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December 23, 2016

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

RE: Nitsch Project #9972
Airport Terminal Aprons, Phase I
Review Letter
New Bedford, MA

Dear Mr. Dixon:

This letter is in regards to the proposed New Bedford Regional Airport Terminal Aprons Redevelopment project located at 1569 Airport Road in New Bedford, Massachusetts. Nitsch Engineering has received and reviewed the following additional documents for compliance with the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards:

- Response to comments letter, prepared by Airport Solutions Group, dated December 16, 2016;
- Terminal Area Apron Phase I Plan, Sheets C1.1 and C2.1, prepared by Airport Solutions Group, revised December 15, 2016;
- CDS Guide Operations, Design, Performance and Maintenance; and
- Report entitled "Reconstruct Terminal Area Aprons – Phase I, Stormwater Management Report," prepared by Airport Solutions Group, revised December, 2016.

We reviewed the revised materials submitted on this project with respect to the MassDEP Stormwater Management Standards, as described below:

1. The documents note that the overall Airport Terminal Aprons project will be phased and that the documentation provided is for Phase 1 only. We understand that the other phases of the project are located outside of the buffer zone but generate stormwater that is ultimately discharged to onsite wetlands. This was discussed at the site visit. Typically, projects are permitted as one phase rather than segmented into different phases. Our understanding is that there is no timetable for completing Phase I or subsequent phases of the project. The Applicant explained in the response letter that the Aprons project is the first phase of a multiple phase project that will take place over many years. Additional plans or other information regarding the subsequent phases was not provided.

2. A headwall is proposed for the new stormwater outfall. We recommend that the plans show stabilization measures at the downstream end of the headwall to minimize impacts to the Bordering Vegetated Wetland (BVW) and comply with Standard 1 of the MassDEP Stormwater Handbook. The revised plans show a rip-rap splash pad and compost filter sock. We recommend that a detail be provided for the rip-rap pad showing dimensions of the pad as well as the size of the stone. We recommend that stone for pipe ends MHD Spec M2.02.3 be used for the rip-rap pad. The majority of the proposed pipe, flared end, and rip-rap pad are within the 25-foot buffer zone.

3. Hydrologic drainage calculations were provided for flows to the three wetlands systems in the vicinity of the proposed project. There is an increase in peak flows to one of the wetlands systems and decreases in peak flows to the other two. Effectively, an existing area consisting of grass and pavement is proposed to be changed to pavement and this area is directed from one wetlands system to the other.

4. The project does not include any infiltration facilities. Per Standard 3, infiltration is required for the portion of the project that includes installation of an additional 22,000 square feet of pavement, which is considered new development. Soil borings were performed in the project area that show shallow groundwater. Test hole logs were not submitted. The applicant has stated that significant amounts of impervious surface have been, or plan to be, removed in other areas of the airport. The applicant has requested a waiver from providing dedicated groundwater recharge facilities for this specific project due to the removal of over 100,000 square feet of impervious surface in other areas of the airport.

5. Sizing information has not been provided for the proposed hydrodynamic separator. The plans should reference either the size of the proposed unit or a performance specification for the unit. We recommend that sizing information be provided to confirm the Total Suspended Solids (TSS) removal rates as shown in the calculations and a performance specification be provided to ensure that the unit provided meets the removal requirements of Standard 4, Water Quality Treatment.

6. The project includes areas that are defined by MassDEP as Land Use with Higher Potential Pollutant Loads (LUHPPL). Therefore, the project should comply with the treatment requirements for a LUHPPL, including TSS removal using the best management practices (BMPs) allowed under Standard 5 of the MassDEP Stormwater Management Standards.

7. The project is a combination of new development and redevelopment. In general, additional stormwater treatment has been provided over the existing condition. A structural hydrodynamic separator is proposed to provide additional treatment. However, neither sizing information or a specification on the unit has been provided on the plans or in the calculations. The applicant has requested a waiver from the groundwater recharge requirement as described above.

8. Figure 4 of the Notice of Intent (NOI) indicates that the area where additional pavement is proposed to be installed is a Priority Habitat for State Protected Rare Species. The Applicant states that a Letter of No Take has been provided by the Natural Heritage and Endangered Species Program. We have not seen this letter.

9. As described above, the proposed discharge from the headwall discharging from PR-OW-1 is close to the wetlands line. There are other areas of pavement that are within 25 feet of the wetlands line. Typically, the Commission has requested that all work be located outside of 25 feet from wetlands.

10. Pipe sizing was provided in the HydroCADD calculations for the 10-year storm. The calculations show some of the pipes flowing full and surcharging, but no overtopping any structures.

11. The proposed replacement culvert has been modified to include a headwall and rip-rap pad.

We appreciate the opportunity to review this project for the Conservation Commission. Please contact us with any questions.

Very truly yours,
**Nitsch Engineering, Inc.**

Jennifer L. Johnson, PE, CPSWQ, LEED AP BD+C
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Approved by:

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

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