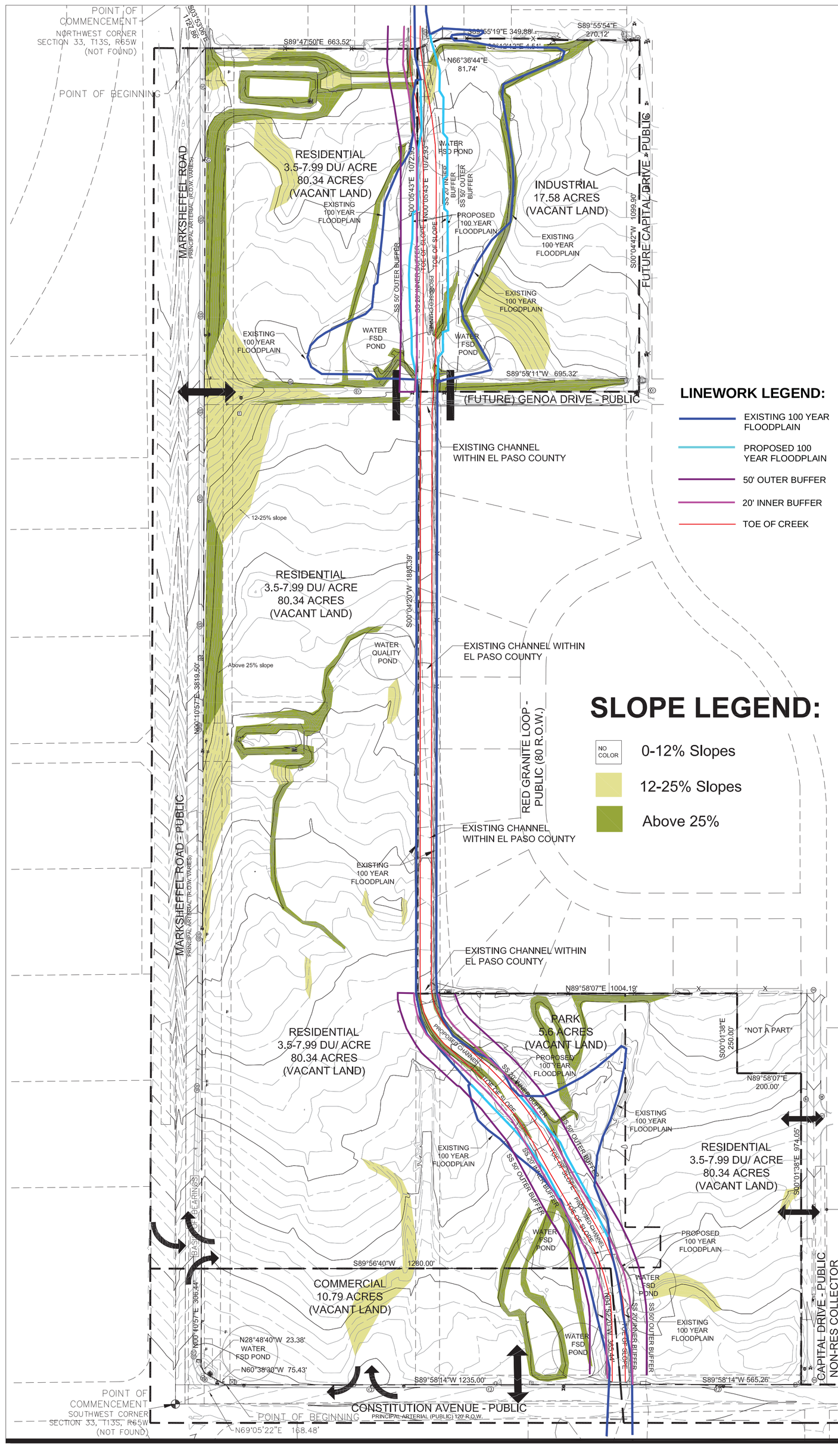
THE SANDS

CITY OF COLORADO SPRINGS, EL PASO COUNTY, COLORADO
LAND SUITABILITY ANALYSIS



INTRODUCTION:

The following Land Suitability Analysis deals with a 114.31 acre site located on the East side of Marksheffel Road and North side of Constitution Avenue recently annexed into the City of Colorado Springs, Colorado. The residential development will consist of approximately 325 detached single-family homes. There will be a small commercial development at the Southwest corner and an industrial development in the Northeast corner on the East side of the subtributary that connects to the East Fork of Sand Creek.

Methodology:

A traditional analysis process was used to determine the suitability of this site for the proposed development. This process included site investigation and inventory, determination of relevant constraints, the creation of a composite map, and finally, the development of a preliminary plan.

Initial analysis included site visits to document significant land features and aerial photography. This information was collected and converted into maps reflecting slope and vegetation. Information concerning soils and geologic conditions was compiled by the El Paso County Soil Survey. This information was then analyzed and compiled into an overall composite map which presents, in a general manner, areas of the site which are most suitable for the development of the proposed use. The final product is an analysis which outlines a sensible approach to developing the site.

Sources from which data for the Land Suitability Analysis was gathered:

- City of Colorado Springs Zoning Map
- Soil Survey of El Paso County, U.S. Department of Agriculture Soil Conservation Service
- Division of Wildlife of the State of Colorado
- US Fish and Wildlife Service
- Engineering Survey
- USGS Terra Server Aerial Photography
- Colorado Springs Fire Department Wildfire Risk Evaluation Map

COMPOSITE SUMMARY:

Natural / Man-made Features:

The only significant natural feature on-site is the subtributary to the East Fork of Sand Creek. This land appears to have been previously graded in areas with water retention facilities and elevated roadways. Otherwise, there are gradual slopes across the majority of the property. Traversing the property from North to South is a subtributary to the East Fork Sand Creek. The center portion of the stream appears to have previously been improved in a channel with a narrower cross section. The Northern and Southern most areas of the waterway currently have a wider cross section and will be improved as part of a process that will result in a letter of map revision (LOMR) to more closely match the center section.

Slopes:

The topography is largely under 12% across the majority of the site, with only a few areas that range from 12-25% and above. These steeper slopes are located in areas adjacent to roads that appear to have previously been graded, along the subtributary waterway, and creating the existing retention facilities. In these areas the slope can be steeper which is shown as a shaded area. These areas of steeper slopes will be largely avoided as they fall within existing utility, non-exclusive, and R.O.W. easements. The LOMR process will likely address a few of the steeper sloped areas as changes to the channel are made during improvements.

Soil:

Soils associated with this area are depicted as Sandy Foothills and Sandy Bottomland as depicted on Map 3 from the Signature Landscapes Design Manual.

Vegetation:

The ground plane consists of warm and cool season grasses such as the Western Wheatgrass, side-oats grama, and needleandthread. There are a very limited number of trees scattered across the site and along the edges of the subtributary waterway and adjacent roadways.

Floodplain:

Portions of this property are located within a designated FEMA floodplain as determined by the flood insurance rate map, community map number '08041CO756F' and '08041CO543F' effective date March 17, 1997. Zones identified within the map include both AE with base flood elevations determined and zone X with areas identified as both inside and outside the 500 year floodplain. Portions of the channel and floodplain within the center portion of site have been improved per an existing LOMR, Case No. 04-08-0062P, effective date November 18, 2004. The on-site floodplains to the North and South of the previously addressed map revisions will be going through the LOMR process as the planning moves forward. No structures or fences will be permitted within the designated floodplain area. Lots within the designated floodplain will be identified and platted following the approval of a LOMR.

Wildlife:

Since this area is very open with little vegetation for cover, no big game animals live within the site. Some may be found passing through, but no significant habitats will be harmed by development. The US Fish and Wildlife Service mapping indicates that there are no critical habitats at this location.

Conclusion:

This composite analysis is based upon information, derived from a variety of sources. The information is general in character and not specific. Individual soil and geotechnical analysis would need to be performed on each individual building lot. As such, there are no major hazards or constraints that would limit development.

Streamside Overlay:

Streamside Overlay criteria will be applied to the portions of the channel being annexed into the city. The channel will be designated as a 'Type 1' stream. The portions of the channel that exist outside the city limits will be excluded from the streamside overlay requirements.

Geologic Hazards Statement:

This property is subject to the findings, summary and conclusions of a Geologic Hazard Study provided by RMG Engineers dated October 26, 2017. Copies of said study have been placed within files CPC CP 17-00084 of the City of Colorado Springs City Planning Office. The developer, construction contractor, and builders should be familiar with the findings of the geologic hazard study for this development.

1. A Geologic Hazard Study was completed by RMG - Rocky Mountain Group for The Sands. This report identified no significant geologic hazards that are anticipated to preclude the proposed development. However, the potential does exist for geologic hazards or conditions related to the following:
   a. Expansive soil and expansive bedrock,
   b. Collapsible soil,
   c. Radon,
   d. Shallow water tables,
   e. Flood prone areas, and
   f. History of landfill activity or undocumented /uncontrolled fill activity
   g. Erosion.

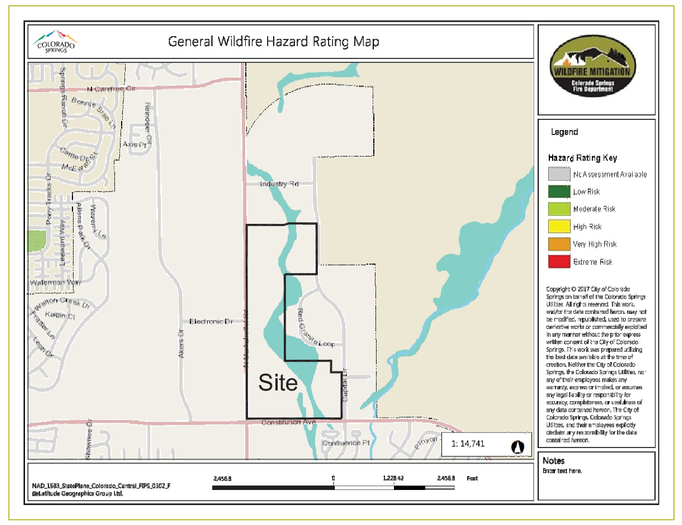
   These geologic conditions are considered relatively common to the immediate area and mitigation can generally be accomplished by implementing common engineering and construction practices.

2. Site specific subsurface soil investigations shall be conducted prior to construction on all lots. In addition to providing anticipated foundation design recommendations, these investigations should also consider lot-specific recommendations relating to the following geologic conditions;
   a. Mitigation for collapsible and/or expansive soils/bedrock and uncontrolled fill conditions (if encountered), and
   b. Potential shallow groundwater conditions and feasibility of below-grade construction, based on the groundwater depths identified in the Geologic Hazard Study report referenced above and the groundwater depths encountered in the site specific investigations (whichever is shallower). Note, the groundwater depths identified in the Geologic Hazard Study may need to be adjusted for cut/fill operations performed at the time of overlot grading.

3. At a minimum, separate subsurface perimeter drains should be provided around the below-grade (habitable) portions of each foundation. Additional drainage measures may also be required as determined by the lot-specific subsurface soil investigation and/or the lot-specific excavation observation performed at the time of construction.

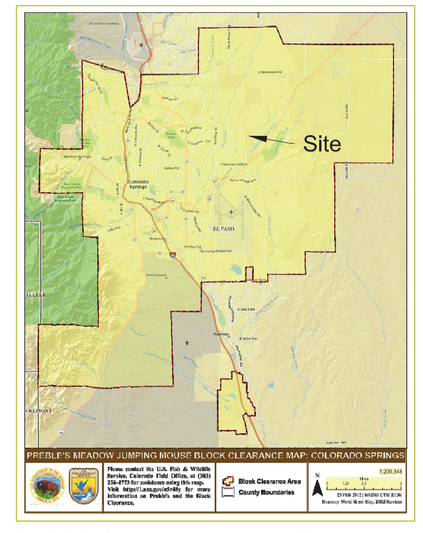
4. An area along the central portion of the site has been identified as a floodplain. This area (as currently configured) is anticipated to affect some of the proposed lots. Additional grading has been proposed in this area. Once the grading has been completed, it is anticipated that a new LOMR will be obtained and that this new LOMR will modify the boundaries of the floodplain to exclude some or all of these affected lots. The affected lots shall not be platted until a revised LOMR indicates that they have been excluded from the floodplain.

5. Since the current submittal is for annexation and zone change based on a Master Concept Plan, a list of the lots affected by the hazards and/or conditions identified above cannot be prepared at this time. If a list of affected lots is required for future submittals, such a list can be determined once the proposed lot layout has been finalized.



Wildfire Hazard Potential:

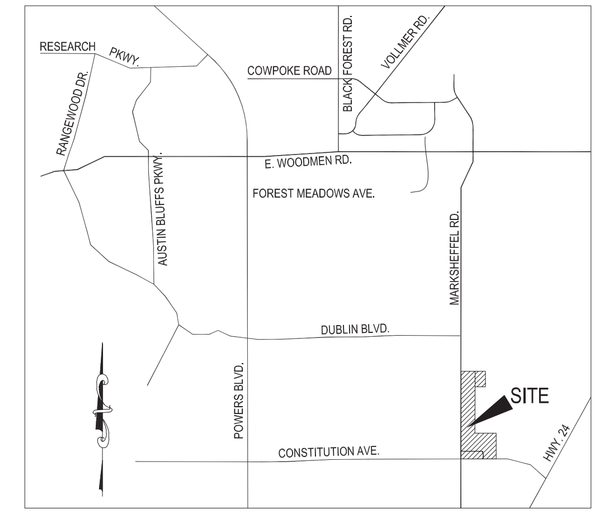
The CSFD Wildfire Risk Evaluation Map, as shown above, rates the degree of fire danger on an individual lot basis. Since the site is not yet developed it has not been evaluated, nor have adjacent lots, so no data is currently available. There are no stands of trees or vegetation which presents a lower risk across the site.



Preble's Meadow Jumping Mouse:

The site is located with the block clearance area as shown in the map above.

VICINITY MAP N.T.S.



NORTH

0 100' 200' 400'

SCALE: 1" = 200'

City File Number: CPC CP 17-00084

FIGURE 15

THOMAS THOMAS
Planning
Urban Design
Landscape Architecture
702 Main, Suite
Colorado Springs, Colorado 80903
(719) 578-8777

REV #	REVISIONS	DATE	DRAWN	CHECKED	APPROVED
1	CITY COMMENTS REV1	7/31/17			
2	CITY COMMENTS REV2	11/02/17			
3	CITY COMMENTS REV3	12/13/17			
4	CITY COMMENTS REV4	1/25/18			
5					
6					

DESIGNED	JRA	05.23.17
DRAWN	KLC	07.18.17
CHECKED	JRA	07.18.17
PROJECT NUMBER:	3533.01	
SCALE:	AS NOTED	

THE SANDS
Colorado Springs, CO

LAND SUITABILITY ANALYSIS

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