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Village of Los Ranchos Fourth Street Design Project

Report by:
Sites Southwest
Tierra West

Investigations

The investigations phase of the project, the survey and the geotechnical work, as of July, is for the most part complete. However, we are still analyzing the results of the soil samples and geotechnical investigation in particular is the subject of analysis.

- **Survey** – Precision Surveys completed their field work and LIDAR flight work for collecting field point data. They are currently wrapping up their field point data interpretation with respect to the topography and right-of-way survey and they have sent the final draft of the survey to the consultant team. We also received a preliminary draft of the topo survey, showing initial right-of-way lines and contour lines but have not received the final survey. We have begun to set up initial drainage basins zones based on the contours; however, due to flat terrain of Fourth Street, the basins will need to be finalized based on spot elevations which the final survey will include from the LIDAR point data collection.
- **Geotechnical** – Terracon completed their geotechnical field testing work and provided us with their preliminary results. The soil borings came back to show that we typically have 3 strata/layers of soils: 0-5 feet showed silty sands, 5-10 feet showed silty sands mixed with lean clays, and 10 -15 feet showed silty and clean sands. It should be noted that no groundwater was reached during the bore hole drilling. Initial percolation test results were received and indicate a percolation rate range from 5 min/inch to 50 min/inch. These results, at their respective locations, are currently being used for preliminary sizing of both the storm drainage storage areas as well as the dry well radius and depth sizing.
- **Other Subsurface Investigations** – Tierra West engineers walked the first phase of Fourth Street with the utility locating company to physically mark the line spot locations. There are currently six locations across the first phase of the project where line locates were performed for water, sewer, gas, fiber optic and power.

Design

The final survey and subsurface investigations will inform the final design of the project and will have begun in earnest at the time of this publication date. The design team has, however, been working on the background research and pre-design in a number of areas, namely traffic, parking and drainage (Low Impact Development (LID)).

- **Parking** – in preparation for the project construction and the potential for stakeholder concerns, the team performed a preliminary parking assessment to illustrate the change in parking based on the design thus far.
- **Drainage and LID** – the approach for drainage on the project remains LID centric. Plans call for street collection of storm flows that both control flooding and passively irrigate landscaping. The plan is to direct drainage water to water quality manholes in parking areas that will pre-treat drainage flows and filter debris and sediment from subsurface storage; and then into subsurface beds in the 10 to 15' zone.