

PRELIMINARY DRAINAGE REPORT

Worldmark by Wyndham

8235 E. Indian Bend Road
Scottsdale, AZ 85250

Prepared For:



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Stormwater Review By:
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Review Cycle #2 Date 1/31/18

Prepared by:



EXPIRES 12-31-18

Sustainability Engineering Group

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Project Number: 170602

Original Submittal Date: November 3, 2017 (DRB)

Revision Date: December 27, 2017 (DRB)

Case No.: 44-DR-2017

Plan Check No.: TBD

Comments on Grading and Drainage (Cycle #2)
WORLD MARK BY WYNDHAM
(City of Scottsdale Case Number: 44-DR-2017)

The Case Drainage Report should be prepared by following the City of Scottsdale (COS) Design Standards & Policies Manual (DS&PM) and in accordance with the revised City Stormwater Ordinance Chapter 37.

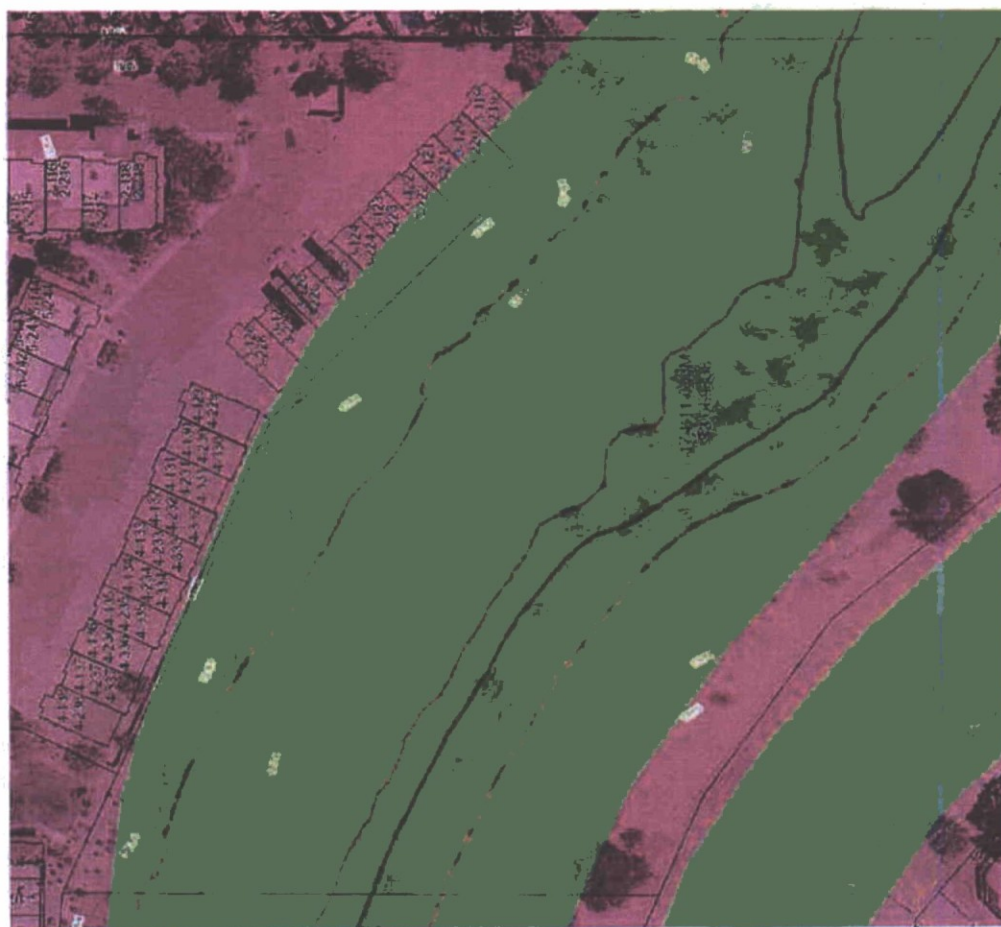
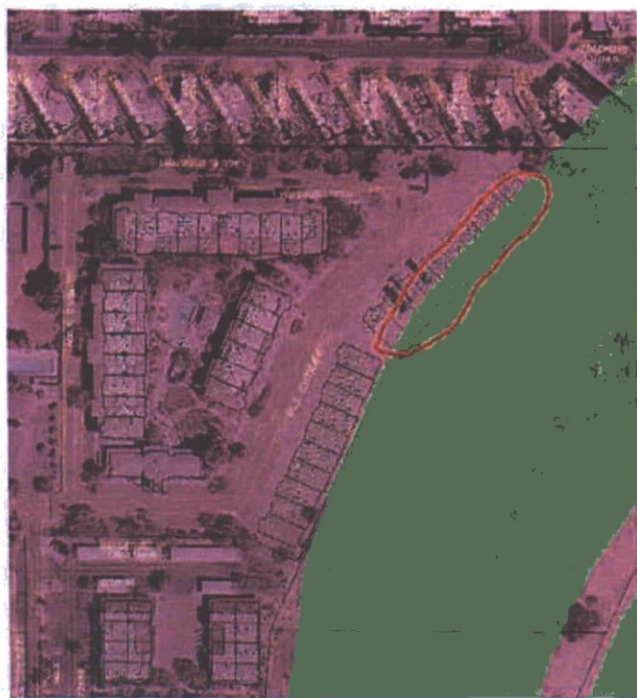
Please address any comments which appear in the redline Case Drainage Report. In addition to that, please address the following drainage comments:

Please address the comments which appear in RED:

1. Please submit a CD in the back pocket of each Case Drainage Report containing a PDF file of the complete sealed and signed drainage report.
[Reference: COS DS&PM: Section 4-1.800 & Section 4-1A] – **Not addressed. Please submit a CD containing a PDF file of the complete sealed and signed Case Drainage Report in the back pocket of each drainage report. Failing to do so will only delay the approval of the case.**
2. As can be seen in the below snapshot which is from the City's LIS (Land Information System), a number of rooms of the East Building is located in the FEMA unnumbered 'A' flood zone. The FEMA requirements for this site were discussed with Ashley Couch, PE, the City's Floodplain Administrator and the FEMA related review comments are based on his recommendations. A BFE (Base Flood Elevation) must be established for the each building.
[Reference: COS Stormwater Ordinance: Chapter 37] – **Not addressed. A BFE has not been established for either of the two buildings. The LF_{ss} of the two proposed buildings must meet the current FEMA requirements as well as the current COS Stormwater Ordinance and not what may have been approved in an outdated master plan.**

The Engineer has called out a 100-year HWE of 1280.83 in the channel on the 24"X36" Preliminary Grading Plan. However, the reviewer couldn't find this 100-year HWE on any of the supporting documents included in the report. Please clarify in Section 5 of the drainage report regarding this 100-year HWE elevation.

Also, citing the COS quarter section topographic maps (which date back to 2005) as the basis of establishing the LF_{ss} of the two proposed buildings is not acceptable to the City. As can be seen in the subsequent snapshot from the City's LIS which shows the 2010 FCDMC 2.0 feet contours and which are based on the flown LiDAR data for the Lower Indian Bend Wash ADMS, the north bank of the canal (along the narrow X zone 'strip') can be as high as 1283.5 feet which may be the defining elevation for the BFE. However, the LiDAR data is not acceptable for design purposes due to its potential elevation errors.



3. In order to establish the RFE (Regulatory Flood Elevation, which is BFE+1.0 foot) for each building, the Engineer must run a HEC-RAS model based on actual survey topography of the entire wash beyond the floodplain limit and over a channel reach which extends to the west of the West Building and to the east of the East Building. Additionally, one HEC-RAS cross-section must go through the southwest corner of each of the West Building and the East Building. [Reference: COS DS&PM: Section 4-1.800; COS Stormwater Ordinance: Section 37-22] – **Not addressed. This comment was again discussed with Ashley Couch, PE, the City's Floodplain Administrator and we are bound by the FEMA regulations to enforce the execution of this review comment.**
4. It is in the best interest of the Client to apply for a CLOMR (Conditional Letter of Map Revision) since a structure in the FEMA unnumbered 'A' flood zone typically sees the highest flood insurance premium. However, as long as there is no adverse impact to the FEMA floodplain (post-condition rise in the 100-year WSE is not > 0.1 feet), the City cannot mandate a CLOMR requirement. [Reference: COS Stormwater Ordinance: Chapter 37] – **Addressed.**
5. The Case Drainage Report refers to an agreement dated June 20, 1994 (Agreement #: 940051) which claims that no retention is provided for this site pursuant to a joint development agreement between the City and Hing Properties, Inc. This 'reference' was discussed with Ashley Couch, PE, the City's Floodplain Administrator and with Rich Anderson, PE, the City's Stormwater Plan Review Manager. They concluded that the Engineer of Record on this project must provide a copy of the executed document (Agreement #: 940051) in the current Case Drainage Report along with a proof that the proposed site was part of the original agreement since the site has always been dirt. If the Engineer cannot prove that the proposed site was a part of the original agreement where the requirement of stormwater storage basins was waived in the form of an 'in-lieu' fee and/or as an 'in-kind' contribution, then the Engineer must fill out a Stormwater Storage Waiver form for this project site and calculate the 'in-lieu' fee for the 100-year 2-hour full storage since the site has always been dirt. The City will allow the Engineer to drain out all onsite runoff to the existing channel to the south which is a tributary to the Lower Indian Bend Wash and which has plenty of capacity. [Reference: COS DS&PM: Section 4-1.402] – **Addressed.**
6. **The Engineer must schedule a meeting with Ashley Couch, PE, the City's Floodplain Administrator and Mohammad Rahman, PE, the Stormwater reviewer prior to the making the next submittal of the drainage report.**

Please briefly respond to each of the above comments (or check them with markers) and include the responses in the re-submittals.

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