



**Peer Review Comment Form**

NO.	SHEET NO.	SECTION	GREEN'S COMMENT	Applicant's RESPONSE	CONFIRMED BY	DATE
<b>Chapter 38 Stormwater</b>						
1	C001 & C101	§38-16.C.2	The linetypes in C101 have callouts identifying the lines but some of the linetypes do not match the linetypes in the legend on C001. For example limit of work is shown as dashed in C101 but dashed dot in the legend on C101. Please revise the plan or legend to make sure all linetypes are consistent between the plan and the legend.			
2	Watershed Plans	§38-16.C.2	The CN value for Dirt Road is 72 for A soils in HydroCAD lookup table. The survey notes this as a "Dirt trail". The Applicant is using a CN of 77. Please explain why CN of 77 is being used instead of 72.			
3	C103/SW Report	§38-17.C.5	The estimated seasonal high groundwater elevation (November to April) should be measured in areas to be used for stormwater retention, detention, or infiltration. The report indicates that the seasonal high groundwater was measured in September from a "nearby well". The wells are noted to be in Acton and Westford but do not provide a distance to the project. Please provide a test pit to confirm the seasonal high groundwater in the location of the proposed infiltration basin.			
<b>Drainage Plans</b>						
4	C103/C502	MA Stormwater Handbook Vol 2 Chp 2	The MA Stormwater Handbook recommends providing no steeper than 3:1 side slopes for infiltration basins. The plans and details call out for 3:1 grading for the infiltration basin but the western portion of the basin appears to be steeper than 3:1. Please revise.			
5	C103		The proposed equipment and building appear to be set at a lower elevation than FEMA flood elevation. It is not recommended to install new equipment and building within the floodplain. Is the building and equipment designed to accept flooding?			
6	C103		Do the cut/fill calculations within the floodplain account for the fill volume of the equipment and building within the floodplain?			
7	C103	MA Stormwater Handbook Vol 2 Chp 2	MA Stormwater Handbook recommends infiltration basins to have a setback distance of 50 feet from any slopes steeper than 15%. It appears this is not met on the west side of the basin. Please revise the grading to meet the recommended setback.			
8	C503	MA Stormwater Handbook Vol 2 Chp 2	Consider using a trapezoidal shape drainage channel instead of a V shape channel to minimize risk of erosion.			
9	C503	MA Stormwater Handbook Vol 2 Chp 2	MA Stormwater Handbook recommends drainage channels to have 3:1 side slopes or flatter to prevent side slope erosion. Please revise side slopes to be 3:1 or flatter for the grass channels.			
<b>Stormwater Report</b>						
10	Standard 1: No New Untreated Discharges	MA Stormwater Handbook Standard 1	Standard 1 states there must be no new stormwater conveyances discharging untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. The Applicant has noted that 40% of the impervious area will be treated but the remaining 60% of the impervious area will directly discharge untreated stormwater to the wetlands. The Applicant has considered this 60% of impervious area "de minimis." Based on comments from MassDEP, the "de minimis" categorization is not acceptable. Please provide stormwater treatment so there is no new untreated stormwater discharge to the wetland.			
11	Standard 3: Recharge	SW Checklist	It appears that the separation of the bottom of the infiltration basin from seasonal high groundwater is less than 4' and the infiltration BMP is designed to infiltrate more than the 10 year storm. Therefore, a mounding analysis should be provided. Please provide a mounding analysis and check the box in the SW checklist.			
12	Soil Analysis	MA Stormwater Handbook Vol 2 Chp 2	MA Stormwater Handbook recommends one soil sample for every 5,000 ft of basin area. Samples should be taken at the actual location of the proposed infiltration basin so that any localized soil conditions are detected. It appears that there have been no soil samples taken in the area of the proposed basin. Please clarify and provide soil analysis.			



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13	C103/Watershed Plans		The proposed grading has created a depression at station 8+35 south of the proposed road. It appears this area would fill up and overtop onto the roadway. Although, the watershed plans indicate this area discharges away from the roadway. Please revise grading or watershed plans to be consistent.			
14	Watershed Plans/HydroCAD/Soils Map		The NRCS soil boundaries should be shown on the watershed plans for clarity. The HydroCAD calcs indicate all work is within A soils. Please confirm there is no work within the B/D soil area that is shown on the NRCS soil map.			
15	Modelling	MA Stormwater Handbook Vol 2 Chp 2	Grass Channel should be designed to convey the 2- year and 10-year storm event. There should be a minimum 1 foot of freeboard for the 10 year storm. Please provide backup calculations to demonstrate this has been met.			
<b>O&amp;M Plan</b>						
16	O&M	Stormwater Checklist/§38-18.B.3	The O&M plan shall include the signature(s) of the owner(s).			