WORK PLAN - Tuacahn Wash LOMR

Rosenberg Associates will prepare a Letter of Map Revision (LOMR) for the Tuacahn Wash beginning at the Ivins/Santa Clara City boundary and extending upstream to the Upper Tuacahn Wash detention basin; a total of approximately 11,500 lineal feet (2.2 miles).

100 Base Map $ 5,400

Use 2 ft LIDAR mapping prepared in 2012 for Washington County. Perform supplemental field survey to tie in wash flowline and areas subject to recent erosion and natural changes. Provide field mapping of the Tuacahn Drive, Center Street, and Mesa Vista Drive culvert crossings.

110 Hydraulic Analysis $ 4,605

Perform a hydraulic model and analysis of the Tuacahn Wash using the USACE HEC-RAS program and the topographic basemap. Model to include analysis of the 100 year (1% annual chance) event and floodway based on hydrologic data provided by Ivins City. Model to also include the Tuacahn Drive, Center Street, and Mesa Vista Drive culvert crossings. Development of additional hydrologic data or revisions to the hydrology submitted with the LOMR is considered outside this scope of work.

120 Floodplain Delineation & Exhibits $ 3,400

Produce a delineation of the Tuacahn Wash 100 year (1% annual chance) floodplain and floodway through the study reach based on the topographic basemap and hydraulic analysis. Provide an as-built floodplain delineation workmap for the study area and annotated FIRMS 49053C - 0766G and 0767G.

130 Culvert Crossing As-built Drawings $ 1,600

Produce as-built drawings of the Tuacahn Drive, Center Street, and Mesa Vista Drive culvert crossings based on the topographic basemap. The drawings will include a plan view and an upstream and downstream profile view of each crossing with spot elevations.

140 LOMR Submittal $ 1,895

Complete the appropriate FEMA MT-2 forms for the Tuacahn Wash. Provide a technical memorandum with a summary of data, description of engineering methods used, and the results of the floodplain revision. Provide a sediment considerations technical memorandum to discuss the impact of the project to local sediment transport. Provide appendices and other supporting documents as required. Prepare a submittal package to be approved by the City and delivered to FEMA. Provide all submittal data in digital and hard copy format.

150 Affected Property Owner Notification $ 1,200

Produce affected property owner notification letters discussing the changes to the 100 year (1% annual chance) floodplain and floodway resulting from the revision. Produce affected property owner exhibits that show all property owners affected by the revision. Deliver notification letters to property owners and answer property owner inquiries as necessary.

160	**FEMA Redlines**	**$ 1,900**

Follow through with FEMA review process. Work assumes acceptance by FEMA with minor redlined changes.

PROJECT TOTAL	**$ 20,000**