

**PLANNING BOARD REPORT
TO THE BOROUGH COMMISSIONERS
ON THE
THE MASS AND SCALE OF NEW HOMES**



**PREPARED BY THE LAND USE COMMITTEE'S
MASS AND SCALE TEAM ON FEBRUARY 16, 2018**

**UPDATED ON JUNE 28, 2018 AND JULY 11, 2018
TO INCORPORATE PLANNING BOARD DECISIONS
ADOPTED BY THE PLANNING BOARD ON AUGUST 7, 2018**

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EXECUTIVE SUMMARY

The Land Use Committee's team on the Mass and Scale of New Homes was brought together in 2016 and has spent almost two years reviewing one of the most challenging land use issues facing Haddonfield. Increasingly, homes in town are being "reconstructed" to add more living space and modernize interior amenities or entirely replaced with much larger homes. This trend is not inherently bad but it does come with consequences. Although residents have expressed a number of concerns that are beyond the purview of this team's charge,¹ the most frequently mentioned issue was that an increasing number of these homes' height, floor area, dimensions and architectural features, coupled with small side and front yards, overwhelm nearby homes and damage the character of the surrounding neighborhood.

This concern...the compatibility of new homes relative to Haddonfield's existing housing stock....led the team to establish this as the issue on which it has focused. The goal of the team was to identify ways to reduce the negative impact some new homes have on the surrounding neighborhood but to do so without unduly limiting future development opportunities. During the course of its work, the team researched scores of techniques used elsewhere to promote less intrusive development.

This report discusses 21 topics, some of which still require further study. However, many others represent specific changes to Haddonfield's Land Development Code. These ordinance changes are designed to help preserve the distinctive character that separates Haddonfield and its neighborhoods from most other South Jersey communities, an outcome that positions our town as an extremely attractive place to live. The most significant ordinance changes entail:

- Modest reductions in the permitted heights of homes to render them more consistent with our existing housing stock
- A mechanism to allow for taller homes based on a neighborhood's character
- Regulating the size of attics and the height of basements, both of which affect a home's mass
- A more refined and better method of setting front yard setback requirements so they are compatible with the surrounding neighborhood
- A more robust set of permitted yard "encroachments" to help promote architectural diversity
- Requirements to prevent protruding garages and attached garages that dominate a home's front façade, both of which detract from Haddonfield's more traditional development character
- Measures to soften the visual effect of monolithic side facades
- Administrative measures to better ensure that ordinance requirements can be uniformly applied
- Establishing a transition period so these new requirements don't disrupt plans already in process

The report also recommends further research on a number of potentially worthwhile possibilities, including limits on eave heights, increasing side yards in certain zones, incentivizing front porches and detached rear yard garages, tying coverage requirements to lot size and establishing floor area ratios to better control the massing effect of new homes.

In the Spring of 2018, the Planning Board reviewed these recommendations and received input from residents. Several changes to the team's recommendations were made and are reflected in this updated report, which will be referred to the Borough Commissioners.

¹ These concerns range from a loss of housing diversity, the creation of housing stock that an increasingly larger segment of people can't afford and a gradual increase in student populations that our school facilities ultimately won't be able to handle.

INTRODUCTION

In late 2015, the Land Use Committee and the Planning Board identified 19 land use issues in Haddonfield that warrant further investigation. One of those issues dealt with the development of new and reconstructed homes in town because of a growing concern among residents that an increasing number of new homes overwhelm nearby homes and damage the character of the surrounding neighborhood.

In 2016, the Land Use Committee formed a team² to explore these issues in more detail. The goal is to reduce the negative impact some new homes have on the surrounding neighborhood without unduly limiting future development opportunities. On November 28, 2016, the team issued a memorandum to the Borough Commissioners describing these concerns in greater detail and outlining 10 conceptual approaches that might help to reduce the potential levels of incompatibility.³

PRELIMINARY RECOMMENDATIONS

On June 21, 2017, the team issued a report containing its preliminary recommendations to help improve the Borough's land development regulations. The team then spent the next six months examining them in great detail by (1) reviewing them with local experts, (2) testing them against recent home construction in town to evaluate their effect on home development plans, (3) touring Westfield, New Jersey (whose character is somewhat similar to Haddonfield's and which has adopted measures to address similar issues) and interviewing its planner and zoning officer and (4) continuing its research into practical yet effective development regulations to better harmonize new homes with Haddonfield's existing housing stock. Based upon this work, the team again consulted with two local architects before finalizing its recommendations.

FINAL RECOMMENDATIONS

Many features contribute to a home's mass, scale, and its compatibility with the surrounding neighborhood. These include: the home's height, along with other features that affect height or its perceived height; yard setback requirements, which affect a home's proximity to and symmetry with neighboring homes; and various architectural features that can either increase or soften the perception of a home's mass and scale.

² The team consists of Planning Board members John Stokes, Doug McCollister and Stuart Harting, former citizen member of the team and recently appointed Planning Board member Jon Simonson and citizen member Sherry Gallagher.

³ Although most of the November 2016 approaches dealt with the mass and scale of new or reconstructed homes, the team also noted that the subdivision of properties to create new residential lots can also negatively impact surrounding neighborhoods if the lot sizes and widths of those newly created lots are out-of-character with the surrounding area. The team recommended several zoning district boundary changes and the Planning Board's adopted Zoning report identifies them.

In developing its final set of recommendations, the team sought to make the mass and scale of new homes more consistent with Haddonfield's neighborhoods by: (1) modestly reducing building heights to be more compatible with actual conditions; (2) reducing the massing effect of attics and basements; (3) avoiding smaller-than-typical front yards that accentuate a home's mass and detract from a neighborhood's character; (4) modulating attached garages and their rooflines to reduce their monolithic appearance; and (5) articulating imposing side facades that can detract from the streetscape and visually impact neighboring homes.

I. HEIGHT

A home's height can have a profound impact on its appearance, particularly as it relates to other homes in the neighborhood. Although one might presume that regulating maximum permitted heights is the best way to control the massing effect of new or reconstructed homes, other height-related elements, such as the height of eaves, the number and size of the stories and the elevation of basements, are also important, either as contributing factors to a home's height or its perception of height. The team looked at all of these factors as well as a mechanism to allow for height exceptions and an administrative tool to ensure that height requirements are accurately implemented.



A. Height Requirements by Zone

Our ordinance establishes a uniform height limit of 35 feet in all of our single-family residential zones, even though the vast majority of our existing housing stock is not that tall. Some height changes were considered in 2000 but were held for further study.

Most existing homes in town are less than 35 feet in height. Indeed, the team believes that the overwhelming majority of existing 2½ story homes (with 8 foot ceilings and a first floor elevation 2 feet above grade) are less than 30 feet in height. Of course, there are exceptions. For example, some Victorian homes and some homes along our "Signature" streets (Washington Ave., Kings Highway, Warwick Road, Chews Landing Road, etc.) are taller than 30 feet and some are probably taller than 35 feet.

In its preliminary recommendations, the team recommended a "setback ratio" approach to height that would regulate height in each zone according to the actual width of the side yard. This allows maximum building height to be increased as the side yard setback is increased. Such an approach recognizes that wider side yards increase the distance to neighboring properties and often result in front building facades that are slightly narrower in width, thereby reducing the massing effect of taller homes. The setback formula established heights ranging from: 30 to 32 feet in the R9 and R8 zones, the two smallest lot zones; 32 to 33 feet in the R7 and R6 zones; 32 to 34 feet in the R5, R5A and R4 zones; 32 to

35 feet in the R3 and R2 zones; and 35 to 38 feet in the R1 zone.

After extensive research, which included meetings with local architects, reviewing actual plans for some newly constructed Haddonfield homes and a day long trip to Westfield NJ - a town similar to Haddonfield - during which the actual height of new homes was analyzed and discussed with local zoning officials, the team came to the following conclusions: (1) a 32 foot height limit can accommodate a 2½ story home with modern amenities, including nine foot ceilings on the first floor; (2) a 32 foot height limit has a proven track record in Westfield in zones with 10 foot wide side yards; and (3) a 33½ foot height can accommodate a typical center hall colonial home with modern amenities and, as demonstrated in Westfield, can accommodate much larger and deeper homes on larger and wider lots, some with attractive yet unimposing roof variations.

Ultimately, the team decided that a uniform height limit in each zone, if properly set, can be effective in reducing the overwhelming mass and scale of some new homes and can help to achieve compatibility between Haddonfield’s newer and older housing stock by reducing the relative height differences without the complexity of applying a side yard setback ratio. In finalizing its recommendations, the team relied on the successful outcomes achieved through the use of a 32 foot height limit, which is recommended for the three smallest lot zones, and 33 ½ foot height limits, which provide ample design flexibility in the other zones, except for the R1 zone. Since the R1 zone has significantly larger and wider lots than any other zone, the team believes that the existing 35 foot height limit should be retained. In addition, the character of the R1 zone suggests that some added design flexibility should be afforded.



32 foot tall home in Westfield NJ



33 ½ foot tall home in Westfield NJ

The following table presents our height recommendations. We also point out existing lot width and side yard requirements since they dictate the maximum permitted width of homes in each zone.

otZone	Minimum Lot Width	Minimum Side Yard	Minimum Total Side Yard	Maximum Permitted Height
R9	40'	4'	16'	32 ft
R8	40'	8'	20'	32 ft
R7	50'	10'	20'	32 ft
R6	60'	10'	25'	33 ½ ft
R5A	75'	12'	30'	33 ½ ft
R5	75'	12'	30'	33 ½ ft
R4	80'	15'	35'	33 ½ ft
R3	100'	18'	40'	33 ½ ft
R2	125'	18'	40'	33 ½ ft
R1	200'	30'	75'	35 ft**

** The maximum building height in the R1 zone may be exceeded by cupolas, finials, spires or similar projections provided that there are no more than two such features; that the highest point of each feature does not exceed the 35 foot height limit by more than 10 feet; and that, in total, they do not occupy more than ten (10) percent of the roof area.

B. Height Exceptions

There will undoubtedly be cases where the standard height limits are not reasonable in some neighborhoods. The homes in the more historic section of Washington Ave and some of the Victorian neighborhoods are examples where a higher than normal height may be appropriate. Although variances may be requested in these cases, the team feels that an explicit ordinance exception may save time and be less costly for homeowners. Of course, the team also recognizes that a homeowner may elect to apply for a variance, whether or not s/he may qualify for the exception.

The team recommends that the standard height limits recommended in Section IA. above be coupled with a provision that allows them to be exceeded if the character of the neighborhood justifies a taller home. This suggestion relies on a “neighborhood character” analysis, similar to that used in Lawrence Township and other New Jersey communities, and would be based upon the average height of the surrounding homes’ front building elevations.

Height compatibility on each side of a street is very important to a street’s visual character but symmetry of both sides of the street seems to be somewhat less important. In other words, a street with home heights of 36 feet on one side of the street and 32 feet on the opposite side is not as incongruous as a mixture of 36 and 32 foot tall homes on the same side of the street. **Although the neighborhood character analysis could apply to both sides of the street, the team recommends that it be applied to the same side of the street as the subject lot. To capture approximately 4 homes on each side of the subject lot in the analysis, the team recommends the following neighborhood context distances. Only lots wholly or**

partially within that context distance will be included. Note that, unlike the typical means of measuring height around an entire building perimeter, this exception relies on the measurement of the front elevations of the neighboring properties.

To prevent anomalous heights from skewing the average, the highest and lowest heights should be eliminated before the average height is calculated. Exhibit 1, appended to this report, explains how the calculation is made.

Zone	Min. Lot Area	Min. Lot Frontage	Proposed Neighborhood Context Distance On Each Side Of The Subject Lot	Approx. # Lots Included (Same side of street)
R9	4,000	40'	160'	8
R8	4,000	40'	160'	8
R7	5,000	50'	200'	8
R6	6,000	60'	240'	8
R5A	7,500	75'	300'	8
R5	7,500	75'	300'	8
R4	9,600	80'	320'	8
R3	12,500	100'	400'	8
R2	20,000	125'	500'	8
R1	80,000	200'	Not Applicable	Not Applicable

C. Eave Height

Limits on eave height, which represents the vertical distance between the ground elevation and the lowest point of the roof, may compliment overall height limits by reducing the perception of mass. Westfield, NJ, has established a maximum eave height of twenty-two (22) feet for all of its zones and the team decided to evaluate it in more detail.

During its visit to Westfield, the team saw first-hand how eave heights can introduce more visual differentiation to a home and help to visually lower a building's perceived height and reduce its mass. During its meeting with the Westfield staff, the team also noted that administration of Westfield's eave height limit often involves a great deal of interpretation because of variable roof architecture. **Before a specific eave height regulation is considered, the team recommends that a professional planner and an architect work together to develop a standard that is effective and which doesn't require subjective interpretations.**

D. Half-Stories

In addition to height limits, our ordinance also places a limit on the number of stories. The limit, which is

set at 2½ stories, is meant to diffuse the massing effect of a 3 story, 35 foot home. However, our ordinance defines a half story as the top floor under the roof provided that the amount of usable floor area in the half story is less than that of the floor below. This definition, if followed, effectively allows a full third floor to be constructed, an outcome that has significant implications on a home's mass and scale.

Steve Walko has advised that, as a practical matter, homes are constructed to meet less costly Construction Code requirements which apply as long as the ½ story represents a habitable attic, which is defined as “an attic that has a stairway as a means of access and egress and in which the ceiling area at a height of seven feet above the attic floor is not more than one-third of the area of the next floor below.”

This essentially means that an owner who wishes to avoid higher construction costs will limit the size of a half-story that has ceilings of 7 feet or more to 33% of the area of the 2nd floor. As long as two-thirds of the space has a ceiling height below 7 feet, the total area of the top story can still equal that of the 2nd story. Nonetheless, the Borough's current definition would allow a full third story essentially equal in size to the 2nd floor to be constructed if an owner is willing to assume higher construction costs. At the very least, the team believes the Borough's current definition should be changed. Although the team considered a more conservative definition of half-story, in keeping with Collingswood's 25% limit, it ultimately concluded that incorporating the 33% limit in our ordinance definition is a more prudent step at this time.

The following recommendation should replace the half-story description within our ordinance's definition of story:

“A half story is the top floor of the building provided that a seven (7) foot or higher ceiling height above the half story floor does not occupy more than thirty-three (33) percent of the area of the floor immediately below.”

E. Basements

Increasingly, it appears that the first floor elevations of new homes are being raised (in lieu of additional basement excavation) so that basements have higher ceilings. Our ordinance, which doesn't define a basement as a story, effectively allows them to extend well above the existing grade (up to approximately 5 feet), an outcome that drives up the height of the home. It also appears that some basements on sloped lots have exceeded this limit, creating a looming effect on the downhill neighbor.



To limit the overall effect of raised basements on a building's height and mass, the team's preliminary recommendations suggested that the basement definition be changed to define a basement that is 3 feet or more above grade as a full story. Although the feedback was generally positive, one commenter expressed concern that the construction code exclusively regulates basements. However, the Planning Board solicitor confirmed that, consistent with the approach of many other towns, a municipality can regulate building height and the number of stories through controls on basements and attics. **Therefore, the team**

continues to recommend that the existing basement definition in Chapter 135 of our Code be replaced with the following.

BASEMENT - An interior space, or portion thereof, having a floor level below the average finished grade at the foundation wall of the building or structure in which it is contained, and having a floor to ceiling height of not less than six and one half (6.5) feet. A basement shall be considered as a story where the top of the foundation or exterior basement wall is:

- 1. More than three (3) feet above the average grade (existing or finished), determined by measuring the elevation at every corner of the building and at the midpoints between all of the corners, adding the elevations and dividing that sum by the number of measurements; or**
- 2. More than three (3) feet above the finished grade for 50% or more of the total building perimeter; or**
- 3. More than ten (10) feet above the finished grade at any point.**

F. Verifying Height

Following the release of its preliminary report, the team reviewed construction plans for ten homes recently built or currently under construction and noted that heights were not presented on elevation plans in a manner that is consistent with either our former height definition or the new definition adopted in 2017. This makes it very difficult for the zoning office to determine adherence to the new definition which requires that height be based upon the average elevation (existing or finished, whichever is less) around the perimeter of the home. **To avoid potential violations (particularly on sloped lots), applicants should be required to submit a height calculation form (similar to Exhibit 2 appended to this report) to the zoning office as part of its construction permit application. This form will then serve as the baseline for confirming that the proper building height is maintained.**

To ensure that actual building heights are in line with the approved plans, some towns require the applicant to check height when framing is complete and verify finished conditions before a certificate of occupancy is issued. We believe these are good practices and recommend that:

- 1. The construction office field check height when framing is ready for inspection and compare it to the baseline information submitted on the height calculation form to ensure consistency; and**
- 2. The ordinance be amended to require the submission of an as-built survey before the certificate of occupancy is issued. An as-built survey will not only allow height to be verified as measured from the baseline, it will also allow the construction office to verify yards, building coverage and impervious coverage.**

G. Height Definition

During the course of its height review, the team noted a minor clarification that would make our ordinance's height definition clearer. The current definition, which was updated in 2017, reads as follows:

HEIGHT (ZONES OUTSIDE OF DOWNTOWN ZONING DISTRICT) - The vertical distance of a building measured from the average grade (existing or finished grade, whichever is lower) around the building's perimeter to the highest point along the roofline. This dimension is expressed both in terms of stories and in terms of feet. Average grade shall be determined by measuring the elevation at every corner of the building and at the midpoints between all of the corners, adding the elevations and dividing that sum by the number of measurements.

Since the definition's reference to "existing" grade could be misunderstood, the team recommends that it be replaced with the term "pre-construction" and that the following definition be added to Chapter 135 of our Code.

GRADE, PRE-CONSTRUCTION - The elevation of a property in its current condition, before demolition or excavation occurs.

II. YARD REQUIREMENTS

Front, rear and side yard setbacks serve to define a building envelope and are useful standards to help control the massing of buildings, particularly as it relates to the separation of homes from neighboring properties. Front yards are also critical in defining the visual character of streetscapes.

A. Side Yards

During its initial work, an examination of zoning requirements for side yard setbacks was undertaken to assess their relationship to the minimum required lot width in every zone. The purpose was twofold: to evaluate the percentage of a lot's width which must be retained as side yard open space and to relate that to the maximum permitted building width of a home in each zone. Maximum permitted building width, although not directly regulated by our ordinance, represents the difference between the lot's width and the required side yard setbacks.

Although the team found that the total side yard requirements for the R1, R2 and R3 zones were more liberal than in other zones and initially thought they should be increased, it could not independently verify how these changes might affect the actual size of side yards. **Until more research can be conducted into existing conditions in those zones, the team is not recommending any ordinance changes to side yard requirements.**

B. Front Yards

Front yards help to define a streetscape. Homes on the same side of a street with similar front yards create

a much more visually appealing streetscape. This continuity of front yards exists throughout much of Haddonfield. Although the team was not in a position to compare actual front yards to see how well they match zone district requirements throughout the entire town, it did take a closer look at certain “Signature” streets.

Kings Highway (from Hopkins Lane to the Haddon Heights border, with the exception of the downtown business zones), Warwick Road, Chews Landing Road, West End Avenue and Washington Avenue (from the Methodist Church to Jefferson Avenue) create important and lasting impressions of Haddonfield’s character and convey a desirable image of our community. To ensure that this symmetry is maintained, the team initially recommended that, in lieu of relying upon universal front yard requirements, a neighborhood context analysis of front yards be used to determine the appropriate front yard for these streets.



As it continued its research, however, the team also found that some recently constructed homes in other parts of town that didn’t utilize the pre-existing foundation have front yards that are appreciably smaller than those of the surrounding neighborhood. Thus, it is unclear whether the 2001 zoning changes, which generally refined and improved our land use code, may actually reduce the front yard protection afforded to many parts of town and, if left unchecked, may diminish the character of our neighborhoods.

Therefore, we recommend that a thorough analysis of actual front yards be conducted on a neighborhood-by-neighborhood basis to determine specific front yard requirements that will protect the character of our many diverse neighborhoods.

However, until that rather involved review is completed, we recommend that a neighborhood context analysis be used on an application-by-application basis to determine front yards in all of our residential zones, except for the R1 zone.⁴ The contextual distances presented in the Section IB chart would be applied to front yards to capture approximately 4 homes on each side of the subject lot. To prevent anomalous front yards from skewing the average, the highest and lowest front yard setback distances should be eliminated before the average setback distance is calculated. This average would then yield the minimum required front yard for the subject lot. Although a larger front yard would be permitted, it should not be more than 10% greater than the average.

⁴ Homes in the R1 zone are located on very large lots (80,000 square feet or more) and are required to have front yards of 100 feet or more. Due to the distance between homes, the team believes that maintaining the 100 foot front yard requirement will not adversely affect the character of the streetscape.

C. Yard Encroachments

Section 135-21 of our ordinance describes permitted exceptions to the ordinance's yard requirements. These encroachments, which are permitted to extend into a yard, are generally limited to two (2) feet or less and cannot extend more than one story, with the exception of chimneys.

We believe that our existing ordinance is too limiting. Our preliminary recommendations sought to broaden design flexibility by including more exceptions; however, our continuing research and discussions with local architects suggested that a more comprehensive approach is needed.

Our revised recommendations to update Section 135-21B of our ordinance follow:

Section 135-21B.

Yard encroachments shall be permitted in the R, O, C and P zones outside of the downtown zoning district provided that:

- 1. The principal building or structure to which the encroachment is attached otherwise conforms to all setback requirements or, if the building or structure has a nonconforming yard, it will not increase the nonconformity thereof;**
- 2. No such encroachment shall be permitted to be closer than four (4) feet to any property line;**
- 3. All such encroachments that extend over a driveway, sidewalk, walkway, patio, handicapped access ramp or other means of vehicular or pedestrian ingress or egress shall maintain a height at least eight (8) feet above such means of ingress or egress; and**
- 4. Notwithstanding any other limitation set forth in the definition of protrusions, every yard encroachment permitted pursuant to this subsection shall adhere to the following standards.**

Encroachment	Permitted in Front Yard?	Permitted in Side Yard?	Permitted in Rear Yard?	Other Limitations When Feature Encroaches into a Yard**
Air conditioners (ground mounted)	No	Yes	Yes	Limited to four (4) foot depth and ten (10) foot width.
Air conditioners (window mounted)	No	Yes	Yes	

Architectural features such as sills, belt courses, cornices and window flower boxes	Yes	Yes	Yes	Limited to one (1) foot depth.
Unsupported awnings and unsupported door canopies	Yes	Yes	Yes	Limited to four (4) foot depth
Balcony (unroofed) and terraces	No	No	Yes	Limited to four (4) foot depth and eight (8) foot width.
Bay, bow or box windows and oriels	Yes	Yes	Yes	Limited to three (3) foot depth and ten (10) foot width. Height limited to eight (8) feet.
Bilco Doors	No	No	Yes	Limited to six (6) foot depth. Area of such encroachment, including the slab, shall not exceed thirty-six (36) square feet.
Chimneys (ground supported)	No	Yes	Yes	Limited to three (3) feet depth and eight (8) foot width.
Chimney box structures and flues, stacks and vents attached to the facade	No	Yes	Yes	Limited to three (3) foot depth. Area of such encroachment projected to ground level shall not exceed eighteen (18) square feet.
Deck or patio (unenclosed)	No	Yes	Yes	Limited to four (4) foot depth and ten (10) foot width.
Eaves, gutters and pent roofs between 1st and 2nd stories	Yes	Yes	Yes	Limited to three (3) foot depth.
Porticos, entrance stoops and landings (unenclosed)	No	Yes	Yes	Limited to four (4) foot depth and five (5) foot width. Height limited to three (3) feet.
Fire escapes	No	Yes	Yes	Limited to four (4) foot depth.
Garden windows	Yes	Yes	Yes	Limited to two (2) foot depth, and four (4) foot width. Height limited to five (5) feet.

Pergolas attached to the principal building	No	Yes	Yes	Limited to four (4) feet depth and ten (10) foot width.
Window wells (basement)	Yes	Yes	Yes	Limited to three (3) foot depth and seven (7) foot width. Height limited to one (1) foot above grade.

**** These dimensional requirements apply to the feature only when all or a portion of the feature encroaches into a required yard.**

III. ARCHITECTURAL FEATURES AND ARTICULATION OF FACADES

A. Detached Garages in Rear Yards

The team believes that detached garages located behind a home are characteristic of many Haddonfield neighborhoods and are less intrusive than attached garages. Since anecdotal evidence suggests that impervious coverage may make it difficult to install longer driveways to service a rear garage, the team's preliminary recommendations suggested an impervious coverage allowance for rear yard garages. However, this recommendation prompted concerns about the effect of increased impervious coverage on storm water management.

Although the team still believes that detached garages in the rear yard are characteristic of many Haddonfield neighborhoods and help to reduce the massing effect created by attached garages, we ultimately concluded that more detailed research is needed on impervious coverage and other potential incentives to more precisely evaluate their impact. During its review, the Planning Board also recommended that further research should be conducted to determine whether there are specific neighborhoods where attached garages are so out-of-character that they should be prohibited.

B. Attached Garages

An increasing percentage of new homes are being built with garages that are attached to the side of the home and which face the street, some of which also protrude from the home's front building façade. As previously indicated, attached (rather than detached, rear yard) garages may be influenced by builders' concerns that placing a garage behind the home might result in impervious coverage limits being exceeded. However, these attached, front facing garages not only extend a front building line's width and increase a building's visual mass, they are more characteristic of typical suburban subdivisions, not most of



Haddonfield's neighborhoods. Moreover, when a story and a half is added over an attached garage, the building's mass further increases.

As stated earlier, there may be cases where attached garages should only be allowed in neighborhoods where they are already predominant. Pending further research, however, a simplified approach might be more appropriate. This would involve modulating the building line of a new home by prohibiting protruding garages and requiring that those garages with front facing doors be setback a certain distance from the building's front façade. The team initially considered a ten (10) foot setback but further research suggested that a lesser setback of five (5) feet would be more practical and would still modulate the home's façade.



The team and the Planning Board also noted that other characteristics seem to heighten garages' visual dominance. Consequently, a height limit is recommended to help modulate roof lines, second story exterior protrusions would be prohibited and garage doors would need to have a modest degree of articulation. Although requiring single bay garage doors would also soften the effect of two-car garages whose doors face a street, the team ultimately concluded that limiting the width of the garage relative to the home's façade is a more practical approach. Thus, the recommendations require that attached garages whose doors face a street not exceed 40% of a façade's total length and, in no case, shall contain more than two bays.

The following provision should be added to the end of Section D (4)(b) of each zone district's regulations for the R1 through R9 zones:

Garages Attached To a Residential Building

- 1. No portion of an attached garage shall protrude from a residential building's façade if any façade of that garage faces a street.**
- 2. Attached garages cannot be taller than the principal structure or greater than twenty-five (25) feet in height, whichever is less. Height is to be measured from the floor of the garage.**
- 3. No storage or habitable living space located above an attached garage may extend beyond any of the garage's façades.**
- 4. All bay doors on attached garages shall:**
 - be recessed from the primary plane of the garage a minimum of eight (8) inches; and**
 - include a minimum of two (2) design elements that give texture to the garage door's surface or change the appearance of depth, such as windows, articulated panels, bead board, cross buck or decorative contrasting hardware.**

5. Any attached garage whose bay doors face a street shall also:

- **be set back at least five (5) feet from the building's façade that faces the street. Where the building's façade is articulated, the setback shall be calculated from the wall which contains a doorway or, absent a doorway, the longest uninterrupted wall;**
- **not consume more than forty (40) percent of the total length of the building's façade, inclusive of the garage; and**
- **not contain more than two (2) bays.**

For the sake of clarity, the team also recommends that a definition of a garage be added to the ordinance.

GARAGE- A detached accessory building, or a portion of a principal building, containing one or more parking spaces and used primarily for the storage of motor vehicles owned or used by the occupant of the principal building.

C. Articulation of Facades

Flat walls, especially lengthy ones, tend to dramatically increase the visual mass of a building and can detract from neighborhood character. A variety of articulation or modulation techniques can effectively mitigate the massing effect of these lengthy walls. In general, vertical articulation (such as an offset wall or chimney) serves to prevent a looming monolithic appearance and horizontal articulation (such as a porch or bay window) is used to highlight a distinction between the lower, middle and top of a structure. There are, of course, many other ways to modulate exterior facades, as evidenced in a growing number of towns, including Westfield, NJ.



Unarticulated Side Wall



Articulated Wall

Although lengthy, un-articulated front walls are not the norm in Haddonfield, monolithic side walls do seem to be occurring more frequently. As a fail-safe measure to ensure that lengthier side facades have at least a modest amount of articulation, the team believes that several requirements should be included in our ordinance.

In its initial report, the team recommended: wall “offsets” for any wall exceeding 25 feet in length; a formula to determine the minimum amount of articulation required on a façade; and a 10 percent requirement for windows and doors. Based upon comments received and further research, the team felt that the wall length should be lengthened to 33 feet and the articulation formula should be simplified. Although the Planning Board ultimately determined that a 25 foot wall length was more appropriate, it further simplified the formula by reducing the minimum number of articulation features from 2 to 1 and by reducing the multiplication factor from 2 to 1½.

The following provisions be added to the zoning requirements for the R1 through R9 zones.

Façade Articulation

A. Maximum Unbroken Wall Length

Any facade of a residential building that faces a side lot line or a secondary front lot line⁵ and that exceeds twenty-five (25) feet in length must be articulated in accordance with the following:

- 1. This requirement applies to the entire length of the façade, including proposed extensions of an existing façade.**
- 2. The minimum number of features shall be determined by dividing the total length (in feet) of the façade by 25 feet and multiplying the result by 1½. Fractions do not count toward the minimum required number of features.**
- 3. Each of the following features qualifies as an articulation feature and must have a minimum width of four (4) feet and a depth of two (2) feet unless specified otherwise:**
 - **Wall offsets that extend from the finished grade to the eave. Garages that face a side or secondary front lot line and meet the requirements of Attached Garages may be considered a wall offset;**
 - **Projecting bay/bow/box/garden windows with minimum dimensions of three (3) feet in width, four (4) feet height, and eighteen (18) inches in depth;**
 - **Ground supported masonry chimneys that extend beyond the eave line;**
 - **Unsupported and enclosed gas chimney box structures and flues attached to the wall and that have a minimum height of five (5) feet;**
 - **Entrance porticos or door canopies (supported or unsupported) that have a minimum depth of three (3) feet;**

⁵ Secondary front lot lines are described in the July 11, 2018 Zone District Report. The recommended definition of front lot line specifies that any lot line abutting a street that is not the front lot line shall be considered a secondary front lot line.

- Porches that may be unenclosed or enclosed;
- Pent roofs between the 1st and 2nd stories; and
- Pergolas that are attached to the façade.

4. These requirements do not prohibit the incorporation of additional architectural features whether or not they are listed in or meet the dimensional requirements of 3 above.

B. Fenestration (Windows and Doors)

A minimum of ten (10) percent of the total square footage of a residential building facade that faces a side yard or a secondary front lot line shall be made up of windows and/or doors, in accordance with the following:

- 1. Garage doors do not contribute to the fenestration requirement;**
- 2. Every door on a side façade, other than a garage door, shall have a portico or overhang;**
- 3. Any window or door qualifying as an architectural feature shall also count toward the fenestration requirement; and**
- 4. Trim and shutters do not contribute to the fenestration requirement.**

IV. OTHER RECOMMENDATIONS

A. Grading

Based upon the Borough Engineer's recommendation, Ordinance 2017-06 added a new standard to Section 135-93.2 of our Code to prohibit grading within 5 feet of a property line unless it (1) materially improves storm water management or (2) alleviates a potential safety problem.

During its review of garage and driveway issues, the team noted that this new provision might prohibit modest grading to accommodate a driveway in a side yard that is less than 15 feet wide but that otherwise meets the 3 foot property offset requirement of Section 135-86B(6)(b). We, therefore, recommend that driveways be added as a third exception to the grading standard in Section 135-93.2.

B. Retaining Walls

Retaining walls are structures designed to restrain soil to a slope that it would not naturally keep, typically to hold soils between two different elevations in areas possessing undesirable or steep slopes or, in some cases, to accentuate landscape designs. When the height of a retaining wall is excessive, it can have a negative aesthetic impact on adjacent or nearby properties.

The retaining wall recommendations are intended to avoid excessive heights. The Planning Board made adjustments to the team's initial recommendations to account for the protection of Borough Shade Trees, safety barriers and the Borough's existing fence regulations. The following addition should be added to Article X of our Land Development Code:

Section 135-101.1. Retaining walls

A. Retaining walls shall not exceed three (3) feet in height at any point. Terraced retaining walls involving more than one (1) section of wall above or below each other shall be construed as one (1) wall unless the base of the upper wall is separated from the face of the lower wall by at least four (4) feet, measured horizontally.

B. Retaining walls shall be setback from any property line a distance of a least one (1) foot for each foot of height of the retaining wall.

C. Any retaining wall proposed to be located within the Preservation Area of a Borough Tree shall require Shade Tree Commission authorization pursuant to Chapter 56 of this Code.

D. In the event that a fence, safety barrier or other restraining device is provided at the top of the wall, the total height of the wall with the fence, safety barrier and/or restraining device shall not exceed the height limitations set forth for fences in Section 135-96 of this Code.

E. In the event of a conflict between a construction code requirement for a retaining wall, a safety barrier or a restraining device and the requirements of this Section, the more restrictive requirement shall apply.

C. Floor Area Ratio

In its preliminary report, the team noted that Floor Area Ratio (FAR), which is the ratio of a building's floor area (gross or usable floor area) to the size of the piece of land upon which it is built, had been discussed in prior Planning Board reports as a possible technique to help achieve compatibility and control the massing effect of new homes. Though FAR affects the volume, shape, and spacing of a building, it does not determine a particular shape or spacing. Since it permits design choices, FAR can be an effective tool to limit the bulk of a home while permitting variable dimensions within an overall volume limit. This affords architects design flexibility while helping to ensure that the overall mass of a home is in keeping with its environs and, when combined with other measures that we have proposed such as height limits, contextual front yard setbacks, and articulation requirements, can harmoniously blend new construction with older housing stock.

Because each of our zoning districts contains lots and homes of different sizes and there is a lack of reliable information on the actual floor areas of existing homes, the team initially felt it would be difficult to develop reasonable and effective floor area ratios that could be applied uniformly and fairly throughout each zone. However, the team continued to look into FAR because Haddonfield's reliance on coverage and yard requirements to limit building size is not an effective way of controlling the overall mass of a home. For example, a conforming 7,500 square foot lot in the R5 zone that meets building coverage and yard requirements can potentially yield a home with up to 5,000 square feet of livable floor area. A 10,000 square foot lot in the same zone might yield a home with 6,667 square feet of livable floor area.

We found an approach in Westfield, NJ that, by tying FAR to the actual size of a lot (rather than by zone), addresses our primary concern about the fairness of a requirement that applies to different sized lots throughout an entire zone district. We also observed that Westfield's FAR limits allowed for larger homes with modern amenities yet were compatible with existing older housing stock that is similar to Haddonfield's. **Therefore, we recommend that an experienced planner be retained to develop specific FAR recommendations, guided by Westfield's approach and the following objectives:**

- 1. The floor area ratios should be tied to actual lot sizes rather than zone districts;**
- 2. The method for calculating floor area should be kept simple, focusing on the livable space of the 1st and 2nd floors. Basements and half stories, which can complicate livable floor area calculations, do not need to be included;**
- 3. Attached garages should not be considered in the floor area calculations unless they're oversized for the lot on which they're to be located, similar to Westfield's approach; and**
- 4. The permissible floor area ratios should be somewhat less than twice the allowable building coverage. This difference should be established to promote variations in design and shape between the 1st and 2nd stories that will help to lessen the perception of a building's mass.**

D. Lot-Sized Based Coverage Requirements

Our ordinance assigns building coverage and impervious coverage limits by zone. Although this may be an effective way to regulate lots that are relatively uniform in size, Haddonfield's lot size pattern is diverse. For example, a 6,000 square foot lot in the R7 zone would be permitted 1,500 square feet of building coverage and 2,400 square feet of impervious coverage, while a lot of equal size in the R6 zone would be entitled to 1,320 (or 12% less) square feet of building coverage and 2,100 (or 12.5% less) square feet of impervious coverage.

The team believes that tying building and impervious coverage limits on actual lot size is more equitable and notes that Westfield NJ has adopted that approach. We recommend that the Planning Board explore this approach in more detail.

E. Encouraging Front Porches

Early in its initial work, the team discussed the possibility of a stand-alone regulation that front porches would be required where they are in keeping with the existing character of the surrounding neighborhood. However, the team elected not to include such a requirement in its preliminary recommendations.

Since then, some members of the Zoning Board and others have suggested that incentives might be considered to encourage front porches. Inducements might include, for example, allowing front yard encroachments, exempting front porches from building coverage and/or discounting their contribution to impervious coverage.

Although the team thinks the idea of front porch incentives should be considered, it believes that, as is the case for rear yard garages, more research is needed to evaluate the pros and cons of incentives and what their likely impact would be.

F. Tree Preservation

Section 135-84 of the Borough's Land Development Code has extensive tree protection requirements that apply when site plan or subdivision approval is required. The team notes that the Shade Tree Commission does an outstanding job helping to administer these requirements, in spite of its many other obligations.

It should be noted, however, that these requirements do not apply to a development proposal, such as the reconstruction of a home, that doesn't require subdivision or site plan approval. Since other towns have successfully instituted more expansive requirements, **the team recommends that the Planning Board and the Shade Tree Commission investigate whether broadening the tree protection requirements to cover currently exempt activities is worthwhile and practical to administer.**

V. ADOPTION OF ORDINANCE AMENDMENTS

We expect that all of our recommendations will be carefully reviewed before adoption. Those that involve ordinance changes will need to be prepared in ordinance form and submitted to the Borough Commissioners for consideration. As part of that process, the team offers two final recommendations.

A. Applicability of Ordinance Changes

The team is aware that some confusion exists as to the applicability of certain Land Development Ordinance standards. For example, many of the standards in Article IX (Site Design Standards) are only meant to apply if a subdivision or site plan application is required. Yet, others, such as storm water management for "new " homes (Section 135-92A(3)), driveway widths (Section 135-92.2), etc. have universal applicability and are not merely limited to subdivisions and site plans. Most of the recommendations presented in this report also have universal applicability.

To ensure that all of these "general" standards that are intended to have universal application are abundantly clear, the team recommends that:

- 1. The Planning Board solicitor, in consultation with the Zoning Officer, review each existing standard in Articles IX and X to identify those that are intended to apply universally;**
- 2. The Planning Board solicitor present his recommendations to the Planning Board for review; and**
- 3. After Planning Board action on the recommendations, the solicitor draft an ordinance to clearly specify all universal requirements, including those recommended in this report.**

B. Effective Date of Ordinance Changes

Finally, we expect that these ordinance changes will be publicly vetted over several months and should be well understood by architects, engineers, other professionals and residents before the Borough

Commissioners consider their adoption. Nonetheless, we believe a reasonable transition period should be established to allow for the completion of plans begun before these ordinance changes are adopted. Various grace periods were considered, ranging from 90 days (used in some ordinances) to 180 days (used in the Uniform Construction Code). Based on its preliminary review, the Planning Board felt that 120 days was a more appropriate time period for these ordinance changes than the 180 day period for construction code-related changes.

Therefore, a specific provision should be included in the adopting ordinance to specify that the new ordinance requirements shall not apply to any application deemed complete within a 120 day period following ordinance adoption.

APPENDIX 1

NEIGHBORHOOD CONTEXT EXAMPLE FOR BUILDING HEIGHT

LET'S CONSIDER A HYPOTHETICAL LOT AT 300 OVERBROOK AVENUE. IT IS LOCATED IN THE R5 ZONE THAT ALLOWS FOR A 33 ½ FOOT TALL HOME. THE OWNER MAY WANT TO CONSIDER A TALLER HOME BUT HASN'T PREPARED FORMAL PLANS AS YET. INSTEAD OF PREPARING PLANS AND INCURRING THE COSTS AND UNCERTAINTY OF APPLYING FOR A HEIGHT VARIANCE, THE OWNER CAN COMPLETE A NEIGHBORHOOD ANALYSIS TO DETERMINE WHETHER THE HOME CAN EXCEED 33 ½ FEET WITHOUT THE NEED FOR A VARIANCE.

STEP 1 - DETERMINE THE ZONE IN WHICH THE LOT TO BE DEVELOPED IS LOCATED. IN THIS CASE, IT'S IN THE R5 ZONE.

STEP 2- REFER TO THE NEIGHBORHOOD CONTEXT TABLE TO DETERMINE THE DISTANCE TO BE MEASURED ON EACH SIDE OF THE SUBJECT LOT. IN THE R5 ZONE, THE DISTANCE WILL BE 300 FEET MEASURED FROM EACH OF THE SIDE LOT LINES OF THE SUBJECT LOT.

STEP 3 - IDENTIFY ALL LOTS ON THE SAME SIDE OF THE SAME STREET THAT ARE WITHIN 300 FEET OF THE SUBJECT LOT.

- REMEMBER THAT THE LOTS MUST BE ON THE SAME SIDE AS THE SUBJECT LOT.
- ALTHOUGH THE 300 FOOT DISTANCE CAN EXTEND BEYOND A CROSS STREET, A LOT ON OVERBROOK AVE. THAT IS ON THE OTHER SIDE OF THAT CROSS STREET MUST BE WITHIN 300 FEET OF 300 OVERBROOK AVE. TO BE INCLUDED.
- INCLUDE LOTS WHERE ALL OR A PORTION IS WITHIN 300 FEET.

STEP 4 - ONLY A **HOME'S FRONT BUILDING ELEVATION** HAS TO BE MEASURED. LET'S ASSUME THE FOLLOWING RESULTS:

ADDRESS	HEIGHT		ADDRESS	HEIGHT
298 OVERBROOK	35		302 OVERBROOK	35
296 OVERBROOK	35		304 OVERBROOK	35
294 OVERBROOK	34		306 OVERBROOK	36
292 OVERBROOK	32		308 OVERBROOK	35

STEP 5 - ELIMINATE THE LOWEST VALUE AND THE HIGHEST VALUE. IN THIS CASE, 32 IS THE LOWEST AND 36 IS THE HIGHEST.

- IN THE EVENT TWO HOMES HAD A 36 FOOT HEIGHT, ONLY ONE WOULD BE ELIMINATED. THAT RULE ALSO APPLIES TO THE LOW VALUE.

STEP 6 - CALCULATE THE AVERAGE HEIGHT OF THE REMAINING HOMES BY DIVIDING THE SUM OF THEIR HEIGHTS BY THE NUMBER OF HOMES. IN THIS CASE, THERE ARE 6 REMAINING HOMES WITH A TOTAL HEIGHT OF 209 FEET. THAT YIELDS AN AVERAGE HEIGHT OF 34.83 FEET.

STEP 7 - THE OWNER OF 300 OVERBROOK AVE. CAN BUILD A HOME THAT IS 34'10" TALL WITHOUT THE NEED FOR A VARIANCE.

APPENDIX 2

HADDONFIELD HEIGHT VERIFICATION FORM

PROPERTY LOCATION: BLOCK_____, LOT_____ ADDRESS_____

FIELD SURVEY INFORMATION TO BE COMPLETED BY PROFESSIONAL LAND SURVEYOR LICENSED IN NEW JERSEY, IN ACCORDANCE WITH SECTION 135-10, DEFINITION FOR HEIGHT (ZONES OUTSIDE OF DOWNTOWN ZONING DISTRICT)

ELEVATIONS

Grade	1 st Corner	2 nd Corner	3 rd Corner	4 th Corner	1-2 Midpoint	2-3 Midpoint	3-4 Midpoint	4-1 Midpoint
Pre-Const								
Finished								

IF ADDITIONAL POINTS OF MEASUREMENT ARE NEEDED, IDENTIFY THEIR LOCATION AND ELEVATIONS

Grade								
Pre-Const								
Finished								

Average of All Pre-Construction Elevations = _____ Average of All Finished Elevations = _____

I have conducted a field survey of this property and identified the above noted elevations at the prescribed locations, based upon plans prepared by _____ and dated ____/____/____.

Name of Surveyor

Signature

NJ License Number or Seal

Date

BUILDING HEIGHT CALCULATIONS TO BE COMPLETED BY THE LICENSED NEW JERSEY ARCHITECT

Column 1	Column 2	Column 3	Column 4	Column 5
Zone District	Lowest Average Elevation	Permitted Height Above Lowest Average Elevation	Subtract Column 2 From Average Finished Elevation	Subtract Column 4 From Column 3. THIS IS THE MAXIMUM BUILDING HEIGHT PERMITTED ABOVE THE AVERAGE FINISHED ELEVATION.

I have completed these building height calculations and certify that they are in accord with the proposed plans prepared by me and dated ____/____/____.

Name of Architect

Signature

NJ License Number or Seal

Date