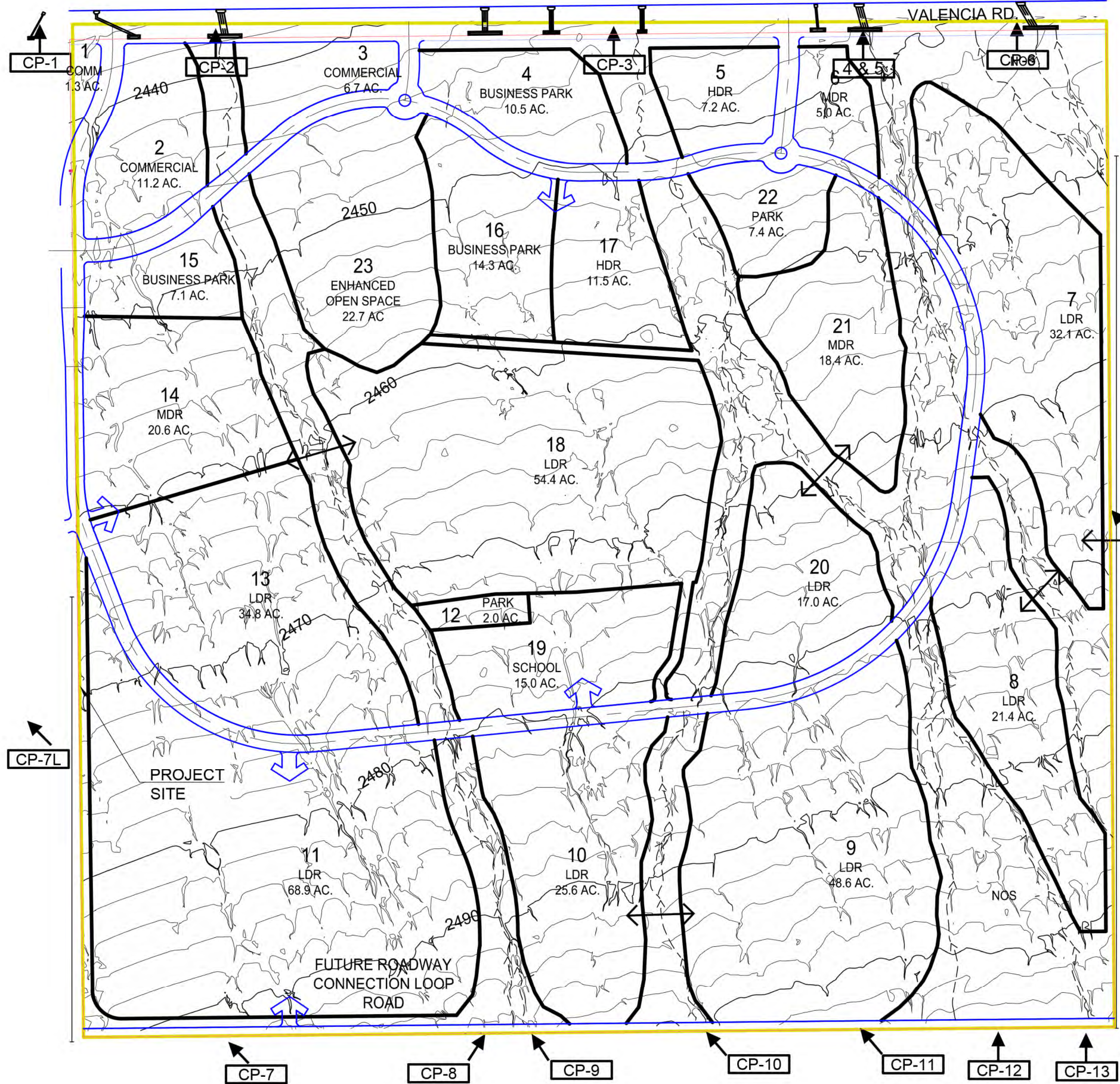


Z:\PROJECTS\2016\16-008 Crown West-Pomegranate Farms MDS\CADD\16-008-Specific Plan\_base.dwg (Fig II-D.3 Offsite Post Prj Dev) Plotted Sep 07, 2016 at 10:54am by Robin



**LEGEND**

- POMEGRANATE FARMS PROJECT SITE
- CP-6 DRAINAGE CONCENTRATION POINT & FLOW DIRECTION
- MU  
D.1  
30.1 ac
- PROPOSED BLOCK ZONING ID LABEL & ACREAGE

**NOTES:**

- TOPOGRAPHY SOURCE: PAG 2002 NAVD 88 DATUM, 2' CONTOUR INTERVAL.
- 100-YEAR DISCHARGE RATES FOR THE FLOWS ENTERING THE PROJECT SITE ARE BASED ON THE FLO-2D POMEGRANATE FARMS LOMR (CASE # 14-09-4178P) PREPARED BY CMG DRAINAGE ENGINEERING INC.
- 100-YEAR DISCHARGE RATES FOR THE FLOWS LEAVING THE PROJECT SITE ARE BASED ON THE 100-YEAR + 10-YEAR (ONSITE & OFFSITE) DESIGN CONCEPT.

**TABLE 5 POST-DEVELOPMENT REGULATORY 100-YEAR DISCHARGES (Q'S)**

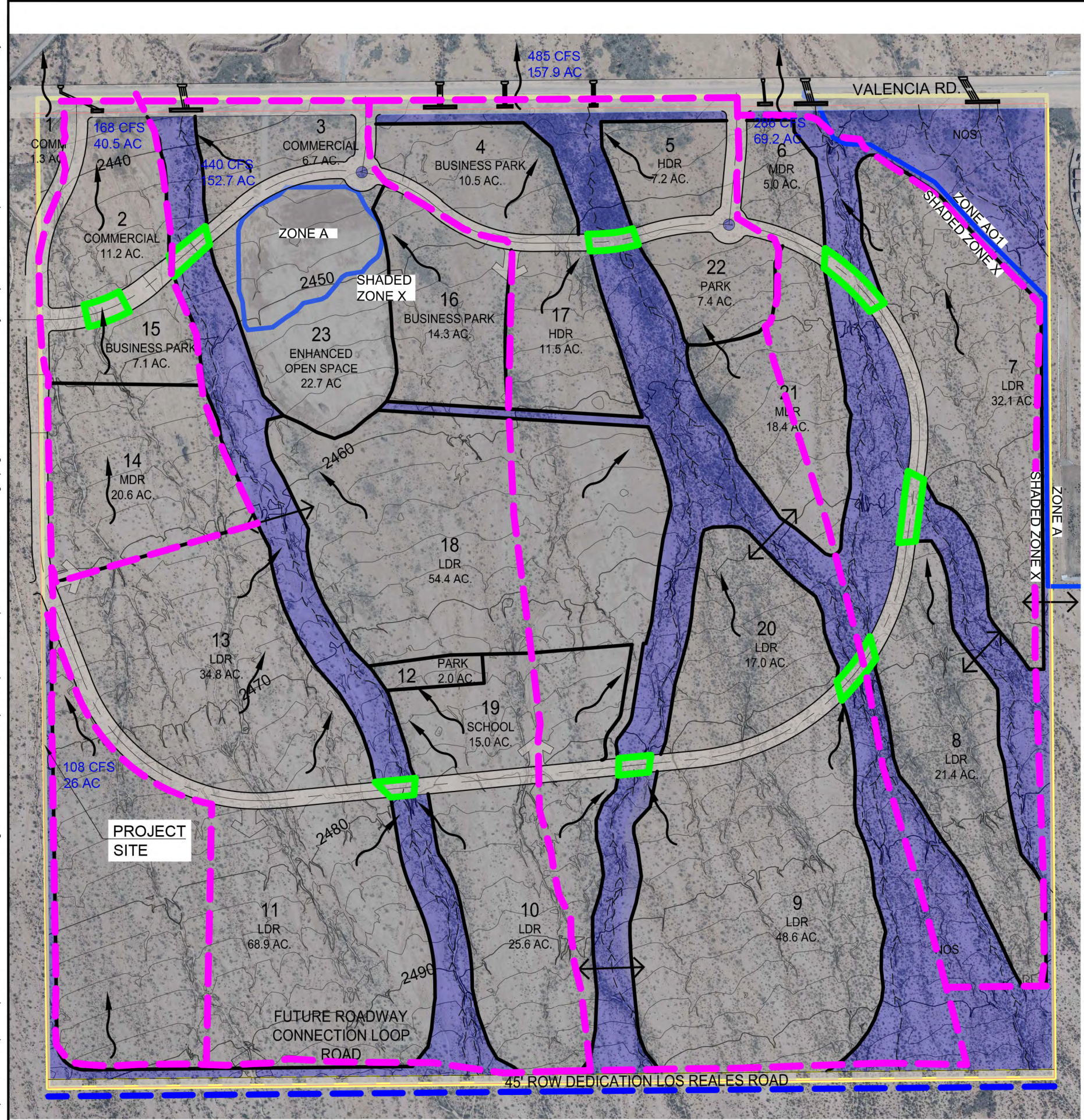
CONCENTRATION POINT		Q100 (CFS)
ENTERING SITE	LEAVING SITE	
7	---	172
	7L	280
	1	168
8 & 9	---	296
	2	522
10 & 11	---	268
	3	657
12 & 13	---	183
	4 & 5	746
14	---	375
	6	422

SCALE: 1" = 600'

3555 N. Mountain Ave. Tucson, Arizona 85719  
Phone (520) 882-4244 Fax (520) 888-1421

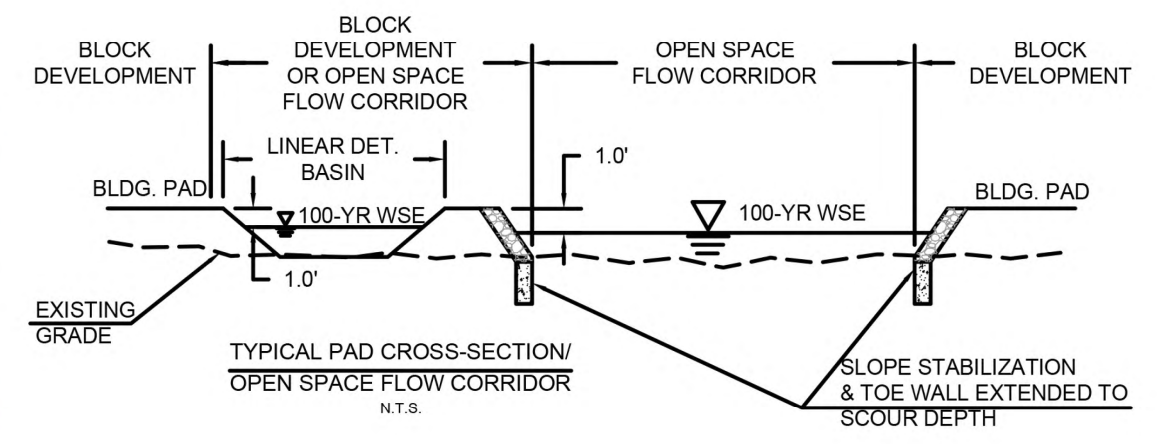
PROJECT NO: 16-008 DESIGN: JW CHECKED: JLC DRAWN: BJK/RMS DATE: 06/15/2016 REV. DATE: 09/07/2016 REV. DATE: REV. DATE:	<p><b>FIGURE II-D.3:</b> POMEGRANATE FARMS OFF-SITE POST-DEVELOPMENT DRAINAGE PLAN</p>
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Z:\PROJECTS\2016\16-008 Crown West-Pomegranate Farms MDS\CADD\16-008-Specific Plan\_base.dwg (Fig II-D.4 onsite Post Prj Dev) Plotted Sep 07, 2016 at 11:48am by Robin

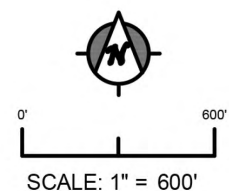


**LEGEND**

- PRELIMINARY ONSITE WATERSHED BOUNDARY
- FLOW ARROW
- POMEGRANATE FARMS PROJECT SITE
- PROPOSED FLOW CORRIDOR
- PROPOSED CULVERTS
- ZONE AO1
- SHADED ZONE X
- EFFECTIVE FEMA FLOODPLAIN LIMITS



- NOTES:**
1. LINEAR DETENTION BASINS MAY BE LOCATED WITHIN OPEN SPACE FLOW CORRIDORS SUBJECT TO REGULATORY FLOODPLAIN ENCROACHMENT LIMITS AND/OR NO DISTURBANCE TO 404 JURISDICTIONAL WATERS.
  2. LINEAR DETENTION BASINS MAY INCORPORATE MULTI-USE FACILITIES SUCH AS A LINEAR TRAIL SYSTEM OR OTHER RECREATIONAL FACILITIES THAT ARE COMPATIBLE WITH THE DRAINAGE DESIGN.
  3. RETENTION/DETENTION WILL BE PROVIDED BY THIS DEVELOPMENT



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 Phone (520) 882-4244 Fax (520) 888-1421

PROJECT NO:	16-008
DESIGN:	JW
CHECKED:	JLC
DRAWN:	BJK/RMS
DATE:	06/15/2016
REV. DATE:	09/07/2016
REV. DATE:	
REV. DATE:	

**FIGURE II-D.4:  
 POMEGRANATE FARMS  
 ON-SITE  
 POST-DEVELOPMENT  
 DRAINAGE PLAN**

## II-E BIOLOGICAL RESOURCES

### 1. Areas of Intrusion

Approximately +/- 141.8 acres will be preserved and/or enhanced with native vegetation, and is designated NOS. The Open Space designation is applied to the wash areas, and will provide residential buffers, wildlife corridors (with an approximate 200 +/- foot minimum width), and trail connectivity to all residential parcels, community services, employment and commercial areas.

The Open Space areas include land that is identified as Important Riparian Areas within the Sonoran Desert Conservation Plan (SDCP) Conservation Lands System (CLS), and FCD Regulated Riparian Areas adopted by Pima County Flood Control District as regulated under **Chapter 16.54** of the Pima County Floodplain and Erosion Hazard Management Ordinance.

The site has been reviewed using on the ground surveys and 2005 aerial photography to identify the Open Space, based on vegetation, water flow and connectivity. See **Exhibit II-E.1**.

Activities permitted within NOS include riparian mitigation and restoration efforts per the Conservation Plan. The NOS areas will include passive recreation opportunities such as non-motorized trails, paths, and interpretive amenities (e.g. signage, kiosks, and ramadas), and natural and improved drainage facilities.

### 2. Riparian Habitat

#### a. Impacts to Riparian Habitat

The Pomegranate Farms Specific Plan preserves the maximum amount of the highest value riparian habitats on the site as well as the habitats that provide the greatest amount of connectivity. These areas may be revegetated to restore the habitat, if required.

#### b. Riparian Habitat Restoration

Due to the characteristics of the riparian vegetation on this site, a Conservation Plan will be developed. Higher value riparian areas will be preserved, but many areas would benefit significantly from native vegetative enhancement through container planting.

Additionally, the Conservation Plan will address how invasive species such as buffelgrass, African sumac, fountain grass, and tamarisk will be managed and/or removed from the Specific Plan area.

Implementation of the restoration efforts will result in a net environmental benefit. The Plan will include enhancement of riparian habitats within the Open Space through planting and augmentation of available water using water harvesting techniques.

The Conservation Plan will be prepared for the entire project prior to the

approval of the tentative block plat. This plan will identify criteria for Open Space areas to be enhanced with container plants and/or native seeding, identify specific measures to control sheet erosion, and will establish a specific monitoring program and reporting schedule.

The Conservation Plan will be developed under the guidelines contained in the Pima County Regional Flood Control District's *Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines* (The Guidelines) dated November 2011. The Guidelines for a Conservation Plan are found starting on page 9 of this document.

For this project, some areas, including most of the Hydromesoriparian and IRA Hydromesoriparian Habitat associated with the drainageway through the middle of the site, will remain substantially undisturbed (excepting any crossings). These areas are intended to be contained within a planned drainageway. Rectification of these areas will not alter the shape of the mapped area and should be considered a minor "shifting" of the mapped habitat.

Some minor adjustment to the alignment of regulated riparian habitat will be proposed. For example, one "finger" of Hydromesoriparian habitat will be adjusted to match the planned drainageway. This will help provide more continuity for the riparian corridor.

The "IRA Xeroriparian C Habitat" located in the southeast corner of the site includes portions of riparian areas that are the result of shallow, braided sheet flow and in some instances are discontinuous. These areas can be re-aligned to better match the master drainage plan. The area and general shape of the regulated riparian habitat would remain the same, but the Conservation Plan would provide information on the vegetation densities and connectivity to support slightly more significant adjustments than simply shifting the polygons include these areas within planned drainageways. The goal of this adjustment would be to allow for most of the regulated riparian habitat to remain undisturbed within planned drainageways.

Other elements of the Conservation Plan shall include:

1. An estimate the amount of disturbance to Regulated Riparian Habitat to serve as a basis to develop the Riparian Habitat Mitigation Proposal for the property.
2. Identification of on-site areas of existing unmapped/unregulated riparian areas that can be exchanged for impacts to mapped areas. (This is further spelled out as "Example 1" on page 13 of the Guidelines.) Specifically, there is an area in the northeast corner of the property that is not mapped as regulated riparian habitat, but has the vegetation species and densities to qualify it as riparian. This area may be included within a natural open space area as on-site mitigation or exchange for impacts to other Hydromesoriparian areas, such as those adjacent to Valencia Road. The Conservation Plan will include field data to support the use of unregulated riparian areas for this purpose.
3. Identification and quantification of areas that will receive additional, new mitigation plantings. These areas include parts of the Open Space and Drainage Basin Amenity Area as well as other drainageways on site. The Conservation Plan will specify the timing of these mitigation plantings based on project phasing.

The Conservation Plan will be submitted to the Regional Flood Control District for review and approval prior to the approval of the Tentative Block Plat.