MEMORANDUM

To:         Sudbury Zoning Board of Appeals
From:       William C. Henchy
RE:         Sudbury Station LLC Application for Comprehensive Permit
Date:       July 25, 2016

Horsley & Witten, Inc. has submitted on Friday July 22, 2016, a memorandum to the Board, apparently on behalf of the Selectmen, concerning several aspects of the proposed development. I wish to briefly respond to several points made in the memorandum.

1. The Stormwater Design has already been peer reviewed

Hancock Engineering Associates, Inc. has now submitted two separate peer review reports to the Board of Appeals. In addition, the applicant has had its own internal peer review completed, prior to submission of the plan to the ZBA.

All professional engineers that have objectively reviewed the stormwater design have concurred that the plan meets all applicable requirements. The summary by Hancock Engineering says it best:

   Hancock Associates has determined that the stormwater management system is technically feasible to construct in a manner that would meet MassDEP requirements and serve to protect the residents on site and abutting properties.

2. Rainwater Amounts Conform to MassDEP Requirements

Horsley & Witten suggest that some rainfall amounts be used other than those prescribed by MassDEP. This matter was addressed in the cover memorandum to the Stormwater Management Plan. Horsley & Witten is simply incorrect in its choice of rainwater amounts. To the extent that they urge the amounts set forth in the Sudbury Stormwater By-law, those requirements are presumed to be inconsistent with local needs in this matter, and waivers have been sought.

The total rainfall amounts which are utilized in the design of the system comply with technical guidance issued by MassDEP in November, 2015 (copy attached) which in turn requires the continued use of "United States Department of Commerce, Weather Bureau, Technical Paper 40, Rainfall frequency Atlas of the United States." Though other potential datasets for rainfall amounts are under consideration by MassDEP, because the reliability of these datasets when applied to Massachusetts is not demonstrated, MassDEP
still requires the application of Technical Paper 40 ("TP-40") in calculating rainfall totals for purposes of stormwater design. Modifications to this standard are not expected in the immediate future (Lealdon Langley and Thomas Maguire MassDEP personal communication May 9, 2016).

We decline to use any unreliable rainfall datasets, and have conformed to the MassDEP Technical Guidance in this regard.

3. No ENF Is Required Because no State Permit or Financial Assistance is Sought

Horsley & Witten take the mistaken position that MEPA compliance is required because the proposed project, according to them, seeks financial assistance from the Commonwealth or requires a groundwater discharge permit for the wastewater treatment plant. Both claims are factually mistaken, and were addressed in my Memorandum to the Board of April 20, 2016, which Horsley & Witten apparently did not review.

MEPA jurisdiction exists when an applicant needs a state permit or state financial assistance and the project triggers a review threshold. Absent any need for a state permit or state financial assistance, there is no MEPA jurisdiction, even if arguably some review threshold is triggered.

The financing for this project will come from the New England Fund, a non-governmental subsidy program for the construction of affordable housing. Unlike a project financed through the MassHousing Partnership, there is no financial assistance from the Commonwealth through this program, which has been approved by the Courts. See Middleborough v. Housing Appeals Committee, 66 Mass.App.Ct. 39 (2006).

As we have indicated to the Board on Several occasions, the wastewater treatment plant will be permitted by DEP under the DEP General Programmatic Permit for small wastewater treatment plants established under 314 CMR 5.03 and 314 CMR 5.13(1). This is not a permit for MEPA purposes.

301 CMR 11.02 defines “permit” for MEPA Jurisdiction as follows:

**Permit**

(a) Any permit, license, certificate, variance, approval, or other entitlement for use, granted by an Agency for or by reason of a Project.

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1 The exception to this requirement is when the applicant chooses to use another dataset and the dataset selected has higher rainfall rates than those contained in TP-40. The Sudbury Stormwater by-law and Regulations purport to use rainfall calculations which differ significantly with TP-40 and which are inconsistent with the DEP technical guidance attached. To the extent that Sudbury’s local regulation deviates from the DEP Technical guidance, the applicant will use the DEP Technical Guidance, apply the TP-40 rainfall rates, and seek a waiver of the local requirement in accordance with G.L. c. 40B sec. 20-23 and 760 CMR 56.00 et. Seq.
(b) Permit shall be considered to include an entitlement for use granted by an Agency in accordance with delegated authority in accordance with Federal environmental statutes or regulations (including certification of compliance with the statutes and regulations).

(c) Permit shall not be considered to include a general entitlement to a Person to carry on a trade or profession, or to operate mechanical equipment which does not depend upon the location of such trade or operation.

(d) **For purposes of review thresholds, Permit shall not be considered to include:**

1. a consent order or agreement to the extent it addresses noncompliance with applicable statutes and regulations and does not allow or approve a New Project or an Expansion of a Project;

2. **a general or programmatic permit, license, certificate, variance or approval applying to a category of Projects rather than to each individual Project;**

3. a permit, license, certificate, variance or approval by rule or by self-certification of compliance; and

4. a permit, license, certificate, variance, or approval to continue a preexisting lawful use on a Project site, or amendments or extensions thereof.

No MassDOT curb cut permit is required for either access road. In short, there is no MEPA jurisdiction for this comprehensive permits before the ZBA because there is no financial assistance from the Commonwealth, nor any permit as defined in the MEPA regulations is necessary to construct the project after the granting of a comprehensive permit from the ZBA.

4. **Stormwater Detention System-A**

Horsley & Witten suggest that buoyancy calculations should be submitted to “prove” that Stormwater Detention System-A will not “float”. This detail has already been addressed fully in the proposed design and narrative.

The detention system has been designed with a subdrainage system specifically designed to control groundwater and maintain groundwater levels below the bottom of the detention system. The subdrainage system consists of a continuous drainage blanket of crushed stone that extends beneath the entire detention system and rows of perforated
pipe embedded in the crushed stone designed to collect and convey groundwater to safe downstream location. The use of subdrains is a standard practice to lower and control groundwater levels in similar situations such as building foundations.

As a result of the subdrainage system, groundwater cannot rise above the bottom of the detention system and the detention system will not be located within groundwater at any time.

CONCLUSION

The proposed stormwater system has been peer reviewed multiple times before the Horsley & Witten last minute report has been submitted to raise questions. It is worth noting that nowhere does Horsley & Witten claim that the proposed stormwater system presents any threat to the public health or safety. It appears to simply be a last ditch effort by the Selectmen to interject some issue, any issue, into the record in this case which so far is devoid of any competent evidence contradicting the case made by the applicant that the proposed project is consistent with local needs and protects the health and safety of the residents of the project and of the town.

On the contrary, I simply repeat what the existing peer review of the project’s stormwater design has stated:

Hancock Associates has determined that the stormwater management system is technically feasible to construct in a manner that would meet MassDEP requirements and serve to protect the residents on site and abutting properties.
MassDEP to Review Recent Studies on Precipitation Rates in Massachusetts

The Massachusetts Department of Environmental Protection (MassDEP) is currently evaluating the new precipitation frequency statistics published September 2015 online in the National Oceanic and Atmospheric Administration (NOAA) Atlas 14. The existing precipitation frequency statistics referenced in the Wetland regulations, the Hydrology Handbook for Conservation Commissioners, and the Massachusetts Stormwater Handbook are based on Technical Paper 40 (TP40), published by the U.S. Weather Bureau in 1961. In addition to the new NOAA study, MassDEP is also evaluating the precipitation frequency statistics prepared by the Northeast Regional Climate Center (NRCC) at Cornell University published online in 2008, relative to the currently used TP40 methodology.

Precipitation frequency statistics are used in calculating stormwater peak runoff rates in order to reduce likelihood of flooding from land development and to measure the extent of vernal pools and bordering lands subject to flooding in the absence of information from the Federal Emergency Management Agency (FEMA). The precipitation frequency statistics are also used to determine the extent of the 10-year floodplain significant to wildlife habitat and the extent of isolated lands subject to flooding.

In order to update the wetland regulations and incorporate the findings of these most recent studies, a regulation amendment is needed to the Wetland regulations at 310 CMR 10.57. Concurrently, revisions will also be needed to the Hydrology and Stormwater Handbooks which incorporate either the NOAA or NRCC atlases in place of TP40. Preliminary MassDEP review indicates that in some cases both NOAA and NRCC have lower precipitation than TP40, while in other cases, greater precipitation rates are expected. MassDEP is considering the need for an Advisory Committee to review and compare each of the three studies. Following completion of the preliminary analysis, proposed regulatory amendments will be undertaken consistent with Massachusetts Executive Order 562 (http://www.mass.gov/governor/legislation/execorder/execorders/executive-order-no-562.html).

In the interim, TP 40 values should continue to be used for calculating stormwater peak runoff rates unless an applicant voluntarily chooses to use the NOAA or NRCC Atlases and the selected methodology has a higher precipitation value than that of TP40 for the geographic location being evaluated.