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The Ritz-Carlton Resort

Water Master Plan

Prepared for:
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Expires: 6/30/18

1.01.0268903

EXECUTIVE SUMMARY

The proposed Ritz Carlton Resort is a mixed land use development consisting of a resort hotel, single family and multi-family residences, retail and mixed uses. The resort will be constructed on 122.7 acres of undeveloped land on the southwest corner of Indian Bend and Scottsdale Roads. The majority of the property lies within the Town of Paradise Valley (105.3 acres) and the remaining portion lies within the City of Scottsdale (17.4 acres). Water service to the property is provided by EPCOR Water. A new looped 8-inch and 12-inch water system is proposed to serve the development. Connections to the existing EPCOR water system will be made at four locations: 1) the existing 8-inch waterline within Scottsdale Road; 2) the existing 16-inch waterline within in Lincoln Drive; and 3) the existing 12-inch waterline within the Cactus Wren Alignment.

Demand calculations were prepared based on the design requirements of EPCOR Water. Fire flow demands are per the 2012 International Fire Code with City of Phoenix Amendments. The calculated demands are as follows:

- Average Day Demand: 349,240 gpd (243 gpm)
- Maximum Day Demand: 628,632 gpd (437 gpm)
- Peak Hour Demand: 1,047,720 gpd (728 gpm)
- Maximum Day + Fire Flow Demands: 2,437 gpm (Commercial)
  1,937 gpm (Multi-Family)
  1,937 gpm (Single Family)
  3,437 gpm (Hotel)

Modeling of the system was conducted utilizing WaterCAD version 8i software. Pressures in the proposed development were found to range between 66 and 79 psi for the ADD, MDD and PHD scenarios. Pressures at Maximum Day Demand + Fire Flow for all fire flow scenarios were above 20 psi.