

June 22, 2020

Mr. Michael Tully; Interim Town Administrator
Town of North Hampton
233 Atlantic Avenue
North Hampton, New Hampshire 03862

Subject: **North Hampton Public Library**
239 Atlantic Avenue (Map 7 – Lot 138); North Hampton, New Hampshire
KNA Project No. 20-0611-1

Dear Mr. Tully:

At your request we have completed a technical review of civil/site construction plans and related documents prepared for the future North Hampton Public Library. Specifically, we acknowledge receipt of copies of the following documents, which were the subject of our review:

- Civil/Site Design Plans (14 drawings) dated May 15, 2020;
- Select architectural floor plan and elevation drawings (Sheets A1.1 & A2.1) dated May 15, 2020;
- A memorandum prepared by the design engineers on May 20, 2020;
- A Stormwater Management Plan dated May 2020;
- A memorandum prepared by the Rockingham Planning Commission on June 01, 2020; and
- Draft minutes of the June 02, 2020 Planning Board meeting at which time plans for future library construction were presented and discussed.

Based upon our careful consideration and review of the cited information we offer the following comments and recommendations at this time:

1. We concur with the Rockingham Planning Commission's (RPC) assessment that this proposal represents a "governmental use" which may be considered by the North Hampton Planning and Select Boards pursuant to authority, procedures and limitations prescribed under RSA 674:54.
2. It appears the only State Agency Permit prerequisite to proposed construction is NHDES Construction Approval for a planned on-site subsurface sewage disposal (septic) system. We recommend this permit be received prior to issuance of a building permit for library construction.

3. In a memorandum dated June 1st the RPC identified a series of requirements of the North Hampton Zoning Ordinance and Site Plan Review Regulations with which this proposal does not comply. Although we concur with the RPC that RSA 674:54 does properly relieve a sponsor of a governmental land use of obligation to strictly comply “with normally applicable land use regulations”, as design engineers who have routinely prepared design plans for dozens of governmental land use proposals over the past three decades, we believe it is appropriate to comply with municipal land use ordinances and regulations to an extent reasonable and practical when designing a public sector project. While we view the majority of those “departures from code” identified by the RPC as reasonable, given the municipality’s obligation to comply with Federal law governing Municipal Separate Storm Sewer System (MS4) operations, we cannot recommend the Town of North Hampton pursue construction of public facilities or infrastructure which does not fully comply with stormwater management standards adopted by the municipality in direct response to Federal mandate. On that basis we recommend current civil/site design plans for library construction be amended or expanded as follows:

- Section X.F.1 (b) (iii) of the Site Plan Review Regulations cites one objective of the Regulations as being to: “*Minimize the total volume of surface water runoff* which flows from any specific site during and following development to *not exceed* the pre-development hydrologic condition to the fullest extent practicable.” Calculations prepared by the design engineer suggest modest increases in the total volume of surface water runoff from the subject property will be realized under the post-development condition in response to 2, 10 and 25 year return frequency design storm events. Given favorable subsurface soil conditions which exist on the subject premises we recommend the design engineer further expand use of stormwater infiltration practices presently incorporated in site design to comply with cited Section X.F.1 (b) (iii).
- Section X.F.3 (ix) requires that: “*Measures shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2-year, 10-year and 25-year, 24-hour storm events.*” Although the design engineer’s efforts were successful in realizing the cited requirement through the 10-year return frequency design storm event, calculations appended to the Stormwater Management Plan predict a modest increase in the peak rate of stormwater discharge will be realized in response to the 25-year design storm event. Again, by expanding opportunities for on-site stormwater infiltration we believe it would be possible to comply with Section X.F.3 (ix).

4. Although Sheet C1.2 of the site plan graphically depicts the intent to install a limited number of exterior lighting fixtures drawings received and reviewed by this office did not include details of this construction. In order to prevent otherwise avoidable impacts to adjoining properties we recommend the sponsor demonstrate proposed exterior lighting accommodations for proposed construction substantially conform with

performance standards for the same specified under Section 515 of the Zoning Ordinance.

5. Based upon our review of the current civil/site design plans we recommend the following corrections be made prior to issuance for construction:
 - General Note No. 1.6 on Sheet C0.1 makes reference to “city water”. We recommend that term be replaced with the term “Aquarion Water”. In addition, Sheet C5.2 includes details of water system construction. We recommend the design engineer verify typical construction details provided conform to Aquarion Water standards.
 - Notes on Sheet C1.2 references details of “structural concrete pad” installation which do not appear on the drawings.
 - Various notes provided on Sheets C1.2 and C1.3 reference details found on other site plan drawings. We recommend the design engineer recheck these citations for accuracy as several appear to be mislabeled.
 - Sheet C1.2 specifies a two-foot wide strip of grass is to be installed between the westerly end of a paved parking aisle constructed to the north of the proposed library and a 3-foot wide stone drip edge. We recommend the design engineer consider elimination of this grass strip as we find it difficult to believe it will survive winter snow plowing operations and summer drought conditions.
 - We recommend the design engineer recheck the reported design slope of the segment of storm drain, exiting a field drain proposed to the southeast of the planned library, noted on Sheet C1.3. Based on reported length and invert elevations we believe the slope to be 0.011, rather than 0.005 feet per foot as currently specified.
 - We recommend Sheet C1.3 be expanded to specify invert elevations for the two segments of foundation drain intended to discharge to the east and west of the proposed library.
 - We recommend the project plans be expanded to specify code compliant handrail is to be installed along the exterior stair proposed off the easterly façade of the future library.
 - Sheet C1.4 references a Note #25 (near southwest corner of site). We believe the correct reference should be to Note #24.
 - Proposed underground electric (UGE) and underground utility (UGU) installations appear to be labeled in reverse on Sheet C1.4.
 - In order to satisfy Part Env-Wq 1008.04 of the New Hampshire Code of Administrative Rules we recommend the text of Note 5.2 provided on Sheet C1.4 be revised to specify a minimum horizontal separation of 10, rather than 6 feet, is to be provided between water and sewer service installations.
 - Typical utility conduit, trench restoration and water main/service trench details provided on Sheet C5.2 make reference to the City of Concord rather than to the local jurisdiction.

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- Sheet C5.3 includes a typical driveway section which specifies a 24 foot paved width. Sheet C1.2 specifies a uniform paved driveway width of 22 feet. We recommend this discrepancy be corrected.
- Sheet C5.3 depicts a detail of Stormtech chamber installation labeled “not for construction”. If these drawings are intended for use as project construction documents we recommend this detail be edited accordingly.

We trust you will find the content of this brief memorandum both responsive to your recent request and useful in your continued review of this proposal. As always, please contact this writer directly if you should have specific questions or further instructions related to this matter.

Sincerely:

Steven B. Keach, P.E.
President
Keach-Nordstrom Associates, Inc.

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