

TECHNICAL MEMORANDUM

To: Keith Linker/Khanh Chu
From: Mike Swan
Date: February 1, 2018
Subject: Additional Impacts from 1730 S. Clementine Sewer Study



Introduction

In the process of preparing the sewer study for a 125-room hotel at 1730 S. Clementine, quite a few questions came up relative to drilling down to exactly where certain parcels were currently being sewerred, statistics and flow from the existing and buildout GardenWalk Project, and where that flow is entering the sewer system. A substantial amount of detailed research and some assumptions were required to ensure the proposed hotel and the surrounding land uses were being accounted for correctly in the sewer model. A major reason for this is the fact that there are two parallel sewers in S.Clementine Street north of Katella Avenue, which both end up in the northerly Katella Avenue Trunk Sewer, but we needed to ensure there was adequate capacity in the Clementine sewer to which the proposed hotel will discharge. Below is a list of our research findings and assumptions by area.

Anaheim GardenWalk Project

- For the Central Anaheim Master Plan of Sanitary Sewers (CAMPSS) approved in January 2018, the Anaheim GardenWalk Project was loaded based on acreage, using the CAMPSS retail flow rate of 1,700 gpd/acre, and all sewerred to the existing 8” VCP sewer running along the westerly side of S. Clementine Street (same side of the street). Using this master planning-level average flow rate for the GardenWalk project generated a total flow of 17.6 gpm.
- In researching various environmental documents it was determined there were more detailed statistics in terms of different types of commercial development available. According to the Addendum to the Pointe Anaheim Initial Study/Mitigation Negative Declaration-Anaheim GardenWalk Project, dated March 2013, the GardenWalk sewer flow was broken down by retail, restaurant, entertainment, and night club/bar commercial uses by square feet of building space. The updated average flow rate for the total GardenWalk project was totaled at 153.6 gpm in this EIR Addendum. We are not certain that all of that development has been constructed and is existing but for the purpose of sewer master planning in this sewer study and going forward we are assuming this is the total average flow in the Existing and Buildout Scenarios from the GardenWalk project.
- It was also determined from discussions with City staff and from sewer improvement plans for Clementine Street (Plan Nos. 25087, 25088, and 25089) that the Anaheim GardenWalk project is sewerred, at least partially to the existing 8” sewer in S. Clementine Street via an 8” lateral connecting just south of the Fire Station on Clementine Street. Although not confirmed from plans, it was assumed that the portion of

the GardenWalk project south of this 8" lateral sewers southerly (since drainage is in that direction) and connects directly to the northerly Katella Avenue sewer. The 8" lateral to Clementine pretty much cuts the GardenWalk commercial development in half but since the higher flow generating restaurants are predominately to the south along Katella, it was assumed that 60% of the total Anaheim GardenWalk flow sewered to Katella and 40% sewered to the 8" VCP sewer running along the westerly side of Clementine Street.

Buildout Clementine Street Hotels

- There are two 400 room hotels (800 rooms total) that are planned to be built (Buildout Scenario in the computer model) west of Clementine Street and south of the Clementine Street Fire Station.
- These hotels were previously loaded in the computer model to the existing 8" VCP sewer running along the westerly side of Clementine Street (same side of the street as the hotels).
- Based on sewer improvement plans produced by City staff for Clementine Street (Plan Nos. 25087, 25088, and 25089), it was determined that there were two existing 10" laterals constructed from one new and one existing manhole on the existing 12" VCP sewer running along the easterly (far) side of Clementine Street that are labeled as hotel laterals. Therefore, the loading for these two hotels of 400 rooms each in the Buildout Scenario sewer model was moved from the existing westerly 8" Clementine sewer to the 12" easterly Clementine sewer.

Conclusion

The effect of this sewer study due to the fairly small net additional flow from the 125 proposed hotel rooms minus the flow from the existing dry cleaner on the site is not significant. However, the additional flow from utilizing the more detailed buildout flow projections from the GardenWalk EIR Addendum and the re-loading of these flows is more impactful in that depth-to-Diameter ratios (d/D) in the northerly Katella Avenue Trunk Sewer are increased by less than 0.01 over what was previously in the CAMPSS modeling for both Existing and Buildout Scenarios.