

**From:** Owens McCullough <omccullough@sebagotechnics.com>  
**Sent:** Thursday, April 22, 2021 10:25 AM  
**To:** Mark T. Arienti; Amanda L. Lessard  
**Subject:** RE: Windham Public Safety Building Expansion Major Site Plan

Hi Mark,

Thanks for the follow-up and review comments. I have provided responses in red next to the comments. Thx. Owens

---

**From:** Mark T. Arienti <mtarienti@windhammaine.us>  
**Sent:** Wednesday, April 21, 2021 9:25 PM  
**To:** Amanda L. Lessard <allessard@windhammaine.us>; Owens McCullough <omccullough@sebagotechnics.com>  
**Subject:** Windham Public Safety Building Expansion Major Site Plan

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Amanda,

I've reviewed the following documents for the above project:

- Windham Public Safety Renovation and Expansion project, Major Site Plan Application, dated March 2021
- Windham Public Safety Building Expansion Plan Set Revised 4/5/21
- Windham Public Safety Building Expansion, Response to Comments, 4/21/21

I have the following comments on the above:

- Sheet 5, Grading and Utility Plan, of the plan set listed above shows a swale with erosion control blanket and loam and that takes drainage from an existing culvert under Rte. 202 and directs it to an 18" culvert and then a drainage basin area near the eastern boundary of the site. Is this the existing drainage infrastructure that was constructed as part of the Community Park Work completed a year and a half ago or is this newly proposed drainage infrastructure. It appears to be in the same area. **Yes, it is the same area. The area is all grass and we will regrade to maintain the same intent of the community park plan and accommodate the new apron area. This will require moving the existing culvert as shown.**
- A HydroCad stormwater drainage analysis was included in the application that concludes that the post-development peak flows will be less than the predevelopment peak flows as required under Section 812.E of Windham's Site Plan Review Ordinance. A couple questions on the analysis:
  - The analysis includes two 25' long, 18' breadth overflow spillways for the existing detention pond. The plans show one spillway, but not the other. Please clarify where the other one is. **In the pre-development the topography suggests two overflow spillways although when I looked at the original plans only one was shown. We modeled it as two spillways based upon our field survey work. As part of the project, we will be eliminating the spillway at the south end of the pond and keep the what was the originally design spillway from the prior plans. This should restore the site to the original design intent.**
  - It looks like the analysis of the pond assumes all the water flowing into the pond during the 2-yr, 10-yr, and 25-yr storms will infiltrate at a rate of 2.41 cfs. Is this a reasonable assumption based on the soils at the site or with the increase in impervious area will there be a possibility of overflow? **While I was onsite, I had spoken with the fire department and asked them how often the pond was filled and to what height. The response I received was that they had never observed any appreciable water accumulation in the pond. Also after snow melt and rain, I did stopped by and did not observe any ponded water. Given the general soil conditions (sandy loams) in the area and that the detention pond has been observed not to accumulate any appreciable amount of runoff, we applied an infiltration rate within the pond. This approach worked well with the pre-development model for general calibration based upon the pond size, observations of little or no water accumulation in the pond during storm events. Once we calibrated the pre-development model, we developed the post model to provide a more representative model of the actual pond function.**

- Why isn't the far northern corner of the site included in the HydroCad drainage analysis? This area of the site is already a paved parking area where the evidence building will be located. Field recon suggests the topography from this area doesn't make its way to the detention pond. Since we are essentially trading pavement for building, we felt there was no practical benefit or change in hydraulic conditions to warrant modeling the area.
- The Grading & Utility Plan show a drip edge on the north side of the building. Is this just an aesthetic feature or is it a roof dripline filter as in the Maine DEP BMP Manual. Will there be an underdrain pipe and if so where will it discharge? The stone drip edge is solely to prevent drip edge erosion from the roof. In the past, we have seen erosion along the drip edge of sloped roofs so we felt the stone would provide for better edge protection.
- It is recommended that a "snout" be installed on the outlet of CB-1 since this location is on the concrete apron outside the garage where there is a potential for oil leaks. Agreed. We will revise the plans.

Let me know if you have any questions on my comments,

Thanks,

Mark

Mark Arienti, P.E., Town Engineer  
Town of Windham  
8 School Road  
Windham, ME 04062

office: (207) 892-1909

cell: (207) 894-4107

fax: (207) 892-1916

[www.windhammaine.us](http://www.windhammaine.us)