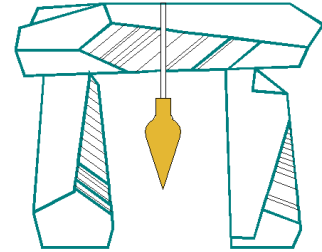


April 10, 2023

Ms. Michelle Tyler, Director of Planning  
Town of Randolph Planning Department  
41 South Main Street  
Randolph, MA 02368

DeCelle-Burke-Sala



& Associates, Inc.

**Re: 217 Mill Street, Randolph, MA  
Peer Review for Definitive Subdivision Plan  
Nitsch Project #11123.10**

Dear Ms. Tyler,

DeCelle-Burke-Sala & Associates, Inc. (DBS) has revised the site design for the project located at 217 Mill Street based on recent public hearings and the Peer Review Letter prepared by Nitsch Engineering (NEI) dated March 28, 2023. DBS has prepared a written response to each item listed in the NEI letter where our responses to NEI's recommendations include making revisions to DBS's site plans and engineering report. These revised documents are attached to this letter with a revision date of April 7, 2023. Our responses for each item are in a bold font following the EBI narrative from the referenced letter. DBS's responses are as follows:

#### **Waivers**

1. *Section VIII Design Standards under B3 states that the Intersection Spacing and Offset measured between the nearest curb returns shall follow the minimum intersection spacing distance of 200-feet in Residential Districts.*  
**A waiver has been requested for the minimum intersection spacing. Given the proximity of the locus to Curran Terrace the 200 foot minimum separation between intersections cannot be met.**
2. *Section VIII.D19 states that drainage facilities in the form of detention or retention basins or subsurface infiltration systems may not be located within any street right-of-way, nor on any proposed building lot, nor within any open space area intended to be conveyed to the Town. Such facilities, if required as part of a subdivision, shall be located on separate parcels which are to be retained by the Applicant or conveyed to a successor organization.*  
**A waiver has been requested for the construction of the drainage facilities within easements instead of separate lots as required. Creating separate lots for the proposed drainage facilities is not feasible for this project.**
3. *Section VIII.D3 states that the design storm should have a rainfall frequency of occurrence of once in ten (10) years shall be used for design computations for street drainage.*  
**DBS has designed stormwater drainage systems and conveyance measures to be able to handle the 10-yr recurrence interval storm. Calculations supporting this are included in the revised engineering report.**

4. *Section VIII.D4 states that runoff for any area shall be calculated using the Rational Formula.*  
**The Rational Formula was used to determine the rainfall intensity for the pipe sizing calculations. The drainage program HydroCAD was used in calculating the peak flow rates for the existing and proposed conditions for the 2-, 10-, 25- and 100-year storm events. HydroCAD is based on the SCS TR-20 method and is used by engineering firms throughout the country.**

## **PLANNING BOARD SITE PLAN RULES AND REGULATIONS**

### **Section V. Definitive Subdivision Plans**

#### **Section A. Submission**

5. *Section V.A4 states that two (2) sets of logs of results of all test pits made shall be submitted. No test pits appear to have been performed. Nitsch recommends the Applicant performs test pits within the footprint of the proposed subsurface infiltration systems and detention basins.*  
**Four (4) test pits have been performed on-site to confirm soil conditions. Drainage design was initially done utilizing a infiltration rate of 2.41 in./hr. for sandy loam soils. Test pits conducted on-site revealed a sandy C layer. Drainage design was revised to reflect the sandy material by utilizing a 8.27 in./hr. infiltration rate. Given the location of proposed underground infiltration system 1 being located within the footprint of the existing driveway, a soil test pit was not conducted. Prior to installation of underground infiltration system 1, soil conditions in this area will be confirmed.**
6. *Section V.A5 states that a written narrative describing methods to be used during construction to control erosion and sedimentation shall be submitted. It appears that a narrative was not provided. Nitsch recommends the Applicant submit the narrative or request a waiver.*  
**A Stormwater Pollution Prevention Plan is provided in Appendix C of the Engineering Report describing methods to be used during construction to control erosion and sedimentation.**
7. *Section V.A6 requires a certified list of abutters within three hundred feet of the subject property. The Applicant shall submit the certified list of abutters as requested.*  
**The certified list of abutters was obtained by the Town of Randolph Director of Planning.**
8. *Section V.A7 requires the submission of a Designers Certificate (Form E). The Applicant shall submit the Form E or request a waiver.*  
**The Designers Certificate (Form E) was provided with the initial submittal package.**
9. *Section V.A8 requires an application fee as part of Appendix A. The Applicant shall submit the Application fee if they have not already done so.*  
**The Applicant has submitted the required Application fee with the initial submittal.**

### Section C. Review by Town Departments

10. *Section V.C.1 states the applicant shall also file with the Board of Health one (1) print of the Definitive Plan, and in unsewered areas, shall submit a topographic plan with two foot contour intervals and comply with the Board of Health requirements. The Applicant shall submit to the Board of Health or request a waiver.*  
**It is DBS's understanding that the Board of Health has received a copy of the Definitive Plan. DBS will provide the revised submittal package to the Board of Health, including a topographic plan with two-foot contour intervals.**

### Section D. Preparation of Plan

11. *Section V.D.1 states the definitive subdivision plan shall be drawn to a scale of 1"=40'. The scale provided appears to be 1"=30'. Nitsch recommends the Applicant request a waiver.*  
**DBS will be requesting a waiver for this requirement. A horizontal scale of 1"=30' is easier to read and was able to fit on the plan sheets, hence why it was utilized.**
12. *Section V.D.1 states that the plan shall include a cover sheet that includes a zoning compliance table. The Applicant shall include the zoning compliance table on the cover sheet as required.*  
**A zoning table and waiver request table have been added to the cover sheet.**

### Section VIII. Design Standards

#### Section B. Streets

13. *Section VIII.D states the applicant shall provide drainage information pertaining to the site. The applicant is proposing that existing conditions are intended to remain, no work is proposed. The applicant submitted a stormwater assessment of the site in 2020 per the applicable town bylaw which was reviewed by the town.*  
**DBS has no further comment at this time.**

### SITE PLAN CONTENT

1. *Section V.A6 requires the Applicant submit a certified list of abutters within 300 feet of the subject property. Nitsch recommends the Applicant submit the required information.*  
**A certified list of abutters was prepared by the Town Planner within 300-ft. of the subject property.**
2. *Section V.D1 requires the plans be drawn to a horizontal scale of 1"=40' and vertical scale of 1"=4'. In addition it requires a cover sheet that includes a locus at a scale of 1"=800', subdivision name, zoning compliance table, etc. The plans appear to be drawn at a horizontal scale of 1"=30' and the profile is drawn at an irregular scale. Nitsch recommends the Applicant request a waiver for this requirement, or update the plans to be the scale required by the regulations.*

**DBS will be requesting a waiver for this requirement. A horizontal scale of 1"=30' is easier to read and was able to fit on the plan sheets, hence why it was utilized. A vertical scale of 1"=3' was utilized to maintain a 10:1 vertical exaggeration of the profile.**

3. *Section VIII.C2 requires that secondary streets in Residential Zoning Districts shall have a minimum radius for a circular turnaround of 50 feet. The Applicant is providing a 42-foot radius. Nitsch recommends the Applicant submit a fire truck turning radius plan for Nitsch and the Randolph Fire Department to review. The Applicant should also request a waiver from this requirement if the Fire Department agrees the turning template is appropriate.*  
**The site plan has been revised to increase the circular turnaround from 42-ft. to the required 50-ft. A waiver will not be required.**
4. *Section E1 Lighting states that the subdivision shall provide sufficient lighting. Nitsch recommends the Applicant provide lighting on the plan or request a waiver. IF lighting is provided Nitsch recommends that all lighting shall be Dark Sky compliant.*  
**Proposed light pole locations are provided on the plan and have been noted more clearly. The proposed lighting will utilize the Town of Randolph required street lights and post as detailed in Appendix B of the Planning Board Rules and Regulations Governing the Subdivision of Land.**
5. *Section VIII.E3f requires a 1000 gallon per minute minimum flow shall be required for all new subdivisions. Nitsch recommends the Applicant confirm this requirement is met.*  
**A hydrant flow test will be performed prior to construction to confirm adequate flow rates are met. This office asks that the board allows this requirement to be a condition upon approval of the definitive subdivision.**
6. *Section VIII.E4c requires all residential units shall be serviced by a water supply that provides a minimum flow in gallons per minute at 20 psi or current ISO and NFPA standards, whichever is more restrictive. In addition, Nitsch recommends the Applicant confirm the minimum flow requirement is met.*  
**DBS will confirm adequate pressure will be met prior to construction. This office asks that the board allows this requirement to be a condition upon approval of the definitive subdivision.**
7. *Section VIIIJ4 states that all work regarding structural walls shall be certified after completion by a Structural Engineer.*  
**As noted in Section VIIIJ2, a structural Engineer will be consulted for any walls taller than 4-ft. in height prior to construction.**
8. *Section VIII.K states that prior to submission of a Definitive Plan to the Planning Board, the Applicant should contact the local postmaster to determine the location of collection units and note the approved location on the plans. Nitsch recommends the Applicant confirm this was completed.*  
**DBS will reach out to the Postmaster to determine the location of collection units. This office asks that the board allows this requirement to be a condition upon approval of the definitive subdivision.**

9. *Section M Street Trees and specifically under Section M2, states that street trees shall be planted on both sides of the new street at every 40-feet. The Applicant should review Section M and provide the required street trees in a revised plan or request a waiver.*  
**DBS has added proposed street tree locations on the revised plans. A waiver will not be requested.**
10. *Section N indicates that the Department of Public Works must sign off on cuts (or fills) that are greater than six (6) feet. The proposed grading will provide an approximate 10-foot cut for the basin.*  
**The DPW receives a copy of the definite plans when they are submitted. This office has not received any comments regarding the cuts on site. DBS will follow up with the Randolph DPW to ensure there are no comments from their department.**

## **DRAINAGE**

11. *Section VIII.D5 states that the proper drain size shall be calculated by using the "Manning's Formula" with a Kutter's n value of 0.013 for concrete pipe, and 0.024 for corrugated metal pipe. Nitsch notes that there is only one 12-inch pipe which appear satisfactory for the application.*  
**Pipe sizing calculations have been performed and are included in the revised Engineering Report. The site plan has also been updated to note the size and material of all drain pipes.**
12. *Section VIII.D6 states that all storm drains shall be reinforced concrete except that in off-street locations bituminous coated, galvanized, corrugated metal pipe or pipe arch may be used if approved by the Planning Board. All pipes shall conform to the Massachusetts Highway Department Standard Specifications for Highstreets and Bridges. Nitsch notes that the Applicant proposes HDPE pipe in the drainage easements and does not take exception to HDPE. The Applicant shall call out the drainage pipe in the roadway as Reinforced Concrete Pipe (RCP).*  
**All storm drain pipes have been labeled with the size and material.**
13. *Nitsch recommends that the basin on Lot 3 should be redesigned so that there is at least a 10-foot separation from the edge of the basin and highest water elevation and the Lot 3 building foundation.*  
**The proposed 100-year storm elevation for the basin on Lot 3 is 127.52. The closest building foundation to the 100-year storm elevation is the conceptual building on Lot 2 with a separation distance of 13.1'. The conceptual building foundation on lot 3 has a separation of 13.3'. Both conceptual buildings meet the 10-separation as requested.**
14. *Nitsch recommends that the drainage easements have conditions and agreements established between the Lot owners and the Town indicating that no fences, structures or other obstructions that would impact the easement, drainage system, or maintenance of the drainage systems, both underground and surface basin.*  
**The applicant agrees to any drainage easement requirement conditions imposed by the Planning Board as a condition of Subdivision approval.**

15. *If easement agreements are not preferred, Nitsch recommends that the Home Owner Association (HOA) be established to maintain the drainage systems in the easement and that these systems are not conveyed to the Town as part of any street acceptance by the Town.*  
**The applicant will establish an HOA if it is required as a condition of Subdivision approval.**
16. *Nitsch recommends that all test pits for drainage be provided for review to determine that infiltration systems and basin are at least 2-feet higher than estimated seasonal high groundwater or groundwater, whichever is higher. If estimated groundwater is within 4-feet of the bottom of the system, a mounding analysis shall be submitted for review.*  
**All proposed drainage systems have greater than 2-ft. of separation to groundwater. Subsurface system 3 has greater than 2-ft. of separation to groundwater but less than 4-ft. of separation to groundwater, a mounding analysis is included in the revised engineering ewport.**

#### GENERAL COMMENTS

17. *Provide shut off valves for the water services for each lot, within the roadway layout.*  
**The utility sheet of the site plan has been revised to note water service shut off valve locations.**
18. *Nitsch recommends sewer manholes where changes in sewer service directions are proposed. The Applicant should consider straight sewer service runs to sewer manholes to prevent possibilities of clogs at bends specifically at Lots 3 and 4. The plans should be revised so that the services do not have bends.*  
**A sewer manhole has been added, for a total of three (3) proposed sewer manholes. The added sewer manhole eliminates any bends in the sewer services for Lots 3 and 4.**
19. *Section 200-10.C of the zoning regulations state that in a residential district, no one-family dwelling house shall cover more than twenty percent of the lot area. Please confirm that this requirement is met.*  
**All proposed conceptual buildings are proposed to have a footprint of 1,880 SF. With the smallest lot being 12,001 SF, the building coverage would be 15.7%, meeting the maximum requirement.**
20. *Nitsch recommends the Applicant revise the pavement detail to match the Typical Road Cross-Section so that the stone depths match. Nitsch recommends 4-inch dense grade above 8-inches of gravel but is not opposed to 12-inches of only gravel material given the A-soils on the site.*  
**The pavement detail has been revised to utilize a 12-in. gravel base.**
21. *Nitsch recommends the Applicant coordinate the sidewalk construction for the subdivision with the sidewalk in Mill Street.*  
**The applicant will coordinate the sidewalk construction of the subdivision with the sidewalk in Mill Street.**

Michelle Tyler, Director of Planning  
April 10, 2023

Please reach out to this office with any additional questions or comments you may have. We look forward to presenting these answers to these concerns raised by the peer review engineer to the Board at the April 25<sup>th</sup> Planning Board Meeting.

Sincerely,  
**DeCelle-Burke-Sala & Associates, Inc.**

A handwritten signature in black ink, appearing to read "Kameron Campbell", with a long, sweeping horizontal line extending to the right.

Kameron Campbell, E.I.T.  
Project Manager