

## CHAPTER 10 - WASHES

### SECTION 10.0 GENERAL:

- A. The purpose of this Ordinance is to establish standards for development in or near Major and Minor Washes as defined in Appendix A – Glossary of Terms and Definitions which will conserve land in its natural state, protect the health, safety and welfare of the residents, and prevent unnecessary alteration of the natural environment.
- B. The desert terrain within the Town of Cave Creek contains significant drainage ways. Special regulations are necessary in order to protect these natural features and are based on the intensity of land disturbance, density, and including but not limited to, the natural characteristics of high desert terrain, such as: steepness of slope, significant vegetation, landforms, soil and rock stability, and existing drainage patterns. These regulations are intended to allow for responsible development in wash areas while minimizing the physical and visual impact of such development.
- C. If there is a conflict between the provisions of this Ordinance and other Federal, State of Arizona, Maricopa County, other adopted Town Codes or Ordinances, the more restrictive shall apply.

### SECTION 10.1 DESIGN STANDARDS:

- A. The minimum Grading & Drainage design standards as contained in the Town of Cave Creek Technical Design Guideline Number 1 – Grading & Drainage and this Ordinance shall apply to all construction projects located within the Town.
- B. All buildings, structures, roads, and drives shall, to the fullest extent practicable, follow and utilize the natural contours of the land to minimize disturbance of all washes.
- C. No disturbance shall be permitted beyond the approved non-disturbance boundaries either during or after construction.
- D. The boundaries of construction and proposed disturbance areas shall be clearly staked in the field and outlined with temporary construction fencing, prior to and during construction. Non-disturbance boundaries shall conform to those depicted on a Town approved Site Plan.

- E. Land disturbed in violation of this Ordinance shall, upon notice by the Town, be required to be re-graded to the original natural contours of the site and be revegetated with indigenous plants of the same species, size, and at a similar density present on undisturbed land adjacent to the disturbance (see the Town of Cave Creek Technical Design Guideline Number 4 – Landscaping).
- F. Proposed improvements or additions to existing structures or other property improvements within or near wash areas are subject to the regulations established in this Ordinance. Proposals for such improvements or additions shall be accompanied by an exhibit showing the necessary calculations used to determine that the minimum Ordinance requirements have been satisfied.
- G. The development of properties containing Major Wash areas is subject to the following:
  - 1. A 100-year Floodplain and Erosion Setback Analysis of the Major Wash, prepared by an Arizona registered Civil Engineer, shall be required in those cases in which a current Federal, State of Arizona or Maricopa County study of the subject Major Wash does not exist.
  - 2. All development impacting a Major Wash shall comply with all Federal, State of Arizona and Maricopa County Flood Control District regulations.
  - 3. The 100-year floodplain and erosion setback of the Major Wash shall be preserved in their natural condition. Exceptions to this provision shall apply for necessary roadways, driveways and utility service easements.
  - 4. The minimum grading & drainage design standards as contained in the Town of Cave Creek Technical Design Guideline Number 1 – Grading & Drainage shall apply.
- H. Development of properties containing Minor Wash areas is subject to the following:
  - 1. A 100-year Floodplain and Erosion Setback Analysis of the Minor Wash, prepared by an Arizona registered Civil Engineer, shall be required in those cases in which a current Federal, State of

Arizona or Maricopa County study of the subject Minor Wash does not exist.

2. Minor Washes and drainage features shall be retained in their natural state where possible.
3. All development impacting a Minor Wash shall comply with all Federal, State of Arizona and Maricopa County Flood Control District regulations.
4. A Minor Wash may be rerouted on-site pending approval of the Maricopa County Flood Control District and the Town Engineer.
5. An Arizona registered Civil Engineer shall determine the 100 year floodplain and erosion setbacks of the redesigned channel so as to handle the 100-year floodplain with a minimum of one foot (1') of freeboard. The subject channel shall be designed so as to replicate the natural topography of the site.
6. All engineered channels must be reviewed and approved by the Maricopa County Flood Control District and the Town Engineer prior to the issuance of a Building Permit.
7. The minimum grading & drainage design standards as contained in the Town of Cave Creek Technical Design Guideline Number 1 – Grading & Drainage shall apply.

## SECTION 10.2 GRADING AND DRAINAGE:

- A. Retention basins and new drainage channels shall be designed so as to project the natural desert character of the site. See the Town of Cave Creek Technical Design Guideline Number 1 – Grading & Drainage for additional details.
- B. The construction of all storm water features (e.g. basins, channel bottoms, and headwalls) shall utilize native materials.
- C. Contouring shall be designed to replicate the natural topography of the site and enhance the aesthetics of all drainage basins, and channels. Basin slopes shall not exceed a 4:1 slope (horizontal to vertical).
- D. For any grading, which impacts the natural drainage patterns on a parcel, the historical drainage must be maintained at the parcel boundaries. This

includes drainage location, volume, velocity, sediment yield and the direction of flow off the parcel.

## SECTION 10.3 DOCUMENTATION REQUIREMENTS AND CERTIFICATIONS:

- A. Plan submittal. All plans submitted to the Town for review shall be stamped and sealed by an Arizona registered Civil Engineer. In order to obtain a Building Permit for a lot or parcel within a wash area, the following plans, studies and/or reports are required to be submitted to, and approved by the Town Engineer:
1. A detailed Site Plan as described in this Ordinance shall be provided.
  2. The Site Plan shall depict at a minimum the following:
    - a. The current and proposed contours of the parcel;
    - b. The original drainage pattern (natural course) and all proposed changes to the drainage pattern.
  3. Three or more cross sections shall be taken at different locations throughout the building site and drawn perpendicular to the existing contours. Said cross sections shall be drawn with a vertical to horizontal ratio of 1:1 and shall clearly be shown on the Site Plan.
  4. A "Site Analysis" shall be required for any, Site Plan or Subdivision Plat which contains a wash area. The subject Site Analysis shall contain a "Natural Wash Corridor Analysis," and other "Engineering Analyses" that may be required by the Town Engineer. All maps shall be at the same scale as the associated Site Plan. The Natural Wash Corridor Analysis shall, at a minimum, identify all washes recognized as "Waters of the U.S." by the U.S. Army Corps of Engineers and shall include information on the habitat value of each particular wash.
  5. The Town may require additional information as necessary to evaluate all related proposed development plans.

