

# Kiowa Engineering Corporation

## Memorandum

**To:** Westerly Creek Sponsors  
**From:** Brian Wozniak  
**Date:** 2/21/08  
**Project:** Westerly Creek (Lower) Drainageway Update  
**Subject:** Meeting Minutes for Progress Meeting No.3

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**Next meeting: Wednesday, March 19, 2008 at 2:00 p.m.**

### Hydrology

The Hydrology summary was handed out. All frequencies for the entire project length have been compiled. Discharge-profiles were presented and major storm sewer outfalls were discussed.

The 1983 FHAD flows, which did not include the Westerly Creek Dam influences, were added for comparison. To allow equal comparison, the 1983 100-year discharge-profile was lowered to reflect the same Kelly Road outflow as shown in the 1987 USACE study. The overall curves compared well, with the exception of peak flow increases at Montview and at 11<sup>th</sup> Avenue. For display purposes the peak flow at 23<sup>rd</sup> will be carried up to the downstream face of Montview, and flows at 13<sup>th</sup> will be carried to the downstream face of 11<sup>th</sup> Avenue.

### Hydraulics

Kiowa has developed HEC-RAS modeling based on the LOMR cross-sections applied to the new project mapping. An exhibit was shown that compared the new 100-year limits to the '91 LOMR 100-year floodplain. The two compared well with only a couple locations of discrepancy. Kiowa will review the model to ensure that no new properties are shown within the flood limits without a valid engineering reason for doing so. Kiowa will also plot the '91 LOMR water surface elevations (datum adjusted) on the new mapping and make comparisons to the '91 LOMR limits. Any new structures included by this analysis would be solely based on differences in mapping.

The 100-year limits downstream of 23<sup>rd</sup> Avenue and upstream of 14<sup>th</sup> Avenue do not impact any structures. Numerous structures are impacted in between. Many of the structures shown within the 100-year flood limits are impacted by shallow flooding.

### Preliminary Alternatives

The Montview Blvd. backwater is carried through to 17<sup>th</sup> Avenue. Increasing conveyance through Montview could greatly improve this reach. Stanley Aviation, between 23<sup>rd</sup> and Montview, could be improved by better conveyance through this reach. A greenway alternative must be included as part of this study. Additional costs not required for drainage will be included separately and clearly labeled as extra, non-drainage costs. Removing the existing 10-year drainage culverts does not make sense. The greenway alternative will focus on conveying overflows above, or parallel, to the underground culvert system. This will require less right-of-way and will be better capable of being implemented.

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Project Website – the web link is up and running. Please review and provide any comments for revisions/improvement.

#### Miscellaneous

Kiowa will utilize the County Assessor websites for property values for damage and acquisition estimates. A public meeting should be held around the time when the Phase A report is going to be published. This places us at a point in the study where we have a solid understanding of the area and a firm grasp on alternative analysis and costs. Public input at this time would leave the project open for applying direction from the public.

#### Next up....

1. Kiowa will finalize the HEC-RAS modeling.
2. Damage estimates will be calculated.
3. A screening of alternatives will be presented.