From: Paul Mitchell
To: Kern, Christopher (CPC); Bollinger, Brett (CPC); Reilly, Catherine (ADM)
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Subject: UCSF Helipad Issues Discussion
Date: Monday, March 23, 2015 3:41:57 PM

Chris/Catherine:

We will add the issue of GSW impacts on the UCSF helipad as a topic for discussion on Thursday. Based on our review of all the UCSF comments received to date regarding potential GSW impacts on the UCSF helipad. We see three primary issues being raised:

1) **Potential impacts of GSW tower crane during construction to UCSF helipad operations** (raised in UCSF's 12/19 letter on NOP, 2/16 letter on ADSEIR 1A, and 3/16 letter on Transportation section). UCSF raise concerns about the GSW tower cranes interfering with air medical access to the UCSF helipad.

2) **Potential impacts of GSW buildings on UCSF helipad operations** (raised in UCSF's 3/16 letter on Transportation section). UCSF points out that the project proposed two 160-foot towers, which is one more than that allowed by the "D for D" for that site; and furthermore that the arena exceeds the height limit allowed by the D for D.

3) **Potential impacts of GSW project nightlighting on UCSF helipad operations [Construction and Operation]** (raised in UCSF's 12/19 letter on NOP, and 2/16 letter on ADSEIR 1A): UCSF is concerned about the a) construction-period lighting impacts on the UCSF helipad; and 2) during operation, potential for outdoor animated lighting, strobe lighting, or Hollywood-style search lights on the helipad.

Please note that ESA prepared the UCSF Medical Center FEIR in 2008, and addressed potential safety impacts associated with helicopter operations at the helipad. This included an EIR section titled *Helicopter Aeromedical Flight Operations and Public Safety*, along with a risk assessment; however, neither of these addressed the specific concerns UCSF have presently raised on the GSW project.

With respect to Issues No. 1 and 2, above, last Wednesday the sponsor provided ESA with some crude graphics that the sponsor's engineer prepared to show that the proposed building tower crane that would be used during construction, and the proposed GSW building towers themselves, would not impact with the UCSF helipad flight path. While this information could be useful, it is unclear from the limited information provided what the assumptions and methodology were used in conducting such analysis, and does not appear in its existing form to be sufficient for inclusion in the SEIR.

Given the sensitivity of the UCSF helipad issue, proximity of the site to the helipad, and the nature of proposed construction and development, ESA believes that a more formal limited analysis of these three issues identified above is merited for the SEIR. Accordingly, ESA's Airport Group can perform an analysis to review the significance of these issues using the guidance provided in

applicable FAA Advisory Circulars. With respect to Issues 1 and 2, we would rely in part on information from UCSF (e.g., CAD or GIS versions of the UCSF helipad approach and transitional surfaces), along with additional information provided by the sponsor concerning maximum heights of the structures atop the proposed building towers (when accounting for mechanical equipment, potential poles/antennas, etc.), construction crane dimensions, etc. We can confirm if the temporary cranes and the permanent towers would be outside of the helipad's approach and transitional surfaces, and identify appropriate measures as needed to minimize any potential conflicts. With respect to issue No. 3, We would also evaluate issues associated with the potential lights or digital displays associated with the operation of the GSW Arena on the helicopter/helipad operations using FAA guidelines, and identify any applicable measures to minimize potential lighting effects from on such features.

This more formal assessment is not presently included in ESA's existing scope of work, however, as noted above, believe it would be appropriate for the SEIR. We would be happy to discuss any of information in this email with you when you have an opportunity. Thanks.

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