Tighe&Bond
Engineers | Environmental Specialists

11-0509-6
August 22, 2018

Town of Darien
Department of Public Works
2 Renshaw Road
Darien, CT 06820

Attn: Mr. Darren Oustafine, P.E.

Re: **Post Road/Corbin Drive Sewer System**
Stonybrook Pump Station
Capacity Analysis
Response to Comments

Dear Mr. Oustafine:

This letter has been prepared in response to comments received by your office in regards to the Post Road/Corbin Drive Sewer System and Stonybrook Pump Station Capacity Analysis as listed in your letter dated July 24, 2108.

Comment 1: Page 2, 2nd paragraph states that connection point to sewer system has not been identified. Known problems in line exist at least as far west as the sewer manhole at the intersection of Leroy Avenue and Post Road. Connection to sewer will only be allowed at SMH at Leroy Avenue (or point further west on Post Road) to prevent adding to a known wet weather problem area.

Response 1: All sewer flow from the existing buildings within the project area currently discharges into the Corbin Drive sanitary sewer. As stated in the Engineering Report, flows from Buildings B, C, D, E, F and G will be conveyed to the sanitary sewer in the Post Road near the intersection with Leroy Avenue via a new 8-inch PVC sanitary sewer under the sidewalk that runs along the south side of the Post Road. Flows from buildings A, I, H, K and L will connect to the existing sanitary sewer in Corbin Drive.

Comment 2: Page 3 under "flow metering", report mentions that the town should investigate if possible blockages in pipes on Post Rd in vicinity of Corbin intersection. Currently ongoing.

Response 2: No response required

Comment 3: Page 4, under "Future Flows", Why use 884,000 gpd estimated in lieu of 885,491 gpd measured? More conservative and actual measurement. (Page 6 also).

Response 3: Existing and future flow estimates were prepared based upon water usage data provided by the Town of Darien. The comparison of flows estimated from water usage data to measured pump station flows was performed only to confirm that use of the water usage data is a valid method for estimating both existing and future flows.

Comment 4: Page 5, under Sewer Capacity Evaluation, Reference to Figure 3 and Appendix B of report references segment ID's. Figure 3 not found.

Response 4: Figure 3 is attached for review.

Comment 5: . Appendix B highlights surcharged lines however Figure 3 was not found and therefore segments could not be identified nor located.

Response 5: Figure 3 is attached for review.

Comment 6: On page 5, first paragraph, the report discusses the flooding of the gravity sewer during rainfall events. Since we installed the new pumps in the Stony Brook PS and installed locking SMH's in ball field, we have not had any bypasses. Please clarify for support your definition of "flood".

Response 6: The report text has been revised by adding the following sentence to the first paragraph of page 5: "To prevent sewer overflows, the Town has installed locking manhole covers on key manholes and replaced the pumps at the Stonybrook pump station. As a result of these measures, the sewer main no longer overflows, however, flow within the sewer pipe and manholes is still known to surcharge during rain events."

Comment 7: On page 5, second paragraph, the report discusses the capacity of the Sony Brook Pump Station and on page 2, the fourth paragraph under "Pump Station" discusses the definition of pump capacity as being that with one pump out of service. This might lead a reader of this report to come to the conclusion or infer that the Stony Brook Pump Station experienced a bypass or release of sewage since the "capacity" had been exceeded. In reality we frequently operate with 3 pumps running during wet weather flows and do not experience sewage bypasses. Please clarify this language to make clear to readers that the Stony Brook Pump Station has actual capacity to handel the wet weather flows of May 1, 2014 (and others) based upon the fact that all three pumps are operational.

Response 7: The report text on page 2 has been revised to clarify the design capacity. The last paragraph in the pump station section is now as follows: "Since the station contains 3 pumps, a pump discharge rate higher than 3.4 MGD is feasible with all 3 pumps operating at the same time". The report text has also been revised on page 5. The second paragraph discussing pump station peak flows is as follows: "For the purposes of this evaluation, the gravity mains were evaluated on the total daily flow reading of 3.53 MGD recorded at the Stonybrook pump station on May 1, 2014, which was the highest daily flow recorded in 2013/2014/2015." A sentence has also been added at the top of page 3 noting that no overflows were noted to occur on this date.

Comment 8: On page 5, paragraph 1, please clarify the specific overflows outside of the area of the Stony Brook Pump Station. Again – the use of the word "flood" should be clarified. Are you referring to sewage bypasses or surcharging within the SMH? If you are referring to bypasses, please be very specific as to number and cause of bypasses. If not, please make the distinction to let reader know information.

Response 8: Please see report edits made in response to Comment 6.

Comment 9: Design elements should be discussed with DPW staff. We note that a proposed sewer line replacement on Corbin is shown beneath electrical and streetscape lighting. Although beyond the scope of a capacity analysis, changes in design may affect capacity analysis.

Response 9: We have relocated the sanitary sewer into Corbin Drive in front of Building A and B. Due to the congestion of electrical infrastructure near building L, we are forced to keep the sewer under the sidewalk in this area. The street lights and trees have been adjusted in this area to avoid conflicts with the relocated sewer main. Revised Utility, Planting, and Lighting drawings have been provided with these responses for your review.

We trust that this letter addresses all of your comments. If you have any questions or additional comments, please do not hesitate to call.

Very truly yours,

TIGHE & BOND, INC.

Lori A. Carriero, P.E.
Project Manager

John W. Block, P.E, L.S.
Senior Vice President

Enclosures: Figure 3

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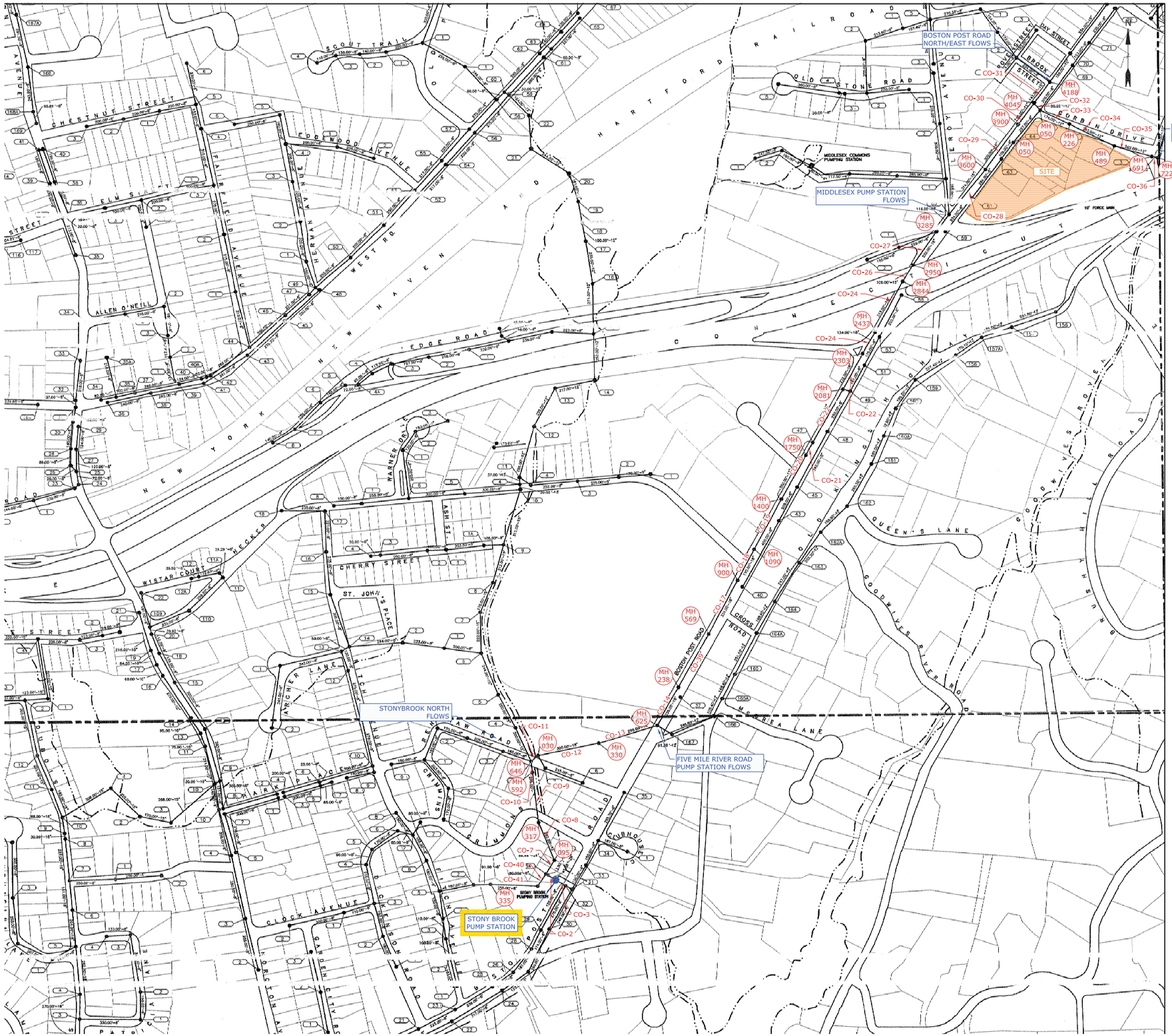

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Corbin Drive Sanitary Sewer Capacity Analysis

10 Corbin, LLC

Darien, Connecticut

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PROJECT NO:	B0509
DATE:	2015/08/05
FILE:	SEW-B0509-21.dwg
DRAWN BY:	ADM
CHECKED:	XX
APPROVED:	XX

SCALE:

Figure 3

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