: 20120925018751
Project Name: Aerie @ Sabino and River
Date: 9/25/2012 9:16:56 AM

animals (exotic snails), and other organisms (e.g. microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g. livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before and after project activities to reduce the spread of invasive species. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants

<http://www.azda.gov/PSD/quarantine5.htm>. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control:

<http://www.usda.gov/wps/portal/usdahome>. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information http://www.azgfd.gov/hunting_rules.shtml.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife.

Hydrological considerations: design culverts to minimize impacts to

channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Aquatic wildlife considerations: reduce/minimize barriers to migration of amphibians or fish (e.g. eliminate falls). Terrestrial wildlife: washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found at <http://www.azgfd.gov/hgis/guidelines.aspx>.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (including spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

Planning: consider impacts of lighting intensity on mammals and birds and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use.

Arizona's On-line Environmental Review Tool
 Search ID: 20120925018751
 Project Name: Aerie @ Sabino and River
 Date: 9/25/2012 9:16:56 AM

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly.

The construction or maintenance of water developments should include: incorporation of aspects of the natural environment and the visual resources, maintaining the water for a variety of species, water surface area (e.g. bats require a greater area due to in-flight drinking), accessibility, year-round availability, minimizing potential for water quality problems, frequency of flushing, shading of natural features, regular clean-up of debris, escape ramps, minimizing obstacles, and minimizing accumulation of silt and mud.

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches.

Project Location and/or Species recommendations:

Heritage Data Management System records indicate that one or more listed, proposed, or candidate species or Critical Habitat (Designated or Proposed) have been documented in the vicinity of your project (refer to page 1 of the receipt). Please contact:
 Ecological Services Office
 US Fish and Wildlife Service
 2321 W. Royal Palm Rd.
 Phoenix, AZ 85021-4951
 Phone: 602-242-0210
 Fax: 602-242-2513

Heritage Data Management System records indicate that one or more native plants listed on the Arizona Native Plant Law and Antiquities Act have been documented within the vicinity of your project area (refer to page 1 of the receipt). Please contact:
 Arizona Department of Agriculture
 1688 W Adams
 Phoenix, AZ 85007
 Phone: 602-542-4373

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initiated and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**

Arizona's On-line Environmental Review Tool
 Search ID: 20120925018751
 Project Name: Aerie @ Sabino and River
 Date: 9/25/2012 9:16:56 AM

7. Upon receiving information by AZGFD, please allow 30 days for completion of project reviews. Mail requests to:

Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366

Terms of Use

By using this site, you acknowledge that you have read and understand the terms of use. Department staff may revise these terms periodically. If you continue to use our website after we post changes to these terms, it will mean that you accept such changes. If at any time you do not wish to accept the Terms, you may choose not to use the website.

1. This Environmental Review and project planning website was developed and intended for the purpose of screening projects for potential impacts on resources of special concern. By indicating your agreement to the terms of use for this website, you warrant that you will not use this website for any other purpose.
2. Unauthorized attempts to upload information or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. The Department reserves the right at any time, without notice, to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt

indicates that the entire receipt has been read by the signer of the Environmental Review Receipt.

Security:

The Environmental Review and project planning web application operates on a complex State computer system. This system is monitored to ensure proper operation, to verify the functioning of applicable security features, and for other like purposes. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals possible evidence of criminal activity, system personnel may provide the evidence of such monitoring to law enforcement officials. Unauthorized attempts to upload or change information; to defeat or circumvent security measures; or to utilize this system for other than its intended purposes are prohibited.

This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature: Reef W. Harris

Page 6 of 7 APPLICATION INITIALS: EW

Arizona's On-line Environmental Review Tool
 Search ID: 20120925018751
 Project Name: Aerie @ Sabino and River
 Date: 9/25/2012 9:16:36 AM

Date: 9/25/12

Proposed Date of Implementation: June 2013

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

Agency/organization: Alta Vista Communities
Sabino - River West, LLC

Contact Name: Roger Karber

Address: 1785 E. Skyline Drive, suite 131

City, State, Zip: Tucson, AZ 85718

Phone: (520) 977-5456

E-mail: optcreator@hotmail.com

Person Conducting Search (if not applicant)

Agency/organization: STAR Consulting

Contact Name: Geoff Harris

Address: 5405 E. Placita Hayuco

City, State, Zip: Tucson, AZ 85718

Phone: (520) 529-1240

E-mail: geoff@starconsultingaz.com

Page 7 of 7 APPLICATION INITIALS: SHH

7. SAGUAROS

There are 3 Saguaros equal to or greater than 6' in height and 5 Saguaros less than 6' in height found on site. All of the saguaros 6' and under appear to be in excellent health. Two of the three large saguaros are in poor condition with trunk damage, holes and base damage.



8. HABITAT PROTECTION AND COMMUNITY OPEN SPACE

The site is not located within or adjacent to Habitat Protection or Community Open Space priority acquisition property, as displayed on the Sonoran Desert Conservation Plan MapGuide. As such, an exhibit as not been provided.

9. OTHER IMPORTANT VEGETATION

There are few large trees occurring on site. These occur along the western portion of the site adjacent to the existing development. These will unlikely survive transplant and may not be able to be preserved in place pending grading requirements for the site.

10. VEGETATION COMMUNITIES/ASSOCIATIONS

The vegetation within the project area is representative of the Arizona Upland Subdivision of Sonoran Desert scrub. Specifically, this site is characterized by sparse to moderately dense Creosote Bush with scattered Mesquite, Blue Palo Verde and Whitethorn Acacia primarily located in drainage channels that occur on site. There is a main drainage collection area to the north of the site running west. There is a general sheet flow from northeast to southwest with water collection is a storm drain system at Cloud road. One distinct vegetative zone occurs on the entire property, shown on Exhibit I.D.7, Vegetative Community.

Palo Verde-Cactus-Mixed Scrub Series – The plants in this native desert area are typical of upland Sonoran desert scrub. This area comprises the majority of the site. The following species were identified within this zone:

Cercidiummicrophyllum	Foothills Paloverde
Prosopisvelutina	Velvet Mesquite
Acacia constricta	Whitethorn Acacia
Larreatridentata	Creosote Bush
Ferrocactus sp.	Barrel Cactus
Fouquieriasplendens	Ocotillo
Opuntiavialacea var. Santa-Rita	Purple Prickly Pear
Opuntiaphaeacantha	Engelmann Prickly Pear
Canegieagigantea	Saguaro
Echinocereus sp.	Hedge Hog Cactus
Opuntiaarbuscula	StaghornCholla
Opuntiafulgida	ChainfruitCholla
Opuntiaimbricata	Tree Cholla

Ephedra fasciculata
Calliandra eriophylla
Ambrosia deltoidea

Mormon Tea
Fairy Duster*
Triangle Bursage*

* Understory plants

The vegetation that occurs on this site is relatively uniform in density. A few larger specimens are found, but no areas of vegetation are especially important for preservation.

Using 40-scale aerial photography, vegetation densities were identified and estimated. These zones were confirmed in the field and their boundaries adjusted based upon field observations. The two zones are identified as Disturbed and Density of 40-50%. The majority of the site is classified as 40-50% density, comprising approximately 5.5 acres. The disturbed areas are constant with River and Sabino Canyon Roadway improvements at 0.43 acres.

I-E VIEWSHEDS

1. VISIBILITY AREAS

This project is not proposed to be developed under the Cluster Development Option of the Zoning Code.

2. PHOTOS

Several ground-level photos of the site have been provided on the following pages of this report.



Northwest Corner of Site facing south along Property Line (FEMA Flood Zone AE shown)



Northwest Corner of Site facing east along River Road (uncurbed)



Northwest Corner of Site facing west along River Road (Riverbend Estates shown to left)



Northeast Corner of Site facing west along River Road (existing berm shown to left)



Existing Berm at intersection of River Road and Sabino Canyon Road



Northeast Corner of Site facing south along Sabino Canyon Road (uncurbed)



Northeast Corner of Site facing south (Existing Berm shown to right)



Northeast Corner of Site facing North (Existing intersection shown)



Northeast Corner of Site facing West from On Top of Berm



Northeast Corner of Site facing South from On Top of Berm



Northeast Corner of Site facing North (Intersection shown)



East side of Site facing North along Sabino Canyon Road (near proposed entrance)



East side of Site facing South along Sabino Canyon Road (near proposed entrance)



Near southern corner of Site facing North along Sabino Canyon Road



Near southern corner of Site facing Northwest through Site



Near southern corner of Site facing south along Sabino Canyon Road toward Cloud Road



At southern corner of Site facing North (Riverbend Estates to left side)



At southern corner of Site facing Northeast toward Sabino Canyon Road



At southern corner of Site facing East-Northeast toward Sabino Canyon Road (Elevation Change shown)



Existing Bus Stop immediately south of Cloud Road



South of Cloud Road facing North towards Site (Riverbend Estates sign shown to left)

I-F TRANSPORTATION

1. EXISTING/PLANNED OFF-SITE STREETS

The site will have direct access to south bound Sabino Canyon Road, south of the River Road intersection and north of the Cloud Road intersection. The site is immediately adjacent to River Road and Sabino Canyon Road. The northbound left turn lane is protected in that vehicles can only turn left on a green arrow, and must stop on a red arrow. Northbound to southbound U-Turns are prohibited. The Pima County Major Streets and Scenic Routes Plan offers the following development criteria:

Sabino Canyon Road:

- a. Existing Right of Way Width: 150'
- b. Pima County MS&R Width: 150' (Scenic, Major Route)
The existing right-of-way width DOES meet the Pima County width standards.
- c. The existing right-of-way widths ARE continuous in the vicinity of the site.
- d. No offsite roads or streets (e) are proposed for this project.
- e. Travel lanes: 2 NB and 2SB Thru Lanes
At River Road: Dual NB LTL
Single SB RTL

Posted Speed Limit: 40 MPH
Existing Pavement Edge: Thickened pavement edge
- f. Existing ADT: 46,000 ADT (south of River)
23,000 ADT (north of River)
- g. Existing Bicycle way: Striped Shoulder
Existing Pedestrian way: Dirt path
- h. No known roadway improvements are scheduled for this road.

River Road:

- a. Existing Right of Way Width: VARIES at intersection
- b. Pima County MS&R Width: 150' (Scenic, Major Route)
The existing right-of-way width DOES meet the Pima County width standards.
- c. The existing right-of-way widths ARE NOT continuous in the vicinity of the site.
- d. No offsite roads or streets (e) are proposed for this project.
- e. Travel lanes: 1 EB and 1-2 WB Thru Lanes
At Sabino Canyon Road: Dual EB RTL
Single EB LTL

Posted Speed Limit: 35 MPH
Existing Pavement Edge: Thickened pavement edge

- f. Existing ADT: 20,000 ADT
- g. Existing Bicycle way: Striped Shoulder
Existing Pedestrian way: Dirt path
- h. No known roadway improvements are scheduled for this road.

Cloud Road (not adjacent to site):

- a. Existing Right of Way Width: 120'
- b. Pima County MS&R Width: 120' (Scenic, Major Route)
The existing right-of-way width DOES meet the Pima County width standards.
- c. The existing right-of-way widths ARE continuous in the vicinity of the site.
- d. No offsite roads or streets (e) are proposed for this project.
- e. Travel lanes: 1 EB and 1 WB
At Sabino Canyon Road: Dual WB LTL
Single EB LTL

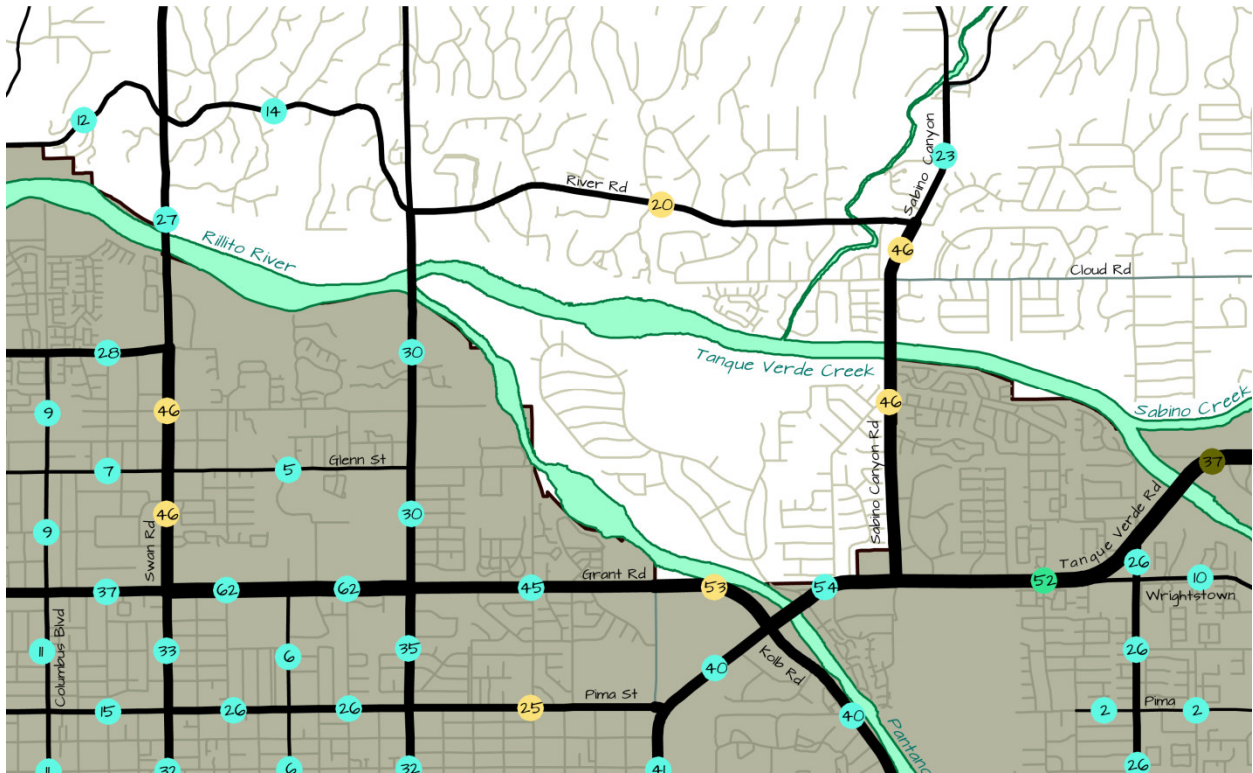
Posted Speed Limit: 35 MPH
Existing Pavement Edge: Thickened pavement edge
- f. Existing ADT: <500 ADT
- g. Existing Bicycle way: Striped Shoulder
Existing Pedestrian way: Dirt Path
- h. No known roadway improvements are scheduled for this road.

2. DISTANCES TO EXISTING DRIVES/INTERSECTIONS

The existing site is located immediately south of River Road and west of Sabino Canyon Road. The southern corner of the site is located approximately 228' north of Cloud Road. Sabino Canyon Road is a divided road with a continuous median across the frontage of this site. Additional distances are shown in Exhibit I-F.2.

3. PUBLIC TRANSIT

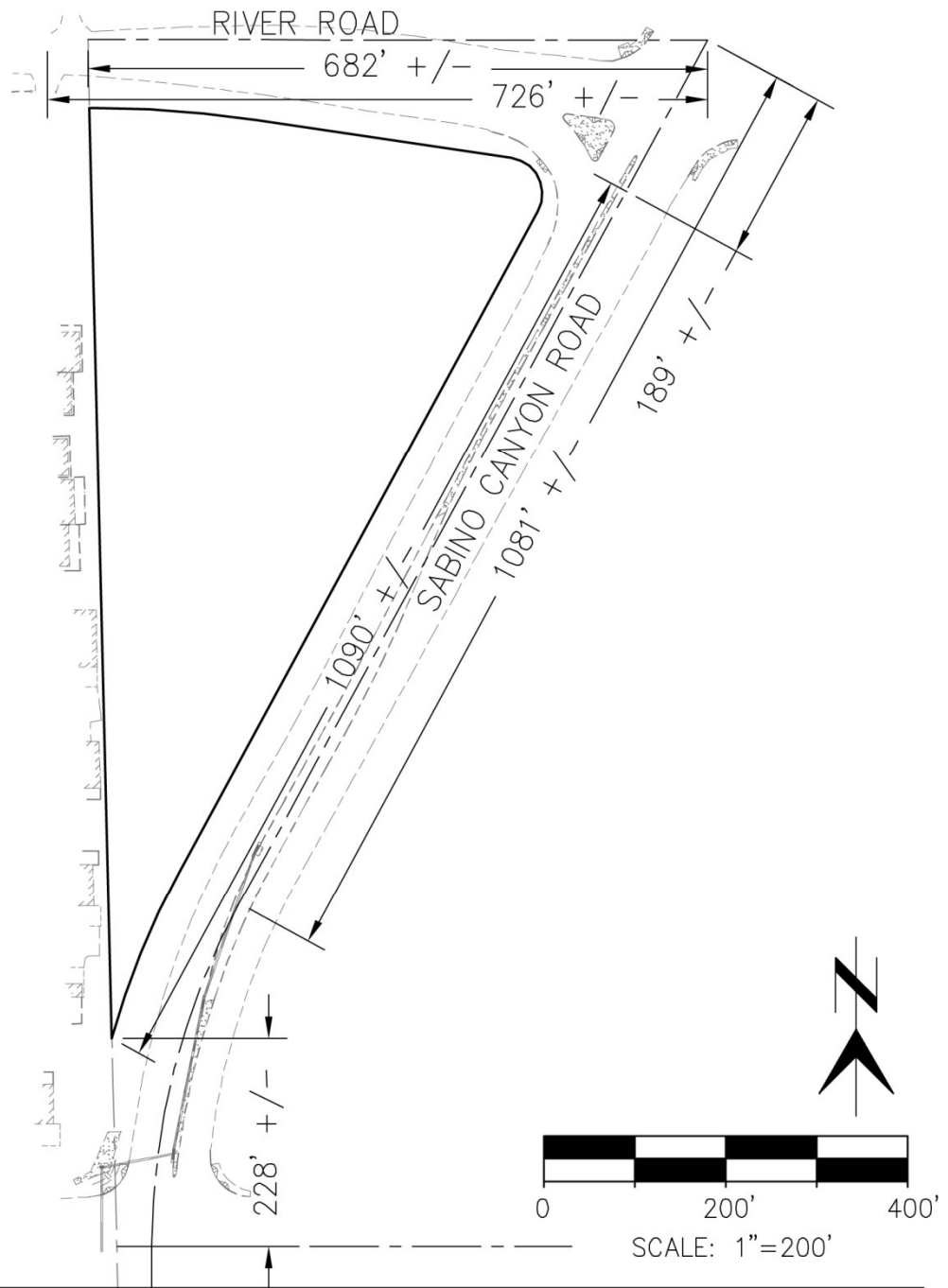
The existing public transit system as well as details for Route #37 (Pantano) are shown in Exhibit I-F.3. No new transit systems are proposed for this area.



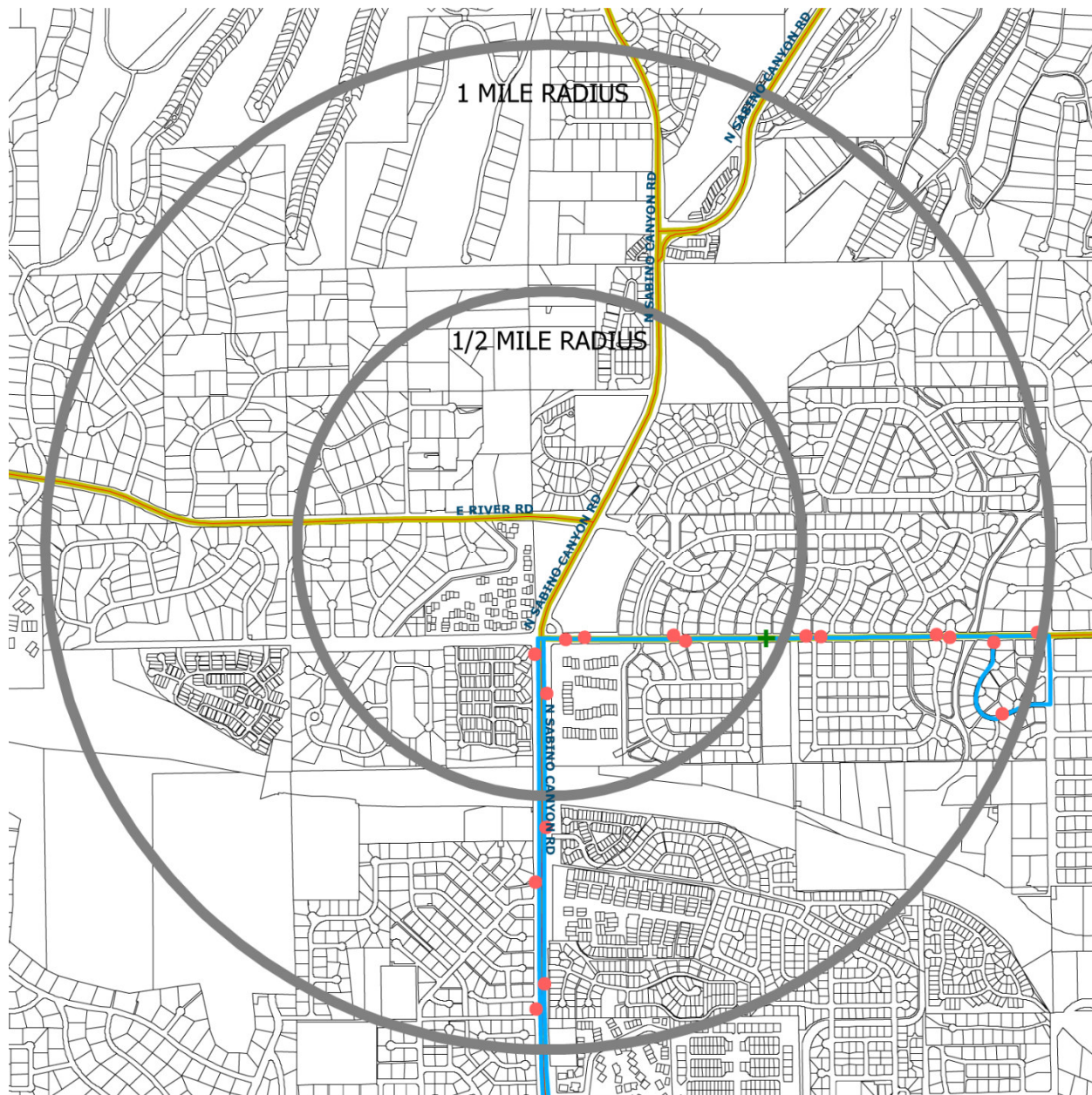
Traffic ADT shown in 000s
 Dark green dot indicates 2011 traffic data
 Cyan dot indicates 2010 traffic data
 Yellow dot indicates 2009 traffic data

Source: Pima Association of Governments
 2010 Traffic Volumes in Metropolitan Tucson and Eastern Pima County

EXHIBIT-F.2: DISTANCES TO EXISTING DRIVES/INTERSECTIONS



SOURCE: ALTA SURVEY 10/16/12



Major, Scenic Routes shown in gold (River Road, Sabino Canyon Road and Cloud Road)

SunTran Bus Route shown in blue

Bus Stops shown as pink dots

School Crossing shown as green cross

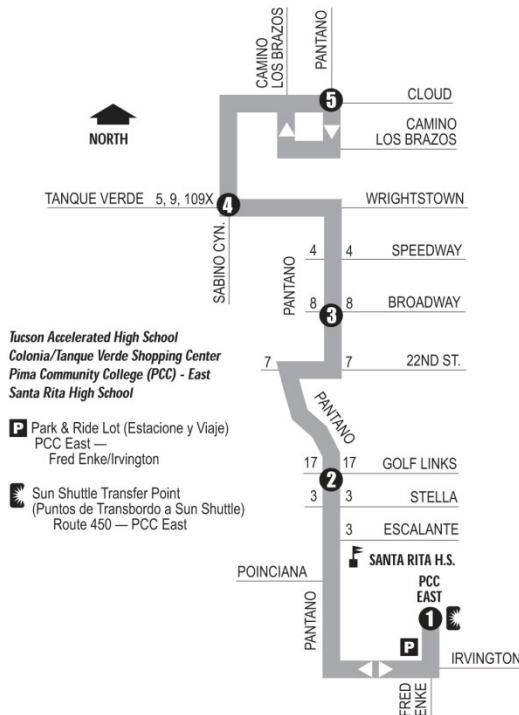
Source: Pima County GIS



Source: SunTran Bus Route Map

Route 37

PANTANO



Route 37 M-F / Northbound

PCC East	Pantano at Golf Links	Pantano at Broadway	Sabino Cyn. at Tanque Verde	Cloud at Pantano
1	2	3	4	5
—	—	—	531	537
540	548	556	605	611
610	618	626	636	642
640	648	656	706	712
710	718	726	736	742
740	748	756	806	812
810	818	826	836	842
840	848	856	906	912
913	921	929	939	943
943	951	959	1009	1013
1013	1021	1029	1039	1043
1043	1051	1059	1109	1113
1113	1121	1129	1139	1143
1143	1151	1159	1209	1213
1213	1221	1229	1239	1243
1243	1251	1259	109	113
113	121	129	139	143
143	151	159	209	213
210	218	227	237	241
240	248	257	307	311
310	318	327	337	341
340	348	357	407	411
410	418	427	437	442
440	448	457	507	512
510	518	527	537	542
540	548	557	607	612
614	622	630	640	644
644	652	700	710	714

Route 37 M-F / Southbound

Cloud at Pantano	Tanque Verde at Sabino Cyn.	Pantano at Broadway	Pantano at Golf Links	PCC East	To Route
6	4	3	2	1	
537	545	554	601	608	3
611	620	631	639	647	3
642	651	702	710	718	3
712	721	732	740	748	3
742	751	802	810	818	3
812	821	832	840	848	3
842	851	902	910	918	3
912	921	932	940	948	3
943	952	1003	1011	1019	3
1013	1022	1033	1041	1049	3
1043	1052	1103	1111	1119	3
1113	1122	1133	1141	1149	3
1143	1152	1203	1211	1219	3
1213	1222	1233	1241	1249	3
1243	1252	103	111	119	3
113	122	133	141	149	3
143	152	203	211	219	3
213	222	234	243	252	3
241	250	302	311	320	3
311	320	332	341	350	3
341	350	402	411	420	—
411	420	432	441	450	—
442	451	503	512	521	3
512	521	533	542	551	—
542	551	603	612	621	3
612	621	630	637	645	3
644	653	702	709	717	—
714	722	731	738	745	—

Note: Route 37 buses do not stop on 22nd Street.
 Nota: Los autobuses de la Ruta 37 no paran en la Calle 22.

Route 37 SAT / Northbound

PCC East 1	Pantano at Golf Links 2	Pantano at Broadway 3	Sabino Cyn. at Tanque Verde 4	Cloud at Pantano 5
615	623	630	639	644
715	723	730	739	744
815	823	830	839	844
915	923	930	940	945
1015	1023	1030	1040	1045
1115	1123	1130	1140	1145
1215	1223	1230	1240	1245
115	123	130	140	145
215	223	230	240	245
315	323	330	340	345
415	423	430	440	445
515	523	530	540	545
615	623	630	639	644
715	723	730	739	744

Route 37 SAT / Southbound

Cloud at Pantano 5	Tanque Verde at Sabino Cyn. 4	Pantano at Broadway 3	Pantano at Golf Links 2	PCC East 1	To Route
644	652	701	708	715	3
744	752	801	808	815	3
844	852	901	908	915	3
945	953	1004	1012	1020	3
1045	1053	1104	1112	1120	3
1145	1153	1204	1212	1220	3
1245	1253	104	112	120	3
145	153	204	212	220	3
245	253	304	312	320	3
345	353	404	412	420	3
445	453	504	512	520	3
545	553	604	612	620	3
644	652	701	708	715	3
744	752	801	808	815	—

Route 37 SUN / Northbound

1	2	3	4	5
615	623	630	639	644
715	723	730	739	744
815	823	830	839	844
915	923	930	940	945
1015	1023	1030	1040	1045
1115	1123	1130	1140	1145
1215	1223	1230	1240	1245
115	123	130	140	145
215	223	230	240	245
315	323	330	340	345
415	423	430	440	445
515	523	530	540	545
615	623	630	639	644

Route 37 SUN / Southbound

5	4	3	2	1
644	652	701	708	715
744	752	801	808	815
844	852	901	908	915
945	953	1004	1012	1020
1045	1053	1104	1112	1120
1145	1153	1204	1212	1220
1245	1253	104	112	120
145	153	204	212	220
245	253	304	312	320
345	353	404	412	420
445	453	504	512	520
545	553	604	612	620
644	652	701	708	715
—	—	—	—	—

Source: SunTran Bus Schedule

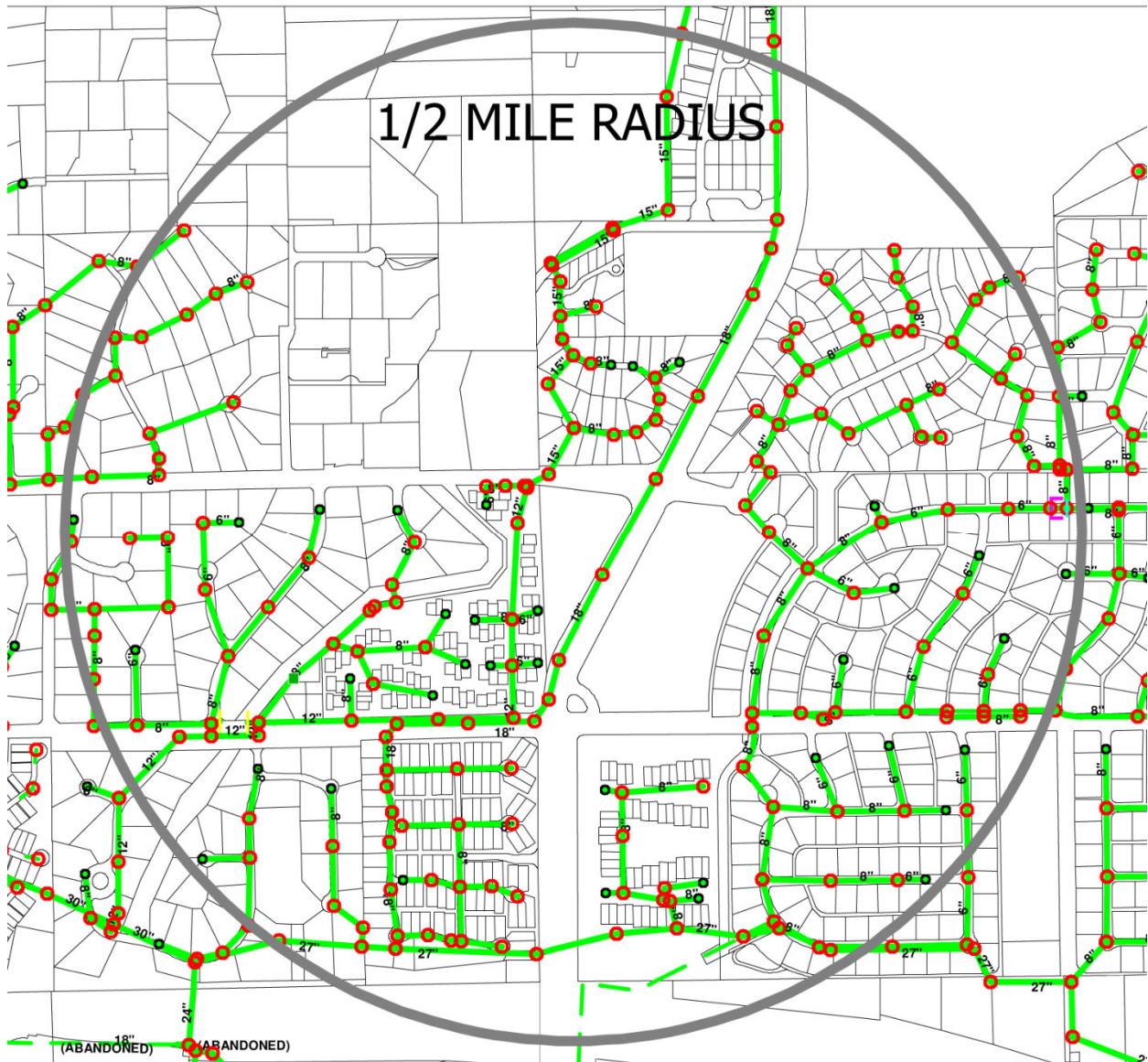
I-G SEWERS

1. EXISTING PUBLIC SEWER

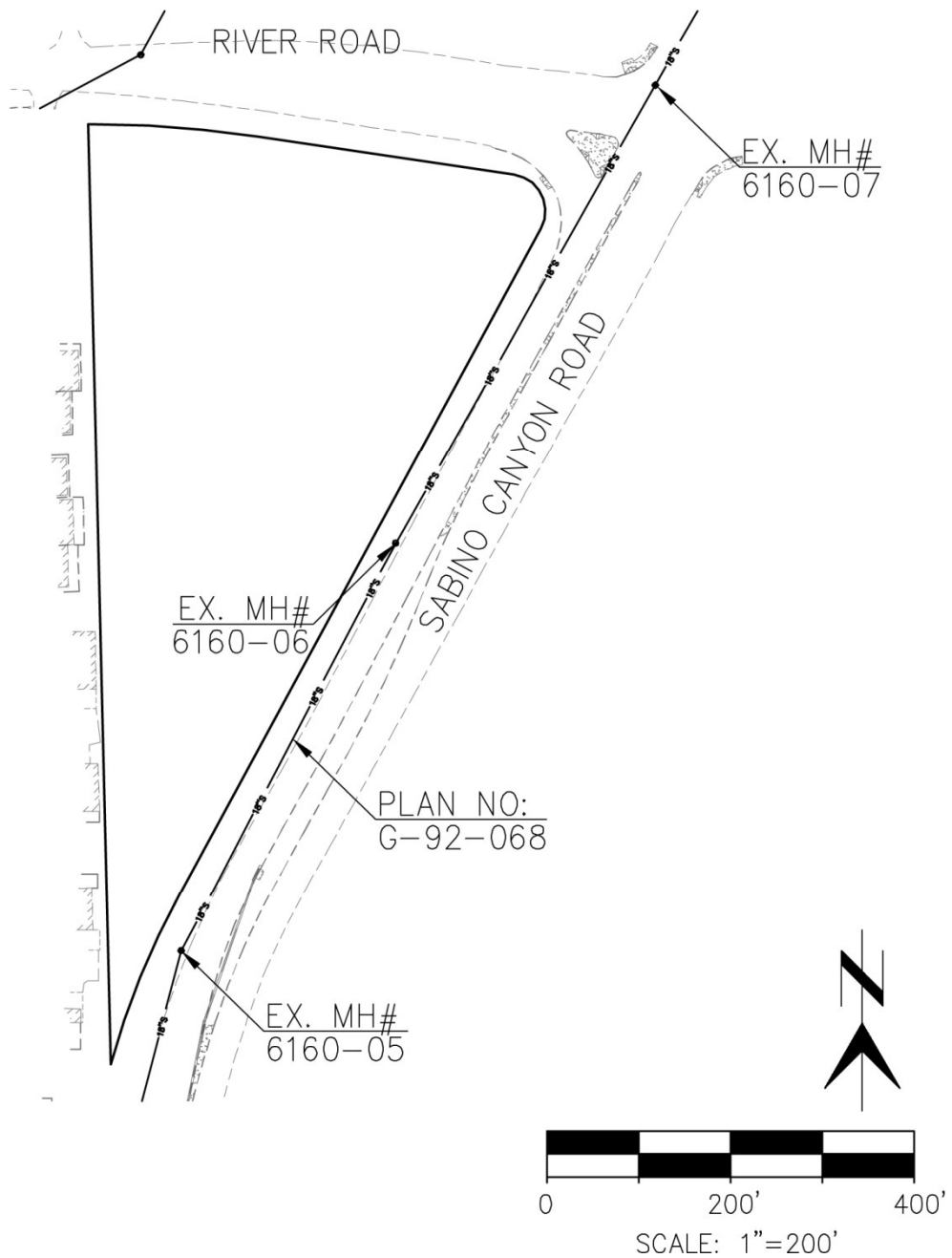
The site is proposed to be served by public sewer. A map showing the size and location of the existing public sewer lines in relation to the project site is shown in Exhibit I-G.1. A survey map of the existing facilities immediately adjacent to the site is also shown.

2. SITE CONSTRAINTS FOR SEWER

The site has no known constraints which would impact the ability to be served by the public sewer. Existing Public Manhole 6160-05 is located on the downstream side of the parcel.



Source: Pima County GIS



SOURCE: ALTA SURVEY 10/16/12

I-H RECREATION AND TRAILS

1. EXISTING PARKS AND TRAILS

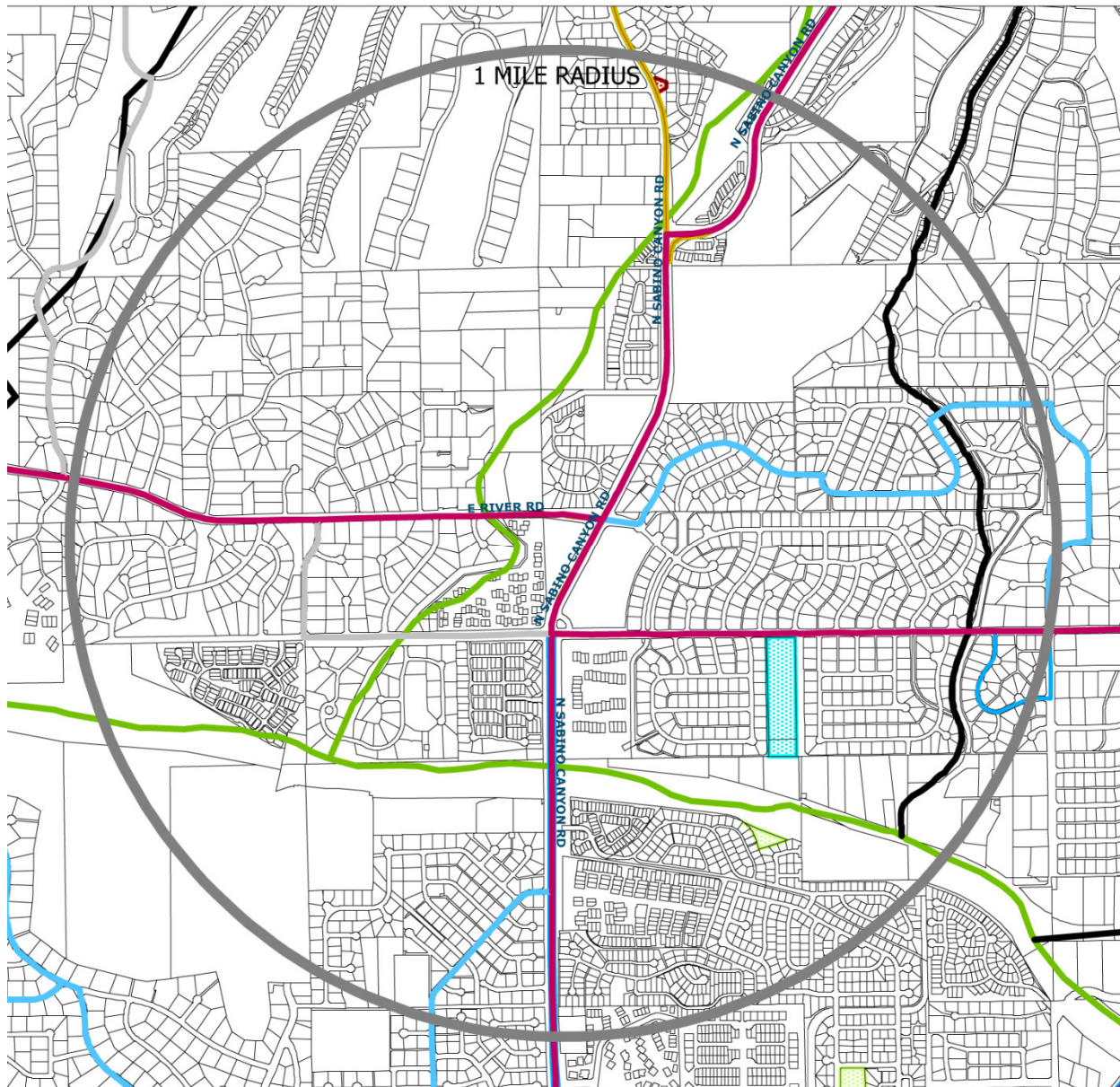
No public parks or recreation areas, accessible to the general public, are located within one mile of the site. The Ventana Canyon Wash Trail and Tanque Verde Wash Trail are located within one mile of the site, but not adjacent to or within the site.

The SunTran bus route is available on Sabino Canyon Road south of Cloud Road as well as on Cloud Road east of Sabino Canyon Road.

Several bicycle routes are available within one mile of the site. A bike route with striped shoulder is available on River Road and Sabino Canyon Road, both adjacent to the site. Several residential street bus routes are also contributing to the primary bike routes in this area.

Points of interest within one mile of the site include the following: Fruchthendler Elementary School is located along Cloud Road southeast of the site and a fire department is located on Sabino Canyon Road north of the site.

Please see Exhibit I-H.1 for a map of these public elements located within one mile of the site.



Green Line:	Public Trail (Ventana Wash Trail and Tanque Verde Wash Trail)
Black Line:	Unknown Trail
Light Cyan Line:	SunTran Bus Route along Sabino Canyon Road and Cloud Road (south and east of intersection)
Magenta Line:	Bike Route with a Striped Shoulder
Light Blue Line:	Bike Route on a Residential Street
Cyan Hatch:	Fruchthendler Elementary School

Source: Pima County GIS

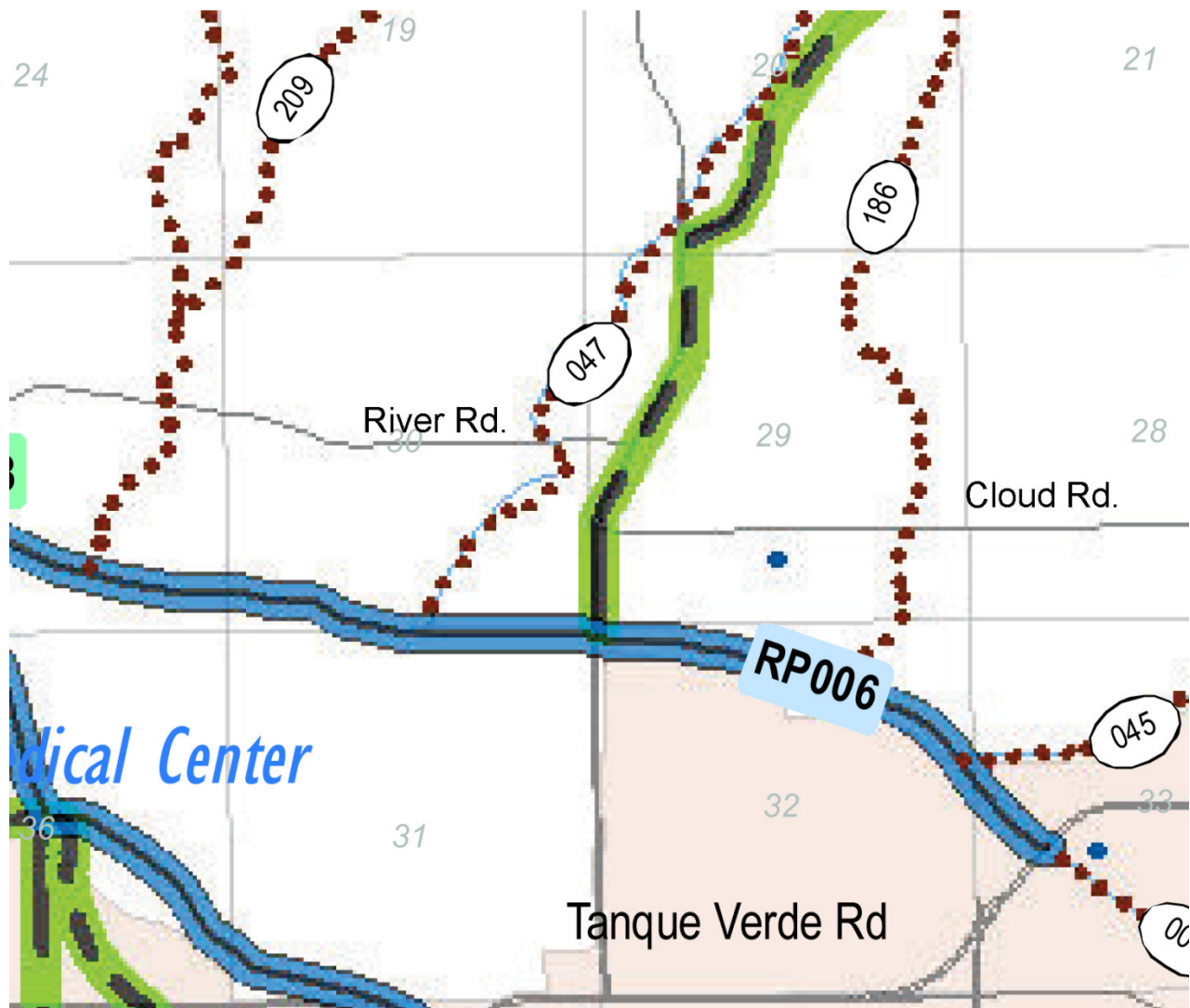
2. EASTERN PIMA COUNTY TRAIL SYSTEM MASTER PLAN

On the Eastern Pima County Trail System Master Plan, the following identifications have been made with close proximity to the site:

- G042: Sabino Canyon Road Greenway
- 045: Sabino Creek Singletrack Trail
- 047: Ventana Wash Singletrack Trail
- 186: Cloud Wash and Ridge Singletrack Trail
- 209 Tanuri Wash - East tributary
- RP006: Tanque Verde River Park
- Blue dot: Fruchthendler Elementary School

Sabino Canyon Road, immediately adjacent to the site is designated as a Greenway. The Sabino Canyon Road Greenway is a proposed four and six-tenths miles long greenway that connects the Tanque Verde River Park on the south to the Coronado National Forest on the north, approximately one and one-third miles north of Sunrise Drive. A Greenway is described as follows: Greenways are a corridor that typically features a path and trail, preserved native vegetation and/or landscape plantings, and pedestrian amenities. Greenways typically follow washes or drainage ways but can also be adjacent to roads. If the greenway is along a wash, the path and trail can be together on one side (equivalent to the Divided Urban Pathway) or one on each side of the wash. Greenways are similar to River Parks except that right-of-way width is less, features are less extensive, and at-grade crossings of streets are more common.

The Ventana Wash Trail, very close proximity to the site is designated as a Singletrack Trail. A Singletrack Trail is described as follows: These trails are predominantly located within preserved open space, washes, mountainous areas, non-developed, or protected areas. However, they are also located wherever a narrow trail is desired, including in urban and suburban areas. They are built with greater sensitivity to the existing natural environment and are therefore narrower than the 8-foot trail used in more developed parts of the system, but still should accommodate multiple user groups who prefer an unpaved surface. Singletrack Trails should be no wider than they need to be, with two to three feet being the recommended width range.



- G042: Sabino Canyon Road Greenway
- 045: Sabino Creek Trail
- 047: Ventana Wash Trail
- 186: Cloud Wash and Ridge
- 209 Tanuri Wash - East tributary
- RP006: Tanque Verde River Park
- Blue dot: Fruchthendler Elementary School

Source: Eastern Pima County Trail System Master Plan

I-I CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES

1. ARIZONA STATE MUSEUM

The Arizona State Museum along with the University of Arizona performed an Archeological Site Records Search. The results of this search are shown in Exhibit I-I.1.

2. ARCHEOLOGICAL AND HISTORIC SITES

No archeological or historic sites were identified in the records check.

3. FIELD SURVEY

The Pima County Office of Sustainability and Conservation, Cultural Resources and Historic Preservation Division recommends that an on-the-ground survey be conducted by a qualified archeologist prior to any ground modification activities. Since the County is requiring additional archeological work for this parcel, the applicant will contact a qualified archeological contractor whose name is maintained on a list posted on the Arizona State Museum website. Pursuant to *Arizona Revised Statutes 41-865 et seq.*, if human remains or funerary objects are discovered during the project work, all effort will stop within the area of the remains and Dr. Todd Pitezel, Arizona State Museum assistant curator of archeology, will be contacted immediately at (520) 621-4795.



Arizona State Museum

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

PIMA COUNTY ARCHAEOLOGICAL SITE RECORDS SEARCH RESULTS*

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

E-mail Request Received: 10/8/2012

Search Completed: 10/11/2012

Requester Name and Title: Erin Harris, PE LEED AP
Company: STAR Consulting
Address: 5405 East Placita Hayuco
City, State, Zip Code: Tucson, AZ 85718
Phone/FAX/or E-mail: 529-1240

Project Name and/or Number
Aerie at Sabino & River / #12029 / Parcel 114-33-002E

Project Description
Residential development on 1.3 ac

Project Area Location: NEC River & Sabino Canyon Roads, Pima County, Arizona.

Legal Description: a portion of the W½, NW, SW, S29, T13S, R15E, G&SR B&M, Pima County, AZ.

Search Results: According to a search of the archaeological site files and records retained at the Arizona State Museum (ASM), the project area has not been inspected for historic resources. No historic properties are identified within the project area. Twenty-four archaeological inspections were completed within a mile radius of the project area between 1975 and 2008. Ten archaeological properties are identified within a 1-mile radius of the project area, including University Indian Ruin. A color orthophotograph taken of the proposed project area in 2012, enclosed, depicts what looks to be an unmodified ground surface covered with native vegetation and bordered by a residential development and paved roads.

Sites in Project Area: Unknown, without conducting an intensive archaeological inspection of the ground surface in a project area, one cannot predict the presence or absence of historic properties.

Recommendations: Because Pima County has jurisdiction in this project area, the county will make recommendations for the project using its own search results and it may use the ASM's search results and / or others. Should the county require additional archaeological work in this parcel, you will need to contact a qualified archaeological contractor whose name is maintained on a list posted on the ASM website at the following link: <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, 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 at the letterhead address or the phone number or e-mail address as follows.

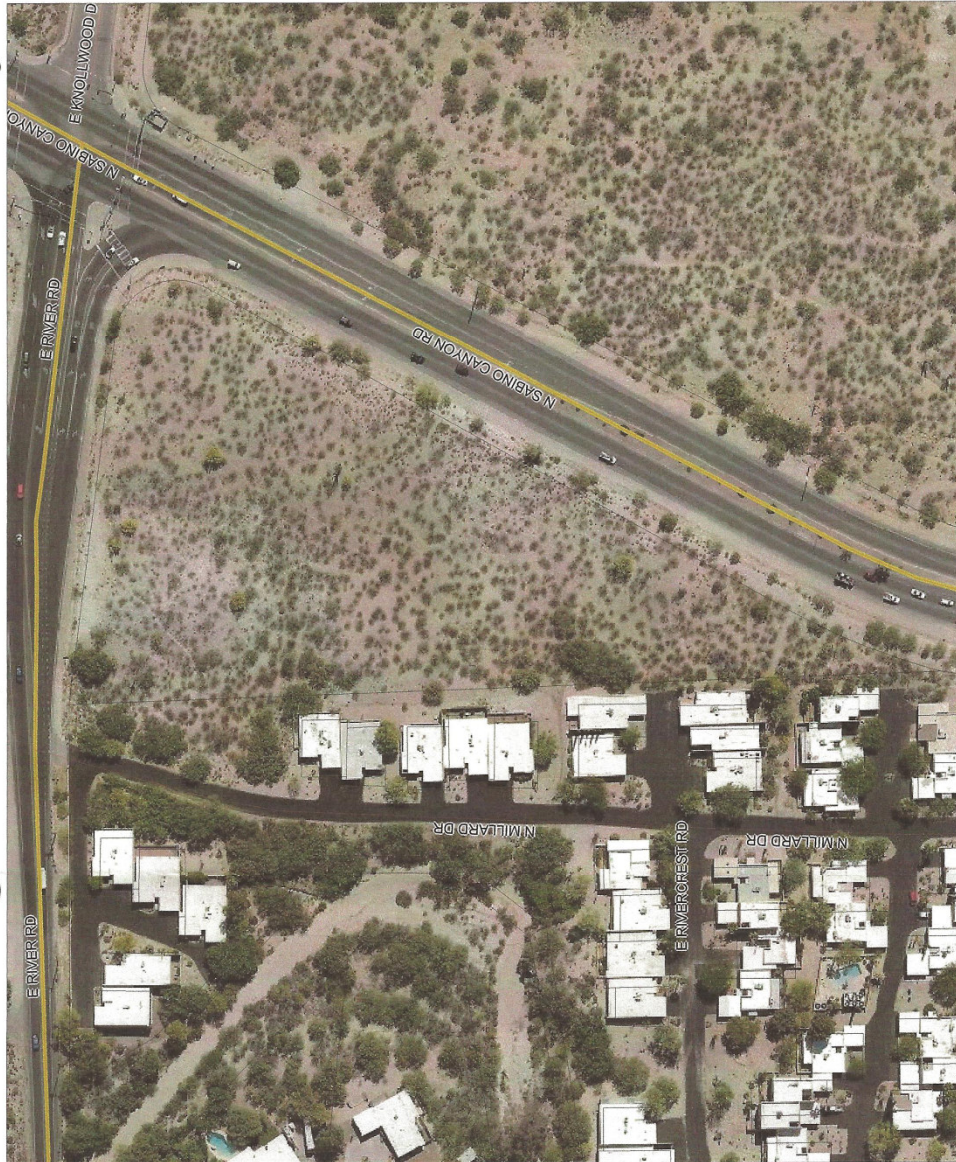
Sincerely,

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

☒ This project occurs within or close to the boundary of a known cultural resource. This project requires Pima County Office of Archaeology & Historic Preservation review.



Star Consulting: PIMA, SEC River & Sabino Cyn Rds



SCALE 1 : 1,995



<http://gis.pima.gov/maps/mapguide/dotmap65.mwf>

Thursday, October 11, 2012 3:01 PM

I-J AIR QUALITY

The proposed development is a residential use and does not include any industrial facilities. Air quality analysis is not a requirement of this development.

I-K COMPOSITE MAP

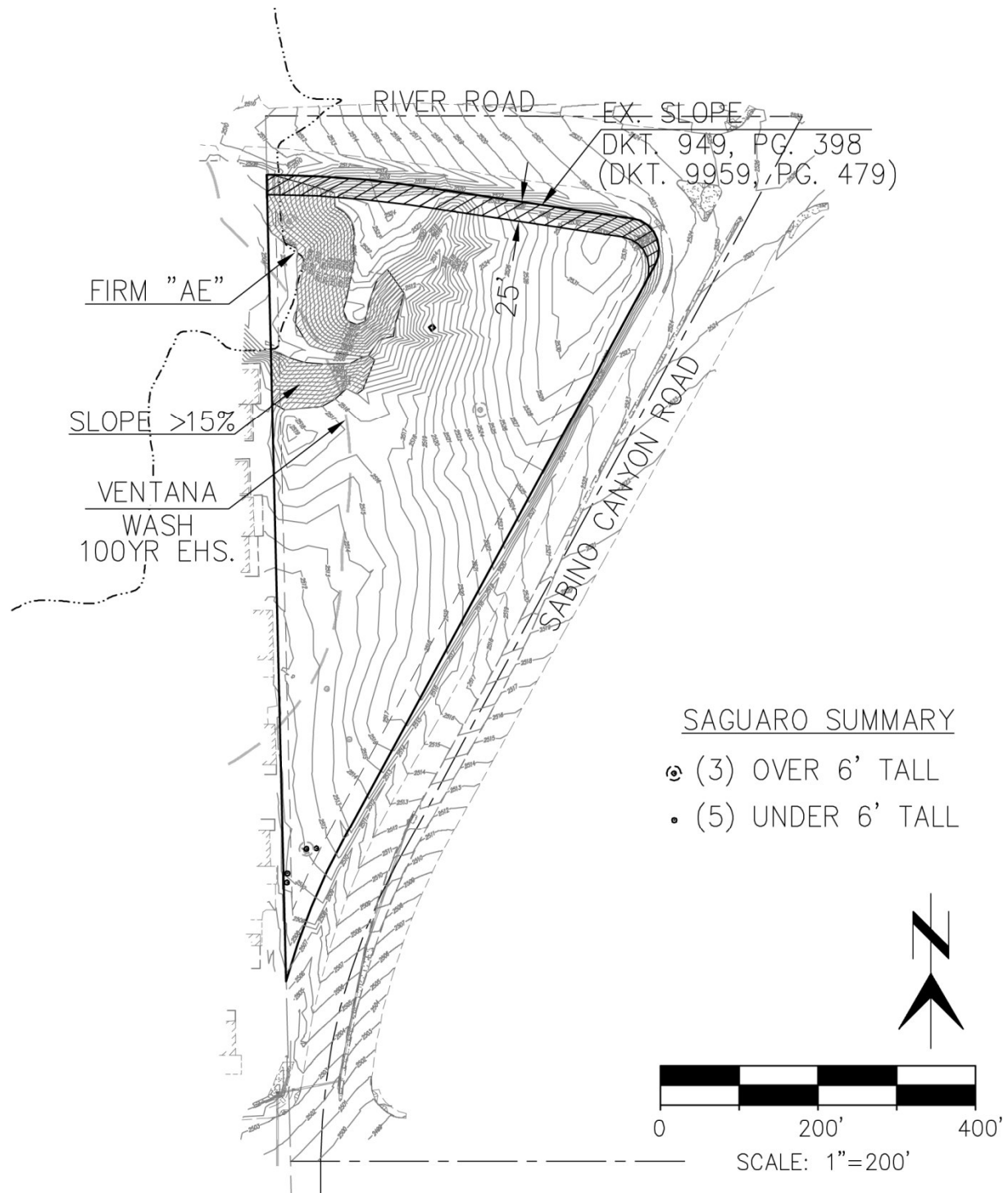
The following Composite Map shows the cumulative number of physical constraints that apply to specific locations of the site. This map can be used to identify areas that may require special evaluation in regards to proposed development due to the existence of several potential site constraints. Also identified on this map are any areas in which disturbance would be prohibited by any adopted Pima County Ordinance or policy.

The characteristics included on the map include the following design constraints:

- FEMA Flood Zone in the northwest corner
- Erosion Hazard Setback from the adjacent Vetana Wash
- Existing slope along River Road

The following characteristics were found to NOT impact the site and are therefore not mapped:

- Restricted Peaks and Ridges
- Rock outcrops and talus slopes
- Slopes greater than 15%
- Sheet flooding areas
- Riparian areas
- Sources of perennial surface water
- Ironwood trees
- Pima pineapple cactus
- Needled spined pineapple cactus
- Areas of significant or important vegetation



SOURCE: ALTA SURVEY 10/16/12

PART II – LAND USE PROPOSAL

Alta Vista Communities, LLC (“Alta Vista”) is the proposed developer of approximately 5.91 acres located at the southwest corner of Sabino Canyon Road and River Road (the “Site”). Alta Vista is proposing to develop the Site as a unique, innovative, and upscale multi-family community in Pima County, known as Aerie at River and Sabino Canyon (“Aerie at Sabino and River West”). Aerie at Sabino and River West will be single-level, luxury multi-family community that will be an attractive presence in the area and an appropriate and compatible land use for the Site and surrounding area. Alta Vista is requesting the Site be zoned for CR-4, Multi-Family Residential, along with approvals of the Preliminary Development Plan (PDP). Development of the Site as an upscale multi-family community is a good use of the property.

The remainder of this analysis is dedicated to describing the land use proposal and design concepts derived from the analysis of the site's characteristics, and to present sensitive design and mitigation techniques that respond to the unique site characteristics and the character of the surrounding neighborhood.

II-A PROJECT OVERVIEW

1. PROPOSED ZONING BOUNDARIES

A single zone is proposed for this parcel, CR-4. Multiple zoning districts are not requested. The proposed zoning will extend to the property line or center of adjacent public right-of-way as appropriate.

2. PROJECT DESCRIPTION

a. Aerie at Sabino and River West is a hybrid of traditional single family and multi-family communities. The buildings are one story in height and containing no more than 1 dwelling unit/building, creating a “single family subdivision” feel throughout the community. This land use will be compatible with the neighboring developments and will provide high quality, unique, and additional housing opportunities within Pima County, northeast of Tucson. The gated community is designed with move-up market finishes and features in an efficient setting. Upscale residents are drawn to Aerie at Sabino and River West's comfort, convenience, security and location. A single story residential project is the best of the options pursued for this site. Other interested parties have included a charter school, assisted living and multiple story multi-family developments. The Owner and Developer believe that the combination of single story and residential use will have the least impact on the surrounding neighborhoods while still effectively utilizing this Major Streets and Routes intersection. Decorative masonry walls and wrought iron view fence in combination with enhanced bufferyards and natural areas (northwest corner) will help to mitigate the visual impact of the development. Traffic has been a concern of the neighbors. As such a traffic study has been completed and any recommendations from that study will be implemented to mitigate the traffic created by this development.

b. The subject property is designated entirely with a Comprehensive Plan Land Use Intensity of Medium Intensity Urban (MIU). In accordance with the Comprehensive Plan the proposed project is an area of medium density, luxury rental community. The proposed density falls below the 10 RAC maximum and TDR is not applicable. The requested zoning designation is CR-4, which has been deemed as in conformance with the land use plan. The property is located with the Catalina Foothills subregion. Furthermore, the property is within the Comprehensive Plan Rezoning and Special Area Policies - Part 2, Area Policy S-2. Special Area Policy, S-2 Catalina Foothills states that No construction of building exceeding 24 feet in height shall be permitted without specific authorization from the Board of Supervisors. This development meets the intent of this policy with its proposed one story height throughout the development.

c. The applicant has met with the surrounding neighborhoods and neighbors on several occasions, conducted many phone conversations and communicated by email. The general concerns of the development for the area are related to traffic. The nearby residential neighbors are concerned about increased traffic on River Road and the potential for a driveway entrance so close to the intersection with Sabino Canyon Road. This concern was partially alleviated by the commitment to limit access to one entrance off Sabino Canyon Road with no entrances from River Road. The concern was also addressed by the commitment to do complete Traffic Statement which would address the current capacity of the adjacent roadway network.

The second concern which grossly affected the site layout was the proximity to the adjacent townhouse development. Many of these existing homes have been constructed as close as 6' from the shared property line. Those homeowners are very concerned about the impact that this development will have on their views, feeling of openness, noise levels and privacy. To address these concerns, the proposed site layout has been pulled away from the shared property line in the center part of the site as well as angled the buildings away from the existing homes toward the southern end of the site. These affected homeowners were also concerned with the existing drainage from Watershed 2 that continues to cause erosion problems along their walls and pavement. The applicant is proposing to redirect this water directly to Sabino Canyon Road and thereby alleviating them from this drainage nuisance.

The Agreements section of this report contains additional information.

d. Alta Vista's proposed development is a distinct, luxurious multi-family community that will provide an attractive presence in the area, will be an appropriate use on the Site, and is compatible with the surrounding area. The proposed PDP is consistent with the County's Comprehensive Plan. The development plans provide a great combination of public and private open spaces, landscaping, and amenities. Aerie at Sabino and River West will provide additional housing opportunities within the County in a location that has direct access to employment and retail developments. The buildings' architecture complements the existing housing materials and colors as well as incorporates elements that respect the significance of the Arizona desert architecture along the adjacent Scenic Routes. The primary positive effect of the proposed development is that it is single story and a residential use. There are many potential uses for this Major Route intersection and the proposed use will present the least impact on the surrounding area while still utilizing the location and existing infrastructure. The negative effects include the loss of natural desert area and additional traffic. Understanding that this corner will be developed, the proposed use is a neighborhood friendly development for what is in effect a commercial corner along two Major Routes. The additional traffic will be mitigated through implementation of any recommended improvements, if necessary, in the Traffic Study.

e. Growth is "smart" when it gives us great communities, with more choices and personal freedom, good return on public investment, greater opportunity across the community, a

thriving natural environment, and a legacy we can be proud to leave our children and grandchildren.

According to www.smartgrowth.org, when communities choose smart growth strategies, they can create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They can foster design that encourages social, civic, and physical activity. They can protect the environment while stimulating economic growth. Most of all, we can create more choices for residents, workers, visitors, children, families, single people, and older adults-choices in where to live, how to get around, and how to interact with the people around them. When communities do this kind of planning, they preserve the best of their past while creating a bright future for generations to come.

This community contributes to the very heart of smart growth. More specifically, the 9 principles are described below:

1. It is a dense (10 RAC) development located along two well maintained and major routes. No offsite transportation improvements or extensions are required to reach this development. These major routes can be used to direct the future residents directly to and from their places of work and commercial or retail centers.
2. The proposed development promotes a compact development with structures that vary in size from 945 SF for the 2-bedroom unit to 1244 SF for the 3-bedroom unit. The structures are located 6 to 7 feet from each other in the dense areas of the project allowing for separate recreation areas and open space.
3. The unique and innovative design of the community is in response to the ever-changing needs of future families, couples, and individuals by providing luxurious living with ample amenities without a mortgage payment. This is a different type of residential product available in the area to allow for a range of housing choices.
4. This development has an active recreational area at the center of the development with circulation within the development to encourage the resident to "get out" and walk to the mail box, pool, picnic area or dumpster.
5. The cluster arrangement of units allows for a courtyard feel at the entrances to private residences. Each cluster becomes its own little neighborhood within the neighborhood with the defensible space and social recognition occurring along the shared path from the common areas to each doorstep.
6. This development is proposing to set aside 5% of the parcel to natural, enhanced open space at the northwest corner of the property. This area is significant due to the FEMA floodplain limits and HDZ slope.
7. This development will serve to strengthen the neighborhood by providing a variety in the housing market and serving the underserved TUSD school district.
8. The residents of this neighborhood have the option of walking the internal circulation path or to the nearby bus stop. From that bus stop, the residents have transit service to the entire SunTran system.

9. The proposed density is predictable as it falls within the Comprehensive Plan designation, fair as the product is open to all qualifying applicants for a lease and cost effective due to the proximity to existing infrastructure.
10. The adjacent community, as well as staff and elected officials, have been significantly involved in the develop decisions affecting this site.

f. The Aerie at Sabino and River West development is developed, constructed, owned and maintained by one group of people. The Owners are interested in building a high quality construction product that is healthy to live in and sustainable to operate and maintain. The green building techniques proposed at this site include the following:

- All duct connections are mastic/OBD registers/insulation and wired at the roof deck keeping all duct work in insulated space.
- The windows are dual glaze, soft coat, low E windows.
- All Energy Star appliances are installed and maintained.
- Drainage swales lead from the roof scuppers to depressed landscape areas to harvest the rain water runoff.
- A drought resistant plant palette is established by a local landscape architect for our arid climate.
- Low flow toilets are used in the bathrooms.
- All top plate penetrations, windows, doors and top of bottom plate to back of stucco system areas are sealed.
- Energy star fluorescent light bulbs are installed in every unit.

3. CONFORMANCE WITH SELECTED ORDINANCES

This site is NOT affected by the following zones:

- Gateway Overlay Zone
- Cluster Development Option
- Historic Zone
- Airport Environs and Facilities

The site is affected by the Native Plant Preservation code and will be developed in accordance with Chapter 18.72 of the Pima County Zoning Code. This project will substantially conform with this code through the study, preparation and execution of a Native Plant Preservation Plan as prepared by an Arizona registered Landscape Architect and approved by Pima County. The PDP has allowed space for the preservation of the plants which are to remain in place and a location for the plants which are to be relocated on site. Additional mitigation vegetation will be provided throughout the site per the Landscape Plan as prepared by an Arizona registered Landscape Architect and approved by Pima County.

This site is affected by the HDZ Overlay Zone. Please see Exhibit II-A.3 for the DRC Decision Letter regarding the HDZ Exemption Request and Conditions of Approval.



MEMORANDUM

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION

DECISION LETTER FROM DRC PUBLIC HEARING DATE

March 21, 2013

(Revision 1)

DATE: April 3, 2013

TO: Erin Harris, PE. STAR Consulting
Bob Gugino, Sabino Canyon Road Properties LLC

FROM: Sue Morman, Sr. Planner

SUBJECT: DRC Decision Letter
Co20-13-02, SWC River & Sabino Canyon Roads

The Design Review Committee (DRC), by a vote of 6-0 (motion made by Member Weakas and seconded by Member Drzazgowski) approved HDZ exceptions for Co20-13-02 – SWC of River and Sabino Canyon Roads. An additional condition from applicant and additions and modifications to staff's recommended conditions were in the DRC motion.

The final DRC conditions are as follows:

1. Provide three copies of the approved DRC submittal for staff to sign-off. One goes to the applicant; one shall be submitted to Building Safety; and the third is for DRC's hard copy file. Should you require more stamped and signed copies provide as many as needed for sign-off.
2. Bufferyards along River and Sabino Canyon Roads shall vary in width from 10-feet to 20-feet with a staggered wall along the inside edge of the bufferyard with the wall height per the bufferyard requirement.
3. Building facades and footprints facing River and Sabino Canyon Roads shall be varied in design and staggered from the MS&R setback (still meeting the required Major Streets and Routes minimum 30-foot setback) to increase interest and reduce uniformity along both scenic routes.
4. Plants in the bufferyard and the enhanced northwest corner natural area shall be native and from the Landscape Design Manual's buffer overlay zone plant list.
5. The maximum allowable grading is 95% of the total site area.
6. The color renderings as provided are acceptable earth tone colors but shall meet the 60% required light reflective value.
7. Applicant shall coordinate with Riverbend Estates HOA to design a wrought iron fence extension suitable to RFCD across the small wash/drainageway in the northwest corner of the site.
8. In the event that the rezoning is approved with a redesigned layout to meet RFCD requirements then the planning director has the discretion to determine whether the changes warrant a return or not to the DRC for further review.

DRC Decision Ltr
Co20-13-02

2

The applicant, Erin Harris, in her presentation requested the addition of aforementioned Condition #7. In his Motion, Member Weaks modified Condition #2 to include 'wall height per bufferyard requirements' and added Condition #3. Member Colton made a friendly amendment to Member Weaks' motion to add DRC Condition #8.

Riverbend Estates HOA Board Member, Peggy Kent, was sitting on the DRC as a voting member for this case.

The above motion is binding for Co20-13-02 – SWC of River & Sabino Canyon Rd. If further clarification is required, please feel free to contact me at (520) 724-9000.

II-B PRELIMINARY DEVELOPMENT PLAN (PDP)

1. PRELIMINARY DEVELOPMENT PLAN

The Preliminary Development Plan is shown on the following pages of this analysis as Exhibits II.B.1.1 and II.B.1.2 along with acetate overlays (both with topographic contours and without contours).

2. PDP SUPPORT DATA

a. The gross floor area of commercial and industrial structures is 0 SF. The proposed use is multi-family residential.

b. The buildings are single story and have a varied roof line. The maximum building heights will not exceed twenty-four (24') feet. As designed, all the buildings are single story and are approximately 15'-6" in height. The height of the buildings allows Alta Vista to provide 10-foot high ceilings. The ceiling height will present additional storage opportunities for residents by allowing them to have an additional row of shelving within the closets. The closet shelving, when coupled with the private rear yards create adequate storage space for the residents' needs.

The 2-bedroom units are 965 SF.

The 3-bedroom units are 1244 SF.

Twenty five (27) 2-bedroom units are proposed.

Twenty seven (26) 3-bedroom units are proposed.

The total square footage of 2-bedroom units is 26,055 SF.

The total square footage of 3-bedroom units is 32,344 SF.

The total square footage of all buildings in the proposed development is 58,399 SF.

The CR-4 development standards state that maximum lot coverage is 60% for one story dwelling units (50% for main buildings). The proposed lot coverage is 23%.

c. The total number of dwelling units proposed is 53 units.

d. The maximum residential density of this site is 10 RAC (59 units).

e. The total number of parking spaces (required and provided) is 119 spaces.

f. The amount of landscaping is of sufficient intensity to create a pleasant and comfortable living environment. The density of plant material is dependent on the mature size of the vegetation and the shape and size of the areas to be landscaped. The planting design is tailored to provide shade on to buildings and walks while accentuating open space and courtyard features. The

landscape palette is comprised of low-water use, desert native material that blends seamlessly with existing adjacent street landscaping and accentuates the architecture of the building design on this site.

g. The recreation requirement for this development is 460 SF per unit. The natural open space, functional open space and recreation areas contribute to meeting these design criteria. The recreation area is focused around the pool amenity located near the center of the development.

The following areas are based on the preliminary development plan and are subject to small variation with the approved Recreation Area Plan and Landscape Plans:

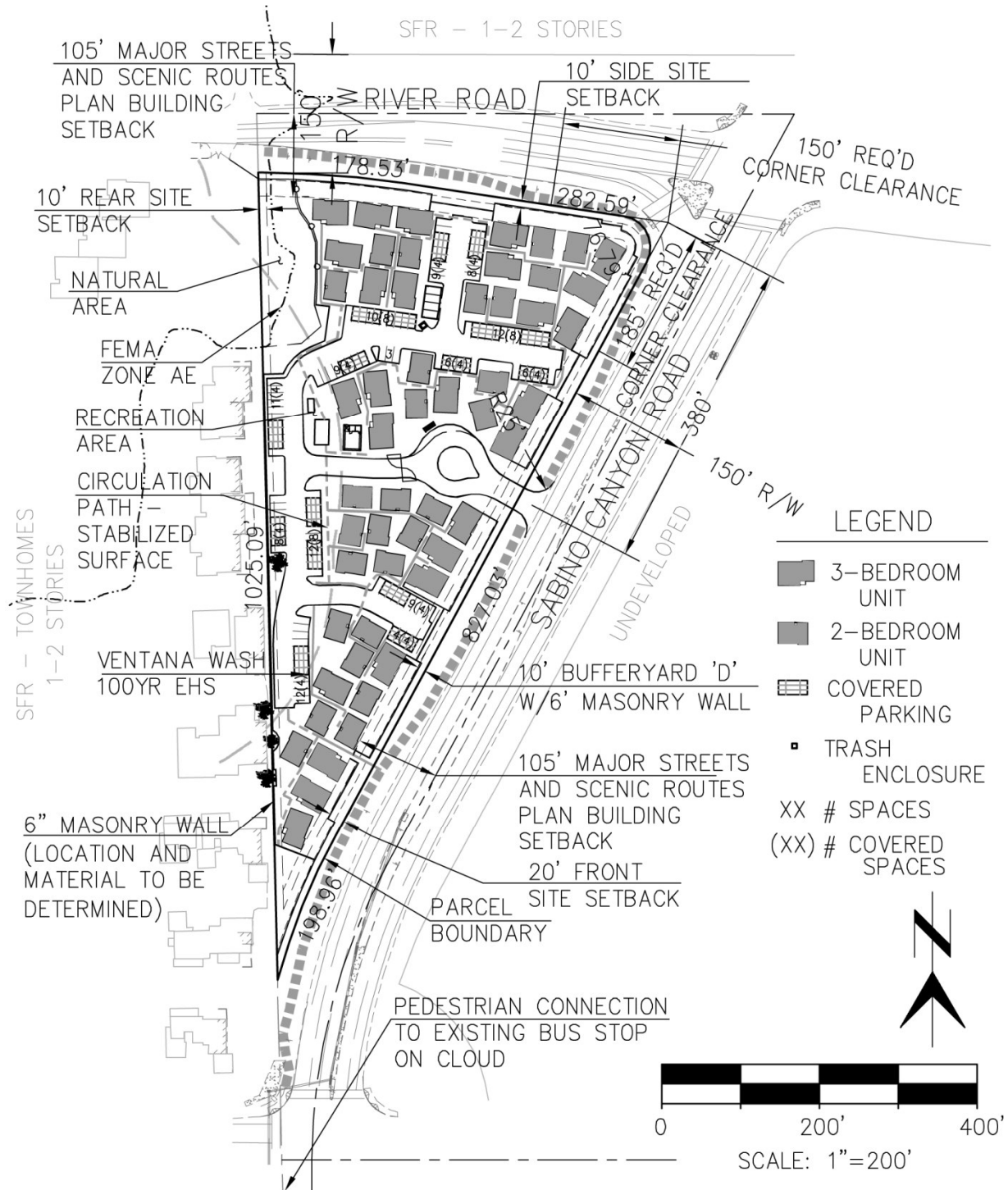
The total acreage of recreational area is 12,102 SF.

The total acreage of functional open space is 5,200 SF.

The total acreage of natural open space is 13,677 SF.

SOURCE: ALTA SURVEY 10/16/12

EXHIBIT II-B.1.2: PRELIMINARY DEVELOPMENT PLAN W/O TOPO (WITH ACETATE OVERLAY)



SOURCE: ALTA SURVEY 10/16/12

II-C TOPOGRAPHY AND GRADING

1. DEVELOPMENT/MITIGATION ON STEEP SLOPES

This site does naturally have areas of slopes of 15% or greater, with a 10' or greater natural fall.

2. NATURAL AREAS UNDER HDZ

A portion of this site does meet the criteria for defining HDZ slopes. A DRC Application, Co20-13-02, was approved by DRC on March 21st, 2013 with conditions. The approval granted exception to both the 80% grading limit and the 20' bufferyard requirement. The applicant is proposing a 5% set aside enhanced natural open space area at the northwest corner of the parcel. Exhibit II-F.4 illustrates the 5% undisturbed area.

3. AREAS TO BE DISTURBED, REVEGETATED AND NATURAL

With the exception of the 5% set aside area, the entire parcel is subject to disturbance. The area in the FEMA Zone AE in the northwest corner of the parcel will be left largely ungraded as to not create any fluctuation in or encroachment into the flood prone zone. However, due to existing erosion, some slope stabilization will be completed to properly secure the existing slope and repair and protect the edge of River Road from further erosion damage.

The open space of the development around the parking areas, homes, recreation facilities, etc will be revegetated per the Landscape Plan. All of the site will be either impervious due to constructed improvements or revegetated in accordance with the landscape design.

As this description fits the entire parcel, an exhibit has not been provided.

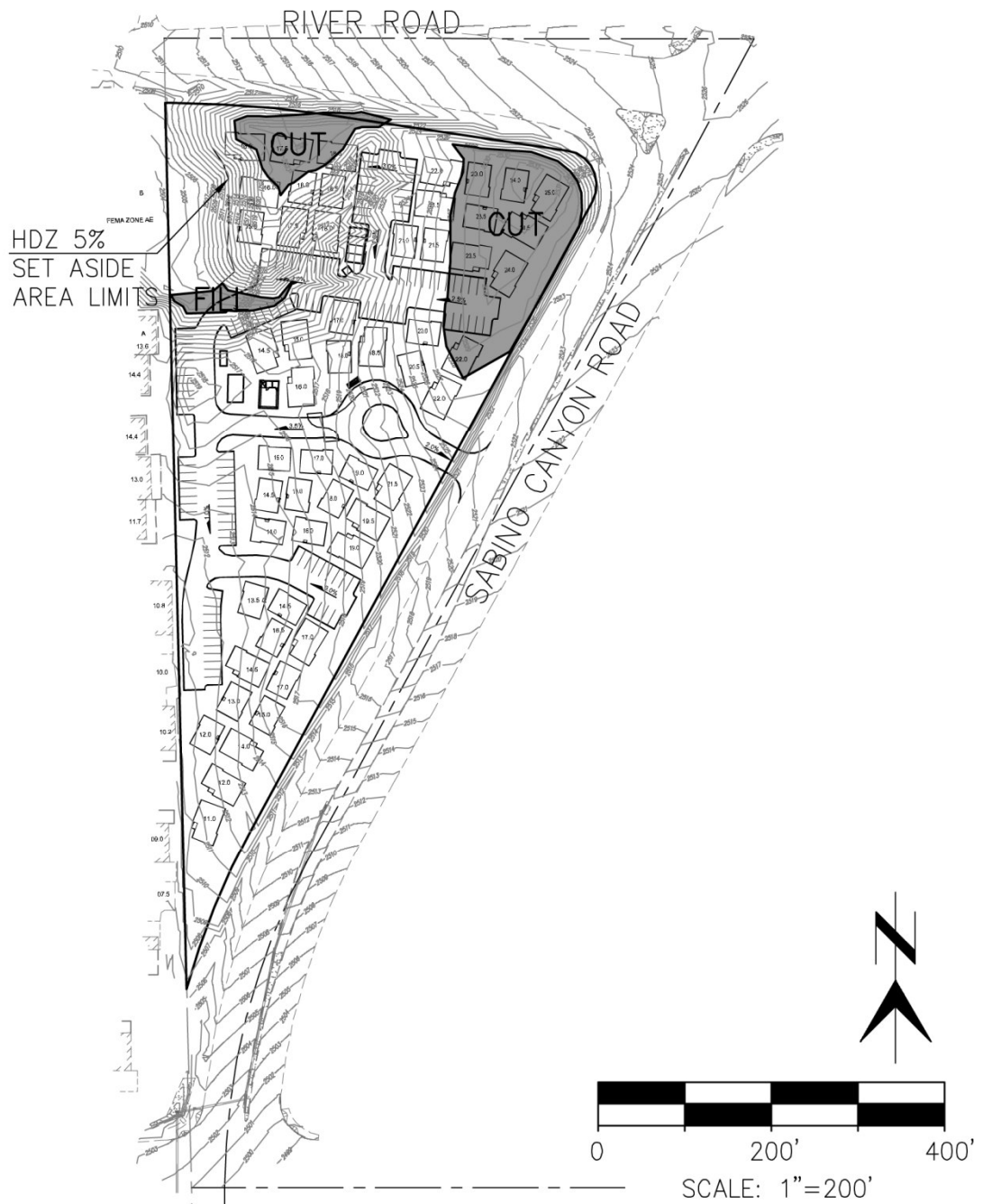
4. CHANGES TO NATURAL GRADE

The proposed site has three separate areas of grading which results in a cut or fill of greater than 5' of elevation change. The first is an area of fill. The existing watershed from the north side of the site drains to a small channel that has cut into the site. The area of fill has a maximum change in elevation of approximately 6 feet. The two other areas are areas of cut. The two areas of significant cut are located along River Road and adjacent to the intersection of River Road and Sabino Canyon Road. The existing grade (may be a man-made berm or a cut-slope for the public road construction) is proposed to be cut by a maximum change in elevation of approximately 7.5 feet. This cut to more closely mimic the existing neighborhoods and the adjacent road grade is a significant design component to the development. The applicant is proposing to lower the FFEs of the homes in these areas to blend with the existing environment. The cut material will remain on site and be used as fill material as necessary through the development. The remainder of the

grading on the site is limited to minor cuts and fills in an effort to effectively drain the site and match existing grade around the perimeter of the site. Exhibit II-F.4 illustrates these areas of grading.

5. ENGINEERING/DESIGN FEATURES FOR MITIGATION

The section of text is not applicable to this site.



SOURCE: ALTA SURVEY 10/16/12

II-D HYDROLOGY

1. RESPONSE TO HYDRAULIC CONSTRAINTS

The most significant hydraulic constraint relates to the Ventana Canyon Wash, which poses an erosion hazard along the west edge of the subject property. The proposed site layout, as shown on the PDP, Exhibit II-B.1.1 avoids placing structures within the mapped 250 foot Erosion Hazard Setback for the Ventana Canyon Wash.

The site terrain favors drainage to the south and west toward the adjacent Riverbend Estates community, which currently experiences nuisance drainage effects. With this development we are proposing to address the concerns raised by the Riverbend Estates community association in two ways. First, we propose to provide detention measures to maintain the peak discharge from the northern portion of the project at the same level as under existing conditions. Second, we propose to eliminate discharge of runoff from the subject property directly into Riverbend Estates in the southern portion of the project. Instead, post-detention runoff will be conveyed south in an underground pipe directly to the existing storm drain system in Cloud Road.

The project is located within a Balanced Basin, therefore detention is required. 2-, 10- and 100-year detention will be provided for the northern portion of the development, consistent with commitments to the downstream Riverbend Estates community. In the southern area, sufficient detention is provided to ensure that, in addition to standard detention requirements, the downstream storm drain system will not be over capacity. 5-year threshold retention is required for the proposed development. Using the method specified in the PC/COT Stormwater Detention/Retention Manual, the required retention volume for the development is 0.122 acre-feet, (5,305 cubic feet).

2. REASONS FOR FLOODPLAIN ENCROACHMENT

Floodplain encroachment is not proposed with this development. The FEMA Zone AE boundary for the Ventana Canyon Wash is mapped within the northwest corner of the subject property. No buildings are proposed within the AE Zone.

3. POST DEVELOPMENT DISCHARGE

The proposed development has been divided into three watersheds, based on a preliminary grading scheme. As indicated on Exhibit II-D.1, the northern 2.7 acres of the project, Watershed D1, will drain toward the same concentration point as under existing conditions, (CP E1). Watershed D1 will generate a 100-year discharge of 22 cfs. An underground storage chamber,

providing a combination of retention and detention, will be installed which will reduce the peak discharge to a maximum of 18 cfs at this location, matching existing conditions.

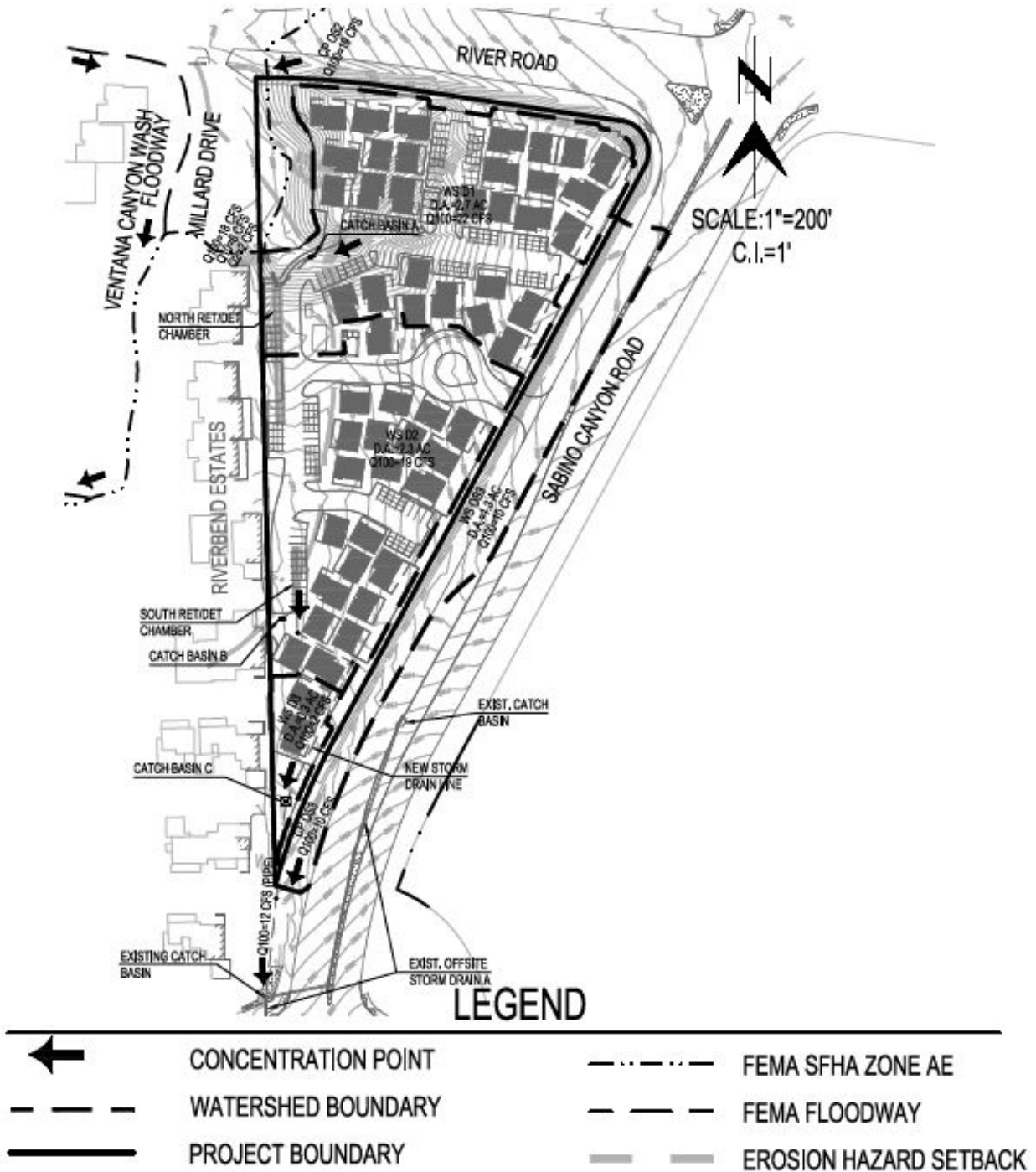
The southern 2.6 acres of the project, Watersheds D2 and D3, will drain to the south and be collected in an underground storage chamber, providing a combination of retention and detention, which will outlet into a new storm drain line. The proposed storm drain will convey the combined, post-detention, 100-year discharge of 12 cfs directly into the existing storm drain system located at the intersection of Cloud Road and Sabino Canyon Road.

4. ENGINEERING/DESIGN FEATURES FOR MITIGATION

A combination of above- and below-ground retention and detention elements will be employed with the development. Onsite runoff will be collected and conveyed primarily within the paved driveways, and directed towards storm water inlets at three locations. To the north runoff will be collected in a catch basin, (CB 1), at CP E1/D1 and directed into an underground retention/detention chamber. The north chamber will reduce the 2-, 10- and 100-year peak discharges at this location to the pre-development peak discharges. Runoff will be released directly offsite at this location. At CP 2 in the central portion of the project, a second catch basin, (CB 2), will collect runoff and convey it to an underground retention/detention chamber. The south chamber will reduce the 2-, 10- and 100-year peak discharges at this location to below the pre-development peak discharges, while not exceeding the capacity of the existing downstream storm drain system. The south chamber discharge will be conveyed offsite to the south in a new underground storm drain line. At CP 3, runoff will be collected in a third catch basin, CB 3, where it will combine with runoff from watershed D2 in the new storm drain line. The new storm drain line will drain directly into the existing storm drain system at the intersection of Sabino Canyon Road and Cloud Road. The design specifics of the catch basin inlets, detention elements and storm drain line will be established with the Development Plan. The locations for the drainage structures described above are shown on Exhibit II-D.1.

5. CONFORMANCE WITH APPLICABLE POLICIES

The proposed drainage solution for the development will not result in an increase in flooding or erosion hazard to either the subject property or to downstream properties or structures. The proposed development is consistent with drainage requirements of Pima County, State of Arizona and Federal regulations.



II-E BIOLOGICAL RESOURCES

1. IMPACTS TO BIOLOGICAL RESOURCES

This project will use the selective plant methodology for compliance with the Native Plant Preservation Ordinance. Species on site shall be inventoried per the requirements of the Native Plant Preservation Ordinance.

Vegetation will be inventoried and mitigated at a one to one ratio. Only Saguaros of 10' and under and other cacti are recommended to be salvaged or relocated if located within the grading limit.

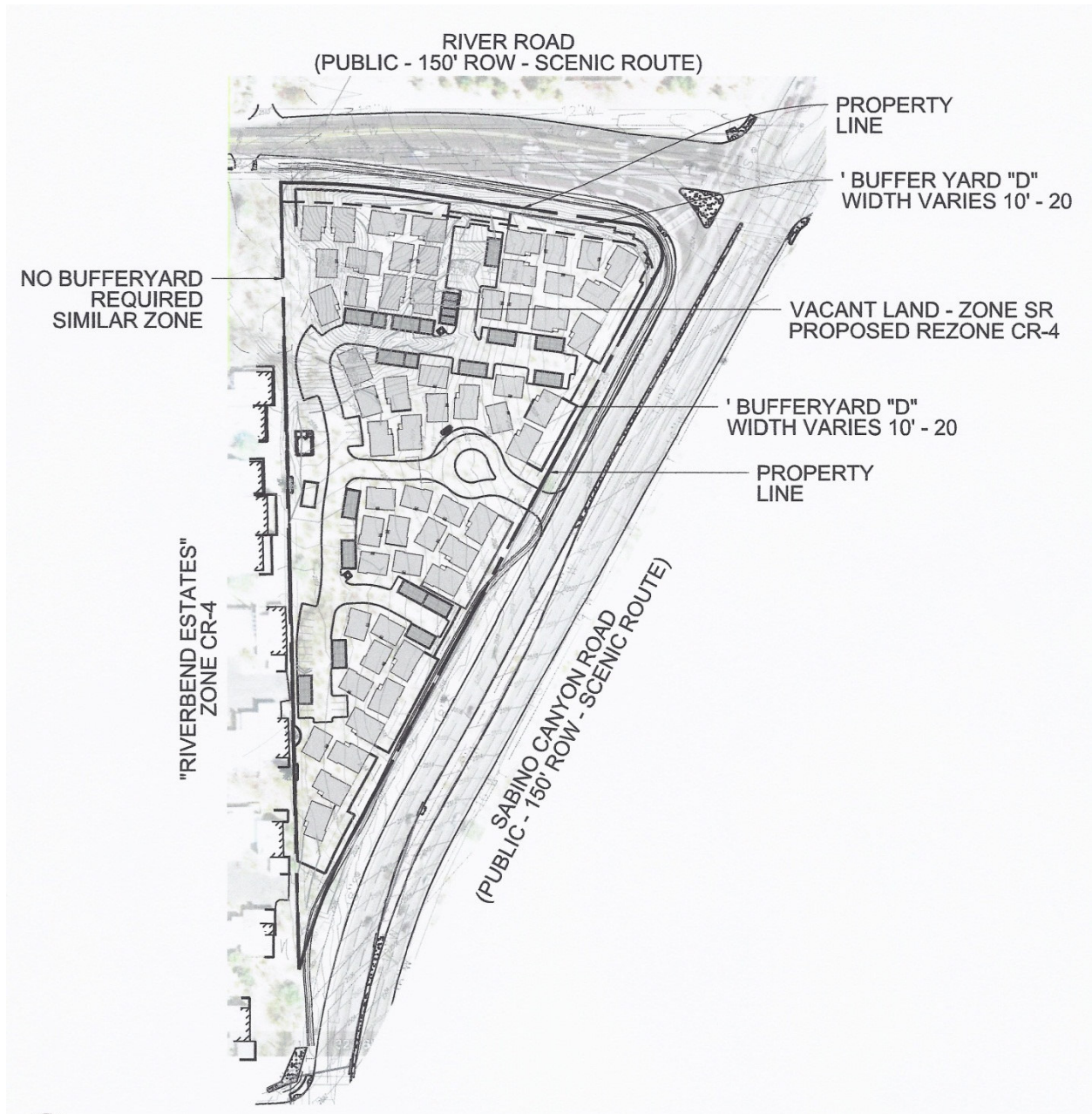
Salvaging of trees and shrubs is not recommended due to the poor soil conditions that will incur poor root ball preservation. The limited number of trees on site maybe mitigation with new specimens of similar genesis and species would better serve the overall development and community as a whole.

2. PROTECTION OF LANDSCAPE CONNECTIVITY

The section of text is not applicable to this site.

II-F LANDSCAPE AND BUFFER PLAN

Exhibit II.F illustrates the buffers that will be utilized. Site is zoned SR and proposed zoning is CR-4. The Adjacent property West is zoned CR-4. The matching zone will allow for compatibility and minimize impacts to surrounding area. Roads North and East of property are both Scenic Major Routes. All buffers on site will be Bufferyard 'D'. Widths will vary from 10' to 20' allowing flexibility of design and incorporating existing vegetation and site amenities to serve this development and surrounding community. This designation of Bufferyard "D" will be in compliance with Chapter 18.73 of Pima County Zoning Code.



Source: ARC Studios, a TMHS Company

II-G VIEWSHEDS

1. IMPACTS TO VIEWS

The views and vistas from adjacent properties and the adjacent scenic routes will be affected by this development. The existing site is undeveloped and contains native vegetation. The impact on the existing views is minimized by the increased building setback along the western property line, building rotation and placement, building architecture and vegetation.

2. MITIGATION OF VISUAL IMPACTS

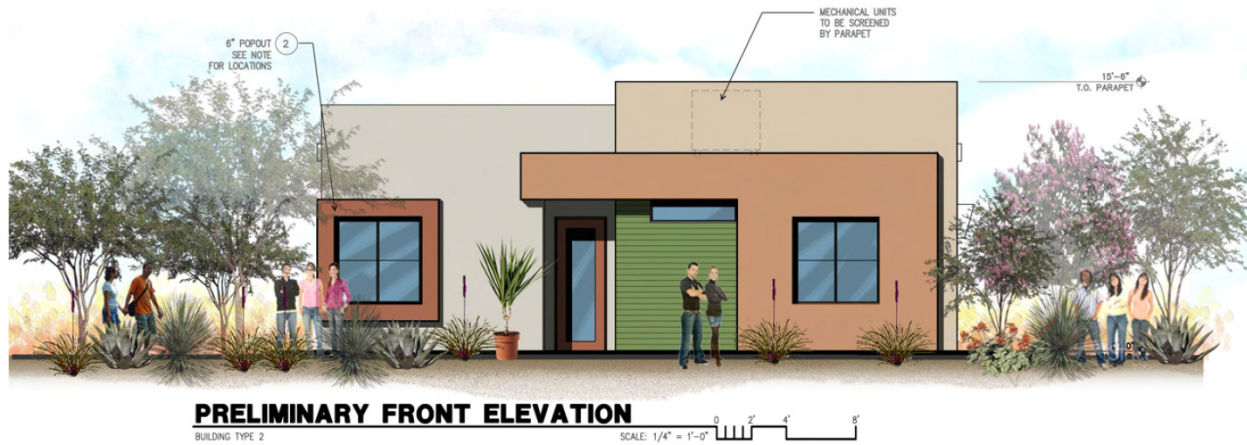
The mitigation of the visual impacts starts with the architecture and position of the buildings. The buildings are only one story in height, which is less than what would be found in a traditional multi-family community, single-family residential subdivision (1 and 2-story homes), and commercial developments. The placement of the buildings and yard walls has been designed to interact with the streetscape and adjacent developments by varying the roof lines and orientations, providing small scale pedestrian courtyards, amenities and landscape features, and architectural detail.

The proposed project consists of luxurious residences with three distinct building types that are arranged in a variety of different groups and combinations to provide a distinct feel for residents. The architectural theme is a “desert modern” style that consists of different sized and layered volumes, materials, and strategically placed linear horizontal elements. Please see Exhibit II-G.2, the Preliminary Building Elevations. Varied roof heights of the buildings enhance the visual depth of the community and increase the amount of shade provided to each elevation with all buildings being only 1-story. In addition, most of the main entrances to the residences are recessed to enhance the depth of the elevations and provide additional shading. Awnings are provided along portions of those buildings that are visible to the vehicles and passers-by, increasing the amount of shade while adding decor to the elevations. The various elements of the development harmoniously blend a desert contemporary architectural style with color, form and texture.

Mechanical equipment throughout the development will be screened through the use of parapet walls on the building elevations.

Unique to the Site are depressed trash enclosures. The trash enclosures will be partially located below grade. The depressed trash enclosures will be screened with landscaping and be painted to match the colors from the buildings. The location of the enclosures will provide residents with easier access to dispose of their trash, eliminating the need to throw trash over an enclosure or placing it outside the refuse container because the lid cannot be opened. Connections to the trash enclosures are provided via sidewalks or by convenient access from the drive aisles. Designing the trash enclosures in this fashion provides a more aesthetic solution and better security.

Lighting for Aerie will comply with the County's Lighting Code. External lighting will be appropriately located and designed to prevent light from spilling onto adjacent properties.



Preliminary Type 2 Building (2-bedroom unit) Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225



PRELIMINARY LEFT ELEVATION

BUILDING TYPE 2

SCALE: 1/4" = 1'-0"



PRELIMINARY RIGHT ELEVATION

BUILDING TYPE 2

SCALE: 1/4" = 1'-0"

Preliminary Type 2 Building (2-bedroom unit) Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225



PRELIMINARY FRONT ELEVATION

BUILDING TYPE 3

SCALE: 1/4\" = 1'-0"



PRELIMINARY REAR ELEVATION

BUILDING TYPE 3

SCALE: 1/4\" = 1'-0"

Preliminary Type 3 Building (3-bedroom unit) Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225



PRELIMINARY RIGHT ELEVATION

BUILDING TYPE 3

SCALE: 1/4" = 1'-0"



PRELIMINARY LEFT ELEVATION

BUILDING TYPE 3

SCALE: 1/4" = 1'-0"

Preliminary Type 3 Building (3-bedroom unit) Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225



PRELIMINARY FRONT ELEVATION

BUILDING TYPE: GARAGE

SCALE: 1/4" = 1'-0"



PRELIMINARY REAR ELEVATION

BUILDING TYPE: GARAGE

SCALE: 1/4" = 1'-0"

Preliminary 4-car Garage Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225





PRELIMINARY FRONT ELEVATION

BUILDING TYPE: RAMADA

SCALE: 1/4" = 1'-0"



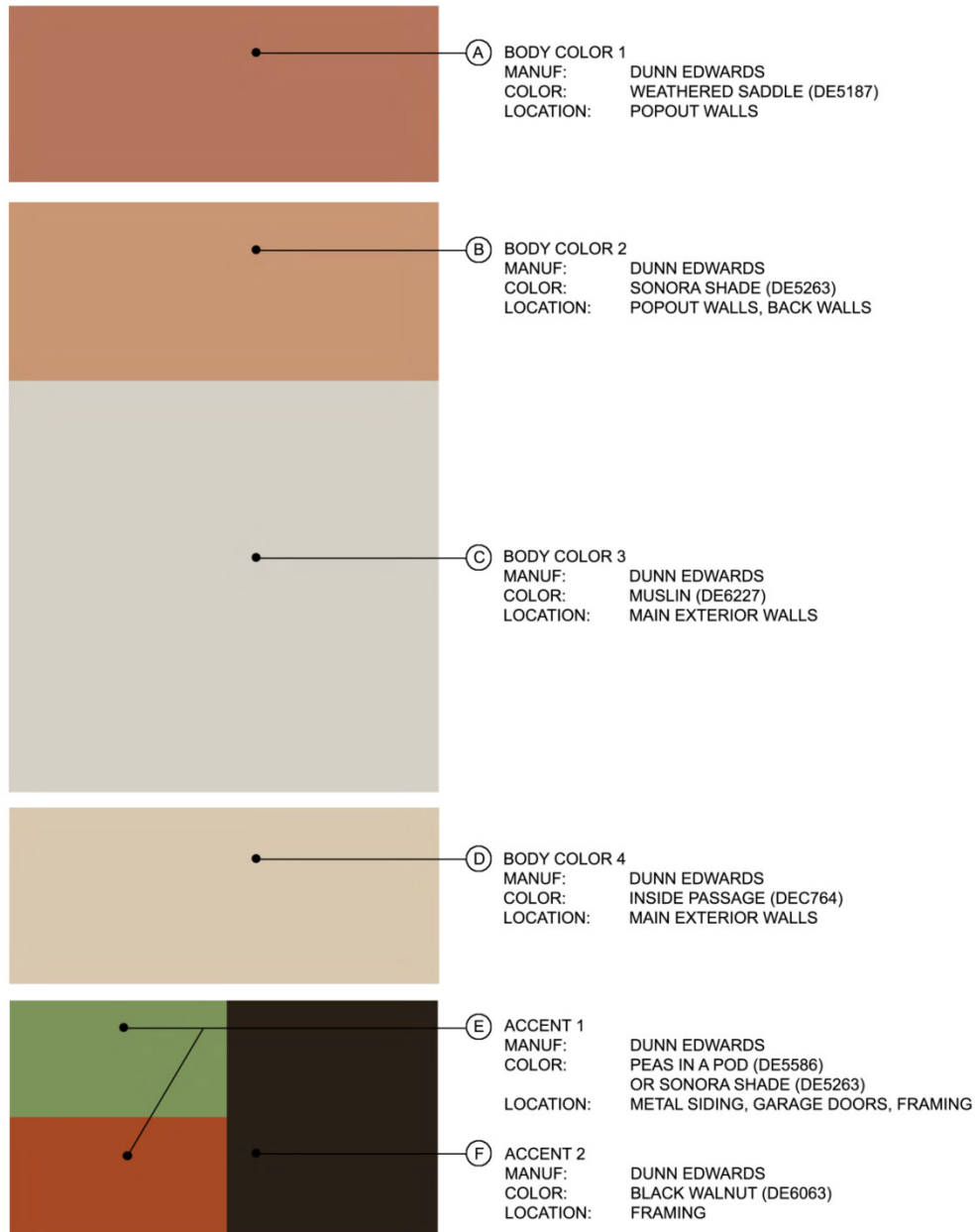
PRELIMINARY REAR ELEVATION

BUILDING TYPE: RAMADA

SCALE: 1/4" = 1'-0"

Preliminary Ramada Building Elevation

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225



Preliminary Exterior Paint Color Scheme

Source: Whitneybell Perry, Inc
575 West Chandler Boulevard
Chandler, AZ 85225

Weathered Saddle DE5187 – LRV 22
Sonora Shade DE5263 – LRV 33
Muslin DE6227 – LRV 49
Inside Passage DE764 – LRV 59
Peas in a Pod DE5586 – LRV 25
Black Walnut DE6063 - LRV 8

II-H Transportation

1. PROPOSED INGRESS AND EGRESS

The primary access point to Aerie at Sabino and River West is located south of the River Road and Sabino Canyon Road intersection. A secondary access is not required or proposed for this development. The access point is proposed to be a right in and right out access only. A median break is not existing or proposed along this section of Sabino Canyon Road. The distance between the proposed entrance and the existing intersection is approximately 380 feet. Please see Exhibit II-H.1 for an illustration of the proposed driveway spacing.

2. OFF-SITE IMPROVEMENTS

Off-site Improvements are anticipated for this development. Although a traffic report is not required for a development of this size, a Traffic Statement will be completed as a part of the Development Plan process and as a part of the neighborhood discussion. That Traffic Statement will identify improvements that may be required to the intersection or the entrance to the proposed development. It is anticipated that a right turn lane may be warranted or desired for the primary entrance.

3. CHANGES TO ADT

The proposed development will generate 352 trips per day in accordance with the Trip Generation Manual, 7th Edition, Institute of Transportation Engineers. The average rate for apartments (220)/rental homes (224) is 6.65 trips per day times the number of units. The peak hour trips are estimated at approximately 36 trips ($0.67 \text{ trips} \times \# \text{ of units}$).

4. TRAFFIC IMPACTS ON SURROUNDING LOCAL STREETS

The entrance has been designed to be well south of the minimum corner clearance requirement for the intersection. While this development will contribute to the traffic on the adjacent streets, the increase is marginal for major routes such as River Road and Sabino Canyon Road. It is anticipated that the impact to surrounding streets will be minimal.

5. BICYCLE AND PEDESTRIAN PATHWAYS

As shown in Exhibit II-H.5, a natural trail will be provided around the majority of the site connecting to recreation areas, pedestrian sidewalks with the development and the pool area near the center of the site. A pedestrian connection to the existing bus stop is proposed and this walk area has been enhanced with native vegetation to promote the use of this public transit facility.

6. PROPOSED ROADS

The entire site will be gated; therefore, the interior circulation will be via private parking area access lanes with 24 foot width in accordance with Pima County Subdivision Street Standards.

7. CONCURRENCY CONFORMANCE

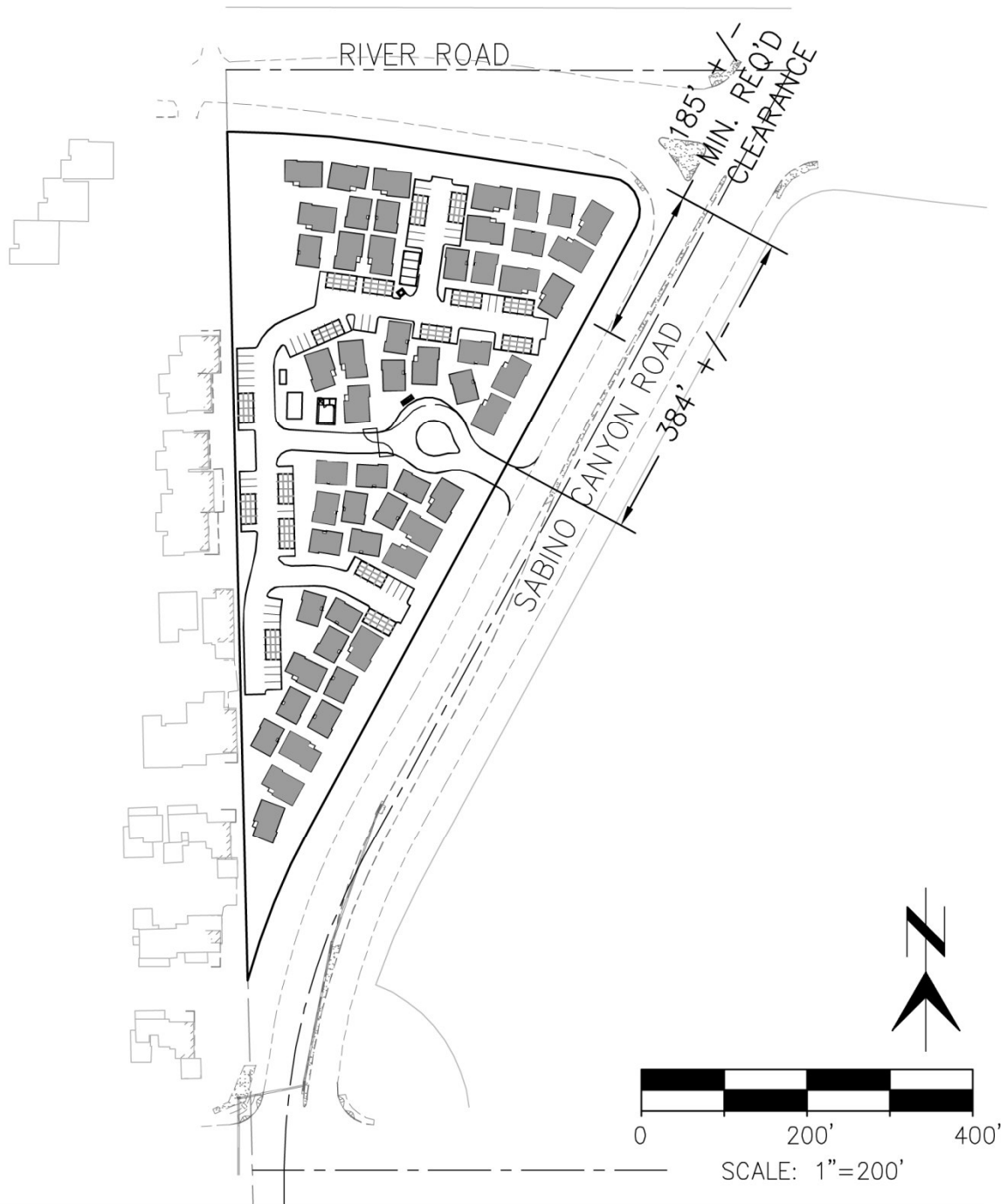
The site meets transportation concurrency for all major roads in the area. No public improvements are scheduled for the adjacent roads.

8. TRAFFIC IMPACT STUDY

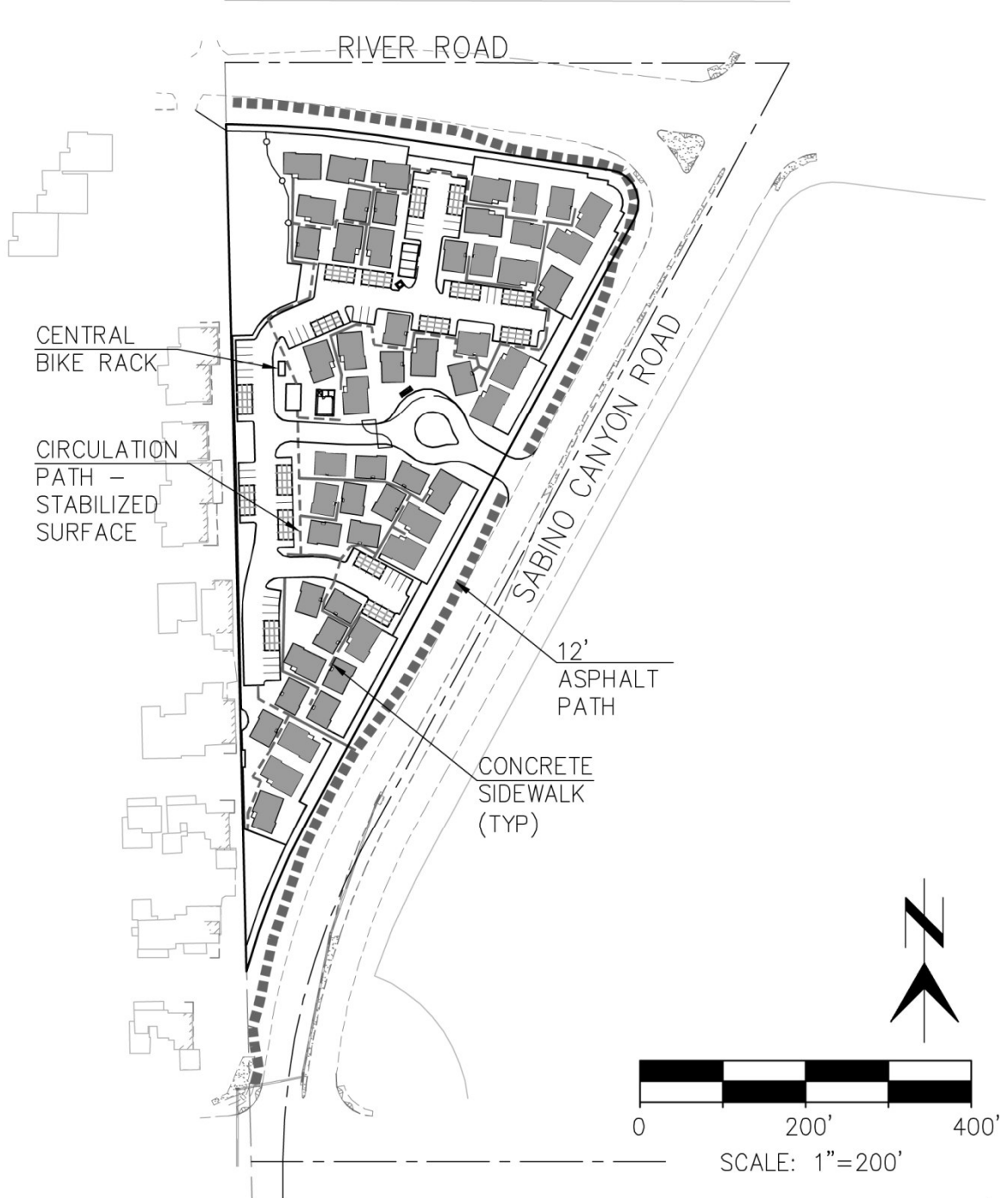
This project does not meet the threshold requirements for a Traffic Impact Study.

9. ALTERNATE MODES

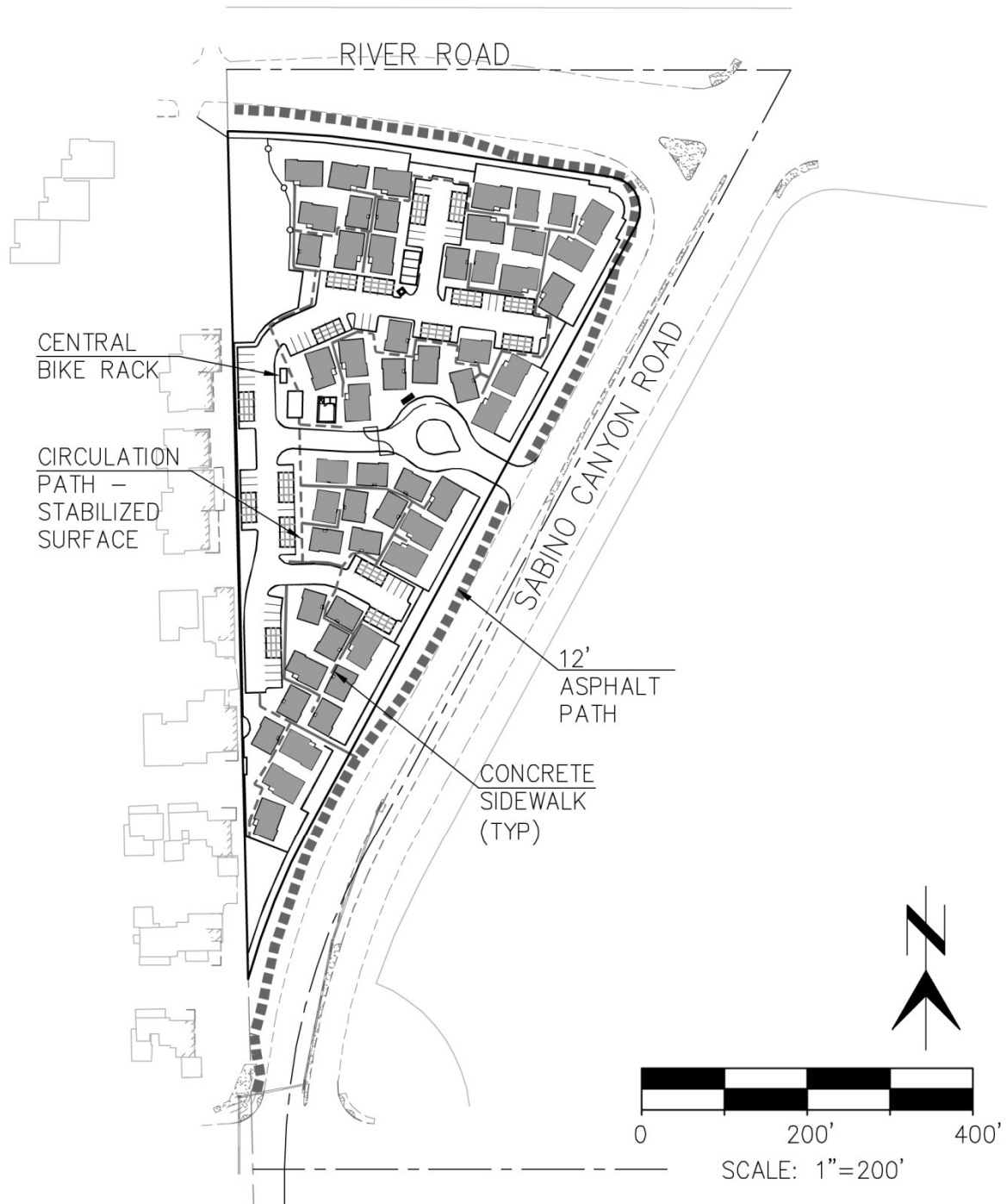
The proposed rental home style provides for a greater mix of higher density housing in an area within bicycle distance to employment and retails zones to the south at Tanque Verde Road. A bus stop is also existing immediately south of the proposed development at the intersection of Cloud Road and Sabino Canyon Road. This bus stop can connect the user to the rest of the SunTran system in minutes. Please see Exhibit II-H.9 for an illustration of the proximity to the existing bus stop.



SOURCE: ALTA SURVEY 10/16/12



SOURCE: ALTA SURVEY 10/16/12



SOURCE: ALTA SURVEY 10/16/12

II-I On-Site Wastewater Treatment and Disposal

On-site wastewater treatment/disposal facilities are not proposed for this project. For this reason, the detailed requirements of this section have been omitted.

II-J SEWERS

1. CAPACITY RESPONSE LETTER

This applicant has submitted to the Pima County Regional Wastewater Reclamation Department Planning Section for analysis of capacity in the downstream sewer system. The Type 1 Capacity Response has been included in this report as Exhibit II-J.1. The letter was written on November 5, 2012, within 90 days of application for this rezoning. The letter is valid for one year. The Pima County Regional Wastewater Reclamation Department Planning Section has indicated that capacity is currently available for this project in the 18-trunk line G-92-068, downstream from manhole 6160-05.

2. METHOD OF PROVIDING SEWER

The development will be served onsite by a private sewer collection system. The private sewer will connect to the public sewer at existing manhole 6160-05 in accordance with current design and construction standards.

3. SEWER EASEMENTS

No public sewer easements are anticipated for this development.

4. MITIGATION OF SITE CONSTRAINTS

No constraints to providing gravity sewer service have been identified. This section is not applicable to this development.



**Pima County
Regional Wastewater Reclamation Department**

Jackson Jenkins
Director

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

Website:
<http://www.pima.gov/wwm>

November 5, 2012

Erin Harris
STAR Consulting
5405 E. Placita Hayuco
Tucson, AZ 85718

Capacity Response No. 12-211 Type I

**RE: Aerie Development, Sabino Canyon & River Roads, Parcel # 114-33-002E
Estimated Flow 13,800 gpd (ADWF).**

Greetings:

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

Capacity is currently available for this project in the 18-inch trunk G-92-068, downstream from manhole 6160-05.

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) 740-6534.

Respectfully,

A handwritten signature in black ink, appearing to read "Ben Fyock".

Ben Fyock, P.E.
PCRWRD Planning Section

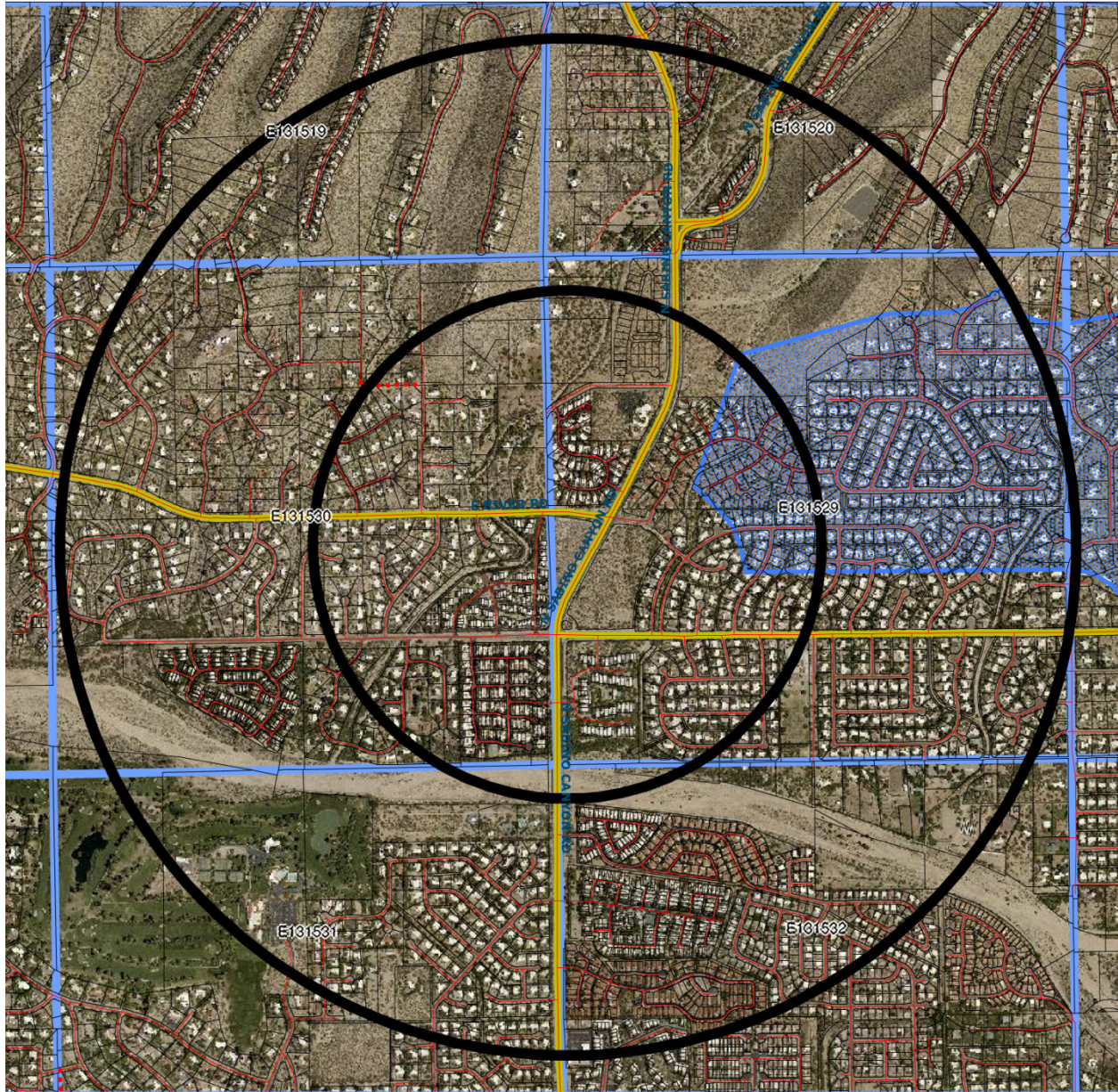
BF:ks

c: T13, R15, Sec. 29

II-K WATER

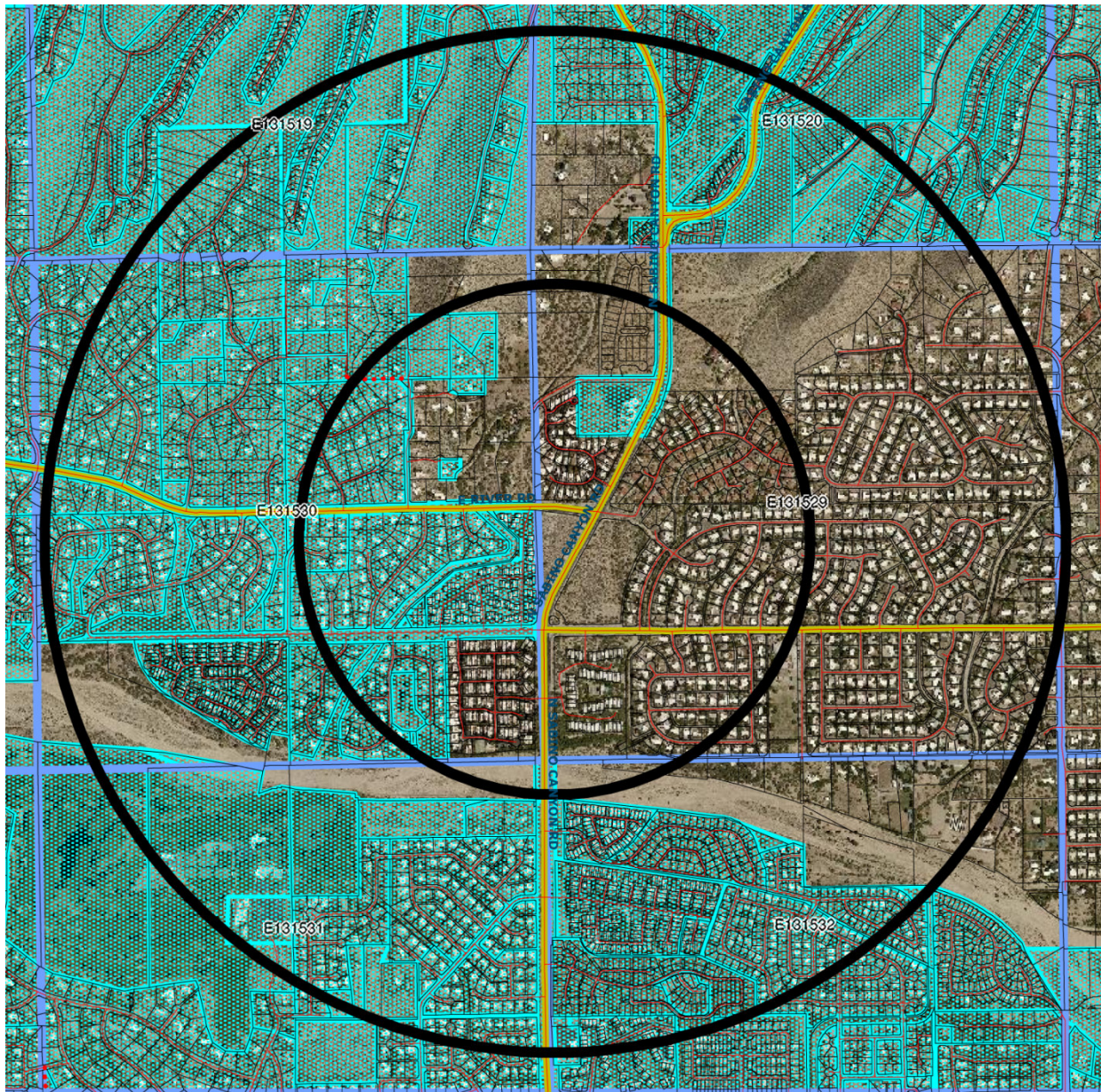
1. WATER CONTEXT MAP

The site is not located within a designated Water Provider Service Area. Metropolitan Domestic Water Improvement District (MDWID) or Metro Water serves the developments to the northeast of the site and has existing facilities nearby to the site. Tucson Water serves the developments to the immediate north, west and south of the site and has existing facilities adjacent to the site. Please see Exhibit II-K.1 for the Water Context Map.



Metro Water Service Provider Area (ADWR)

Source: *Pima County GIS*



Tucson Water Obligate Service Area

Source: *Pima County GIS*

2. EXISTING AND HISTORIC WATER USE

The site is currently undeveloped.

3. PROPOSED WATER USE

The proposed development includes 53 residential units, landscape and recreation center. The recreation center includes a pool.

This development of this site will not be phased.

4. WATER SUPPLY OPTIONS

Metro Water has stated that they will supply the project; however, significant offsite improvements are required in order to provide adequate fire flow protection. Please see Exhibit II-K.4.1 for Metro Water Facilities Maps and email correspondence with the Development Supervisor regarding Water Supply Options.

In addition to Metro Water, the applicant has also contacted Tucson Water regarding service potential to the site. At this time, Tucson Water has declined to offer service based on the assumption that Metro Water will be able to provide service. Please see Exhibit II-K.4.2 for Tucson Water Facilities Maps and correspondence.

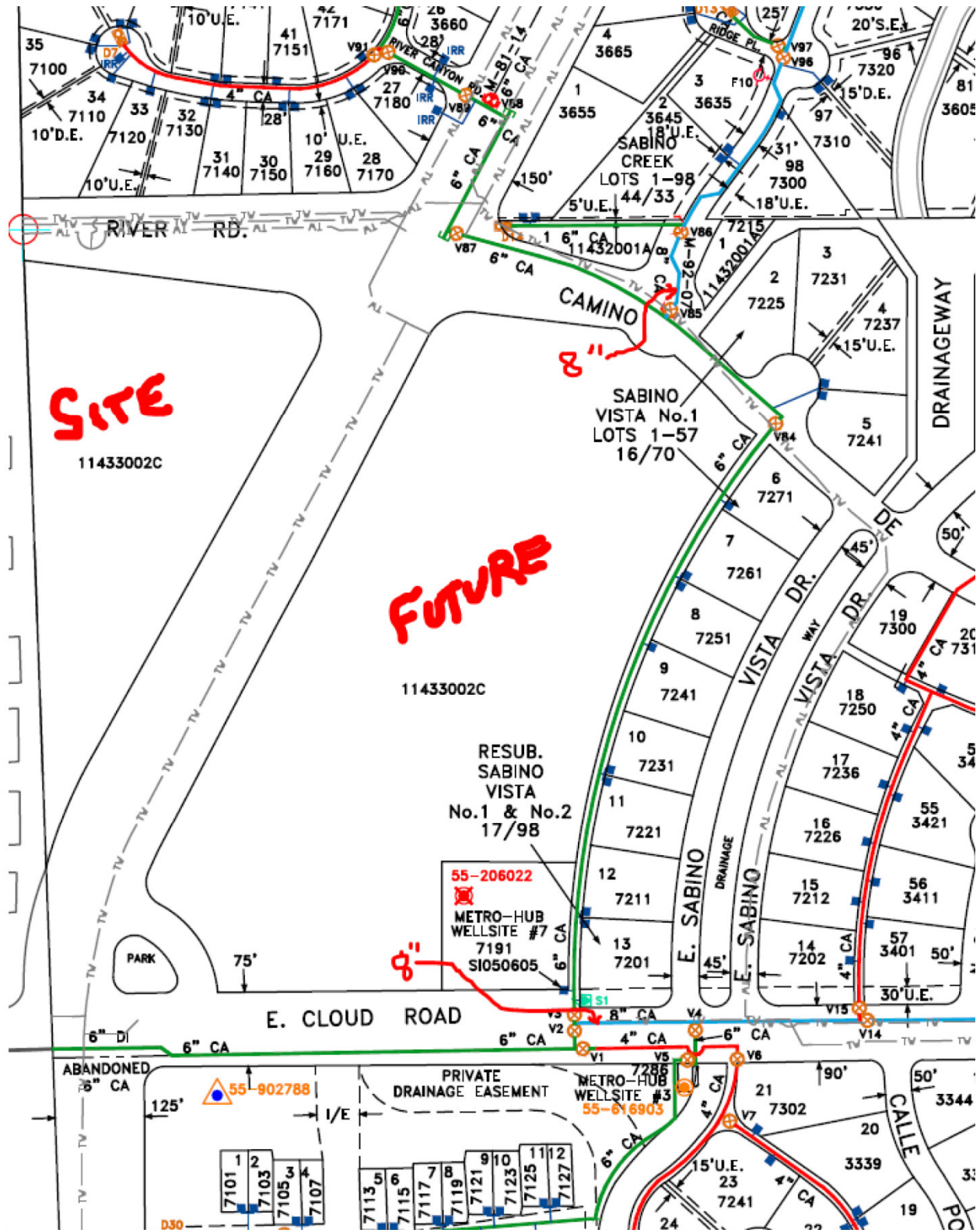
Erin Harris, PE

From: Timothy Dinkel <tdinkel@metrowater.com>
Sent: Tuesday, December 11, 2012 3:09 PM
To: 'Erin Harris, PE'
Cc: aptcreator@hotmail.com; bob@gmlawaz.com
Subject: Flow Analysis for the SW Corner of Sabino and River

Erin,

The Metropolitan Domestic Water Improvement District (MDWID) analyzed our existing water system using its hydraulic model to identify water system requirements or improvements needed to achieve the 1500 gpm fire flow you specified. Criteria for the modeling results were maximum day conditions, a maximum of 10 feet/sec velocity in the water system, adequate storage for a 2-hour fire, adequate booster capability, and a minimum residual pressure of 20 psi in the distribution system.

Please reference the map below. For the property at the SW corner of Sabino and River, we unfortunately determined simply providing a loop through the site from the existing 6-inch water lines along Cloud through to the NE corner of Sabino and Camino de Cima, at a demand of 1500 gpm, creates a velocity condition in excess of the above criteria within the proposed loop, and existing 6-inch systems farther east. The determination was the water loop through the site will need to be a minimum of 8-inch, and will need to either connect to the existing 8-inch water line at Knollwood/Camino de Cima, OR the existing 8-inch water line at Sabino Vista Drive/Cloud (as indicated below). The former would yield a residual pressure at 1500 gpm of 25 psi, and the latter would yield a residual pressure at 1500 gpm of 30 psi (each meeting the minimum pressure). The latter option to extend an 8-inch water line east in Cloud would be preferable of the two for flow, and of course, constructing both would even be better still. If/when the future site on the east side of Sabino is developed (with similar 1500 gpm flow requirements), it is anticipated that both 8-inch connections will be required to be in place (or constructed as part of the future development).



Please let me know if you have any questions regarding the above results, or any further information or scenarios you wish for us to analyze.

Sincerely,

Timothy Dinkel
Development Supervisor
Metropolitan Domestic Water Improvement District (MDWID)

tdinkel@metrowater.com
(520) 575-8100 office
(520) 209-2817 direct
(520) 575-8454 fax
www.metrowater.com

From: Erin Harris, PE [<mailto:erin@starconsultingaz.com>]
Sent: Friday, December 07, 2012 10:44 AM
To: 'Timothy Dinkel'
Cc: aptcreator@hotmail.com; bob@gmlawaz.com
Subject: RE: Facility Maps for the SW Corner of Sabino and River

Tim,

Thank you – I appreciate the update. I have copied the Owner so he is aware of your status.

Thank you and have a great weekend!

Erin E. Harris, P.E.
STAR Consulting

Cell: (520) 425-3795
erin@starconsultingaz.com

From: Timothy Dinkel [<mailto:tdinkel@metrowater.com>]
Sent: Friday, December 07, 2012 10:13 AM
To: 'Erin Harris, PE'
Subject: RE: Facility Maps for the SW Corner of Sabino and River

Erin,

I do have the preliminary modeling results, though still need to meet with our operational people before finalizing the response.

Should have some answers for you early next week.

Tim

From: Erin Harris, PE [<mailto:erin@starconsultingaz.com>]
Sent: Friday, December 07, 2012 9:56 AM
To: 'Timothy Dinkel'



Cc: aptcreator@hotmail.com; wayne@bflconstruction.com
Subject: RE: Facility Maps for the SW Corner of Sabino and River

Tim,

I wanted to check in with you on the status of this project. Have you had a chance to look into this? The water service requirements are quickly becoming a very critical component of our feasibility.

Thank you,

Erin E. Harris, P.E.
STAR Consulting

Cell: (520) 425-3795
erin@starconsultingaz.com

From: Erin Harris, PE [<mailto:erin@starconsultingaz.com>]
Sent: Thursday, November 15, 2012 6:54 PM
To: 'Timothy Dinkel'
Cc: Roger Karber <aptcreator@hotmail.com> (aptcreator@hotmail.com); wayne@bflconstruction.com
Subject: RE: Facility Maps for the SW Corner of Sabino and River

Tim,

Thank you again for taking some time to talk with me today. We are looking forward to working with Metro Water.

Our proposed development is at the southwest corner of Sabino and River. As you can see, the parcel does not quite extend all the way to Cloud. We are proposing 59 residential units and all will be sprinklered. I would anticipate a fire flow requirement of 1500 GPM for 2 hours, but can verify with the fire district in the coming days.

By this email, I am requesting for your team to begin work on the hydraulic analysis of this area. Your response is critical to the progress of our development. Please let me know if I can be of any assistance.

Thank you again,

Erin E. Harris, P.E.
STAR Consulting
5405 E. Placita Hayuco
Tucson, AZ 85718
Office/Fax: (520) 529-1240
Cell: (520) 425-3795
erin@starconsultingaz.com

From: Timothy Dinkel [<mailto:tdinkel@metrowater.com>]
Sent: Thursday, November 15, 2012 2:57 PM
To: erin@starconsultingaz.com
Subject: Facility Maps for the SW Corner of Sabino and River

Erin,

Attached please find the facility maps we discussed for 13-15-29, and the section to the west of 13-15-30.



As you will note, we primarily have existing 6-inch facilities in the area in the Sabino/River intersection, as well as farther south in Cloud Road, and the initial thought by our District Engineer was for some form of loop between the two through this development, assuming the combined flow exists to meet your needs.

Please reply back with your contact info and request for us to do a hydraulic analysis of this area. I assume you will want us to model the same 1500 gpm for 2 hrs as with other projects? Let me know.

I look forward to working with you on this project!

Sincerely,

Timothy Dinkel
Development Supervisor
Metropolitan Domestic Water Improvement District (MDWID)

tdinkel@metrowater.com
(520) 575-8100 office
(520) 209-2817 direct
(520) 575-8454 fax
www.metrowater.com

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.2793 / Virus Database: 2629/5895 - Release Date: 11/14/12

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.2793 / Virus Database: 2634/5939 - Release Date: 12/05/12

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.2793 / Virus Database: 2634/5924 - Release Date: 11/28/12

Internal Virus Database is out of date.

No virus found in this message.

Checked by AVG - www.avg.com

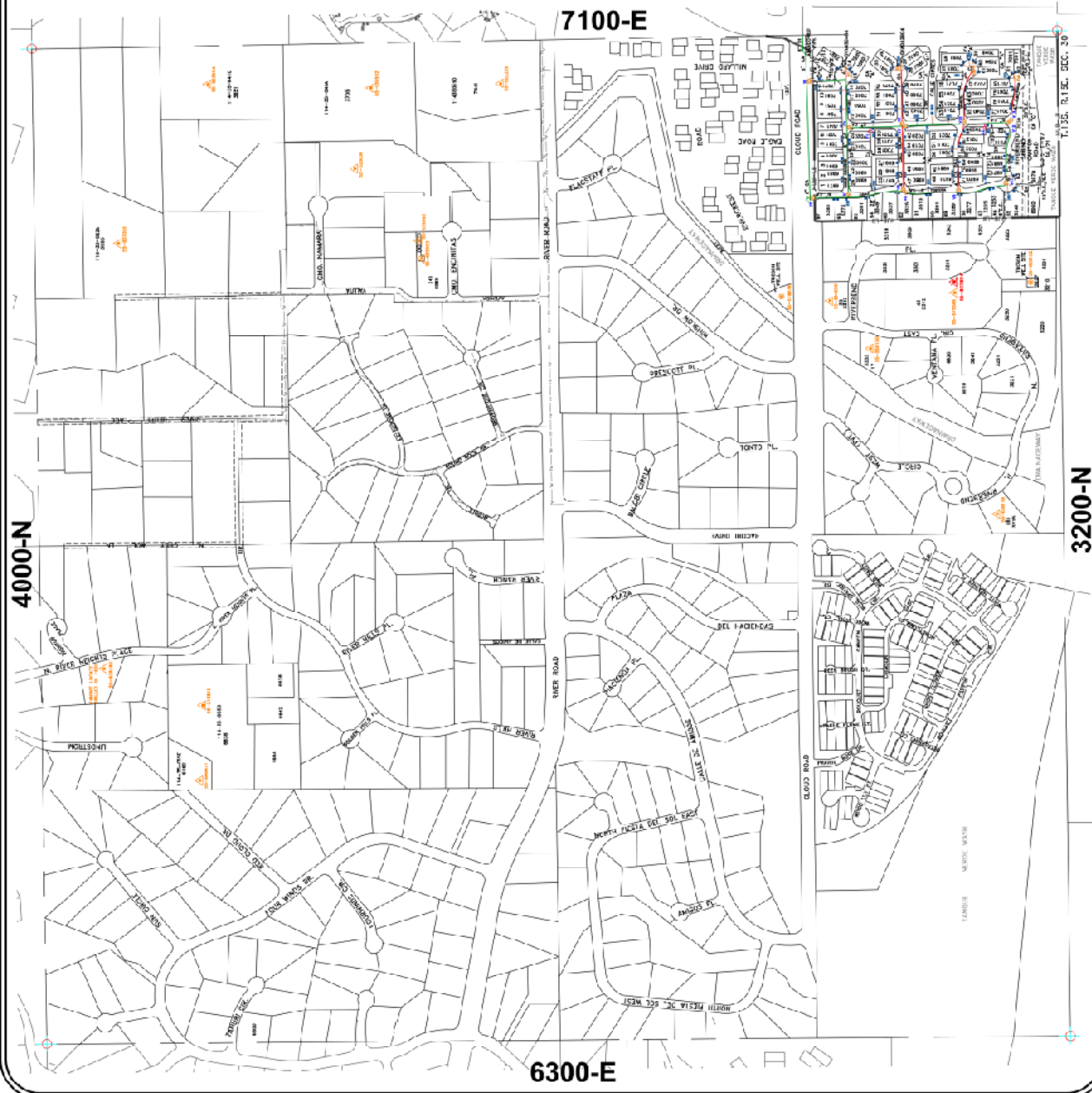
Version: 2013.0.2805 / Virus Database: 2634/5951 - Release Date: 12/11/12

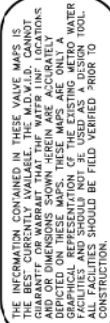
No virus found in this message.

Checked by AVG - www.avg.com

Version: 2013.0.2805 / Virus Database: 2634/5947 - Release Date: 12/09/12

■





Pico

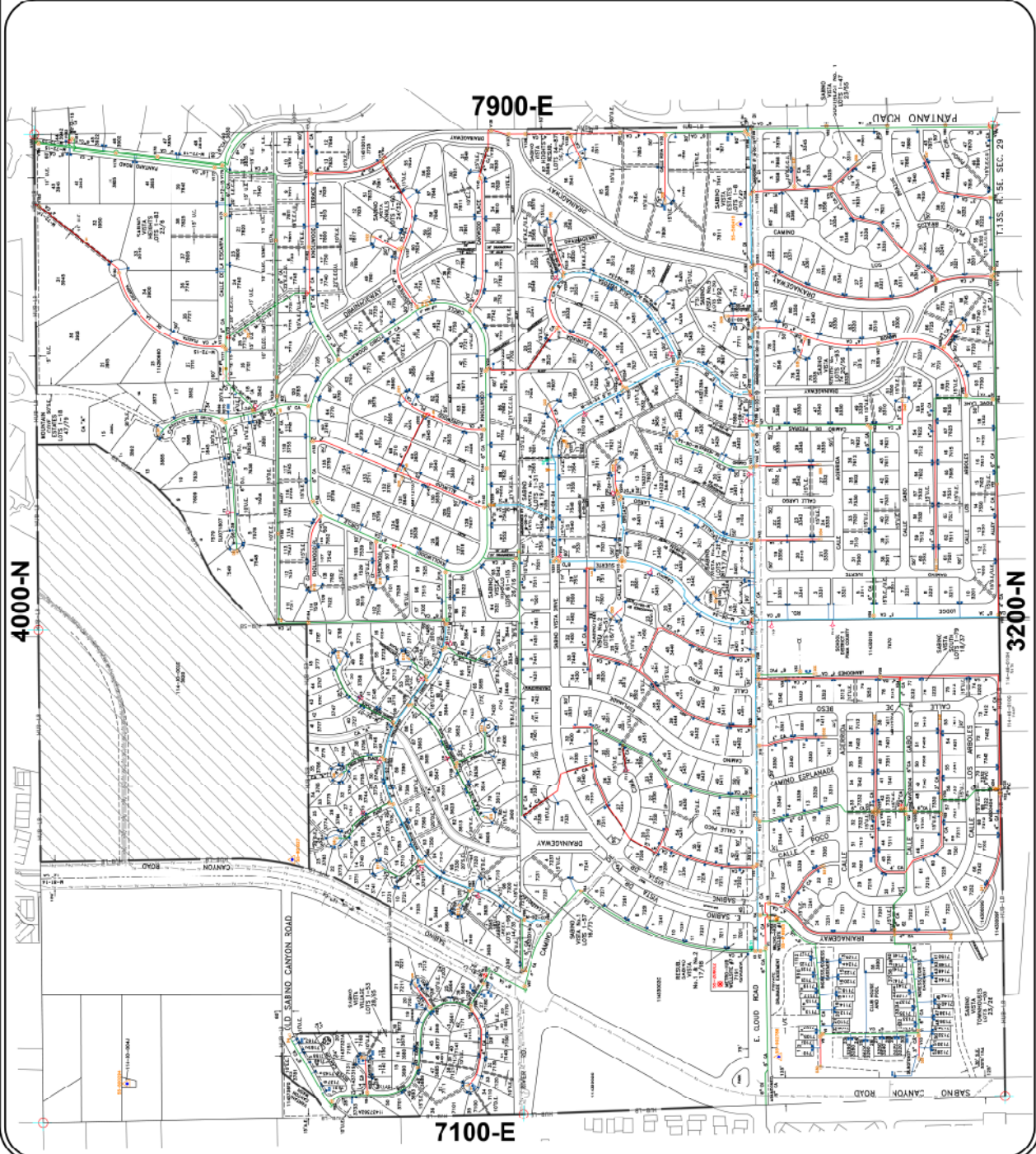
Boundary	10" & 12" Pipe	16" Pipe	20" Pipe	24" Pipe	30" Pipe	36" Pipe	42" Pipe	48" Pipe	60" Pipe	72" Pipe	84" Pipe	96" Pipe	108" Pipe	120" Pipe	144" Pipe	168" Pipe	192" Pipe	216" Pipe	240" Pipe	288" Pipe	336" Pipe	384" Pipe	432" Pipe	480" Pipe	528" Pipe	576" Pipe	624" Pipe	672" Pipe	720" Pipe	768" Pipe	816" Pipe	864" Pipe	912" Pipe	960" Pipe	1008" Pipe	1056" Pipe	1104" Pipe	1152" Pipe	1200" Pipe	1248" Pipe	1296" Pipe	1344" Pipe	1392" Pipe	1440" Pipe	1488" Pipe	1536" Pipe	1584" Pipe	1632" Pipe	1680" Pipe	1728" Pipe	1776" Pipe	1824" Pipe	1872" Pipe	1920" Pipe	1968" Pipe	2016" Pipe	2064" Pipe	2112" Pipe	2160" Pipe	2208" Pipe	2256" Pipe	2304" Pipe	2352" Pipe	2400" Pipe	2448" Pipe	2496" Pipe	2544" Pipe	2592" Pipe	2640" Pipe	2688" Pipe	2736" Pipe	2784" Pipe	2832" Pipe	2880" Pipe	2928" Pipe	2976" Pipe	3024" Pipe	3072" Pipe	3120" Pipe	3168" Pipe	3216" Pipe	3264" Pipe	3312" Pipe	3360" Pipe	3408" Pipe	3456" Pipe	3504" Pipe	3552" Pipe	3600" Pipe	3648" Pipe	3696" Pipe	3744" Pipe	3792" Pipe	3840" Pipe	3888" Pipe	3936" Pipe	3984" Pipe	4032" Pipe	4080" Pipe	4128" Pipe	4176" Pipe	4224" Pipe	4272" Pipe	4320" Pipe	4368" Pipe	4416" Pipe	4464" Pipe	4512" Pipe	4560" Pipe	4608" Pipe	4656" Pipe	4704" Pipe	4752" Pipe	4800" Pipe	4848" Pipe	4896" Pipe	4944" Pipe	4992" Pipe	5040" Pipe	5088" Pipe	5136" Pipe	5184" Pipe	5232" Pipe	5280" Pipe	5328" Pipe	5376" Pipe	5424" Pipe	5472" Pipe	5520" Pipe	5568" Pipe	5616" Pipe	5664" Pipe	5712" Pipe	5760" Pipe	5808" Pipe	5856" Pipe	5904" Pipe	5952" Pipe	6000" Pipe	6048" Pipe	6096" Pipe	6144" Pipe	6192" Pipe	6240" Pipe	6288" Pipe	6336" Pipe	6384" Pipe	6432" Pipe	6480" Pipe	6528" Pipe	6576" Pipe	6624" Pipe	6672" Pipe	6720" Pipe	6768" Pipe	6816" Pipe	6864" Pipe	6912" Pipe	6960" Pipe	7008" Pipe	7056" Pipe	7104" Pipe	7152" Pipe	7200" Pipe	7248" Pipe	7296" Pipe	7344" Pipe	7392" Pipe	7440" Pipe	7488" Pipe	7536" Pipe	7584" Pipe	7632" Pipe	7680" Pipe	7728" Pipe	7776" Pipe	7824" Pipe	7872" Pipe	7920" Pipe	7968" Pipe	8016" Pipe	8064" Pipe	8112" Pipe	8160" Pipe	8208" Pipe	8256" Pipe	8304" Pipe	8352" Pipe	8400" Pipe	8448" Pipe	8496" Pipe	8544" Pipe	8592" Pipe	8640" Pipe	8688" Pipe	8736" Pipe	8784" Pipe	8832" Pipe	8880" Pipe	8928" Pipe	8976" Pipe	9024" Pipe	9072" Pipe	9120" Pipe	9168" Pipe	9216" Pipe	9264" Pipe	9312" Pipe	9360" Pipe	9408" Pipe	9456" Pipe	9504" Pipe	9552" Pipe	9600" Pipe	9648" Pipe	9696" Pipe	9744" Pipe	9792" Pipe	9840" Pipe	9888" Pipe	9936" Pipe	9984" Pipe	10032" Pipe	10080" Pipe	10128" Pipe	10176" Pipe	10224" Pipe	10272" Pipe	10320" Pipe	10368" Pipe	10416" Pipe	10464" Pipe	10512" Pipe	10560" Pipe	10608" Pipe	10656" Pipe	10704" Pipe	10752" Pipe	10800" Pipe	10848" Pipe	10896" Pipe	10944" Pipe	10992" Pipe	11040" Pipe	11088" Pipe	11136" Pipe	11184" Pipe	11232" Pipe	11280" Pipe	11328" Pipe	11376" Pipe	11424" Pipe	11472" Pipe	11520" Pipe	11568" Pipe	11616" Pipe	11664" Pipe	11712" Pipe	11760" Pipe	11808" Pipe	11856" Pipe	11904" Pipe	11952" Pipe	12000" Pipe	12048" Pipe	12096" Pipe	12144" Pipe	12192" Pipe	12240" Pipe	12288" Pipe	12336" Pipe	12384" Pipe	12432" Pipe	12480" Pipe	12528" Pipe	12576" Pipe	12624" Pipe	12672" Pipe	12720" Pipe	12768" Pipe	12816" Pipe	12864" Pipe	12912" Pipe	12960" Pipe	13008" Pipe	13056" Pipe	13104" Pipe	13152" Pipe	13200" Pipe	13248" Pipe	13296" Pipe	13344" Pipe	13392" Pipe	13440" Pipe	13488" Pipe	13536" Pipe	13584" Pipe	13632" Pipe	13680" Pipe	13728" Pipe	13776" Pipe	13824" Pipe	13872" Pipe	13920" Pipe	13968" Pipe	14016" Pipe	14064" Pipe	14112" Pipe	14160" Pipe	14208" Pipe	14256" Pipe	14304" Pipe	14352" Pipe	14400" Pipe	14448" Pipe	14496" Pipe	14544" Pipe	14592" Pipe	14640" Pipe	14688" Pipe	14736" Pipe	14784" Pipe	14832" Pipe	14880" Pipe	14928" Pipe	14976" Pipe	15024" Pipe	15072" Pipe	15120" Pipe	15168" Pipe	15216" Pipe	15264" Pipe	15312" Pipe	15360" Pipe	15408" Pipe	15456" Pipe	15504" Pipe	15552" Pipe	15600" Pipe	15648" Pipe	15696" Pipe	15744" Pipe	15792" Pipe	15840" Pipe	15888" Pipe	15936" Pipe	15984" Pipe	16032" Pipe	16080" Pipe	16128" Pipe	16176" Pipe	16224" Pipe	16272" Pipe	16320" Pipe	16368" Pipe	16416" Pipe	16464" Pipe	16512" Pipe	16560" Pipe	16608" Pipe	16656" Pipe	16704" Pipe	16752" Pipe	16800" Pipe	16848" Pipe	16896" Pipe	16944" Pipe	16992" Pipe	17040" Pipe	17088" Pipe	17136" Pipe	17184" Pipe	17232" Pipe	17280" Pipe	17328" Pipe	17376" Pipe	17424" Pipe	17472" Pipe	17520" Pipe	17568" Pipe	17616" Pipe	17664" Pipe	17712" Pipe	17760" Pipe	17808" Pipe	17856" Pipe	17904" Pipe	17952" Pipe	18000" Pipe	18048" Pipe	18096" Pipe	18144" Pipe	18192" Pipe	18240" Pipe	18288" Pipe	18336" Pipe	18384" Pipe	18432" Pipe	18480" Pipe	18528" Pipe	18576" Pipe	18624" Pipe	18672" Pipe	18720" Pipe	18768" Pipe	18816" Pipe	18864" Pipe	18912" Pipe	18960" Pipe	19008" Pipe	19056" Pipe	19104" Pipe	19152" Pipe	19200" Pipe	19248" Pipe	19296" Pipe	19344" Pipe	19392" Pipe	19440" Pipe	19488" Pipe	19536" Pipe	19584" Pipe	19632" Pipe	19680" Pipe	19728" Pipe	19776" Pipe	19824" Pipe	19872" Pipe	19920" Pipe	19968" Pipe	20016" Pipe	20064" Pipe	20112" Pipe	20160" Pipe	20208" Pipe	20256" Pipe	20304" Pipe	20352" Pipe	20400" Pipe	20448" Pipe	20496" Pipe	20544" Pipe	20592" Pipe	20640" Pipe	20688" Pipe	20736" Pipe	20784" Pipe	20832" Pipe	20880" Pipe	20928" Pipe	20976" Pipe	21024" Pipe	21072" Pipe	21120" Pipe	21168" Pipe	21216" Pipe	21264" Pipe	21312" Pipe	21360" Pipe	21408" Pipe	21456" Pipe	21504" Pipe	21552" Pipe	21600" Pipe	21648" Pipe	21696" Pipe	21744" Pipe	21792" Pipe	21840" Pipe	21888" Pipe	21936" Pipe	21984" Pipe	22032" Pipe	22080" Pipe	22128" Pipe	22176" Pipe	22224" Pipe	22272" Pipe	22320" Pipe	22368" Pipe	22416" Pipe	22464" Pipe	22512" Pipe	22560" Pipe	22608" Pipe	22656" Pipe	22704" Pipe	22752" Pipe	22800" Pipe	22848" Pipe	22896" Pipe	22944" Pipe	22992" Pipe	23040" Pipe	23088" Pipe	23136" Pipe	23184" Pipe	23232" Pipe	23280" Pipe	23328" Pipe	23376" Pipe	23424" Pipe	23472" Pipe	23520" Pipe	23568" Pipe	23616" Pipe	23664" Pipe	23712" Pipe	23760" Pipe	23808" Pipe	23856" Pipe	23904" Pipe	23952" Pipe	24000" Pipe	24048" Pipe	24096" Pipe	24144" Pipe	24192" Pipe	24240" Pipe	24288" Pipe	24336" Pipe	24384" Pipe	24432" Pipe	24480" Pipe	24528" Pipe	24576" Pipe	24624" Pipe	24672" Pipe	24720" Pipe	24768" Pipe	24816" Pipe	24864" Pipe	24912" Pipe	24960" Pipe	25008" Pipe	25056" Pipe	25104" Pipe	25152" Pipe	25200" Pipe	25248" Pipe	25296" Pipe	25344" Pipe	25392" Pipe	25440" Pipe	25488" Pipe	25536" Pipe	25584" Pipe	25632" Pipe	25680" Pipe	25728" Pipe	25776" Pipe	25824" Pipe	25872" Pipe	25920" Pipe	25968" Pipe	26016" Pipe	26064" Pipe	26112" Pipe	26160" Pipe	26208" Pipe	26256" Pipe	26304" Pipe	26352" Pipe	26400" Pipe	26448" Pipe	26496" Pipe	26544" Pipe	26592" Pipe	26640" Pipe	26688" Pipe	26736" Pipe	26784" Pipe	26832" Pipe	26880" Pipe	26928" Pipe	26976" Pipe	27024" Pipe	27072" Pipe	27120" Pipe	27168" Pipe	27216" Pipe	27264" Pipe	27312" Pipe	27360" Pipe	27408" Pipe	27456" Pipe	27504" Pipe	27552" Pipe	27600" Pipe	27648" Pipe	27696" Pipe	27744" Pipe	27792" Pipe	27840" Pipe	27888" Pipe	27936" Pipe	27984" Pipe	28032" Pipe	28080" Pipe	28128" Pipe	28176" Pipe	28224" Pipe	28272" Pipe	28320" Pipe	28368" Pipe	28416" Pipe	28464" Pipe	28512" Pipe	28560" Pipe	28608" Pipe	28656" Pipe	28704" Pipe	28752" Pipe	28800" Pipe	28848" Pipe	28896" Pipe	28944" Pipe	28992" Pipe	29040" Pipe	29088" Pipe	29136" Pipe	29184" Pipe	29232" Pipe	29280" Pipe	29328" Pipe	29376" Pipe	29424" Pipe	29472" Pipe	29520" Pipe	29568" Pipe	29616" Pipe	29664" Pipe	29712" Pipe	29760" Pipe	29808" Pipe	29856" Pipe	29904" Pipe	29952" Pipe	30000" Pipe
1"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</																																																																																																																							

[illegible][illegible]

Map Reference



Drawing Name: MW131529_R.DWG
Sheet Number: 37
Printing Date: 10, 2010
Setup By: v. MICHAEL
Scale: 1"=300'



November 14, 2012



CITY OF
TUCSON
TUCSON WATER
DEPARTMENT

STAR Consulting
5405 E. Placita Hayuco
Tucson, AZ 85718

Attn: Erin Harris, P.E.

**SUBJECT: Water Availability for project: SWC River Road and Sabino Canyon Road,
APN: 11433002E, Case #: N/A, T-13, R-15, SEC-29, Lots: 9999, Location Code: PC, Total
Area: 5.61ac, Zoning: SR**

Tucson Water has no current plans to provide water service to this area. Please contact the Arizona Corporation Commission at 628-6550 to determine if another water provider is close to the subject property.

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

Sincerely,

A handwritten signature in black ink, appearing to read "SS" followed by a stylized flourish.

Scott Schladweiler, P.E.
Engineering Manager
Tucson Water Department

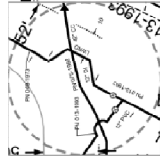
SS:bjp
CC: File



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



 <u>ABANDONMENTS:</u>	DESCRIPTION	
	NUMBER	



- Legend**
- Booster
 - CTS
 - CTSVenue
 - CTSVenue/door/corridor
 - Recycler
 - A/Raise Valve
 - Bypass Valve
 - Door/Window
 - Fire/Firection
 - Material/Fire Protection
 - Isolation Outlet
 - End Cap
 - Plugged Cross
 - Plugged Tee
 - Plug Tee
 - Shut Off
 - Threat/Fire On
 - Open Gate Valve
 - Closed Gate Valve
 - Open in Half
 - Closed in Half
 - Open Fully
 - Closed Fully
 - Open in 1 minute
 - Closed in 1 minute
 - Open in 2 minutes
 - Closed in 2 minutes
 - Open in 3 minutes
 - Closed in 3 minutes
 - Open in 4 minutes
 - Closed in 4 minutes
 - Open in 5 minutes
 - Closed in 5 minutes
 - Open in 6 minutes
 - Closed in 6 minutes
 - Open in 7 minutes
 - Closed in 7 minutes
 - Open in 8 minutes
 - Closed in 8 minutes
 - Open in 9 minutes
 - Closed in 9 minutes
 - Open in 10 minutes
 - Closed in 10 minutes
 - Open in 11 minutes
 - Closed in 11 minutes
 - Open in 12 minutes
 - Closed in 12 minutes
 - Open in 13 minutes
 - Closed in 13 minutes
 - Open in 14 minutes
 - Closed in 14 minutes
 - Open in 15 minutes
 - Closed in 15 minutes
 - Open in 16 minutes
 - Closed in 16 minutes
 - Open in 17 minutes
 - Closed in 17 minutes
 - Open in 18 minutes
 - Closed in 18 minutes
 - Open in 19 minutes
 - Closed in 19 minutes
 - Open in 20 minutes
 - Closed in 20 minutes
 - Open in 21 minutes
 - Closed in 21 minutes
 - Open in 22 minutes
 - Closed in 22 minutes
 - Open in 23 minutes
 - Closed in 23 minutes
 - Open in 24 minutes
 - Closed in 24 minutes
 - Open in 25 minutes
 - Closed in 25 minutes
 - Open in 26 minutes
 - Closed in 26 minutes
 - Open in 27 minutes
 - Closed in 27 minutes
 - Open in 28 minutes
 - Closed in 28 minutes
 - Open in 29 minutes
 - Closed in 29 minutes
 - Open in 30 minutes
 - Closed in 30 minutes
 - Open in 31 minutes
 - Closed in 31 minutes
 - Open in 32 minutes
 - Closed in 32 minutes
 - Open in 33 minutes
 - Closed in 33 minutes
 - Open in 34 minutes
 - Closed in 34 minutes
 - Open in 35 minutes
 - Closed in 35 minutes
 - Open in 36 minutes
 - Closed in 36 minutes
 - Open in 37 minutes
 - Closed in 37 minutes
 - Open in 38 minutes
 - Closed in 38 minutes
 - Open in 39 minutes
 - Closed in 39 minutes
 - Open in 40 minutes
 - Closed in 40 minutes
 - Open in 41 minutes
 - Closed in 41 minutes
 - Open in 42 minutes
 - Closed in 42 minutes
 - Open in 43 minutes
 - Closed in 43 minutes
 - Open in 44 minutes
 - Closed in 44 minutes
 - Open in 45 minutes
 - Closed in 45 minutes
 - Open in 46 minutes
 - Closed in 46 minutes
 - Open in 47 minutes
 - Closed in 47 minutes
 - Open in 48 minutes
 - Closed in 48 minutes
 - Open in 49 minutes
 - Closed in 49 minutes
 - Open in 50 minutes
 - Closed in 50 minutes
 - Open in 51 minutes
 - Closed in 51 minutes
 - Open in 52 minutes
 - Closed in 52 minutes
 - Open in 53 minutes
 - Closed in 53 minutes
 - Open in 54 minutes
 - Closed in 54 minutes
 - Open in 55 minutes
 - Closed in 55 minutes
 - Open in 56 minutes
 - Closed in 56 minutes
 - Open in 57 minutes
 - Closed in 57 minutes
 - Open in 58 minutes
 - Closed in 58 minutes
 - Open in 59 minutes
 - Closed in 59 minutes
 - Open in 60 minutes
 - Closed in 60 minutes
 - Open in 61 minutes
 - Closed in 61 minutes
 - Open in 62 minutes
 - Closed in 62 minutes
 - Open in 63 minutes
 - Closed in 63 minutes
 - Open in 64 minutes
 - Closed in 64 minutes
 - Open in 65 minutes
 - Closed in 65 minutes
 - Open in 66 minutes
 - Closed in 66 minutes
 - Open in 67 minutes
 - Closed in 67 minutes
 - Open in 68 minutes
 - Closed in 68 minutes
 - Open in 69 minutes
 - Closed in 69 minutes
 - Open in 70 minutes
 - Closed in 70 minutes
 - Open in 71 minutes
 - Closed in 71 minutes
 - Open in 72 minutes
 - Closed in 72 minutes
 - Open in 73 minutes
 - Closed in 73 minutes
 - Open in 74 minutes
 - Closed in 74 minutes
 - Open in 75 minutes
 - Closed in 75 minutes
 - Open in 76 minutes
 - Closed in 76 minutes
 - Open in 77 minutes
 - Closed in 77 minutes
 - Open in 78 minutes
 - Closed in 78 minutes
 - Open in 79 minutes
 - Closed in 79 minutes
 - Open in 80 minutes
 - Closed in 80 minutes
 - Open in 81 minutes
 - Closed in 81 minutes
 - Open in 82 minutes
 - Closed in 82 minutes
 - Open in 83 minutes
 - Closed in 83 minutes
 - Open in 84 minutes
 - Closed in 84 minutes
 - Open in 85 minutes
 - Closed in 85 minutes
 - Open in 86 minutes
 - Closed in 86 minutes
 - Open in 87 minutes
 - Closed in 87 minutes
 - Open in 88 minutes
 - Closed in 88 minutes
 - Open in 89 minutes
 - Closed in 89 minutes
 - Open in 90 minutes
 - Closed in 90 minutes
 - Open in 91 minutes
 - Closed in 91 minutes
 - Open in 92 minutes
 - Closed in 92 minutes
 - Open in 93 minutes
 - Closed in 93 minutes
 - Open in 94 minutes
 - Closed in 94 minutes
 - Open in 95 minutes
 - Closed in 95 minutes
 - Open in 96 minutes
 - Closed in 96 minutes
 - Open in 97 minutes
 - Closed in 97 minutes
 - Open in 98 minutes
 - Closed in 98 minutes
 - Open in 99 minutes
 - Closed in 99 minutes
 - Open in 100 minutes
 - Closed in 100 minutes



SW291315
PRINT DATE: August 09, 2012

5. WATER DEMAND PROJECTIONS

a. Water Demand

The requested zoning is CR-4 and the proposed land use is multi-family residential. The average site space per unit is 4,287 SF. The estimated annual baseline water demand is 13.25 acre-feet (53 units * 0.25 acre feet/unit). In addition to the homes, the project will also have a pool and irrigated landscaping. The pool is estimated to increase the water demand by 0.11 acre-feet (10g/d/swimmer * 10 swimmers/d). The landscape will be irrigated until it is established and stable. The landscape will be comprised of native, drought tolerant plant varieties. The landscaped areas will be depressed as to take advantage of onsite water harvesting. Based on these factors, an increase to the annual baseline water demand for this site would be inconsequential to the calculation.

b. Water Conservation

The Developer is committed to reducing water waste and encouraging water conservation throughout the development. The following measures are proposed for this development (15 total points proposed):

I-6: Install lavatory faucets that meet the proposed EPA's WaterSense™ criteria or have a maximum flow rate of 1.5 gpm @ 80 psi of pressure (3 points)

I-7: Install showerheads that meet the proposed EPA's WaterSense™ criteria or have a maximum flow rate of 1.5 gpm @ 80 psi of pressure (3 points)

I-8: Install toilets that meet the EPA's WaterSense™ rating (1.28 gpf) (3 points)

I-10: Install a washing machine with a water factor of 6.0 or less (2 points)

I-12: Install a refrigerator with an in-door filtered water system (0.5 points)

O-4: Install a gutter and downspout system or canals that tie to storm water infiltration trenches, bioswales, or rain gardens (2 points)

O-15: Install a high efficiency irrigation system that uses:

b. Check valves in heads and heads matched to the beds distinct watering needs (0.5 points)

d. A timer/controller that irrigates during the hours of 1- pm-8am to minimize evaporation (0.5 points)

e. Drip irrigation for all planting beds (0.5 points)

6. PROXIMITY TO RENEWABLE AND POTABLE WATER SUPPLIES

This section is not applicable to this development.

7. GROUNDWATER-DEPENDANT ECOSYSTEMS

This section is not applicable to this development.

8. GROUNDWATER DEPTHS AND TRENDS

This section is not applicable to this development.

9. GEOLOGIC AND HYDROGEOLOGIC DATA

This section is not applicable to this development.

10. AREA WATER SUPPLY

This section is not applicable to this development.

11. WELL TEST DATA

This section is not applicable to this development.

12. DRAWDOWN ANALYSIS

This section is not applicable to this development.

II-L SCHOOLS

1. ACCESS TO ADJACENT OR ON-SITE SCHOOLS

There are no public or private schools adjacent to or within the proposed site. The section of text is not applicable to this site.

2. SCHOOL CAPACITY ANALYSIS AND LETTER

A school capacity analysis response has been received from Tucson Unified School District and is shown in Exhibit II-L.2.

3. AGREEMENT WITH SCHOOL DISTRICT FOR MITIGATION

At the time of this report, there have been no communications with the applicable school district regarding the mitigation of impacts of the proposed development.



TUCSON UNIFIED SCHOOL DISTRICT
 Department of Engineering, Facilities and Planning
 Planning Services Section
 2025 East Winsett Street
 Tucson, Arizona 85719
 (520) 225-4949
 (520) 225-4939 (fax)



To: Erin E. Harris, P.E.

From: Shaun Brown
 Planning Technician

Date: December 17, 2012

Re: Case/Project #:
 Project Name: Southwest corner of River and Sabino Road
 New Units: 57

IMPACTED SCHOOLS	CAPACITY	PROJECTED 2015 ENROLL	ADDITIONAL STUDENTS FROM PROJECT	PROJECTED ENROLL WITH PROJECT	STUDENTS EXCEEDING CAPACITY
Fruchthendler Elementary	450	350	14	364	-86 / -24%
Ft Lowell/Townsend K-8	650	489	8	497	-153 / -19%
Sabino High	1950	1150	10	1160	-790 / -41%

Response:

Based on projected enrollment at TUSD there is capacity to absorb the impact of proposed fifty-seven residential, luxury and rental communities. There would be no impact to any of the school shown above.

M:\Planning\Projects\Hp1600 drivers\Development Review\2012\Rezoning Request for Capacity Analysis.doc



II-M RECREATION AND TRAILS

1. ON-SITE RECREATION

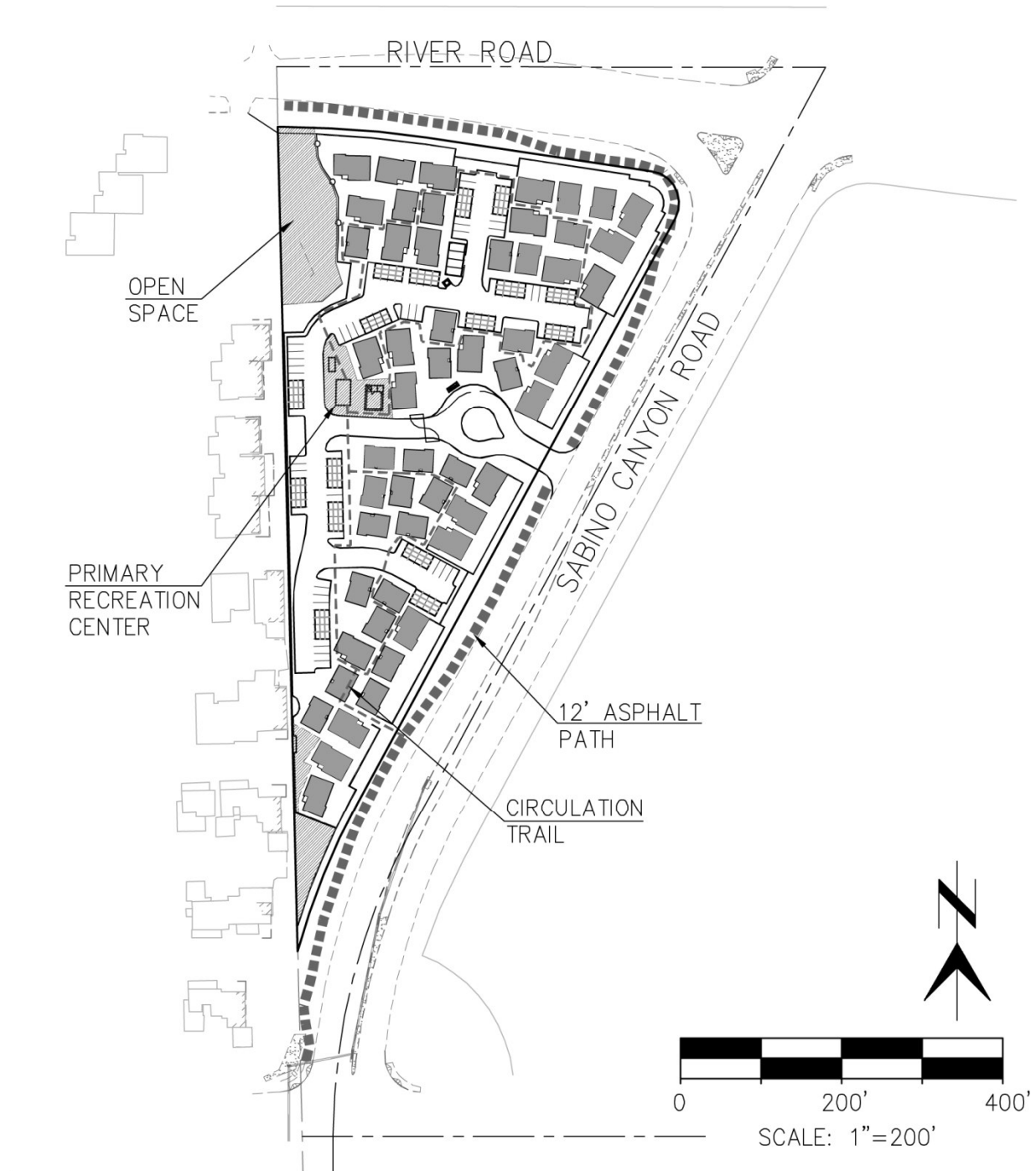
Aerie at Sabino and River West has been planned with enhanced amenities consistent with Alta Vista's desire to create an upscale multi-family community where residents will be able to play, relax, or socialize in a pleasing environment. Please see Exhibit II-M.1 for location of recreation areas. The amenities include a resort style swimming pool and spa, outdoor lawn and lounge areas and a ramada. The onsite amenities are connected to a full site circulation system. This system is designed with the walking resident in mind - giving them access to a 0.30 mile exercise loop. This is comprised of both concrete walks in higher traffic areas and stabilized DG in less traveled areas.

2. OWNERSHIP OF RECREATION AREAS

The ownership and maintenance responsibility of the recreation areas and open space will remain with the Developer, who will also own the entire development. The units are rental units and not proposed to be available for resale.

3. PROPOSED TRAILS ON OR OFF-SITE

Trails are not proposed within the site.



SOURCE: ALTA SURVEY 10/16/12

II-N CULTURAL RESOURCES: ARCHAEOLOGICAL AND HISTORIC SITES

1. PROTECTION OF KNOWN CULTURAL RESOURCES

The Arizona State Museum has identified that no previously recorded archeological or historic resources are known to exist on the site and no cultural resource surveys have been conducted on the site (see the Pima County Archeological Records Check Form, Exhibit I-L).

2. MITIGATION MEASURES OF POTENTIAL RESOURCES

Prior to ground modifying activities, an on-the-ground archeological and historic sites survey shall be conducted on the subject property, and submitted to Pima County for review. A cultural resources mitigation plan for any identified archeological and historic sites on the subject property shall be submitted to Pima County at the time of, or prior to, the submittal of any tentative plat or development plan. All work shall be conducted by an archeologist permitted by the Arizona State Museum, or a registered archeologist, as appropriate. Following rezoning approval, any subsequent development requiring a Type 2 grading permit will be reviewed for compliance with Pima County's cultural resources requirements under Chapter 18.81 f the Pima County Zoning Code.

3. CULTURAL RESOURCES MITIGATION PLAN

In the event that cultural resources are revealed during ground-disturbing activities, all construction shall cease, and consultation shall be initiated with Arizona State Museum (ASM) to assess the potential significance of any unearthed materials (ARS §41-841). If human skeletal remains or funerary objects are discovered, ASM will be contacted immediately (ARS §41-865 and ARS §41-844).

II-O ENVIRONMENTAL QUALITY

1. METHODS OF CONTROLLING DUST POLLUTION

Dust Pollution will be controlled by the means and methods outlined in the Dust Control Permit and Storm water Pollution Protection Plan. This generally includes using a water truck during all grading operations. The wetted dirt is less likely to become dust pollution. This also includes limiting the time that the site is left disturbed and unfinished. The developer is proposing an aggressive construction schedule and all construction will be completed in one phase.

The Developer further assures that all newly created roads, road widening, PAALs and parking areas will be paved with asphalt or concrete pavement to County standards for public or private improvements as appropriate for the improvement.

2. AIR QUALITY AND HAZARDOUS MATERIALS FOR NON-RESIDENTIAL PROJECTS

The proposed use for this site is residential and therefore, this section has been omitted.

II-P AGREEMENTS

The Developer and Owner have worked with the surrounding neighborhoods at length to develop a reasonable and sensitive project for this area. The project team has attended the following project meetings with the neighbors:

Meetings: 11/06/12: Riverbend Estates Site Meeting
 11/14/12: Riverbend Estates HOA Meeting
 11/29/12: Neighborhood Meeting - 1000' Notification
 12/04/12: Meeting with resident, Carol Dean

Future Meetings are planned for additional Riverbend Estates Board and Neighborhood Meetings.

The discussions have focused on the priorities of the immediately adjacent neighbors to the west of the site. The Riverbend Estates HOA Board has been instrumental in the neighborhood discussions. The following design elements have been offered by the Owner and Developer and received by the neighbors as acceptable answers to their questions and concerns:

Affirmation of Stated Project Design Objectives:

- Luxury, rental community
- Single story development
- One entrance to the development - entrance from Sabino Canyon Road
- Two bedroom and Three bedroom rental homes
- Each rental home will have a private rear yard

In addition to the issues raised above, the Owner and Developer have offered the following concessions in an effort to fully cooperate with the surrounding communities and address specific concerns:


Cooperative Efforts by the Applicant:

- The site plan has been revised to create the affect of a larger building setback from the property line. The setback has not been quantitatively defined by the neighbors, but the current plan has been deemed acceptable with regard to building setback to the proposed residences.
- Prepare a Traffic Statement
- Construct a wall along the western property line (design details including height and material to be determined by adjacent HOA Board prior to construction) - material options

include masonry, brick or stone veneer, stucco, paint, wrought iron, or a combination of materials.

- Assist in the mitigation of the existing erosive flooding situation along the western property line. The Owner and Developer have agreed to reroute the watershed to remain onsite and reduce the impact on the affected homes.

EXHIBIT II-P.1 11/29/12 VOLUNTARY NEIGHBORHOOD MEETING SIGN-IN SHEET

<u>Name</u>	<u>Phone #</u>	<u>Address</u>	<u>Email</u>
Carol Syme	886-9764	3448 N. Millard Dr	
Terri Cohen	721-7623	3452 N. Millard	terri+terry@yahoo ^(a)
Wife Johanna Van Mayr	290-9822	3440 N. Millard	Desrat@theriver
Peggy + Steve Kent	820-0614	6930 E Rivercrest	pkent4@ ^(a) gmail.com
Nancy Rommel	4906963	3424 N. Millard	nrommel@msn.com
Guy Bailey	260-7123	3420 E. Millard	gibai612@hotmail
Bill Andersen	885-1551	6929 E. Rivercrest Rd	Andersenbill@usa.com
DEAN SMITH	344-3326	8001 E. FT LOWELL RD.	WFO@SABINO VISTA.COM
Heub Roberts	735-0394	7121 E. RIVER CANYON RD	rheub2@comcast.net
Bob Groendyke	3951929	7237 E. Cam. de Lima	
Esther Blumenfeld	298-4559	7140 E. River Canyon Rd	
J. Slayback	885-4179	7029 E. Rivercrest Rd	
Diane Lance	955-3960	6337 E Rivercrest	
Jim Nage	794-1909	3518 N. Millard	
Don + Mary	885-2250	7005 E. Rivercrest	
Judi Nikas	272-9255	7001 E. Rivercrest Rd	judnika@gmail.com
Linda Petersen-Vargas	516-670-7159	3561 N. Flagstaff Pl.	
Carol	751-4132	8826 W. Mojave	
Ruth Vegotsky	722-6544	3525 N. MILLARD	ruthveg@yahoo
Cindy Tsias	721-2485	3550 N. Flagstaff Pl.	edisc@comcast

Name	Phone#	address	e-mail
Ann Marsh	975-4502	3635 N. River Ridge Pl.	annwmme@pobox.com
B. Joni Burger	886-6064	3502 N. Millard Dr.	B.J.Burger.300@gmail.com
PATRICK + SHERRY McMAHON	751-1614	7241 E. CAMINO DE CIMA	PATRICK48@COMCAST.NET
Jenni Barbary Connor	886-1941	7147 E. River Canyon Cir. 3561 N. FLAGSTAFF	
FRANK VARGAS	207-450-6040	3506 N. Millard Dr.	castane@msn.com
JL & Raquel Castaneda	529-0104		
Jasmine Morian	623-570-5224	3510 N. Millard	jasmine.morian@gmail.com
Todd Phillips	520-909-3182	3510 N. Millard Dr.	toddphillips@gmail.com
MARY B. BERNAL	520-907-8799	LOT 56	
W Sommer	721-7878	Sabino Vista Village	