



September 30, 2016

Joan McVaugh, Manager
Franklin Township
20 Municipal Lane
Kemblesville, PA 19347

RE: Gourmet's Delight Mushroom

Dear Ms. McVaugh:

Enclosed are revised plan sets and reports for the above referenced project. The enclosed plans respond to the Township Engineer's review letter dated 23 September 2016. Following are responses to the comments in the review letter. The comments from the letter are listed in normal text. The responses to each comment are indicated in ***bold italic text***.

I. CONFORMANCE WITH THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE – CHAPTER 22

1. Section 22-410. Refer to the specific section in this review for comments related to Stormwater Management.

Comment noted.

2. Section 22-722. Sewage. See separate review from the Township's sewage consultant.

Comment noted.

II. TRAFFIC, SITE ACCESS AND INTERNAL CIRCULATION REVIEW – CHAPTERS 22 AND 25

1. Prior comments have been addressed.

Comment noted.

III. STORMWATER MANAGEMENT REVIEW – CHAPTER 19

1. Section 19-302.A-E. All regulated activities shall have approvals from the applicable agencies prior to, or as a condition of, plan approval. These approvals need to be obtained.

The only other agency approvals that are needed are CCCD's approval of the E&S plan and PADEP's issuance of the stormwater NPDES Permit. The Applicant's

application for both of these is pending approval. We already have approval of the Mushroom Farm Environmental Management Plan.

2. Section 19-303.1-3. No regulated activity within the Municipality shall commence until approvals have been issued by PADEP and the Chester County Conservation District. These approvals need to be obtained.

The only other agency approvals that are needed are CCCD's approval of the E&S plan and PADEP's issuance of the stormwater NPDES Permit. The Applicant's application for both of these approval pending.

3. Section 19-312.3.J. When deemed necessary by the Municipality, stormwater basin facilities shall be enclosed with a fence of a type, size, location and character acceptable to the Municipality. The applicant should discuss this with the Township. We are not aware of fencing being required on privately owned facilities in the past.

Comment noted.

4. Section 313.1.E. & 312.1.F. Easements shall be provided for all basins and all conveyance and collection systems that are not located within street rights-of-way and shall be a minimum of 20 feet in width. Easements shall meet the applicable requirements in §19-704. A blanket easement is proposed for the stormwater facilities, according to Note 20 on Sheet 1. The Township Solicitor should review the language and determine the proper vehicle to establish this easement.

The Applicant's Attorney is working with the Township Solicitor to formalize the easement and the O&M agreements. Both will be fully executed prior to recordation of the final plan.

5. Section 19-402.1.A. Note on the maps shall refer to the associated computations and erosion and sediment control plan by title and date. The added note #15 on Sheet 7 will need to be updated to reflect the appropriate dates.

For now, this note has been revised to have blanks for the appropriate dates to be filled in when they are finalized. We are assuming that this note should refer to the final plan that is recorded.

6. Section 19-402.2.A.(3). The required signature block has been added and shall be signed, prior to plan recording.

The Applicant will sign the preliminary plan prior to the Board of Supervisors approval.

7. Section 19-402.2.A.(4).(a). The required signature block shall be signed and sealed, prior to plan recording.

The Applicant's engineer will sign and seal the preliminary plan prior to the Board of Supervisors approval.

8. Section 19-402.2.B.(14). Based upon the new mapping that was provided the various drainage areas and features within same have been clarified. It appears that the time of concentration does not include the area associated with the hay storage area in the pre-development condition. In addition, the cover selected for the proposed hay storage area [meadow] does not appear to be realistic as the hay is likely covered with a tarp. We also note that the time of concentration for area 2 draining to the basin that was utilized is conservative at a time of 5 minutes. While it is likely that there would not be a measurable change in flow [as a result of modifications to the cover condition being offset by an expected longer of concentration] revised calculations are needed to verify same.

The limit of the hay/straw storage area has been revised to be completely contained within SW Drainage Area #1. Allowing for compaction of the soil and the covering of the long term hay/straw storage, the land cover conditions were considered to be 75% impervious and 25% pervious. The SW wet pond and infiltration berm controlling the runoff from Drainage Area #1 was modified and re-analyzed to demonstrate compliance with the peak rate and volume control requirements. This revised design is presented on the plans and the revised analysis addressed in the new stormwater report.

9. Sections 19-402.2.F.(1)-(4) & 19-703. An Operations & Maintenance (O&M) Plan and Agreement will need to be executed.

An O&M agreement will be executed prior to final plan approval and recordation.

10. Section 19-402.2.G. The plan needs approval from the Chester County Conservation District and/or PaDEP for an NPDES permit.

The Applicant has applied for an NPDES permit.

11. Based upon the new information provided regarding the cross section of the conveyance system entering the waste lagoon, it appears that several storm pipes will be submerged during normal conditions. For this case, a tailwater condition will need to be modeled to ensure the pipes can function as intended.

The dirty water stormsewer system has been re-evaluated using appropriate tailwater conditions present in the receiving waste lagoon.

12. While the additional information was provided for the routing, we would like to see a sheet added that starts the routing for the wet basin at elevation 389, as this will confirm that the volume of the wet pond [volume below 389] is not being considered as part of the basin routing.

As a result of the adjustments to the Drainage Area #1 BMP design, the weir elevation is now at 388.5. The attached Page #27 from the SW report documents that the stormwater routing started at that elevation and now credit was taken for any BMP volume below that point.

13. The following is a list of waivers required per the presented plan set:

- Section 312.1.A.(2). Basins shall be 50 ft from any property line. The Wet Pond is located less than 50 ft. from the property line to the north [other lands of Gourmet's Delight Mushrooms, LP, located in the adjoining Township].
- Section 19-313.3.B. All pipes shall be reinforced concrete Class III or better, meeting PennDOT's 100-year life criteria. HDPE Pipe is being proposed.
- Section 19-313.3.E. The minimum cover of stormwater pipe shall be 24 inches.
- Section 19-313.4.N. Inlets in paved areas shall be equipped with bicycle safe grates.
- Section 19-313.4.S. Adjustment rings shall only be made of a single pre-cast concrete structure, a maximum of 6 inches in height.

The waivers have been noted on Sheet #1 of the plan set. It is anticipated that the Board of Supervisors will grant the waivers when they approve the preliminary plan.

14. On the outlet structure, we suggest that the 12" orifice be revised to match the 15" x 24" orifice that is located within the interior wall of the outlet structure. This will ensure that the routing will function as intended, as the 12" orifice may restrict flow and cause the water levels in the basin to rise faster than calculated and exit thru the principal spillway.

As a result of the re-design to accommodate the increased runoff from the hay/straw storage, the outlet weir is now 18" X 24". The outlet structure detail has been revised to reflect this increase and has been redesigned with an 18" X 24" submerged orifice.

15. The Wet Pond Level Spreader information on Sheet 9 contains some overlapping text that should be corrected for legibility.

The overlapping text has been corrected.

IV. GENERAL COMMENTS

1. We recommend Input from the local fire department be obtained.

Gabe Valentino met with the Fire Chief John Chambers on 27 September 2016 to discuss the plan. As stated in the attached letter, the Chief did not have any concerns with the proposed plan.

2. The applicant should be in contact with the Township Building Code Official to review and discuss various zoning and building code aspects that are applicable to this project such as a zoning permit, an electrical service permit, and permits for retaining walls.

Comment noted. The Applicant will contact the Township Code Official at the building stage to coordinate the zoning and building aspects of the building construction. This requirement has been memorialized in Note #26 on Sheet #1.

3. As the plan moves forward, the applicant should be aware that financial security will be required to be posted for the stormwater related aspects of the project, including, inlets, piping, basins, E&S controls, etc.

The Applicant will provide the appropriate financial security in the form of a performance guarantee prior to final plan approval and recordation.

4. This plan should reflect all the underlying items from the related minor subdivision plan.

The previously recorded subdivision plan has been referenced in Plan Note #4 on Sheet #1. The building setback line has been revised to be consistent with the subdivision plan.

We trust that the revised plans/reports and this letter adequately address your engineer's comments. However, should you need any additional information, please do not hesitate to contact me.

Very truly yours,

RAGAN ENGINEERING Associates, Inc.



Ronald I. Ragan, PE
Project Engineer

Attachments

Cc: G. Valentino, Gourmet's Delight Mushrooms

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.02

Wednesday, Sep 28, 2016

Hyd. No. 8

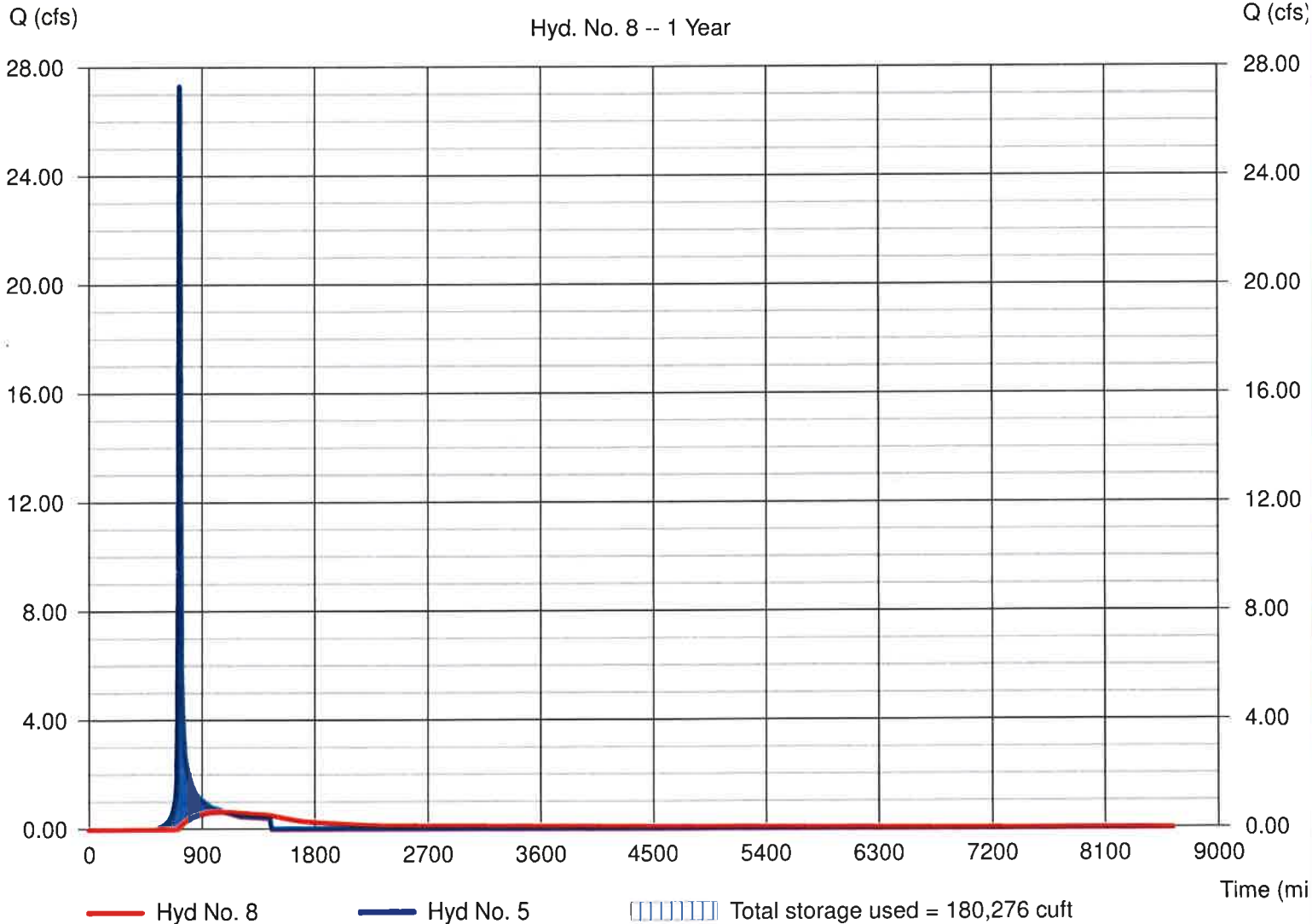
Wet Pond Routed

Hydrograph type	= Reservoir	Peak discharge	= 0.655 cfs
Storm frequency	= 1 yrs	Time to peak	= 1077 min
Time interval	= 3 min	Hyd. volume	= 67,667 cuft
Inflow hyd. No.	= 5 - Total DA to Forebay	Max. Elevation	= 389.22 ft
Reservoir name	= Wet Pond	Max. Storage	= 180,276 cuft

Storage Indication method used. Wet pond routing start elevation = 388.50 ft.

Wet Pond Routed

Hyd. No. 8 -- 1 Year



West Grove Fire Company

101 Walnut Street
P. O. Box 201
West Grove, Pennsylvania 19390-0201
"Professional Volunteer Fire Company"

September 29, 2016

Gourmet's Delight Mushroom Company, Inc.
PO Box 160
Avondale, PA 19311

RE: Land Development Plan – Phase 1, 2 & 3 – Composting Facility

Dear Mr. Valentino,

After reviewing the plans for the above referenced land development plan, I do not have any concerns or comments. The plans look acceptable to us pertaining to fire company needs.

If you should have any questions, please don't hesitate to contact me at the number below.

Sincerely,
John Chambers
Chief

"To Protect and Serve"
Serving the Avon Grove Communities Since 1905
Telephone 610-869-9326, FAX 610-869-4217
Fed. Tax ID 23-2199988
IRS 501 C-3
<http://www.wgfc.org>