

Wang, Teresa Marie

From: S Dunheimer <sdunheimer@gmail.com>
Sent: Monday, June 10, 2019 7:11 PM
To: Antonucci, Katelyn; Sheehan, Pieter Anthony; Joye, Adrian; Wastler, Kevin
Cc: Mayland, William; Leslie, Amber-Lee; Jody Bennett; Bret Leslie; Grant Sitta; Bret Busse; Harrison, Goldie; Planning Commission; Clerk to the BOS
Subject: Re: 2347 HMR SE: Question/Comment & Yes, Received: Septic Application PDFs from A. Joyce.
Attachments: Bret Leslie_Comments on adequacy of site characteristics for an alternative onsite sewage system.pdf; Bret Leslie_Page from Orr Site and Soil evaluation- Site 6 map annotated with depths of boreholes and soil.pdf

Katie, Pieter, Adrian & Kevin,

Piggybacking on Jehanne's comments and questions. I've just come across a definition from Fairfax County DPZ regarding assisted living/memory care facilities' **land use definition**. This was from the Staff Report regarding the new PCC zoning district but the land use and language covers all zones where permitted by special exception:

Assisted Living Facilities/Nursing Home/Memory Care Facility and Similar (all classified as a Medical Care Facility under the Zoning Ordinance) MCFs are defined as **any facility that is operated for the prevention, diagnosis or treatment of human conditions and facilities for the care of aged/disabled persons receiving nursing care or services related to an acute or chronic condition**. As such, a medical care facility includes everything from a general hospital to a NF or ALF. MCFs are permitted by special exception in the R-E through R-MHP Residential Districts, the C1 through C-8 Commercial Districts and the I-1 through I-6 Industrial District. MCFs are also allowed by right when shown on an approved development plan in all Planned Development Districts, all of which are subject to a number of additional standards set forth in Sect. 9-308 of the Zoning Ordinance, which includes a referral to HCAB for review and recommendation. MCF intensity is regulated by floor area ratio and the **uses are commercial/institutional in nature, rather than residential.**

If you also go to this American Health Care Association (AHCA) link (below), it does a great job of summarizing the Regulatory Licensure Terms, Conditions and Requirements for Assisted Living Facilities in the State of Virginia. AHCA is the nation's largest association of long term and post-acute care providers, representing these providers to government (legislative, regulatory and public affairs), business leaders, and the general public. T

<https://www.ahcancal.org/ncal/advocacy/regs/State%20Reg%20Review%20%20State%20Summaries/Virginia.pdf>

A couple of highlights - although the emphasize on environment is "homelike" there are two levels of care - residential (minimal) and assisted living (moderate) care. The latter encompasses memory care...and is what is being proposed by SE 2018-HM-024...not minimal, residential care.

Licensure Term	Assisted Living Facilities
Opening Statement	The Virginia Department of Social Services licenses two levels of service: residential living care (minimal assistance) and assisted living care (at least moderate assistance). Facilities may be licensed for either residential living care only or for both residential and assisted living care. The standards were recently revised, effective February 1, 2018, and emphasize resident-centered care and services and include requirements that strive for a homelike environment for residents.
Legislative and Regulatory Update	A comprehensive revision to the assisted living facility regulations recently occurred. The State Board of Social Services adopted these revisions with an effective date of February 1, 2018.

The "Third Party Scope of Care" (outlined below) in AHCA's regulatory review reflects the reality of the level of care being administered by licensed health care professionals within assisted living/memory care facilities on a daily basis. This acknowledged "Third Party Scope of Care" further reinforces that assisted living facilities are institutional/commercial in nature and not residential, as the DPZ has stated. Therefore any onsite septic design criteria that Orr/Benchmark is allowed to utilize by Fairfax County should be erring on the safe side and direct the applicant to utilize the recommended 200 gpd specified for "nursing homes" vs. the lower "home for the aged" category. The "Home for the Aged" would be more in line with the residential (minimal) level of care...which the Orr/Benchmark SE 2018-HM-024 facility is not.

Facility Scope of Care	Facilities provide residents assistance with activities of daily living, other personal care services, social and recreational activities, and protective supervision. Services are provided to meet the needs of residents, consistent with individualized service plans. Services include, but are not limited to, assistance or care with activities of daily living, instrumental activities of daily living, ambulation, hygiene and grooming, and functions and tasks such as arrangements for transportation and shopping. Service plans support individuality, personal dignity, and freedom of choice.
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Third Party Scope of Care	A licensed health care professional must be either directly employed or retained on a contractual basis to provide periodic health care oversight. Periodic reviews of residents' medications, when required, are performed by licensed health care professionals who are directly or contractually employed. Periodic oversight of special diets by a dietitian or nutritionist, either through direct or contractual employment, is required. If skilled nursing treatments are needed by a resident, they must be provided by a licensed nurse employed by the facility or by contractual agreement with a licensed nurse, a home health agency, or a private duty licensed nurse. For each resident requiring mental health services, appropriate services based on evaluation of the resident must be secured from a mental health provider.
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Attached is also the latest geological analysis we've received from Dr. Bret Leslie. Dr. Leslie has a Ph.D. in geology and served as Supervisor Hudgins' citizen representative to the group that developed the Difficult Run Watershed Management Plan. For fifteen years he served as a geochemist and performance assessment analyst for the Nuclear Regulatory Commission where he reviewed the U.S. Department of Energy's efforts to characterize the Yucca Mountain nuclear waste repository site and assess how the nation's proposed geologic disposal site would perform. Dr. Leslie was going to forward this information directly onto many of you. I'm attaching his

evaluation just to make sure it has been received because it indicates that the reserve drain field testing failed to meet its design criteria.

Sheila Dunheimer
VP, Hunters Valley Association
703-400-9091 (mobile/text)

On Thu, Jun 6, 2019 at 11:28 PM Jehanne Arslan <jehannearslan@gmail.com> wrote:

Hi Katie!

Yes, I received the PDF's in my post-surgery haze. My belated thanks to you and Mr Joye.

For responses to questions below, please feel free to tag on with colored text.

1. Sheila and Jody related their very positive and productive meeting the other week with you, Dir. Env Health Sheehan and Adrian Joye. One of their take-aways was that Dir. Sheehan didn't foresee a problem in issuing permits for the project, based on its residential use.

However, when I reviewed the 2 Applications for Letters of Certification, both the State and County Applications did not classify the project as 'Residential'. In one instance the project was simply termed "Commercial..."# Bed Rooms = N/A" and in the second instance, it was called 'Assisted Living Facility', with both the Residential and Multi Family options left blank and no number of units specified. Fairfax County Zoning Definitions deems Assisted Living Facilities as 'Institutional', alongside hospitals and skilled nursing facilities, but EXCLUSIVE of Congregate or Independent Living Facilities. This County Zoning Definition aligns with the Institutional Classification designated in the VA Building Code for Assisted Living Facilities.

Question: I'm confused, as are Jody and Sheila, as to the genesis for the 'Residential Use design/approval track' cited by Director Sheehan. It's a Commercial/Institutional use by everyone's account. What have we missed?

2. In reading the two Applications, I saw a number of 'auger refusals' at shallow depths and also one very limited depth to seasonal high water table noted in the test data for the Reserve Drainfield. Back in my professional days, this would have set off alarm bells and I would have 'called in the engineers'. At the last HMLUC hearing on 5/21/19, the Applicant did display a slide indicating that additional test data still needed to be provided as ... "a permeability limiting feature was less than 18" from ground surface"... I also noted in one Application that the southerly front active field showed trenches under the sidewalk and the entry drive; these trenches are shown despite their supposed removal at the request of the FCHD.

Question: Neither Application (both completed prior to the 5/21/19 committee meeting) referenced any outstanding additional or on-going testing for the Reserve Field.

- How can an Application be submitted when required testing is still outstanding?
- When will the soil loading rates referenced in the 4/19 comment matrix be completed and submitted? I assume this would

be in advance of the Planning Commission Hearing, but will Letters of Certification be in hand?

- How can an on-site disposal system be reviewed (or why bother to review one) lacking a needed Reserve Field?
- Last, is a drainfield still being proposed and potentially approved for placement underneath pavement?

Question: In the 2/25/19 Comment Matrix, the FCHD commented that additional plans (specifically 'formal engineered plans') were needed and..."..until an onsite sewage disposal system has been approved for the proposed facility the Health Department can not advance this plan forward.."..

- What is the status of the plans requested in February?
- Are the plans requested in February different from the 'design package' referenced in the 4/19/19 comment matrix?
- If so, why did the requirement change?

- On the 5/10/19 comment matrix, why are there are no comments from the FCHD? In-field tests are incomplete as are plan submissions, and the Applications are still in process for the Letters of Certification. Do these not require resolution?

Katie, I neglected to thank you previously for including some of the staff and Dept head memos in a prior email - they were all very helpful and averted some unnecessary questions (very good - right?). I'm very grateful for your continued thoughtful replies.

Thank you in advance for setting up the meeting next week - look forward to seeing you then!
Have a great Friday,
Jehanne

Comments on SE- 2018-HM-024 (Orr-BSL Hunter Mill, LLC)

Proposed drain fields and minimum requirements

The applicant's submitted documents (*Wastewater Characteristics Study Orr Associates BSL Hunter Mill*, dated October 12, 2018; *Onsite Sewage Disposal System and/or Well Construction Permit Application*, dated March 15, 2019, including the site and soil evaluation report) describes three drain fields (Site 1, Site 2, and Site 6) that are part of the proposed alternative onsite sewage system. According to the site and soil evaluation report, the absorption trenches are to be placed at 42 inches depth at the site designated on the permit (see pages 2 of 48, 17 of 48, and 26 of 48 of permit application, for Sites 1, 2, and 6, respectively). Soil percolation measurements at that depth (42 inches) are required to ensure that saturated hydraulic conductivity (Ksat) of the soil is enough for the proposed application rates (e.g., drip rates).¹ The soil must be at least 42 inches thick to obtain a measurement of saturated hydraulic conductivity at 42 inches.

Site 6

Depth of soil

The depth of soil that is needed in the proposed alternative onsite sewage system (42 inches) is much more than the measured soil thickness for Site 6, which can be as thin as 24 inches.

Five of the nine soil profiles submitted in support of Site 6 (pages 27-28 of 48) have soils that are less than 42 inches (*i.e.*, soil profiles 6-1, 6-2, 6-4, 6-5, and 6-6, whose locations are designated by #1, #2, #4, #5, and #6 on the map which is page 29 of 48).² Two characteristics in the submitted information support this interpretation. First, only for Site 6 is the soil horizon Cr identified. According to the *Field Book for Describing and Sampling Soils, Version 2.0*, a soil horizon designated as Cr means "sediment, saprolite, bedrock, and other geologic materials that are moderately cemented." Second, the term Auger refusal is commonly understood to mean that the horizon cannot be penetrated (*i.e.*, the soil/rock is too hard or tight for the Auger to penetrate). It should be noted that contrary to Fairfax sewage disposal facilities code, the applicant did not identify the maximum and minimum depth in inches to rock/impervious strata (page 26 of 48) but did mark the box "not observed." Based on the applicant's soil profiles within Site 6 boundaries, the maximum depth to impervious strata is 38 inches and the minimum depth is 24 inches.

¹ 12VAC5-613-40(G). Each application under § 32.1-163.6 of the Code of Virginia shall include a site and soil characterization report using the Field Book for Describing and Sampling Soils, Version 2.0, National Soil Survey Center, Natural Resources Conservation Service, U.S. Department of Agriculture, September 2002. The report may contain such information that the designer deems appropriate; however, it must describe the following minimum attributes of the site of the proposed soil treatment area:

1. Depth to limiting features, seasonal or perched water tables, pans, restrictions, or pervious or impervious bedrock;
2. Slope of the project area;
3. Ksat or percolation rate at the proposed installation depth and at depths below the soil treatment area to demonstrate compliance with this chapter.

<https://www.fairfaxcounty.gov/health/sites/health/files/assets/documents/pdf/sewage-disposal-facilities-code.pdf>

² I provide an annotated map which highlights in yellow the locations of soil profiles #1, #2, and #5. These are the only soil profiles within the mapped location of Site 6. For these highlighted soil profiles, I provide in red text the depth at which Auger refusal occurred. Also highlighted in yellow are the locations of saturated hydraulic conductivity boreholes with the depth (in inches ") at which the measurements were conducted denoted in red text.

Saturated hydraulic conductivity

The applicant did not provide “Ksat or percolation rate at the proposed installation depth and at depths below the soil treatment area to demonstrate compliance.”³

The 14 soil hydraulic conductivity boreholes (pages 30-43 of 48) used to characterize Site 6 are less than the required depth of 42 inches. For the five boreholes within the Site 6 boundary,⁴ measurements were conducted at a depth in the soil of 12 inches (3 of the five holes) or 28 inches.

³ 12VAC5-613-40(G)(3).

⁴ The annotated map also highlights in yellow the locations of saturated hydraulic conductivity boreholes with the depth (in inches ") at which the measurements were conducted denoted in red text. The saturated hydraulic conductivity boreholes within the boundary of Site 6 are A-12, B-12, E-12, F-31, and G-30.

