Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Department of Planning and Development
1000 Commonwealth Avenue Newton, Massachusetts 02459

Telephone
(617) 796-1120
Telefax
(617) 796-1142
TDD/TTY
(617) 796-1089
www.newtonma.gov

Barney Heath
Director

MEMORANDUM

DATE: May 9, 2024

TO: R. Lisle Baker, Chair, Zoning & Planning Committee
Members of the Zoning & Planning Committee

FROM: Barney Heath, Director, Department of Planning and Development
Jennifer Caira, Deputy Director, Department of Planning and Development
Zachery LeMel, Chief of Long Range Planning
Olivia James, Community Engagement Specialist

RE: **#76-24 Discussion and possible ordinance amendment to deal with grade changes created during construction causing stormwater runoff on neighboring properties**
COUNCILORS ALBRIGHT, LIPOF, WRIGHT, AND LEARY requesting a discussion with the Planning Department to address concerns relative to the trend of significantly raising grade elevations on lots, using retaining walls, terracing and other means to add soil to conceal a raised basement, which can lead to new buildings that are significantly taller than nearby existing houses in the area and cause denuding of wooded areas and increase stormwater runoff. This discussion may result in an ordinance change to Chapter 30 section 5.4.2 which would require a special permit or other means of city review of all retaining walls over 4 feet on a site..

MEETING: May 13, 2024

CC: City Council
Planning Board
Anthony Ciccariello, Commissioner of Inspectional Services
Jonathan Yeo, Chief Operating Officer
Alissa O. Giuliani, City Solicitor

Overview

The City Council recently approved zoning amendments to regulate the height of retaining walls, see signed Council Order here, with the understanding that the change will not fully address all the issues caused by major grade changes and siteworks. The City Council Zoning and Planning Committee (ZAP) further broke out the original docket item as #76-24(3) to tackle this, commonly referred to as pedestal house. These types of developments are all too common throughout Newton, leading to the

appearance of overly tall homes that are out of context with the neighborhood and lead to environmental issues (loss of mature vegetation, changes to stormwater runoff patterns, etc.).

The primary suggestion to address this is to change how height is measured by using the original grade (i.e. pre-construction), rather than the finished grade (i.e. post-construction) as the starting point for any new development. Current regulations, found in Sec. 1.5.4.E. of the Zoning Ordinance, use finished grade. While each municipality measures height differently, City staff research found Newton's neighbors typically measure from original grade, with Newton as an outlier measuring from finished grade.

Updates to Zoning Ordinance

Working closely with other City Departments (Inspectional Services, Engineering, and Law), Planning recommends the drafted amendments found in Attachment A. Note that the proposed changes do not change the formula for how grade, Newton uses average grade, is calculated. Rather, the amendments would require the formula to utilize a different starting point. The key changes include:

1. Defining original grade (with and without an existing building, and subdivisions)
2. Building height is measured from original grade, or proposed grade if lower

At the upcoming ZAP meeting, staff will present recently constructed homes in Newton that would have required a special permit, or be redesigned, under the proposed amendment.

Looking Ahead

If supportive, ZAP may wish to set a June public hearing date for the proposed amendments. At the same time, City Staff will also explore additional solutions to addressing the broader issue of grade changes on properties and their implications under the original Docket #76-24.

Attachment A Draft ordinance revisions to Sec. 1.5.4.E and F, and 1.5.5.D.1

1.5.4. Height

E. Original Grade. The grade of the lot before any regrading, demolition, development, or redevelopment begins based on the following standards: ~~In cases where the walls of the building are more than five (5) feet from the nearest street line, the grade shall mean the mean elevation of the ground adjoining said wall; and in all other cases, the mean elevation of the nearest sidewalk.~~

1. If a lot,

   a. Has an existing building that is to be demolished or modified, the original grade of the lot shall be the grade that existed prior to any activity that caused a change in position or location of soil, sand, rock, gravel, or similar earth material, which changes the grade of the lot, that occurred after September 1, 2024 and within five (5) years of the date of application for the building permit for such demolition or modification of the existing building; or

   b. Has no existing building on the property, the natural grade of the property, prior to any activity that causes a change in position or location of soil, sand, rock, gravel, or similar earth material, which changes the grade of the lot, shall be considered the original grade; or

   c. Is a new subdivision, notwithstanding anything to the contrary contained in the City of Newton Zoning Ordinance, the original grade shall mean the approved and recorded grade.

2. The original grade shall be certified by a registered Massachusetts licensed professional land surveyor and shown on a certified plot plan to be verified by the Building Inspector prior to commencement of work on the property with all elevations in Newton City base.

F. Grade Plane Average. A horizontal reference plane for a building as a whole representing the average of ~~finished~~ original or proposed grade, whichever is lower, elevations around the perimeter of a building, as determined by the length-weighted mean formula below. All walls of length six (6) feet or ~~greater than 6 feet~~ shall be included in segments of consistent grade or slope.

1. In cases where the walls of the building are more than five (5) feet from the nearest street line, the grade shall mean the mean elevation of the ground adjoining said wall; and in all other cases, the mean elevation of the nearest sidewalk.

$\sum = (e1 + e2)/2 \times L\ P$

Where:

- $\sum$ sums the weighted average grades of all segments;
- Segments less than 6 feet in length are not included as separate segments;
- e1 and e2 are the elevations of the finished ground level at the respective ends of each segment, determined as the lowest point at each end of the segment within 6 feet of the foundation or the lot line, whichever is closer;
- L is the corresponding horizontal length of the segment; and
- P is total horizontal length of all segments

1.5.5. Floor Area

D. Mass Below First Story. For the purposes of calculating gross floor area, any cellar, crawl space, basement, or other enclosed area lying directly below a first story in a residential structure.

1. Standards. The lesser of 50 percent of the floor area of mass below first story OR:

((X/Y) floor area of mass below first story)

Where:

- X = Sum of the width of those sections of exposed walls below the first story having an exterior height ≥ 4 feet as measured from ~~existing~~ original or proposed grade, whichever is lower, to the top of the subfloor of the first story.
- Y = Perimeter of exterior walls below first story