

**Natural Features Inventory Report**

**THE GLEN at WIDEFIELD EAST**

**Preliminary Plan**

**Colorado Springs, Colorado**

Prepared for:

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Kiowa Project No. 14044

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## **General Location**

The Glen at Widefield East is situated west of Marksheffel Road and north of Mesa Ridge Parkway in El Paso County, Colorado located in the southwest quarter of Section 12 and the northwest quarter of Section 27, Township 12 South, and Range 65 West of the 6<sup>th</sup> Principal Meridian. The 182 acre site is a proposed single-family residential development of about 600 lots along with access roads and associated infrastructure. In the near future, the first phase, the Glen at Widefield Filing 7 will construct about 148 homesites with the remainder of the lots completed within an estimated five to seven year timeframe.

Adjacent land use consists of undeveloped agricultural land to the north, Peaceful Valley Country Club Estates Subdivision to the east, undeveloped land to the south and the Glen at Widefield Filing No 6 Subdivision to the west. The site was previously used as agriculture. A portion of it in the northeast was used as a sub-irrigated hay meadow. Most recently, the upland ridges were used for irrigated sod production. The site is currently unplatted and undeveloped.

The project site is located in a Commercial Airport Overlay zone with the potential for air traffic noise due to the Colorado Springs Airport.

## **Topography and Aspect**

The topography of the project site varies from relatively flat slopes of 0-3% in the meadow area along with more steeply sloping upland ridges with slopes of 3-18%. Elevations range from 5,722 feet near the north property line to 5,642 near the south property line with a vertical difference of about eighty feet.

Situated about eight miles east of the mountain front below Cheyenne Mountain, the site is in the Arkansas River Watershed. The site has a shallow southerly aspect.

## **Climate**

The average annual precipitation for the project area is 12-14-inches per year. Mean annual snowfall is less than 40-inches per year and 60% of the days are clear. The average annual air temperature is 48 degrees F, with about 145 frost free days. Although the project site is not located in an area that is subject to frequent high wind velocity, infrequent high winds of up to 50 miles per hour may occur. The prevailing winds are from the southwest.

## **Hydrologic Features**

The project site is located on a divide between the West Fork of Jimmy Camp Creek to the east and the mainstem of Jimmy Camp Creek on the west. Most of the site drains to the West Fork with about a quarter of the area draining across Marksheffel Road to the mainstem. There are no natural

hydrologic features within the project area. Jimmy Camp Creek drains to Fountain Creek and ultimately the Arkansas River.

An abandoned irrigation ditch is present in the northern portion routed around a hill. Several other shallow ditches are also present at various locations.

The flat area in the northeast portion of the site near Marksheffel Road appears to be a sub-irrigated meadow and was formerly used as a hay meadow. Soils borings have indicated a water table at about three-feet with soft, deep soils with non-supporting soils.

### **Flood Hazard**

No flood hazard areas are depicted on the Flood Insurance Rate Maps No. 08041C0956F and No. 08041C0957F for the Glen at Widefield East. The development site will drain to four or five full spectrum detention basins before being discharged to the West Fork and Jimmy Camp Creek.

### **Ecology**

The ecology of the project site can be characterized as short grass prairie of the Western Great Plains Province. The short grass prairie is wide-spread and generally dominated by blue grama grass. The grasslands present on site are composed of a both native and non-native species of grasses and herbs, the majority of which are non-native. Other native grasses are dropseed, slender wheat, and needle and thread grass. The presence of non-native species such as crested wheat and smooth brome grass indicate that the site has been disturbed and reseeded. A few small elm and cottonwood trees are scattered across the site. Shrub species of rabbitbrush and silver sage can also be found in isolated locations.

Another indicator of ground-breaking disturbances is the prevalence of invasive species such as kochia, Russian thistle, Canada thistle, and knapweeds. Colorado statutes requires control of these noxious weeds. The prevalence of weeds generally occurs in areas that have been disturbed, such as in utility easements, along the gravel roads and areas formerly used for sod production and non-native meadow grasses. These particular species may need to be controlled following construction.

The short grass prairie often supports prairie dog complexes, populations of pronghorn, grassland birds and other Great Plains mammals. Historically, grasslands would have been populated by bison.

### **Wetlands**

The U.S.F.W.S. Wetland Indicator Map was reviewed for the presence of wetlands and indicated no wetlands present on site. A field visit also confirmed the lack of wetland parameters consisting of hydric plants, hydric soils and wetland hydrology inherent to a jurisdictional wetland. The proposed project will be constructed in uplands.

## **Rare Species**

No rare species were found to be present during field visits. As the site has been significantly disturbed along with the fact that the ecology, geology and soils are typical and wide-spread, it is unlikely that the site supports habitat for rare species.

The project area is excluded from the Critical Habitat for the Preble's Meadow Jumping Mouse, a federally listed species per the Endangered Species Act. The closest PMJM Critical Habitat is the Unit 11-Monument Creek of the Federal Register Notice at a distance of over twenty miles.

## **Geology**

Surficial geologic deposits are typically windblown deposits (Holocene aged loess of silty to clayey fine grained sand) and alluvium (Holocene Piney Creek) on Cretaceous marine Pierre Shale bedrock producing a complex geologic environment.

Geologic investigations performed on the Glen at Widefield have indicated that paleo channels are present across the site. Paleo channels have been found to have mildly to steeply sloping side slopes and are generally filled in with soft to very soft material to nearly level.

Per the geotechnical study, potential geologic hazards or constraints that could be encountered during development are expansive bedrock, shallow groundwater, perched lenses of groundwater and soft, collapsible soils. The geotechnical recommendations are of the opinion that all these conditions can be mitigated with engineering design and construction methods commonly employed, along with the development of a 'no build line' to avoid sensitive areas similar to the one in place on the West Fork of Jimmy Camp Creek.

## **Soils**

Soils present on site per the published U.S.D.A. soils report are the Nelson-Tassel fine sandy loam, the Stoneham sandy loam and the Nunn clay. The first two soil types are found on gentle-to-moderate slopes on hills and ridges of uplands. The Nelson-Tassel soil and the Stoneham soil are moderately deep and well-drained. Runoff is medium-to-slow with a moderate erosion hazard.

The Nunn soil is found in the flat meadow in the upper right portion of the site along Marksheffel Road. The Nunn soil is deep and well drained with slow surface runoff and a slight hazard of erosion. Per the El Paso County Soil survey, the Nunn soil has limitations for urban use including slow permeability, low strength and shrink-swell potential.

These soil types are relatively widespread and typical on the high plains.

Detailed soils and geotechnical investigation have been implemented by Soil Testing and Engineering, Inc. The results can be found in their report under separate cover.

## **Scenic Resources**

The natural mountain backdrop of the Front Range is seen at a distance of about eight miles with Cheyenne Mountain almost due west. The scenic view shed is compromised somewhat by intervening development including Fort Carson and residential development.

## **Unique Natural Areas**

With common plains native/non-native grassland, the project site lacks important natural communities, quality of example, and rare species in order to be considered a unique natural area. The prevalence of introduced non-native species for agricultural purposes and invasive weeds reduce the value of the ecological quality. The site also lacks outstanding geologic features and lacks apparent cultural, historic or archeological significance.

The project area does benefit from the mountain backdrop, which is somewhat marred at this location by the intervening development and roadway noise. The project area is not a unique natural area, but is rather typical of the high plains grasslands.

## References

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*The Glen at Widefield Drainage Basin Planning Study*. 1993. Kiowa Engineering Corporation.

*El Paso County Sourcebook: Planning Information Base*. 1990. El Paso County.

*FIRM Flood Insurance Rate Map Number 08041C0956F and 08041C0957F* March 17, 1997. Federal Emergency Management.

*Preliminary Subsurface Soil Investigation for The Glen at Widefield Filing No. 7, Colorado Springs, CO*. 2007. Soil Testing Engineering, Inc.

*National Wetland Inventory Fountain Quad Map*. 1984. U.S. Department of the Interior, U.S. Fish and Wildlife Service.

*Revised Critical Habitat for the Prebles Meadow Jumping Mouse (*Zapus hudsonius preblei*) in Colorado*. October 7, 2009. Federal Register Notice.

*Soil Survey of the El Paso County Area, Colorado*. 1981. U.S. Department of Agriculture, Soil Conservation Service.

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