F. LANDSCAPE, BUFFERYARDS & VISUAL MITIGATION

1. Bufferyards in Accordance with Chapter 18.73

Exhibit II-F depicts the location of required landscape bufferyards in compliance with Chapter 18.73 (Landscape and Screening) of the Pima County Zoning Code. The final determination of each particular bufferyard option (with its attendant width and plant-density requirements) may be modified at the time of future subdivision platting, but we presently envision the following bufferyard construct for this project:

- A twenty-foot (20') wide, primarily natural Bufferyard "C" along the north, east and south boundaries. In two small locations, we are dealing with drainage constraints which will prevent a wholly natural treatment and will be landscape accordingly. These locations are: 1) an area near the northeast corner, where we are accepting incoming drainage from Valencia Middle School; and 2) the far northwest corner of the project, where our primary detention basin must be located.
- A twenty-foot (20') Bufferyard "A" along Camino de Oeste. This buffer will be a combination of preserved natural area and landscape treatment.

The graded and landscaped areas within the above buffers will be augmented with transplanted specimens salvaged from the property.

In addition, various portions of the perimeter natural-area buffers contain relatively sparse vegetation or have experienced minor disturbance. These areas will be enhanced with salvaged plant materials from the property; the enhancements will be detailed on the Native Plant Preservation Plan (NPPP) submitted at the time of future subdivision platting.

2. Conflicts with Bufferyards Due to Easements, Rights-of-Way, etc.

There are no conflicts with required bufferyards due to easements or rights-of-way. The sole easement on the property along Irvington Road lies within a proposed natural bufferyard. It is no longer an active easement and will be abandoned/released in conjunction with the project's future subdivision platting.

3. Impacts of Transplanted/Salvaged Vegetation in Bufferyard Areas

Portions of the perimeter natural bufferyards contain relatively sparse vegetation or have experienced minor disturbance from all-terrain vehicles and other unauthorized activity. As mentioned in Item #1 above, these areas will be enhanced with salvaged plant materials from the property, to be detailed on the Native Plant Preservation Plan (NPPP) submitted at the time of future subdivision platting. Such salvaged specimens can be easily accommodated in these areas and will constitute a material improvement of their existing aesthetics.

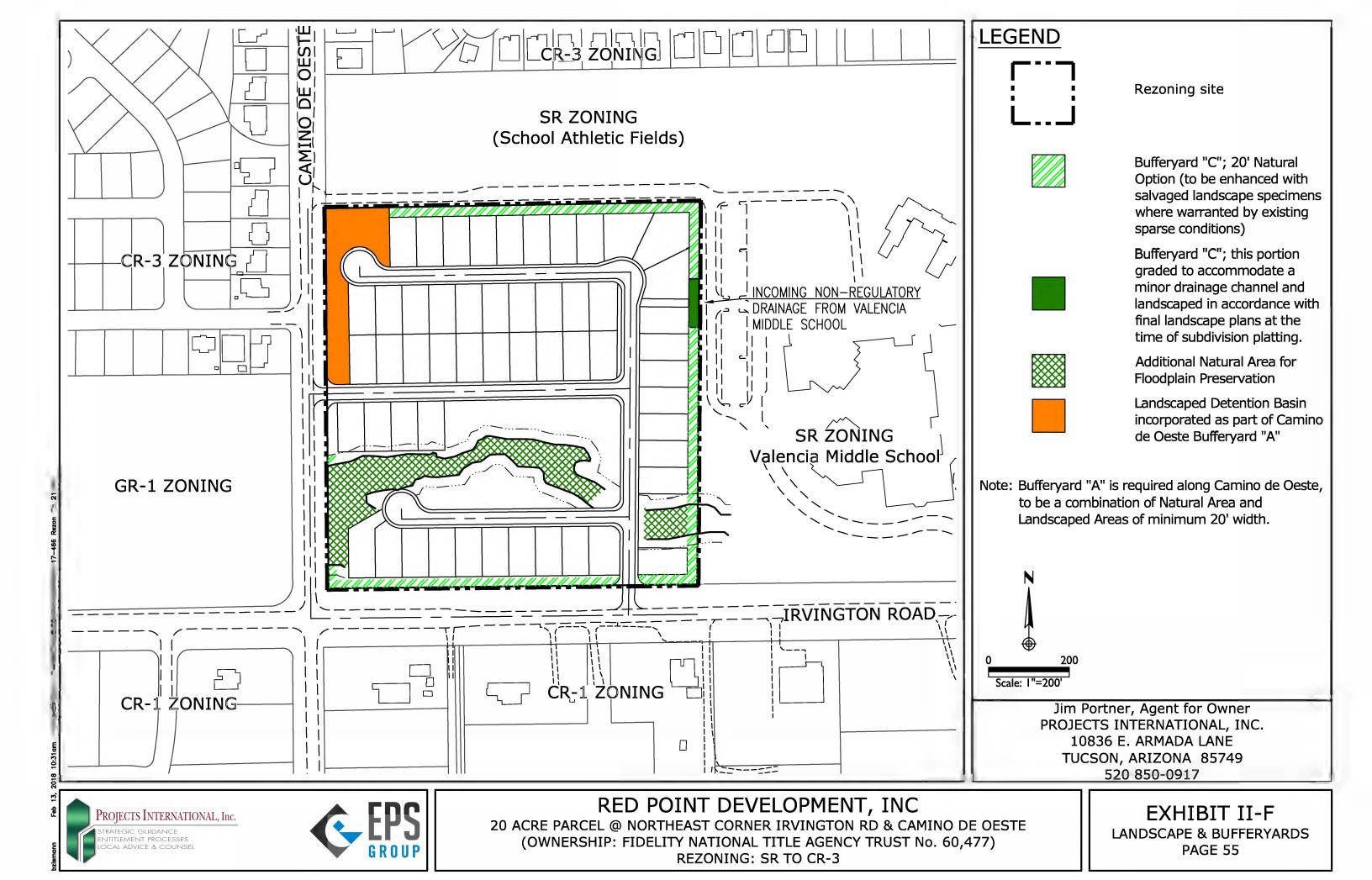
4. **Mitigation of Visual Impacts**

There are no significant visual impacts associated with this project. The primary view elements are long-range in nature, these being the large topographic and ridge features that lie within Tucson Mountain Park to the north and east. None of the intervening foreground and mid-ground views are of any aesthetic consequence. The subject property sits lower (topographically) than the residential properties to the south and there will be no obstruction of their views to the aforementioned distant topographic features.

5. **Significant Vegetation**

There are no areas of regulated or otherwise significant vegetation on the property other than that located within the existing drainage channel corridor that is being preserved as natural area under the proposed Preliminary Development Plan (PDP).

Exhibit to Follow



G. **TRANSPORTATION**

1. Configuration of Proposed Ingress/Egress and Its Rationale

Two vehicular ingress/egress points are proposed for the subdivision by the Preliminary Development Plan (PDP), one each onto Irvington Road and Camino de Oeste, respectively. Both of these new street intersections are in accordance with established PCDOT separation criteria from the existing public street intersections in the area.

2. **Distances to Adjacent Access Points**

See Exhibit II-G, on which the proposed street intersections and their distances to existing public street access points have been illustrated.

3. Associated Off-Site Roadway Improvements and Completion Schedule

Pima County DOT indicates that it currently has no proposed road improvement projects scheduled for either Irvington Road or Camino de Oeste in the vicinity of the proposed project.

4. Change in ADT and Level of Service (LOS) for Public Streets

The trip-generation calculations for this Site Analysis were made using the accepted Institute of Transportation Engineers (ITE) trip generation rates for single family detached residences:

Single Family Detached Housing (Code 210): 10 Trips per Unit

Based upon the above, and in consideration of the Preliminary Development Plan (PDP) indicating a 53-lot subdivision, trip generation for the project is as follows:

53 residences @ 10 trips/residence = 530 Trips

TOTAL TRIPS GENERATED BY PROJECT: 530 Trips

Based upon the project layout and its access points onto both Irvington Road and Camino de Oeste, it is reasonable to assume that fifty percent (50%) of these trips will be loaded onto each adjacent street.

With the small increase in ADT from this project as described above, it is anticipated that there will be no significant traffic impact upon either Irvington Road nor Camino de Oeste, nor upon their intersection's Level of Service (LOS).

5. **Conformance with Pima County Concurrency Requirements**

Per the traffic-volume and capacity data provided in Section I-E of this Site Analysis, both Irvington Road and Camino de Oeste are currently operating well below their respective roadway capacities. The minor additional traffic generated by the proposed project will do nothing to change this fact. With this in mind, the project conforms with PCDOT concurrency requirements.

Proposed Bicycle & Pedestrian Pathways 6.

There are no existing sidewalks or bicycle lanes in place on either Irvington Road or Camino de Oeste. The Pima County Department of Natural Resources, Parks & Recreation has identified future Trail No. 115 (along Irvington Road) on its Regional Trails Masterplan. There is no projected timing for the construction of this trail. New on-site subdivision streets within the proposed project will have concrete sidewalks on both sides; these will be extended into the Irvington Road right-of-way so as to provide for future connection to Trail No. 115 (also refer to Exhibit II-L).

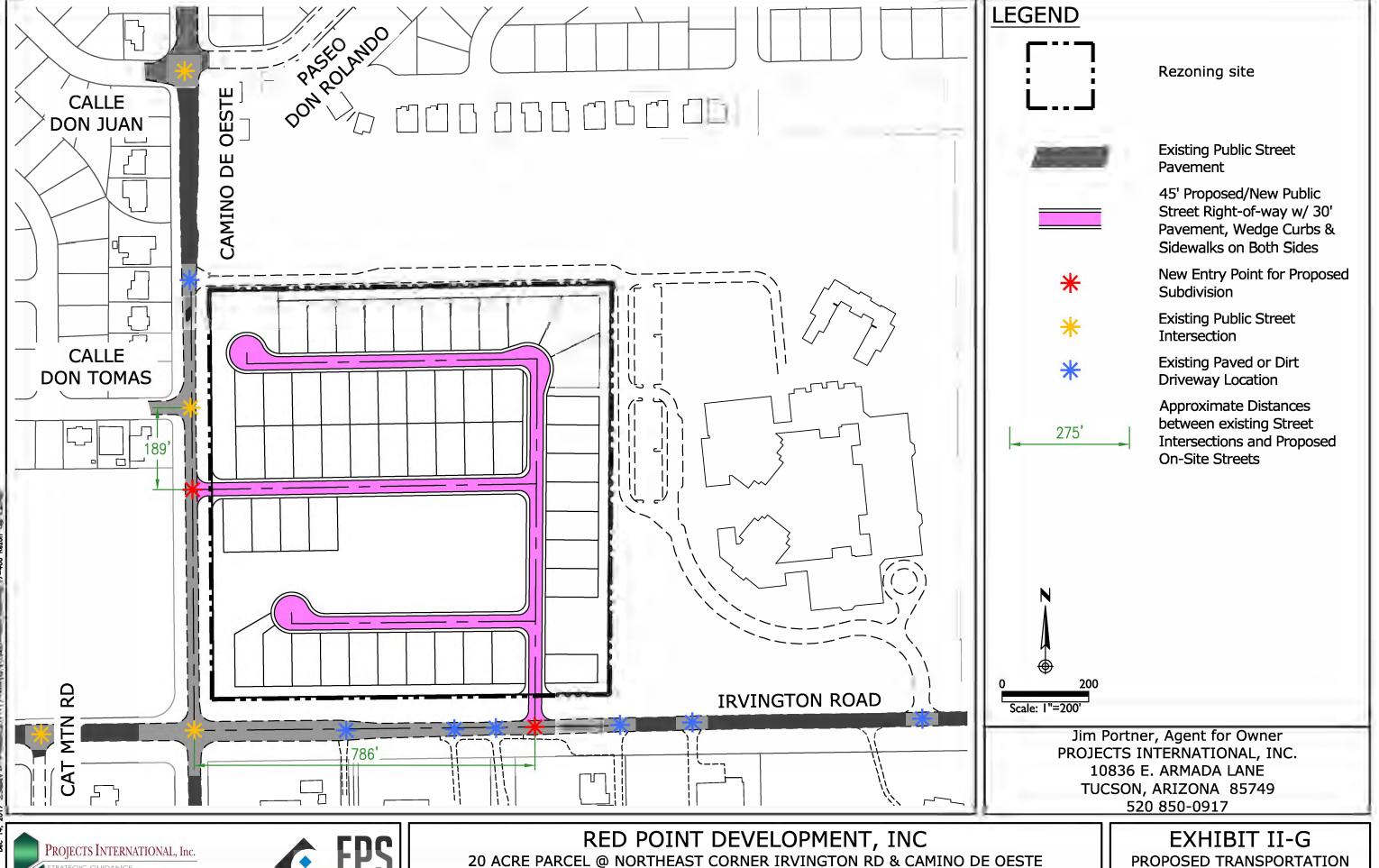
7. **On-Site Street System**

A forty-five foot (45') public street right-of-way is proposed for the onsite subdivision streets; this cross-section will contain 30' of pavement, 2' wedge curbs, and 5' sidewalks on each side of the street.

8. **Applicability & Timing of Traffic Impact Study (TIS)**

Due to small amount of trips being generated by this project, together with the fact that none of the existing public streets in the area are functioning at over-capacity, the proposed development does not meet PDCOT's threshold for a TIS.

Exhibit to Follow







20 ACRE PARCEL @ NORTHEAST CORNER IRVINGTON RD & CAMINO DE OESTE (OWNERSHIP: FIDELITY NATIONAL TITLE AGENCY TRUST No. 60,477)
REZONING: SR TO CR-3

ROPOSED TRANSPORTATION CONDITIONS PAGE 58

H. ON-SITE WASTEWATER TREATMENT & DISPOSAL

1. Rationale for Non-Connection to Public System

Not applicable; no on-site wastewater treatment is proposed with this project. The project will connect to the public sewer system.

2. Soil Evaluations

Not applicable; no on-site wastewater treatment is proposed with this project.

3. **Reserve Disposal Areas**

Not applicable; no on-site wastewater treatment is proposed with this project.

I. **SEWERS**

1. **Capacity Response Letter**

Capacity Response Letter No. 2017-232 (Type I), from the Pima County Regional Wastewater Reclamation Department (PCRWRD) is attached as Exhibit II-I.1.

2. Method of Sewer Service and Point of Connection to Public System

The development will connect to the existing 8" public sewer and manhole located within the Camino de Oeste right-of-way near the project's extreme northwest corner. See Exhibit II-I.2 for a conceptual layout of the proposed onsite public sewer system.

3. **Sewers Easements**

All proposed onsite sewers will be public and all will be located beneath pavement or within designated common areas. In the case of the anticipated drainage crossing beneath the preserved on-site natural wash, the proposed gravity sewer will suitably protected from, or located below, the calculated scour depth as required by both Pima County Building Codes and ADEO.

4. **Mitigation of Any Constraints to Gravity Service**

There are no constraints to providing gravity service on this project.



JACKSON JENKINS DIRECTOR

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

November 8, 2017

Ben Zismann EPS Group, Inc. 8710 N Thornydale Road, Ste. 140 Tucson, AZ 85742

Sewerage Capacity Investigation No. 2017-232 Type I

RE: Roadrunner Rezoning, Parcel 119450210 Estimated Flow 11,448 gpd (ADWF). P17WC00232

Greetings:

The above referenced project is tributary to the Avra Valley Water Reclamation Facility.

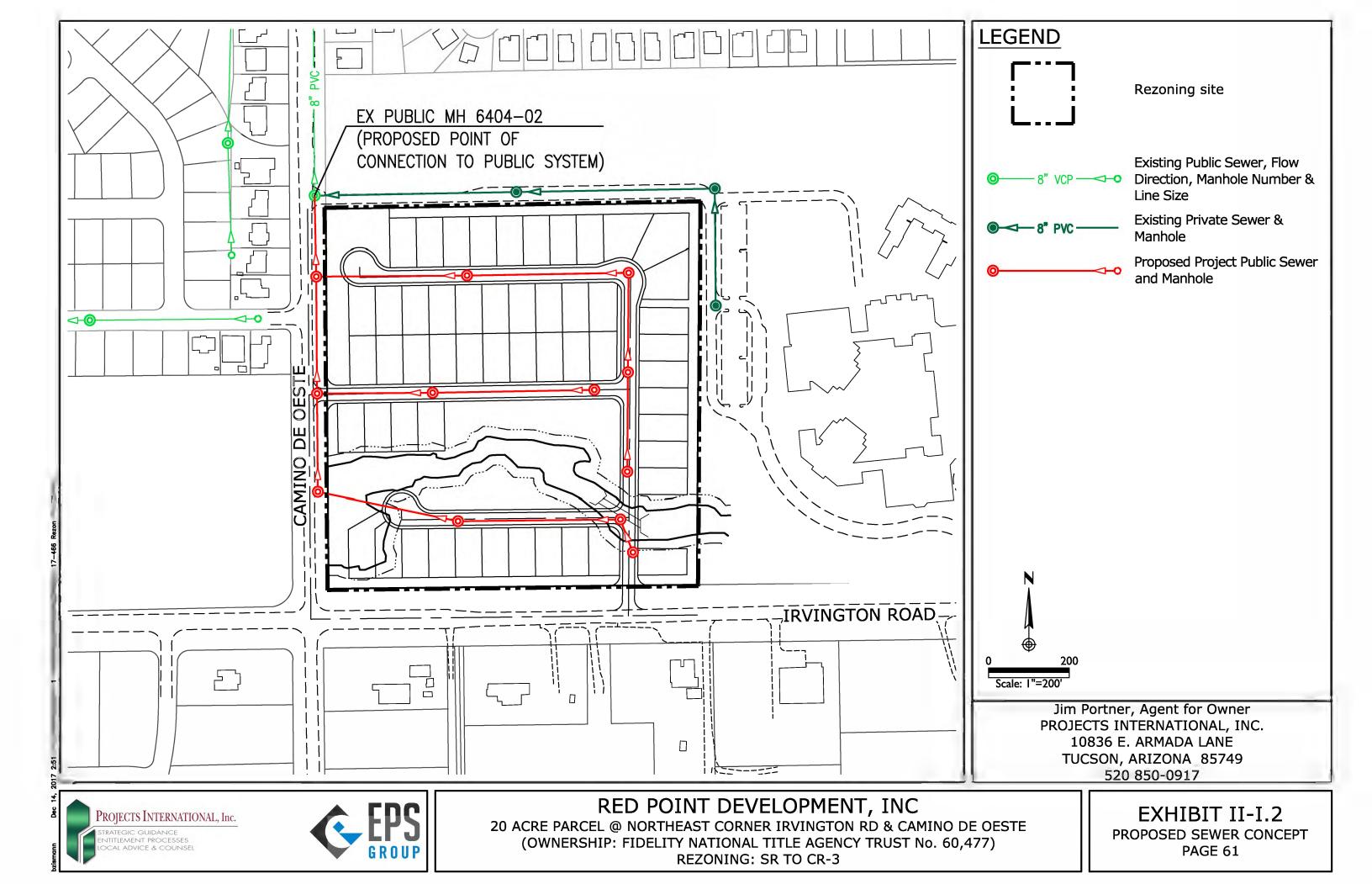
Capacity is currently available for a project this size in the public sewer G-92-030, downstream from manhole 6404-02.

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

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

Reviewed by: Kurt Stemm, CEA Sr.

Exhibit II-I.1 **Type I Capacity Response Letter**



I. WATER

REFER TO PRIOR SECTION II.D.2 OF THIS SITE ANALYSIS.

K. **SCHOOLS**

1. **Access to Internal or Abutting Schools.**

Valencia Middle School is located adjacent to the subject property; its primary campus buildings lie directly to the east, while its athletic fields lie directly north. The project Preliminary Development Plan (PDP) provides a direct pedestrian connection from the proposed neighborhood to the primary campus buildings.

2. Capacity Analysis by Tucson Unified School District.

The Tucson Unified School District (TUSD) has been consulted with respect to this rezoning request. TUSD's analysis indicates that Valencia Middle School is still within its capacity, but that Vesey Elementary and Cholla High School will both be operating above capacity (see Exhibit II-K).

The following should be noted: 1) the TUSD analysis was based upon an initial projection of eighty (80) new homes and was done prior to finalization of the project's PDP showing fifty-three (53) lots; and 2) the TUSD analysis adds the projected students from the new development to this current year's enrollment figures (2017-2018 school year). Given the approval and construction timeframes associated with the proposed subdivision, no students will actually be generated by the project until 2019 at the earliest.

3. Communication with TUSD Regarding Mitigation of Impacts.

TUSD has instituted a voluntary contribution program for new residential development. The developer will participate in this voluntary program and will execute a formal TUSD "School Improvement Contribution Agreement" at the time of future subdivision platting. This Agreement stipulates a contribution of two thousand dollars (\$2,000.00) per rooftop.

Exhibit to Follow

TUCSON UNIFIED

Department of Engineering, Facilities and Planning

TUSD Planning Services - 606 S. Plumer Tucson, Arizona 85719 (520) 225-4949 (520) 225-4939 (fax)

Jim Portner, Principal To:

Projects International Inc.

From: Shaun Brown

Planning Technician

October 9, 2017 Date:

Re: Case/Project #:

> **Project Name:** Irvington Road and Camino de Oeste

New Units:

Impacted Schools	Capcity	Projected Enrollment 2017	Additional Students from Project	Projected Enroll w/Project	Students Exceeding Capacity	Students Exceeding Capacity %
Vesey Elementary	580	695	20	715	135	23%
Valenica Middle	1075	916	11	927	-148	-14%
Cholla High	1650	1931	14	1945	295	18%

Response:

Based on the projected enrollment at TUSD, there is capacity to absorb the impact of the proposed eighty residential lots at Valencia. However, there is inadequate capacity to absorb the impact of the proposed rezoning at Vesey and Cholla. TUSD objects to the rezoning based on the inadequate capacity of the school mention above. Previsions are recommended for funding the schools by the developer to help alleviate the project overcrowding.

Proposed Methods of Mitigation

To help alleviate the projected overcrowding the developer may make voluntary monetary or land contributions (per home) to the affected schools or TUSD.

In addition, the following conditions should be added to the rezoning:

During the development plan stage, the applicant should contact TUSD concerning the provision of adequate space for safe bus stops, bus turnarounds, and pedestrian access to the appropriate schools.

M:\Planning\Projects\Development Review\2017\Irvingtion Road and Camino de Oeste09Oct17.docx

Exhibit II-K Tucson Unified School District No. 1 Capacity Letter

L. RECREATION & TRAILS

1. **On-Site Recreation Elements**

Per the proposed PDP, the owner/developer will provide a centrally located on-site recreation area of a size that is appropriate for a 53-lot neighborhood.

In accordance with the Department of Natural Resources, Parks & Recreation's (DNRPR's) *Recreation Area Design Manual*, the owner/developer intends to pay 50% of the normal in-lieu fee by providing a developed on-site recreation site whose area will be a minimum of 436 square feet per lot (minimum developed site area of 23,108 SF). See Exhibit II-L.

A formal Recreation Area Plan (RAP) will be submitted at the time of future subdivision platting and will detail the specific improvements being provided. In conjunction with the above, the developer also intends to provide earthen trails along portions of the on-site natural wash corridor being preserved with the project; these trails will integrate with the proposed on-site recreation area to further enhance the resident experience.

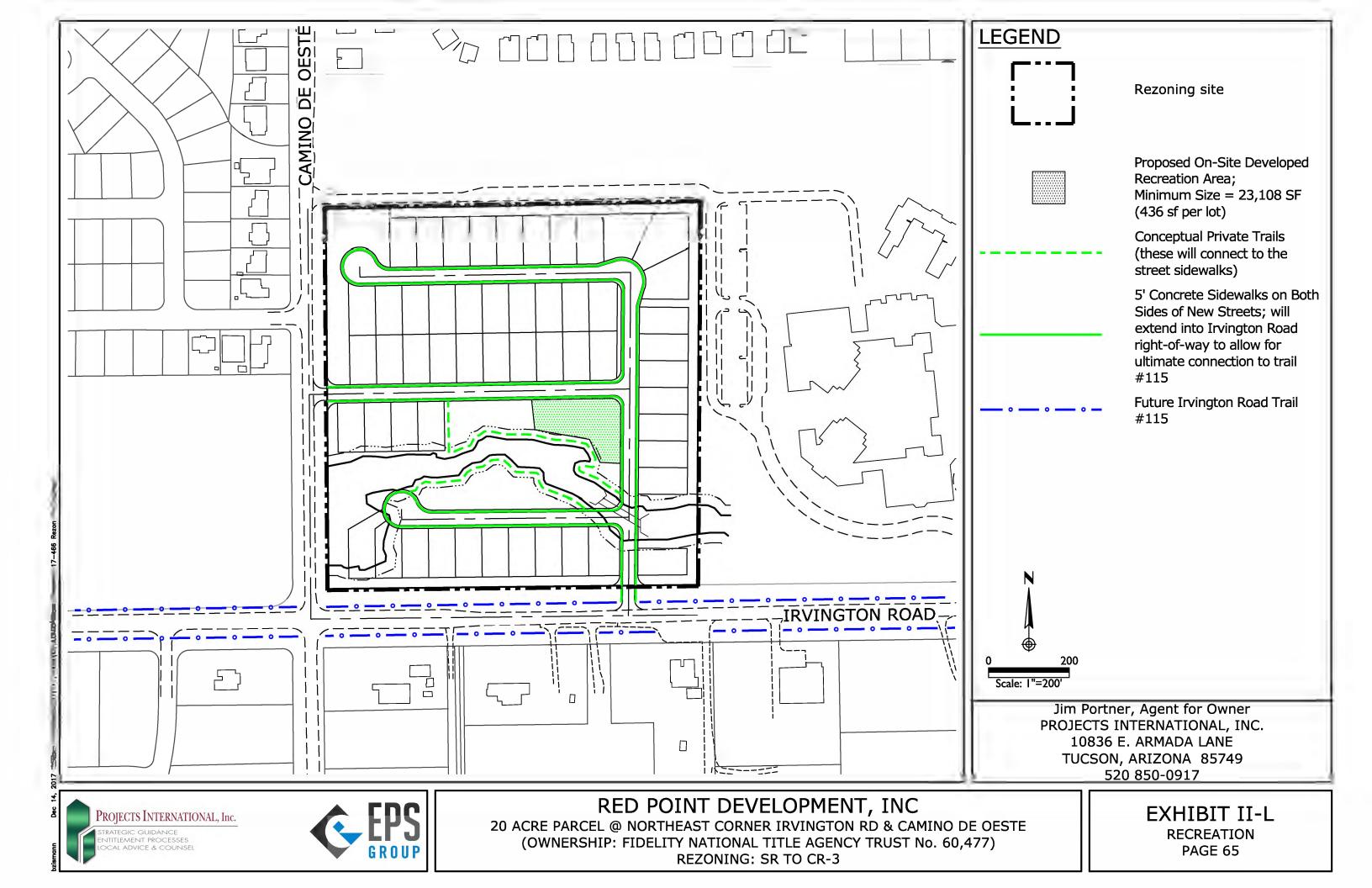
2. Ownership & Maintenance of Recreation Elements & Natural Areas

The proposed on-site recreation improvements (including the passive nature trails), will be located within designated common areas and be owned and maintained wholly by the subdivision's homeowners association (HOA).

3. Proposed Public Trails In or Adjacent to the Development

As shown on Exhibit II-L, proposed Irvington Road Trail No. 115 (a single-track trail) is proposed for both sides of Irvington Road by the Pima County Regional Trails Masterplan. NRPR indicates that there is presently no established timeframe from the ultimate construction of this regional trail.

In accordance with Pima Prospers Section 4.8 (Goal 1, Policy 3.e) and Section 4.10 (Goal 1, Policy 2.e), the Preliminary Development Plan (PDP) includes the aforementioned nature trails, together with sidewalks provided on both sides of the subdivision streets, the latter of which will be extended into the Irvington Road right-of-way to provide for future physical connectivity to Trail No. 115.



M. CULTURAL RESOURCES: ARCHAEOLOGICAL/HISTORIC SITES

1. Mitigation Measures for Already Identified/Known Resources

As indicated in Section I-H of this Site Analysis, a records search was conducted for the site in November, 2017 by SWCA, Inc. No cultural resource sites have been documented on the property. No further archaeological surveys are recommended. The standard cautions and protocol are provided if future construction activities reveal sub-surface archaeological resources.

2. Measures Employed if Archaeological Survey is Recommended

Not applicable; no further surveys are recommended at this time.

3. Submittal Timing, etc. of Mitigation Plan

Not applicable; no resources have been identified.

- a. Outline of Resource Assessment Program
 - Not applicable for the same reasons stated directly above.
- b. Effective Preservation Plan or Data Recovery
 - Not applicable for the same reasons stated directly above.
- c. Schedule of Mitigation Plan Implementation
 - Not applicable for the same reasons stated directly above.

N. ENVIRONMENTAL QUALITY

1. Dust Control During Construction

During construction, a Stormwater Pollution Prevention Plan (SWPPP), along with a Notice of Intent (NOI), will be prepared in accordance with Arizona Department of Environmental Quality (ADEQ) regulatory permit requirements. The SWPPP and NOI will discuss, among other items, the proposed dust-control and erosion-control measures that must be undertaken and suitably performed by the project's contractor as stipulations of the grading permit.

0. **AGREEMENTS**

1. **Specific Agreements with Neighboring Property Owners**

No specific or formal agreements are in place with any neighboring property owners at the time of this Site Analysis submittal. No registered neighborhood associations existing within the surrounding area. We have, however, identified individual homeowner association (HOA) representatives and leaders within the nearby existing residential neighborhoods.

Prior to any formal full-notice public neighborhood meeting on this rezoning, we will undertake individual discussions with these nearby HOA leaders so as to inform them of the proposed rezoning and its particulars, and to identify any salient issues prior to engaging their full memberships.

Pima County staff will be duly appraised as to the above neighborhood interactions as they proceed.

Bibliography

Pima County Department of Transportation, Traffic Engineering Division website for current traffic counts; http://dot.pima.gov/trafeng/trafcnt/adt.htm.

Pima County Major Streets & Scenic Routes Plan. Pima County Ordinance No. 1995-42, as amended. Case No. Co14-79. Web address: http://gis.pima.gov/maps/majscenic/mssr.pdf

Institute of Transportation Engineers (ITE). 2008. Trip Generation, 8th Edition: An ITE Informational Report.

The Smart Growth Network website, Smart Growth Principles, http://www.smargrowth.org/engine/index.php/principles

APPENDICES

Appendix A:

Table A – Water Conservation Measures(Pima County RFCD Form)

Table A - Water Conservation Measures - Indoor and Outdoor Options for Single Family Subdivision Development (Water Conservation Measures: 15-point Minimum. All projects must include at least 2 outdoor options. For projects without a renewable and potable supply, 1 additional point per acre-foot demand increase when site and supply well(s) is greater than 1 mile away or is within a subsidence area, or 2 additional points within one mile of a Groundwater-Dependent Ecosystem.)

I-1	Install gray water plumbing lines per City of Tucson ordinance 10579, gray water lines labeled and stubbed out at	2	
	or above grade.		
l- 2a	Install a manual or motion activated on-demand hot water circulation pumping system. All branches from the loop shall be less than or equal to 10 feet and less than or equal to 1/2 inch diameter.	3	
l- 2b	Insulate all domestic hot water supply lines with R4 insulation.	1	
I-2c	Install tankless on demand hot water heater(s).	2	
l- 3a	All toilets have a maximum flow rate of 1.28 gallons per flush, or flush valves have a maximum flow rate of 1.28 gallons per flush (e.g. EPA Watersense ™). OR	3	
I- 3b	All toilets have a maximum flow rate of 1.1 gallons per flush, or flush valves have a maximum flow rate of 1.1 gallons per flush (e.g. EPA Watersense ™). OR	4	
I-3c	Install dual flush toilets with 1.6 gpf/.8 gpf or less water use.	3	
I- 3d	All lavatory sinks and showerheads have a maximum flow rate of 1.5 gpm. The total allowable shower compartment flow rate from all showerheads, rain systems, waterfalls, body sprays and jets at a given time shall be limited to 1.5 gallons per minute. (maximum flow rate of 1.5 gpm @ 80 psi of pressure) (e.g. EPA Watersense	3	
I-4	If active rainwater harvesting system is installed, connect the rainwater tank to an appropriate distribution system serving the toilets and size to meet the majority of demand.	4	
I-5	Install new washing machine with water factor of 4.5 or less (e.g. EnergyStar).	2	
I-6	Install 1.5 gpm kitchen sink and dishwasher which uses less than 3.5 gallon/cycle (e.g. EPA Watersense ™/ EnergyStar).	3	
I-7	Install a leak detection system.	1	
l-alt	Additional indoor measures may be proposed by applicant.	#	
Sub-	Total from Indoor Options	31	
0-	loor Options Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area.	2] Г
O- 1a	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area.] [
O- 1a O-	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area.	2	
O- 1a O- 1b O- 1c	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area.	4	
O- 1a O- 1b O- 1c O- 1d	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area.	6 8	
O- 1a O- 1b O- 1c O- 1d O- 1e	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area.	4 6 8	
O- 1a O- 1b O- 1c O- 1d O- 1e O-2	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system.	4 6 8 10 2	
O- 1a O- 1b O- 1c O- 1d O- 1e	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR	4 6 8 10 2 1.5	
O- 11a O- 11b O- 11c O- 11d O- 11e O- 2 O- 33a	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	4 6 8 10 2	
O- 11a O- 11b O- 11c O- 11d O- 11e O- 2 O- 33a	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings	4 6 8 10 2 1.5	
O- 11a O- 11b O- 11c O- 11d O- 11e O- 2 O- 33a O- 33c O-	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings	4 6 8 10 2 1.5	
O- 1a O- 1b O- 1c O- 1d O- 1e O- 2 O- 3a O- 3d O- 3d O-	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	4 6 8 10 2 1.5	
O-11a O-11b O-11c O-11d O-11d O-12 O-33a O-33b O-33d O-44a O-44b	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 100% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. CC&Rs that restrict the use of non-native plants and turf grasses in front yards of lots.	4 6 8 10 2 1.5 3 4.5	-
O- 1a O- 1b O- 1c O- 1d O- 1e O-2	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area. Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area. Install a grey water irrigation system. Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. CC&Rs that restrict the use of non-native plants and turf grasses in front yards of lots.	4 6 8 10 2 1.5 3 4.5 6	-

O- 6a	Irrigation system designed and installed by a certified professional (e.g. EPA Watersense ™).	1	1
O- 6b	Install an irrigation system with the following components: 1) Weather based irrigation controller or soil moisture sensor-based irrigation controller (e.g. EPA Watersense ™). Controller shall have two watering schedules posted at the controller: a) for the initial grow-in period and b) for the established landscape. Controller shall be set to irrigate during the hours of 10 p.m. to 8 a.m.; 2) Turf spray heads, if installed, shall only be used for turf and shall achieve a lower quarter distribution uniformity (DULQ) of 65 percent or greater and contain check valves to prevent gravity drainage of water from heads; 3) Separate sprinkler zones for beds, with plants grouped based on watering needs (hydro zoning); 4) Drip irrigation for all non-turf planting beds.		
O- 7a	Maintain undisturbed buffer yards with native species landscaping with 50% of demand met with passive water harvesting.	2	2
O- 7b	Maintain undisturbed buffer yards with native species landscaping with 100% of demand met with passive water harvesting.	4	
O-8	At least 50% of first-flush retention volume located in off-lot distributed basins instead of within project-wide detention basin.		
O- 9a	Stormwater retention volume exceeds first flush retention volume by at least 20%.	2	
O- 9b	Stormwater retention volume exceeds first flush retention volume by at least 40%.		
O- 9c	Stormwater retention volume exceeds first flush retention volume by at least 60%.	6	
O- 9d	Stormwater retention volume exceeds first flush retention volume by at least 80%.		
O- 9e	Stormwater retention volume exceeds first flush retention volume by at least 100%.		
O- 10a	Avoid, other than incidental disturbances, Flood Control Resources Area through use of cluster development, conservation subdivision, or modified development standards.		
O- 10b	Avoid, other than incidental disturbances, Flood Control Resource Area, developer mapped floodplains and Erosion Hazard Setback Areas through use of cluster development, conservation subdivision, or modified development standards.		
O- alt	Additional outdoor measures may be proposed by applicant.	#	
	Total from Outdoor Options	98	5
Infras	structure Options		
Inf-	Relocate or abandon active well(s) located in a shallow groundwater area.	15	
Inf- 2	Relocate or abandon active well(s) located within a mile of a shallow groundwater area.		
Inf- 3	Seal off perched aquifers and recent alluvium in wells to prevent cascading well.		
Inf- 4	Enhance native vegetation, including regulated riparian habitat, in on-site natural drainage patterns, using Low Impact Development and Green Infrastructure practices.		
Inf- 5	Enhance groundwater recharge potential of detention basins in shallow groundwater areas.	5	
Inf- alt	Additional infrastructure options may be proposed by applicant.	#	
	Total from Infrastructure Options	37	
PROJECT TOTAL			

^{*} Landscape Area - Bufferyards and Common Area # To be Determined