Drainage Reports
Abbreviated Water & Sewer Need Reports
Water Study
Wastewater Study
Stormwater Waiver Application

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ESLO WASH MODIFICATION
DESCRIPTION OF ALTERNATES CONSIDERED

SCOTTSDALE FIRE STATION # 616

10905 E. Loving Tree Lane
Scottsdale, Arizona 85262

OWNER:
City of Scottsdale
7447 E. Indian School Road; Suite 100
Scottsdale, AZ 85251

Planning and Engineering:
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WASH MODIFICATION NARRATIVE

3-WM-2018
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INTRODUCTION

Scottsdale Fire Station (#616) will be located at 10905 E. Loving Tree Lane in Scottsdale, Arizona. The property is located on the south side of Cave Creek Road just southwesterly of 110th Street and is situated within the Northwest Quarter of Section 28, Township 6 North, Range 5 East, Maricopa County, Arizona. The Assessor's Parcel Number of the property is 219-60-912A.

SITE FEATURES

The developer (City of Scottsdale) proposes a new 8,000 square foot fire station building with appurtenant entry drive, parking and emergency exit. Both entrance and exit drives will have direct access to Cave Creek Road. No gated entrances are proposed at this time. The interior drive aisles and parking surfaces will be both asphalt pavement and concrete. Concrete curbs will be installed as well to convey onsite runoff to drainage catchments. The project perimeter frontage will remain unfenced with large open areas to better enhance the native landscaping and preserve the desert surroundings. The rear perimeter will utilize retaining walls to allow for site grading while minimizing impacts on adjacent native grades and landscaping.

There is an existing wash on the vacant parcel that conveys approximately 83 cfs of stormwater runoff from northeasterly to southerly through the property within a shallow and wide wash bed. The runoff enters the property within a singular wash at the northeast corner and exits the property at two locations along the southern boundary. Runoff depths range from 0.010-feet to 2.0-feet with the majority of the depths being in the range from 0.050-feet to 1.0-feet. See attached Flow Depth Exhibit for reference. The existing wash contains mature, dense vegetation along its shallow embankments.

PROPOSED ALTERNATES

The only viable drainage alternate would be to leave the existing washes in their undisturbed condition. Unfortunately, this would deem this property unusable for the development of a Fire Station, or for that matter, any type of development.

Slightly realigning the wash along its eastern edge will allow the Fire Station to increase the buildable pad area for this development. This re-routing will be done primarily with retaining walls or gabion baskets that will utilize native materials and colors to maintain and enhance the beautiful upper desert land formation.

It is the intent of this project development to maintain the guidelines set forth in the ESLO District by insuring this project design and construction maintain the rural desert character within this area. Generally, this area consists of low density development with an emphasis on establishing larger NAOS corridors to conserve the character of the natural desert. The Fire Station will be designed to minimize impacts on the development by maintaining existing natural features and providing significant open spaces for view corridors and natural habitats within the undisturbed portions of the property. Proposed construction features will utilize materials and colors that will retain the visual character of the natural desert. This project shall be consistent with the guidelines as set forth in the City of Scottsdale Ordinances.

Environmentally Sensitive Land Overlay (ESLO) is also an important element for the development of the proposed Fire Station. The project will be designed to maintain the purpose of the City of Scottsdale Ordinance Sections by providing design considerations that promote the public health, safety and welfare by providing appropriate and reasonable controls for the development of ESLO Districts. This will be accomplished by providing engineered design elements and features for the existing and re-routed washes. Proposed onsite private drive have been designed to minimize the impact on existing vegetation and natural washes that will reduce the disruption of the natural desert. These elements have been introduced to minimize construction costs while maintaining the natural desert environment.

INFRASTRUCTURE

The current topography contains 1 wash that ultimately splits into 2 washes requiring design considerations. The Fire Station layout requires the east edge of the washes to be realigned creating well defined channels providing more suitable building pad. Consideration was given to native vegetation types and locations which enhance the benefits to NAOS areas when realigning channels. The remaining washes or portions thereof will be part of the overall open space/NAOS and remain in an existing undisturbed condition.

CONCLUSION

The Developer will design and plan this project to meet the stormwater requirements as set forth by the City of Scottsdale (first flush for area of disturbance) while maintaining the natural area open space and protecting the overall integrity of the native desert landform. The Scottsdale Fire Station shall provide a livable and sustainable habitat for Fire Station residents while minimizing disruption to adjacent neighbors and wildlife and desert surroundings.