Summary

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Field Visit Summary Report
City of Jersey Village
Wednesday, September 28, 2016
11:00AM – 3:30PM

General Summary

Al Flores, Johan Petterson, and Maegan Nunley from the Dannenbaum team and Kevin Hagerich, Christian Somers, Jim Bridges, and Kimberly Terrell from the City of Jersey Village attended the field visit. Approximately 16 points of interest (POI) were observed and documented during the field visit. The POIs were located throughout the City along White Oak Bayou and its tributaries. Example POIs included bridges, stream junctions, and other drainage features. An additional POI was visited after the main field visit. The following are descriptions of the observations at each POI.

Pedestrian Bridge over White Oak Bayou @ Clark W. Henry Park

The pedestrian bridge was overtopped during the Tax Day Flood (April 18, 2016) according to City personnel. Dannenbaum observed that the bridge is a choke point for the channel and could be improved. City personnel also stated that much of the park was inundated during the Tax Day Flood.

Lakeview Drive Bridge over White Oak Bayou

A waterline was observed attached to the bridge. The bridge also has a set of columns in the main channel. The columns cause losses and allow debris to build up against the bridge.

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Jersey Lake Spillway onto Ginger Lane

The spillway for Jersey Lake was investigated. The permanent water surface elevation of the lake is approximately 6” below the top of the spillway. The spillway is a narrow concrete channel that connects to Ginger Lane and has an inlet for flow to enter the storm sewer system. The pipe underneath the inlet is a one-way pipe. More information is needed concerning Jersey Lake, including plans and O&M information. The lake is on private property and is not part of any City ROW or easements.

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White Oak Bayou and E127-00-00 Junction

White Oak Bayou (E100-00-00) is forced to make a 90° bend at the junction with E127-00-00. A sheet pile drop structure is located immediately upstream of the junction and is perceived as a “choke point” by the public. The drop structure will be analyzed during the project to determine if it causes flow to back up during extreme events. Approximately 300’ downstream of the junction, the slope on the left side of E100-00-00 has failed. Possibly due to erosion in the bottom of the channel.

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Senate Avenue Bridge over E127-00-00

The Senate Avenue Bridge over E127-00-00 does not have columns in the bottom of the channel. However, there is a water line that crosses the stream on the downstream side of the bridge with one support column in the bottom of the channel.

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Rio Grande Street Bridge over E127-00-00

The Rio Grande Street Bridge over E127-00-00 appeared to have one set of columns in the bottom of the channel and has a water line attached to the bridge. The bridge did appear to have elevated approaches and will need to be checked for overtopping. Upstream of the bridge, box culvert restrictors had been placed in the channel.

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US 290 Crossing over E127-00-00

The US 290 Crossing over E127-00-00 has multiple bridges. The westbound frontage road bridge has one set of columns in the channel. Box culverts also outfall at the US 290 crossing.

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E127-00-00 Headwaters and Jones Road Crossing

The defined channel for E127-00-00 begins just west of the Jones Road crossing and is a well-maintained channel. Two pipes outfall into the channel at its headwaters on opposite sides. The Jones Road Crossing is a large box culvert with flared wing walls.

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US 290 Crossing over E135-00-00

The US 290 Crossing over E135-00-00 has multiple bridges. A waterline is attached to the westbound frontage road bridge. The channel was choked with debris and in need of maintenance.

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E135-00-00 Junction with Minor Tributary

The junction of E135-00-00 and one of its minor tributaries seemed to be functioning well. No erosion damage was observed. However, looking downstream on E135-00-00 another box culvert restrictor was observed in the channel. The restrictor is located upstream of the Steepleway Boulevard Bridge. Castlebridge Drive crosses over the tributary via box culverts.

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Steepleway Boulevard Bridge over E135-00-00

The Steepleway Boulevard Bridge is two separate bridges. A waterline is attached to the western (southbound) bridge. The bridges' columns are also placed in the bottom of the channel. The bridges are not perpendicular to the channel, meaning that the columns were placed on a skew.

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Jones Road Bridge over E135-00-00

The Jones Road Bridge has a waterline attached to the western side and other utilities attached to the eastern side. The crossing is a single bridge, with minimal to no skew compared to the channel. The bridge columns are not in the bottom of the channel.

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E535-01-00 Stormwater Detention Basin

The E535-01-00 Stormwater Detention Basin has a permanent water surface elevation, has functioning wetlands, and has a large multi-frequency weir outlet structure. The City provided a copy of the study, and the plans for the Basin will be requested from HCFCD.

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Jersey Meadow Golf Course

The Team took a tour of the Golf Course to look at the drainage patterns. The highest elevation water feature was located at hole 14. In general, the golf course drains from west to east. The eastern edge of the golf course sheet flows onto Rio Grande Street. The sheet flow is the largest near the intersection of Rio Grande Street and Wall Street. Debris was observed at the fence on the eastern side of the Golf Course.

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White Oak Bayou, Bypass, and E135-00-00 Junction

The stream junction at White Oak Bayou (E100-00-00), the White Oak Bayou Bypass (E200-00-00), and E135-00-00 is a unique stream feature. E135-00-00 does not connect directly to the Bypass. The Bypass splits from White Oak Bayou immediately upstream of E135-00-00. An old concrete weir was observed at the junction with no apparent purpose. Severe erosion has been occurring along the right bank of White Oak Bayou downstream of the junction since before the Tax Day Flood.

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Tahoe Drive Bridge over White Oak Bayou

The Tahoe Drive Bridge was visited after the main field visit. It is located upstream of the junction of White Oak Bayou and E127-00-00. A waterline is attached to the bridge on the south side. One set of columns is on the edge of the channel bottom. Slope failures have occurred immediately downstream of the bridge on the left side of the channel. These slope failures are similar to those observed downstream of the junction of White Oak Bayou and E127-00-00.

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