## 3.0 GRADING PLAN

## 3.2 Introduction

The first step in developing the complete site plan for the 118 acre park was to develop a rough grading plan. The team's survey data was acquired from the Client as was a concept plan for the park.

## 3.3 Given Data

The client gave the team two critical pieces of data for the formation of the grading plan. The first was the survey data of the existing plot of land. The data came from an American Land Title Association (ALTA) survey. The second piece of data was the Town of Camp Verdes Conceptual master plan for the park. This last document was what the client envisioned for the park and was used as the principal guide in determining the locations of the grading pads. Figures 3.1 and 3.2 show the existing surface and conceptual plan respectfully.



Figure 3.1: Existing surface of Park.



Figure 3.2: Concept plan

3.3 Grading Methodology

The survey data was placed into AutoCAD and a TIN Surface was created. From the TIN Surface and the resulting contour lines approximate locations for the fields and parking could be determined. The Client requested that the grading pads all be sloped at 1% to start with and that their slop cause any surface runoff to go into the ADOT drainage basin that can be seen at the south end of the property. Using AutoCAD polylines and the Grading tools five graded pads were made to accommodate three soccer fields, four baseball fields, and three separate parking lots. Originally the park was to house an area for equestrian sports; however this was scrapped in favor of two small detention ponds that could be used to irrigate the park if needed. Seen in Figure 3.3 the final graded surface has five flat graded pads that slope down toward the ADOT drainage basin at 1% and two small detention ponds.



Figure 3.3: Final Graded surface

With the rough grading plan finished the team was able to move into the Water Resource System design and the park entry road design.