

April 13, 2018

Mr. Craig Dixon
Chairman
New Bedford Conservation Commission
New Bedford City Hall
133 William Street
New Bedford, MA 02744

RE: Nitsch Project #9972
Flaherty Drive Improvements
Certificate of Compliance
New Bedford, MA

Dear Mr. Dixon:

This letter is in regard to the request for a Certificate of Compliance for Flaherty Drive in New Bedford, Massachusetts. Nitsch Engineering has reviewed the following documents supporting the request for a Certificate of Compliance:

- Plans entitled "New Bedford Business Park, Proposed Flaherty Drive Extension, Flaherty Drive, New Bedford, Massachusetts," prepared by Fields Engineering Co., Inc., dated February 20, 2007.
- Plans entitled "Extension of Flaherty Drive in the City of New Bedford, Bristol County," prepared by Massachusetts Department of Transportation (MassDOT), dated 2012.
- Request for a Certificate of Compliance filed by Field Engineering Co., Inc. dated March 16, 2018 including:
 - Project Memorandum comparing as-built peak runoff rates with pre-development and approved design peak runoff rates;
 - As-built plans of Detention Basins 1 and 2 prepared by Field Engineering Co., Inc., dated March 16, 2018;
 - As-built hydrologic drainage calculations;
 - Photographs of the wetlands replication area; and
 - As-built plans of the project prepared by DW White, dated October 1, 2013.
- Notice of Intent with Drainage Report entitled "Kings Highway Improvements, New Bedford, Massachusetts, MassDOT Project No. 606709," prepared by CDM Smith, February of 2018.

Below are our comments on the proposed request for a Certificate of Compliance:

1. Nitsch Engineering did not review the initial proposal when it was submitted to the Commission for an Order of Conditions.
2. It appears that following the approval of this project by the Conservation Commission in 2007 this project was re-designed by the MassDOT in 2012. The plans prepared by MassDOT had a number of differences from the approved plans including the following:
 - a. The plans were prepared on a different survey datum. The plans prepared by Field Engineering Co. Inc. were prepared on New Bedford City datum while the plans prepared by MassDOT were prepared on NAVD 88. This difference reflects an approximately two-foot difference in elevation.
 - b. The MassDOT plans included two sets of catch basins located upstream of the grates that are above the turtle crossing areas. Each set includes a catch basin to catch basin connection and a discharge from the catch basins towards the wetlands. Riprap was not included on the plans at the discharge point or placed in the field.
 - c. The MassDOT plans show two- to 12-inch pipe crossings between the turtle crossing areas. No riprap was included at the downstream discharge point from these culverts. One of the discharge pipes is partially buried.
 - d. There was a double catch basin that was approved at the end of Flaherty Drive near Detention Basin 2. The MassDOT plans did not show the double catch basin. Instead, two separate catch

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basins were installed with both catch basins having a separate discharge pipe that discharges to the sediment forebay in Detention Basin 2.

3. The project appears to be built consistent with the MassDOT plans. Our understanding is that the MassDOT plans were not submitted to the Conservation Commission for review.
4. The as-built plans prepared by DW White, the project's contractor appear to be prepared on NAVD 88 datum. It appears that the detention basin as-built plans were prepared by Field Engineering Co. Inc. on New Bedford City datum.
5. The as-built plan for detention basins 1 and 2 appear to show less volume than the approved design. However, the as-built calculations show that the capacity in each detention basin is sufficient to mitigate all design storms.
6. The as-built calculations submitted show slightly higher peak flows than originally approved by the Commission. However, the peak flows generally match and are slightly lower than the existing conditions calculations.
7. There are some general maintenance items that should be performed on detention basin 1. The splash pads at the end of the discharge pipes into the detention basin have generally silted up. We recommend that the silt in these areas be removed.
8. The splash pad at the discharge pipe from detention basin 2 is effectively a depression that holds water. The water that is sitting in the splash pad is effectively controlling the water elevation in detention basin 2.
9. Assuming the Commission is comfortable with the changes made by MassDOT and ultimately built in the field, the as-built conditions are generally consistent with the approved plans.

If you have any questions, please call us at 617-338-0063.

Very truly yours,

Nitsch Engineering, Inc.



Scott D. Turner, PE, AICP, LEED AP ND
Vice President, Director of Planning

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