



100 GROVE ST. | WORCESTER, MA 01605

June 21, 2022

Dudley Planning Board
Dudley Municipal Center
71 West Main Street
Dudley, MA 01571

T 508-856-0321

F 508-856-0357

gravesengineering.com

**Subject: Nichols College – Center Road Townhomes
Major Site Plan Review**

Dear Planning Board Members:

We received the following documents in our office June 1, 2022:

- Plans entitled Nichols College, Townhomes, Center Road, Dudley, MA 01571 dated May 25, 2022, prepared by Juster Pope Frazier, LLC and Clough Harbour Associate, LLP for DJT Properties, LLC. (21 sheets)
- Bound document entitled Drainage Report, Nichols College Townhouses, Center Road, Dudley, MA dated May 23, 2022, prepared by CHA for Nichols College.

Graves Engineering, Inc. has been requested to review the plans and supporting materials for compliance with the Zoning Bylaws of the Town of Dudley, Massachusetts revised through October 19, 2020, MassDEP Stormwater Standards and Handbook, and generally accepted engineering practices.

Our comments follow:

Zoning Bylaws

1. Bicycle parking needs to be provided at a rate of 0.05 bicycle spaces per one vehicle space, with a minimum of one bicycle parking space. Considering the proposed use (educational campus), the design engineer may wish to consider more bicycle parking spaces than just one space. (§4.01.03)
2. The plans need to include the name, address, and telephone number of the owner and applicant. (§5.04.04.A.1)
3. The plans need to include the site property address, Assessor Map-Block-Lot Number, names and street numbers of abutters, and names and street numbers of parcels along any ways. (§5.04.04.A.2)
4. Sheet C2.1 needs to include proposed topographic elevation contours at the driveway intersection where the curb radius is being increased to widen the driveway. (§5.04.04.A.5)
5. The site plans need to include the locations of handicap parking signs as well as any traffic signs (e.g., stop sign). (§5.04.04.A.18)
6. GEI understands that the Chief of Police and Fire Chief will review the plan set separately. (§5.04.04.A.23)

Hydrology and MassDEP Stormwater Management

7. GEI reviewed the hydrology computations and found them to be in order except as noted in the following comment.
8. The hydrology calculations for Pond 50P need to be rechecked and revised as necessary relative to modeling the storage. GEI estimated areas of 2,800; 6,100 and 13,600 square feet for the 638; 640 and 644 elevations, respectively. The computations modeled 3,555; 6,861 and 14,157 square feet for the respective elevations.
9. Compliance with the MassDEP Stormwater Handbook and Standards is reasonable.
10. The Drainage Report and the Stormwater Checklist need to be stamped and signed by a Massachusetts Professional Engineer.

General Engineering Comments


11. The 15" diameter drainage pipe between the hydrodynamic separator and the water quality basin is proposed with a slope of 7.4%, which will result in excessive water velocity. The pipe slope needs to be revised to provide a water velocity no greater than 12 feet per second. A lesser velocity is preferable.
12. On Sheet C4.2, the Handicap Parking Sign construction detail includes a van parking sign. Sheet C1.2 needs to identify the van parking space.
13. The north arrow on Sheet C2.3 needs to be rotated approximately 90°.

General Comments

14. GEI understands that the Dudley Water and Sewer Department will review the proposed water and sewer services.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Principal

cc: Kevin Chrobak, P.A.; Juster Pope Frazier Architects