

Newton

Residential Floor Area Ratio (FAR)

Newton's Zoning Ordinance sets out Floor Area Ratio limits for residential one and two family structures and describes what elements of a building are included in gross floor area. Floor area ratio, or FAR, regulates the amount of gross floor area that can be built on any given lot. FAR is the ratio of gross floor area of all buildings on a lot divided by lot size:

$$\text{FAR} = \frac{\text{gross floor area of all buildings on a lot}}{\text{Lot size}}$$

Definitions:

Carport: A one-story roofed structure permanently open on at least three sides and designed for or used for occupancy by a motor vehicle. For the purposes of this ordinance, a one-story port-cochere meets the definition of a carport.

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.

Porch: A roofed projection that extends from the façade of a residential structure and that is neither heated nor air conditioned. A porch may share no more than two exterior walls with the residential structure. Railings or solid walls on the projecting facades of the porch may be no higher than 36" as measured from the finished porch floor; the remainder of these facades may be open to the elements or enclosed by mesh, glass, or similar material.

Porch, enclosed: A porch enclosed for any portion of the year by any non-permeable material such as glass or a similar material.

Porch, unenclosed: A porch that at all times is either enclosed by permeable materials such as mesh or similar material or is unenclosed by any material.

Floor area ratio:

- (a) For residential structures in residential districts, gross floor area of all buildings on the lot divided by total lot area.
- (b) For all others: Gross floor area of all buildings on the lot divided by total lot area. Any portion of a basement not used for storage, parking or building mechanicals shall be included in determining floor area ratio.

Floor area, gross:

(a) For residential structures and buildings accessory to residential structures in residential districts, the sum of the floor area of all principal and accessory buildings whether or not habitable, except as excluded below. Floor area measurements shall be taken within the perimeter of the outside walls of each building without deduction for garage space, hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces, or other features as defined in this section.

- a. Gross floor area shall include:
 - i. First and second stories;
 - ii. Any space above the second story, whether finished or unfinished, that meets all of the following criteria:
 - 1. Lies within the area of a horizontal plane that is five (5) feet above the floor and which touches the side walls and/or the underside of the roof rafters;

2. Is at least seven (7) feet in any horizontal dimension, as measured within the area having a wall height of five feet or more;
 3. Has a minimum ceiling height of seven (7) feet on at least 50 percent of its required floor area; and
 4. Has a floor area of not less than 70 square feet as measured within the area having a wall height of five feet or more.
- iii. Atria, open wells, and other vertical open spaces, where floor area shall be calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by ten (10);
 - iv. Enclosed porches;
 - v. Attached garages;
 - vi. Detached garages and any space above the first story of a detached garage that has a ceiling height of 7' or greater;
 - vii. Other detached accessory buildings, such as sheds or cabanas, except as exempted in (b)(iii) below.
 - viii. A portion of mass below the first story, to be calculated as follows:

The lesser of 50% of the floor area of mass below first story OR
the following: $X/Y \times \text{floor area of mass below first story}$

Where:

X = Sum of the width of those sections of exposed walls below the first story having an exterior height equal to or greater than four (4) feet as measured from existing or proposed grade, whichever is lower, to the top of the subfloor of the first story

Y = Perimeter of exterior walls below first story

b. Gross floor area shall not include:

- i. Unenclosed porches;
- ii. Carports; and
- iii. One detached accessory building equal to or less than 120 square feet in size.

(b) For all others: The floor area within the perimeter of the outside walls of the building without deduction for hallways, stairs, closets, and thickness of walls, columns or other features.

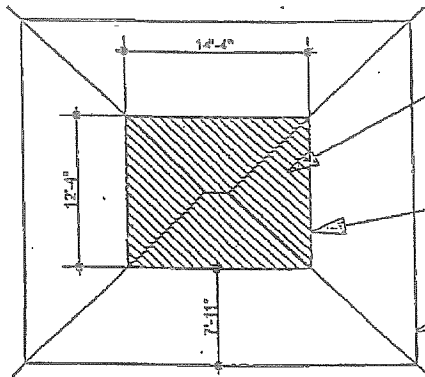
30-15(u) The floor area ratio (FAR) shall apply to all one and two family structures, whether new or existing, according to the FAR limits contained in Table A below. The following exceptions shall apply:

1. For construction on lots created before 12/7/1953, an additional increase in FAR of .02 above the amount shown in Table A shall be allowed, provided that new construction proposed using additional FAR granted under this paragraph shall comply with setback requirements for post-1953 lots. Any increase in FAR granted through this section may not create or increase nonconformities with respect to lot coverage or open space and may not be used in conjunction with section 30-21(c).
2. An increased FAR may be allowed by special permit if the proposed structure is consistent with and not in derogation of the size, scale and design of other structures in the neighborhood.

TABLE A: ALTERNATIVE FAR FOR SINGLE AND TWO FAMILY STRUCTURES IN RESIDENTIAL DISTRICTS

Lot Size Category	SR1	SR2	SR3
Less than or equal to 4,999 square feet	Maximum FAR=.46	Maximum FAR=.46	Maximum FAR=.48
5,000 to 6,999 square feet	Maximum FAR ranges from .46 to .43 depending on lot size. Maximum FAR = .46 - [.000015* (lot size-5000)]	Maximum FAR ranges from .46 to .43 depending on lot size. Maximum FAR = .46 - [.000015* (lot size-5000)]	Maximum FAR=.48
7,000 to 9,999 square feet	Maximum FAR ranges from .43 to .33 depending on lot size. Maximum FAR = .43 - [.000033* (lot size-7000)]	Maximum FAR ranges from .43 to .38 depending on lot size. Maximum FAR = .43 - [.000017* (lot size-7000)]	Maximum FAR ranges from .48 to .41 depending on lot size. Maximum FAR = .48 - [.000023* (lot size-7000)]
10,000 to 14,999 square feet	Maximum FAR ranges from .33 to .31 depending on lot size. Maximum FAR = .33 - [.000004* (lot size-10000)]	Maximum FAR ranges from .38 to .33 depending on lot size. Maximum FAR = .38 - [.000010* (lot size-10000)]	Maximum FAR ranges from .41 to .38 depending on lot size. Maximum FAR = .41 - [.000006* (lot size-10000)]
15,000 to 19,999 square feet	Maximum FAR ranges from .31 to .28 depending on lot size. Maximum FAR = .31 - [.000006* (lot size-15000)]	Maximum FAR = .33	Maximum FAR = .38
20,000 to 24,999 square feet	Maximum FAR ranges from .28 to .26 depending on lot size. Maximum FAR = .28 - [.000004* (lot size-20000)]	Maximum FAR = .33	Maximum FAR ranges from .38 to .36 depending on lot size. Maximum FAR = .38 - [.000004* (lot size-20000)]
25,000 square feet or more	Maximum FAR = .26	Maximum FAR = .33	Maximum FAR = .36

Lot Size Category	MR1	MR2/MR3
Less than or equal to 4,999 square feet	Maximum FAR = .58	Maximum FAR = .58
5,000 to 6,999 square feet	Maximum FAR ranges	Maximum FAR ranges
	from .58 to .53 depending on lot size. Maximum FAR = .58 - [.000025* (lot size-5000)]	from .58 to .53 depending on lot size. Maximum FAR = .58 - [.000025* (lot size-5000)]
7,000 to 9,999 square feet	Maximum FAR ranges from .53 to .48 depending on lot size. Maximum FAR = .53 - [.000017* (lot size-7000)]	Maximum FAR = .53
10,000 to 14,999 square feet	Maximum FAR = .48	Maximum FAR ranges from .53 to .43 depending on lot size. Maximum FAR = .53 - [.000020* (lot size-10000)]
15,000 to 19,999 square feet	Maximum FAR ranges from .48 to .43 depending on lot size. Maximum FAR = .48 - [.000010* (lot size-15000)]	Maximum FAR ranges from .43 to .38 depending on lot size. Maximum FAR = .43 - [.000010* (lot size-15000)]
20,000 to 24,999 square feet	Maximum FAR ranges from .43 to .38 depending on lot size. Maximum FAR = .43 - [.000010* (lot size-20000)]	Maximum FAR = .38
25,000 square feet or more	Maximum FAR = .38	Maximum FAR = .38



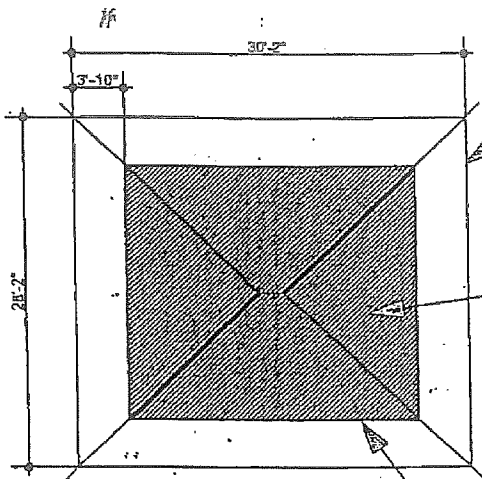
177 square feet of minimum ceiling height of 7'

Line of 7' height to underside of rafters

Outside face of wall

PLAN VIEW OF 1/2 STORY AREA 7' OR MORE

$\frac{177 \text{ SF of } 7' \text{ height}}{461 \text{ SF of required floor area}} = .38$
7 FOOT HEIGHT IS 38% OF REQUIRED FLOOR AREA



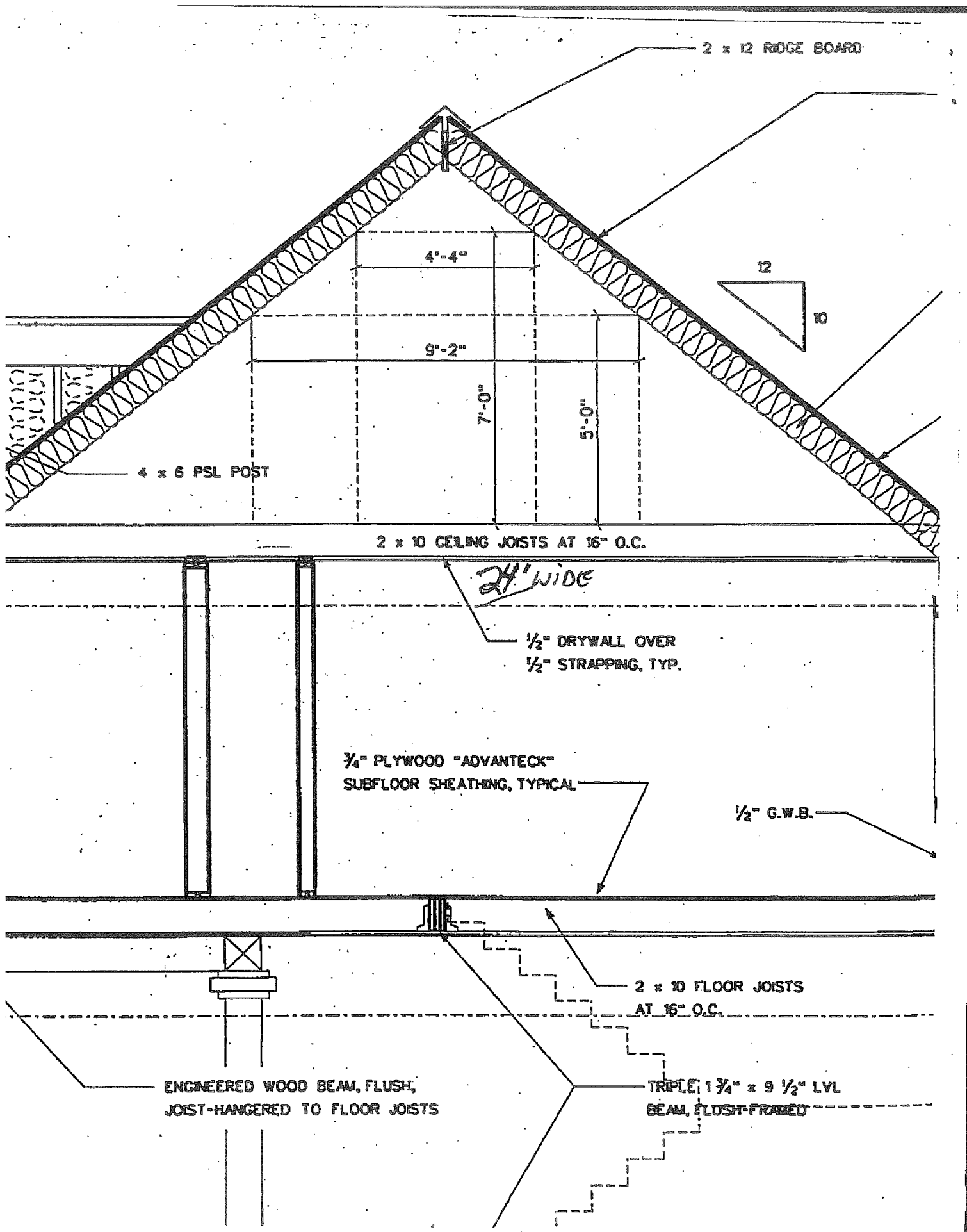
Outside face of wall

461 square feet "required floor area" lies below the area of a horizontal plane that is 5' above it which touches the side walls and/or the underside of the roof rafters

Line of 5' height to underside of rafters

PLAN VIEW OF 1/2 STORY AREA 5' OR MORE

1/2 STORY CALCULATION





Serti D. Warren
Mayor

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Commissioner

FLOOR AREA RATIO WORKSHEET

For Residential Single and Two Family Structures

Property address: _____

FAR Calculations for Regulations Effective As Of October 15, 2011	
Inputs (square feet)	
1. First story	
2. Attached garage	
3. Second story	
4. Atria, open wells, and other vertical spaces (if not counted in first/second story)	
5. Certain floor area above the second story ^{1b}	
6. Enclosed porches ^{2b}	
7. Mass below first story ^{3b}	
8. Detached garage	
9. Area above detached garages with a ceiling height of 7' or greater	
10. Other detached accessory buildings (one detached building up to 120 sq. ft. is exempt)	
FAR of Proposed Structure(s)	
A. Total gross floor area (sum of rows 1-9 above)	
B. Lot size	
C. FAR = A/B	
Allowed FAR	
Allowable FAR	
Bonus of .02 if eligible ^{4b}	
TOTAL Allowed FAR	

Calculation Instructions

- **General:** Calculations should be made within the perimeter of outside walls of a building without deduction for hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces or other features.
- **First/second story:** Exclude from the calculation bays or bay windows that are cantilevered do not have foundations, and that occupy 10 percent or less of the wall area on which they are mounted.
- **Atria:** Atria, open wells, and other vertical open spaces are calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by 10.

Notes:

1b: Area above the second story: Include in the calculation for FAR any area that meets the following criteria:

- Lies below the area of a horizontal plane that is 5' above it and which touches the side walls and/or the underside of the roof rafters;
- Is at least 7' in any horizontal dimension as measured within the area having a wall height of at least 5' or more;
- Has a minimum ceiling height of 7' on at least 50 percent of its required floor area; AND
- Has a floor area of not less than 70 sq. ft. as measured within the floor area having a wall height of 5' or more.

2b: Porch: A porch is considered enclosed if it is enclosed for any portion of the year by impermeable materials such as glass. Porches are roofed structures with sides not more than 60% enclosed by impermeable walls and railings or solid walls no higher than 36" high from the finished floor; are attached to and accessible from the primary structure; and are not heated or air conditioned.

3b: Mass below first story: Mass below first story includes any cellar, crawl space, basement, or other area lying directly below a first story. The portion that is included in FAR is the LESSER OF:

- 50% of the floor area of mass below first story OR
- $X/Y \times$ 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 equal to or greater than 4' as measured from existing or proposed grade, whichever is lower, to the top of the subfloor of the first story

Y= Perimeter of exterior walls below first story

4b: Bonus: An FAR bonus of .02 is available for those seeking to build on old lots (lots created before December 7, 1953) if new construction is built to comply with "new lot" setback standards and that nonconformities with respect to open space or lot coverage are not created or increased.

Allowable FAR (as of October 15, 2011)
 One- and Two-Family Residences in Residential Districts

SR1		SR2		SR3	
Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*
<= 5,333	.46	<= 5,333	.46	<= 7,217	.48
5,334-6,000	.45	5,334-6,000	.45	7,218-7,652	.47
6,001-6,666	.44	6,001-6,666	.44	7,653-8,086	.46
6,667-7,151	.43	6,667-7,294	.43	8,087-8,521	.45
7,152-7,454	.42	7,295-7,882	.42	8,522-8,956	.44
7,455-7,757	.41	7,883-8,470	.41	8,957-9,391	.43
7,758-8,060	.40	8,471-9,058	.40	9,392-9,826	.42
8,061-8,363	.39	9,059-9,647	.39	9,827-10,833	.41
8,364-8,666	.38	9,648-10,500	.38	10,834-12,499	.40
8,667-8,969	.37	10,501-11,500	.37	12,500-14,166	.39
8,970-9,272	.36	11,501-12,500	.36	14,167-21,250	.38
9,273-9,575	.35	12,501-13,500	.35	21,251-23,750	.37
9,576-9,878	.34	13,501-14,500	.34	23,751 and above	.36
9,879-11,250	.33	14,501 and above	.33		
11,251-13,750	.32				
13,751-15,833	.31				
15,834-17,500	.30				
17,501-19,166	.29				
19,167-21,250	.28				
21,251-23,750	.27				
23,751 and above	.26				

MR1		MR2/MR3	
Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*
<= 5,199	.58	<= 5,199	.58
5,200-5,599	.57	5,200-5,599	.57
5,600-5,999	.56	5,600-5,999	.56
6,000-6,399	.55	6,000-6,399	.55
6,400-6,799	.54	6,400-6,799	.54
6,800-7,294	.53	6,800-10,250	.53
7,295-7,882	.52	10,251-10,750	.52
7,883-8,470	.51	10,751-11,250	.51
8,471-9,058	.50	11,251-11,750	.50
9,059-9,647	.49	11,751-12,250	.49
9,648-15,500	.48	12,251-12,750	.48
15,501-16,500	.47	12,751-13,250	.47
16,501-17,500	.46	13,251-13,750	.46
17,501-18,500	.45	13,751-14,250	.45
18,501-19,500	.44	14,251-14,750	.44
19,501-20,500	.43	14,751-15,500	.43
20,501-21,500	.42	15,501-16,500	.42
21,501-22,500	.41	16,501-17,500	.41
22,501-23,500	.40	17,501-18,500	.40
23,501-24,500	.39	18,501-19,500	.39
24,501 and above	.38	19,501 and above	.38

*Does not include .02 bonus if eligible.

FAR Working Group Final Report

May 2010

Please note:

Since this report was prepared, the FAR limits proposed by the Working Group have been altered slightly. The currently proposed FAR limits and proposed zoning text can be found in the draft language for Petition #142-09(6), available at:

<http://www.ci.newton.ma.us/Aldermen/Agendas/ZoneAgenda.htm>.

In addition, since this report was prepared, the Planning Department has made further refinements to the model used to generate quantitative estimates of conformance with respect to FAR and estimates of developed and undeveloped capacity under various scenarios. Therefore, the tables presented within this report may differ slightly from those shown at the public hearing.

FAR Working Group Final Report

Executive Summary

The FAR Working Group was appointed in June 2009 to study floor area ratio (FAR) in the City of Newton and to propose amendments to the Zoning Ordinance designed to ensure that FAR regulations more accurately reflect current conditions, are easier to apply and enforce, and result in new construction that is in keeping with surrounding structures and the *Newton Comprehensive Plan*.

The Working Group met 14 times from July 2009 to March 2010, including an interim presentation to the Zoning and Planning Committee of the Board of Aldermen. The group first conducted field work and data analyses to assess current, actual FAR in neighborhoods across the City, finding that 1) because FAR is in part a function of the definition of gross floor area (GFA), the exemption of certain features from the calculation of GFA allow significant residential living space to be built free from FAR; and 2) because FAR is in part a function of lot size, many homes on small lots, particularly those that are older and in need of updating, are particularly restricted from making even small additions.

From the findings of these efforts, the Working Group developed proposals to ensure the fairer application of FAR limits through the removal of existing exemptions in the definition of gross floor area, and to address the restricted development potential on smaller sized lots through a graduated system of FAR limits tied to lot size categories in each zone.

Members of the group and City staff, as well as architects from the Newton community, then tested these proposals to examine their potential impact on actual residential development in the City. The Working Group made modifications based on the testing results. The final proposals consist of two separate but related parts: a fairer and more inclusive definition of “gross floor area” and a sliding scale of FAR limits tied to lot size categories intended to give smaller lots a modest increase in FAR and reduce FAR nonconformities on these lots, while also keeping overall opportunities for expanded development in the residential neighborhoods of the City roughly consistent to what is possible today.

FAR Working Group Final Report

I. Residential FAR in Newton and Appointment of the FAR Study Group

Floor Area Ratio, or FAR, is the ratio of the gross floor area of a building to its lot size, and is a measure of building mass.¹ FAR limits were added to the dimensional controls in residential zoning districts in Newton in 1997 as a response to concerns about the demolition of smaller homes and their replacement with larger-scale dwellings that many felt were out of character with their surroundings. At the time FAR was adopted, FAR limits were made applicable to new residential construction and to residential construction when over 50% of an existing house was demolished.

In the years after the adoption of residential FAR limits, many public officials and citizens raised concerns that Newton's FAR limits were easily and lawfully exceeded when homeowners and developers took advantage of the numerous exemptions from FAR limits found in the definition of gross floor area and in what was informally referred to as the "50% demo provision" to maximize their development potential. The latter provision (previously located in Sec. 30-15, Table 1, Footnote 7) was particularly problematic: as long as less than 50% of an existing home was demolished, there was no FAR limit on what could then be built on the site, other than limits imposed by other dimensional controls. Though intended to facilitate the creation of small additions, such as mudrooms or bathrooms, in practice it allowed very large expansions of existing homes, often to sizes that significantly exceeded FAR limits for new construction in the zoning district.

In March 2009, the Board passed Ordinance Z-44, which deleted Footnote 7, including the 50% demo provision, in its entirety, thereby making FAR limits applicable to *all* residential development, including expansions of existing dwellings. As a result of this change, completely new homes as well as renovations of or additions to existing homes *both* have to comply with FAR limits.

In the wake of the adoption of Z-44, a number of homeowners who were planning to make small additions using the 50% demo provision learned that they would be unable to proceed without a special permit² because their homes either already exceeded FAR limits or would exceed them with their proposed additions. To aid homeowners in these situations, the Board then passed Ord. Z-51, which grants an FAR bonus of .05 to .07 for qualifying residential properties; this provision is set to

¹ Please see Attachment 1 for a graphic depiction of floor area ratio. An FAR limit of "1" means that on a 10,000 sq. ft. lot, a 10,000 sq. ft. building could be built; an FAR limit of .5 would allow a 5,000 sq. ft. building to be built on that same lot. In Newton, current residential FAR limits range from .2 to .4 depending on the zoning district and age of the lot.

² Under the City's Zoning Ordinance, an applicant may seek a special permit from the Board of Aldermen to exceed FAR, as long as the proposed structure is consistent with and not in derogation of the size, scale and design of other neighborhood structures (see Sec. 30-15(u)(4)).

sunset on July 31, 2010. In June of 2009, the Board also passed a resolution requesting that the Director of Planning and Development conduct a study of residential FAR in Newton to advise on how the zoning ordinance might be amended with regard to FAR limits.

As a result of this resolution, the “FAR Working Group” was appointed in June 2009 with the goals of assessing existing FAR limits in residential neighborhoods of the City and making recommendations for amending the zoning ordinance to ensure that FAR regulations more accurately reflect current usage and ensure that new construction is in keeping with surrounding structures and the *Newton Comprehensive Plan*. Members of the Working Group were appointed by the President of the Board of Aldermen and the Mayor. The members of the group, all residents of Newton, include:

- K. Edward Alexander, American Society of Architects, Emeritus
- Chris Chu, Architect (alternate member)
- Henry Finch, Architect
- Thomas Greytak, Homeowner
- Treff LaFleche, Architect
- Peter Sachs, Architect
- Alan Schlesinger, Attorney

The Working Group was staffed by Mike Kruse, Director of the Department of Planning and Development (until January 2010), Candace Havens, Interim Director (beginning January 1, 2010), and Jennifer Molinsky, Principle Planner. Commissioner of Inspectional Services John Lojek also participated in the work of the group.

II. Methodology & Analysis

The Working Group met 14 times from July 14, 2009 to March 16, 2010, including one presentation of its interim results to the Zoning and Planning Committee in September, 2009. In October, 2009, the group also shared draft proposals with a group of Newton architects in a meeting organized by members of the Working Group.

In reaching the conclusions presented in this report, the Working Group followed the following process:

- 1) Initial research and analysis
- 2) Development of preliminary proposals, testing, and
- 3) Formulation of final proposals

These stages, and the results of each, are described below.

Stage 1: Initial Research and Analysis

The Working Group first sought to assess how the existing fabric of residential development compares to the FAR limits in the Zoning Ordinance. The group aimed to understand the character and evolution of existing neighborhoods; to evaluate the actual FAR of the dwellings within these neighborhoods, including the variation in actual FAR within and among City neighborhoods; and to identify the locations where the actual FAR of the existing residential fabric already exceeds FAR limits (most likely because dwellings predated FAR limits).

To facilitate these analyses, the Planning Department used City Assessor's data to estimate³ the current FAR of every single-, two-, and three-family dwelling in the City in the Single-Residence (SR) 1, 2, and 3 districts and the Multi-Residence (MR) 1, 2, and 3 districts.⁴ This information was placed on 20 neighborhood maps (using neighborhood divisions created by the Assessing Department) whose color codes identified the extent to which each home fell below or exceeded FAR limits. Working Group members and staff then spent time in each of the residential neighborhoods, noting development patterns and comparing the FAR maps to the actual built environment, and then reconvened to share and discuss their findings. Staff also prepared a variety of analyses describing actual FAR in each residential zoning district. Finally, the Planning Department provided data on specific cases, and the Inspectional Services Department supplied information on the practical difficulties of implementation of FAR regulations, as well as evidence of how FAR rules have been manipulated to create dwellings that are larger than those in their surrounding areas.

The initial analyses led to the following findings and conclusions:

- ***The Working Group agreed that the purpose of FAR limits is to regulate above-grade building mass.*** Its role, therefore, is distinct from, but complementary to, the City's other dimensional controls, which include:
 - Height controls, story, ½ story regulations, which concern proportion;
 - Maximum lot coverage and minimum open space requirements, which concern open space;
 - Setback requirements, which regulate placement on site; and
 - FAR, which regulates mass.
- ***Exemptions of certain elements from the definition of gross floor area (and therefore from FAR calculations) have led to unintended design results and have provided incentives for creative manipulation of FAR rules.*** For example, the exemption of half stories from FAR calculations⁵ have

³ All figures in this document are best estimates based on Assessor's data.

⁴ Condominiums, as well as multifamily dwellings over three units, were excluded from the analysis, as were residences in the MR4 district (which applies only in one unique area in the City).

⁵ Until November 3, 2008, all half story spaces were exempted from FAR calculations, but Ord. Z-35 amended zoning so that half story spaces immediately above the first story are now included in FAR

encouraged the inclusion of half stories over garages and above the second floor to provide living areas “free” from FAR calculations. Other exemptions include those for above-grade basement areas (encouraging walk-out basements and basement garages, even where it has been necessary to carve out and terrace the landscape to make these possible) and detached structures (including large detached garages with living space above). Because of these exemptions, houses with equivalent FAR, as calculated by the City, may have very different actual floor areas.

- *The Working Group’s field visits and review of the data confirmed that, in all zoning districts, there are a larger number of houses that are nonconforming with respect to FAR (i.e., they exceed FAR limits) on smaller lots than on larger lots, particularly on smaller lots that were created before 1953 when minimum lot size standards became stricter.* For those houses that are at or over FAR limits, a small addition (e.g. a single room, a mudroom, or bathroom) would require a special permit, a process that is often perceived as costly and uncertain. As shown in the table below, typically, the nonconformity rate on larger lots is much lower and the potential to expand, even through significant building projects, is higher.

Parcels Nonconforming with Respect to FAR

Lot Size Category (sq. ft.)	SR1		SR2		SR3	
	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR
ALL	1,600	25%	7,813	22%	6,243	14%
0-4999	2	100%	109	94%	438	53%
5000-6999	18	72%	655	67%	1,374	25%
7000-11999	202	60%	3,954	26%	3,520	8%
12000-14999	175	45%	1,360	9%	479	1%
15000-19999	490	26%	1,151	4%	265	0%
20000-24999	186	13%	308	1%	86	0%
25000+	527	0%	276	0%	81	0%

	MRI		MR2		MR3	
	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR	Number of Parcels	Nonconforming with Respect to FAR
ALL	3,260	22%	1,023	38%	47	34%
0-4999	445	58%	373	72%	8	75%
5000-6999	906	37%	301	32%	12	50%
7000-11999	1,069	10%	243	9%	16	19%
12000-14999	610	2%	94	5%	10	10%
15000-19999	146	2%	12	0%	1	0%
20000-24999	54	0%	0		0	
25000+	30	0%	0		0	

calculations. Half story spaces in detached structures or above the second story are still exempt from FAR calculations.

- *The Working Group found the City's existing residential zoning districts too blunt to account for the range of neighborhood character, yet acknowledged the need, at present, to develop FAR recommendations that work within existing zones.* The Group found that, as expected, Newton is distinguished by the richness of its residential architecture and also by the varied nature of its neighborhoods, which developed at different times and reflect unique histories, building styles, and densities. There is significantly less variation among the City's zoning districts, however: all the City's single-family neighborhoods are divided into only three Single Residence zoning districts. For example, much of Oak Hill Park, a neighborhood characterized by post-war ranches, many of which are well below FAR limits, is zoned SR2, as are the majorities of Newton Highlands and Newton Centre, where many older Victorian homes exceed FAR limits. Working within existing zoning designations presents challenges to preserving the character of each neighborhood.
- *The Working Group found that a number of elements of massing can not be regulated by FAR limits, or indeed, by other dimensional controls, but that these nonetheless influence neighborhood character. These included quality of design, compatibility of design with neighboring structures, topography, and landscaping.*

Out of their research and the findings noted above, the Working Group coalesced around the goals of developing recommendations for zoning amendments that would:

- 1) *Ensure a fairer application of FAR limits by more clearly defining what is included in the calculations of gross floor area and by eliminating exemptions to gross floor area; and*
- 2) *Ensure a fairer distribution of massing to ensure that smaller lots have some opportunities for minor expansions that would be compatible with the existing character within their neighborhoods.*

Stage 2: Preliminary Proposals & Testing

With these goals in mind, the Working Group moved into its second stage of work, the development of preliminary proposals to revise the definition of gross floor area and FAR limits. This section briefly discusses the Working Group's processes, while the final proposals are presented in Part III below.

Gross Floor Area Definition

The first proposal centered on amending the definition of gross floor area (GFA). The group focused particularly on 1) clarifying existing language and 2) removing

exemptions to the calculation of GFA, including exemptions for above-grade portions of basements, third floor space, enclosed porches, and detached structures. Once language had been drafted to amend the definition of GFA, the architects on the Working Group tested the proposed language on their own projects to assess how the new language, if adopted, would change FAR calculations for individual dwellings. City staff did the same, by assessing how amended language would have changed FAR calculations on recent applicants for special permits to exceed FAR limits. Finally, several Working Group members reached out to their colleagues in the architectural community and invited them to apply the draft language to their recent projects to assess the difference it would have on FAR calculations and design incentives. The testing process resulted in refinements to the draft language.

At the same time, City staff prepared analyses to show the estimated effect of the draft proposals on *all* dwellings in the City. Again using Assessor's data, the Group was able to see the average rise in actual FAR calculations that would result from eliminating many of the current exemptions in how FAR is calculated. By assuming that 25% of each home's basement would "count" toward FAR, the Group could see that across the City, the changes would result in a .05 rise in actual FAR, though for individual houses, the precise figure varied depending on how much square footage on the property was currently exempt from GFA calculations and would be counted under the proposal.

FAR Limits

The Working Group assessed FAR limits by incorporating a rise in all zones to account for the changes to the definition of GFA described above, and then examined how best to address the challenges on small lots. The Group considered simply raising FAR limits in each zoning district, but discarded the idea because it would open more development capacity on medium and larger sized lots, where high percentages of dwellings were already significantly below FAR limits (and, indeed, since FAR is based on lot size, the absolute expansion possibility on larger lots would increase significantly more than it would on smaller lots). The Working Group ultimately determined that the only way to address the limitations on small lots without opening development capacity on larger lots was to *tie FAR limits directly to lot size*. Staff then developed various prototypes of sliding scales, where FAR limits are higher for smaller lots and then fall as lot size increases. (It is important to note, that because FAR is itself a function of lot size, larger lots still have more absolute development capacity under all schemes the group considered.)

The Working Group used three main criteria to assess each iteration of the sliding scale:

- The scale's effect on a sample group of houses known to the architects;

- The scale’s effect on rates of nonconformity with respect to FAR, including overall rates, rates within each zone, and rates within each lot size category; and
- The scale’s effect on the amount of undeveloped capacity, including the average undeveloped capacity on each lot, within each district, and within each lot size category.

The Working Group’s final proposal for a sliding scale of FAR limits is proposed in Section III below.

Stage 3: Formulation of Final Proposals

The Working Group’s iterative process of analyses, testing, and refinement of proposals led to the final set of draft amendments that are presented in Section III.

III. Proposals

The Working Group’s proposals to change the definition of “gross floor area” and amend residential FAR limits, as well as to phase in the proposed changes, are presented below.

Gross Floor Area

The proposed definition of “floor area, gross” would remove existing exemptions for attic and half story space, above-grade portions of basements, some enclosed porches, and detached structures. The actual proposed language is included as Attachment 2 and includes amendments to the definition of “floor area, gross” as well as the addition of several new definitions for “porch,” “carport,” and “mass below first story.” The table below compares the elements included in the current definition of GFA to those in the Working Group’s proposal.

Elements of Gross Floor Area

	Current Definition of GFA	Proposed Definition of GFA
Basements	Excluded	Included: a percentage of "mass below first story," which may include basements, crawl spaces, and other above-grade features lying below the first story, that exceed a standard exemption for foundation walls. In no event can more than 50% of the floor area of an area below the first story be counted toward FAR.
First and second stories	Included	Included
Atria / other vertical spaces	Included	Included
Space above the second story	Excluded if space meets the definition of half story; included if it exceeds maximum space to be counted as a half story	Included if it meets the dimensional definition in the Building Code of a habitable room (70 sq. ft. or more, with min. ceiling heights of 7' on at least 50% of its area and 5' ceiling heights on remainder)
Enclosed porches	Included only if heated	Included
Open porches, carports, port cocheres	Excluded	Excluded
Attached garages	Included	Included
Detached garages and any space above the first floor with a ceiling height of 7 feet or more	Excluded	Included
Other detached structures	Excluded	Included, with one exemption for a detached shed or other structure less than 120 sq. ft.

FAR Limits

The Working Group is proposing a sliding scale of FAR limits for each of the three SR and MR districts it studied. As noted above, the scale takes into account the average rise in actual FARs resulting from the changes to the definition of gross floor area and also addresses the specific challenges faced by small lots, as well as the need to ensure that new development respects its surroundings.

In all residential zoning districts, the Working Group proposes that lots be divided by size into seven categories. FAR limits are set for the very beginning and very end of each category. For lot sizes falling in the between the two ends of a category, the FAR limit will vary smoothly, that is, linearly. This is the same approach used with the

federal income tax rates. It insures that a small difference in lot size does not give rise to a significant difference in allowed FAR. The proposed scales are shown below:

Proposed Sliding FAR Scale

	SR1	SR2	SR3
Lot Size Category (sq. ft.)	FAR Range for Lot Size Category	FAR Range for Lot Size Category	FAR Range for Lot Size Category
0-4999	.48 to .48	.48 to .48	.50 to .50
5000-6999	.48 to .45	.48 to .45	.50 to .50
7000-11999	.45 to .35	.45 to .40	.50 to .43
12000-14999	.35 to .33	.40 to .35	.43 to .40
15000-19999	.33 to .30	.35 to .35	.40 to .40
20000-24999	.30 to .28	.35 to .35	.40 to .38
25000+	.28	.35	.38

	MR1	MR2/MR3
Lot Size Category (sq. ft.)	FAR Range for Lot Size Category	FAR Range for Lot Size Category
0-4999	.60 to .60	.60 to .60
5000-6999	.60 to .55	.60 to .55
7000-11999	.55 to .50	.55 to .55
12000-14999	.50 to .50	.55 to .45
15000-19999	.50 to .45	.45 to .40
20000-24999	.45 to .40	.40 to .40
25000+	.40	.40

The table above shows that a 12,000 sq. ft. lot in an SR1 district would have an FAR limit of .35, while, at the other end of the lot size category, a lot of 14,999 sq. ft. would have an FAR limit of .3. The chart also shows that a 13,500 sq. ft. lot would have an FAR limit somewhere between these two numbers (it would actually be .33 according to the FAR calculator).

The Working Group considered how this system, which is more nuanced than the current single FAR per zoning district, can be made user friendly. The group suggests that a table of values of FAR limits at specific lot sizes can be given in the Zoning Ordinance text along with the statement that the FAR limits vary proportionately between these points. An online, user-friendly calculator for computing the exact FAR limit applicable to a particular lot can be made available on the City's website so that individuals can quickly figure their exact FAR limit.

The Working Group arrived at these new FAR limits based on their professional judgment about the amount of "mass above ground" that lots in each zoning district can support and still maintain the look and feel consistent with current development and with the *Newton Comprehensive Plan*. As a simple reality check, to see that the new limits would not make a major quantitative change within the city, the group

looked at the effect these changes would have on the nonconformity rate and the amount of allowed but unrealized floor space in the City.

As the following table reveals, the proposed sliding FAR scale reduces the nonconformity rates overall and particularly on smaller lots, so that more lots are now conforming with FAR limits. (Some lots may be *just* conforming; that is, their actual FAR may fall just under the limit, so conformity does not necessarily equal significant expansion potential.)

Percent Nonconforming with Respect to FAR, SR Districts

Zone	Lot Size Category	Total Number of Parcels	Current Nonconforming With Respect to FAR	Proposed Nonconforming With Respect to FAR
SR1	ALL	1,600	25%	20%
	0-4999	2	100%	100%
	5000-6999	18	72%	33%
	7000-11999	202	60%	30%
	12000-14999	175	45%	39%
	15000-19999	490	26%	25%
	20000-24999	186	13%	15%
	25000+	527	0%	5%
SR2	ALL	7,813	22%	13%
	0-4999	109	94%	72%
	5000-6999	655	67%	34%
	7000-11999	3,954	26%	13%
	12000-14999	1,360	9%	7%
	15000-19999	1,151	4%	7%
	20000-24999	308	1%	4%
	25000+	276	0%	1%
SR3	ALL	6,243	14%	9%
	0-4999	438	53%	37%
	5000-6999	1,374	25%	17%
	7000-11999	3,520	8%	4%
	12000-14999	479	1%	2%
	15000-19999	265	0%	0%
	20000-24999	86	0%	2%
	25000+	81	0%	0%

As noted above, the Working Group also looked at allowed but unrealized floor area capacity in each zoning district under the proposed scheme as well as current FAR rules. When assessing FAR limits, it is possible to consider the total development capacity under FAR limits not just for a particular lot, but for an entire district. There are two components of that capacity: the amount that has already been built (the “*developed capacity*”), and the as-of-yet unrealized development capacity that theoretically could be built in compliance with FAR, assuming other dimensional controls allowed (the “*undeveloped capacity*”). The table below shows the developed and undeveloped capacity that the Working Group estimates exists in the City under

the sliding scale proposals. It also compares the proposals to existing undeveloped capacity under current FAR regulations. As is shown in the final two columns, undeveloped capacity under current rules and the proposed sliding scale do not vary significantly overall, though some capacity has been redistributed to smaller lots.

Development Capacity, SR Districts

Zone	Lot Size	Total Number of Parcels	Proposed Developed Capacity (Square footage of existing buildings, calculated under proposed definition of GFA)	Amount Remaining Under FAR Limits Proposed Undeveloped Capacity	Total Capacity Proposed Under FAR Sliding Scale	Percent of Total Capacity Undeveloped Under Current FAR Rules	Percent of Total Capacity Undeveloped Under Proposed Sliding Scale
SR1	ALL	1,600	7,201,199	3,989,864	11,191,063	38%	36%
	0-4999	2	4,356	0	4,356	0%	0%
	5000-6999	18	40,709	9,835	50,544	5%	19%
	7000-11999	202	657,369	124,625	781,994	7%	16%
	12000-14999	175	656,729	106,486	763,215	13%	14%
	15000-19999	490	1,844,362	595,438	2,439,799	23%	24%
	20000-24999	186	875,349	320,674	1,196,023	31%	27%
	25000+	527	3,122,325	2,832,806	5,955,131	52%	48%
SR2	ALL	7,813	25,399,339	11,903,877	37,303,216	31%	32%
	0-4999	109	210,959	10,413	221,372	1%	5%
	5000-6999	655	1,618,298	238,135	1,856,433	4%	13%
	7000-11999	3,954	11,761,276	4,293,890	16,055,165	20%	27%
	12000-14999	1,360	4,625,994	2,180,589	6,806,584	32%	32%
	15000-19999	1,151	4,251,895	2,449,124	6,701,018	41%	37%
	20000-24999	308	1,405,883	980,567	2,386,450	47%	41%
	25000+	276	1,525,034	1,751,160	3,276,194	59%	53%
SR3	ALL	6,243	15,281,726	10,548,416	25,830,141	39%	41%
	0-4999	438	793,617	138,348	931,966	9%	15%
	5000-6999	1,374	3,077,973	1,039,192	4,117,166	18%	25%
	7000-11999	3,520	8,529,932	5,925,502	14,455,433	36%	41%
	12000-14999	479	1,394,616	1,233,662	2,628,277	50%	47%
	15000-19999	265	837,012	953,619	1,790,631	59%	53%
	20000-24999	86	320,805	415,606	736,411	62%	56%
	25000+	81	327,771	842,487	1,170,258	77%	72%

The results for the MR districts are shown below:

Percent Nonconforming with Respect to FAR, MR Districts

	Lot Size	Total Number of Parcels	<u>Current</u> Percent of Total Development Capacity that is NOT Currently Developed	<u>Proposed</u> Percent of Total Development Capacity that is NOT Currently Developed
MR1	ALL	3,260	22%	16%
	0-4999	445	58%	40%
	5000-6999	906	37%	24%
	7000-9999	1,069	10%	11%
	10000-14999	610	2%	2%
	15000-19999	146	2%	4%
	20000-24999	54	0%	0%
	25000+	30	0%	0%
MR2	ALL	1,023	38%	30%
	0-4999	373	72%	56%
	5000-6999	301	32%	24%
	7000-9999	243	9%	7%
	10000-14999	94	5%	6%
	15000-19999	12	0%	0%
	20000-24999	0		
	25000+	0		
MR3	ALL	47	34%	36%
	0-4999	8	75%	63%
	5000-6999	12	50%	58%
	7000-9999	16	19%	25%
	10000-14999	10	10%	10%
	15000-19999	1	0%	0%
	20000-24999	0		
	25000+	0		

Development Capacity, MR Districts

Zone	Lot Size	Total Number of Parcels	Proposed Developed Capacity (Square footage of existing buildings, calculated under proposed definition of GFA)	Amount Remaining Under FAR Limits Proposed Undeveloped Capacity	Total Capacity Proposed Under FAR Sliding Scale	Percent of Total Capacity Undeveloped Under Current FAR Rules	Percent of Total Capacity Undeveloped Under Proposed Sliding Scale
MR1	ALL	3,260	9,691,511	4,792,259	14,483,770	34%	33%
	0-4999	445	918,682	168,043	1,086,725	9%	15%
	5000-6999	906	2,439,163	660,320	3,099,484	16%	21%
	7000-11999	1,069	3,342,836	1,405,846	4,748,682	28%	30%
	12000-14999	610	2,087,926	1,445,963	3,533,890	43%	41%
	15000-19999	146	589,921	530,415	1,120,336	56%	47%
	20000-24999	54	200,686	306,957	507,642	69%	60%
	25000+	30	112,297	274,715	387,012	78%	71%
MR2	ALL	1,023	2,571,526	1,016,646	3,588,171	25%	28%
	0-4999	373	722,579	99,855	822,434	7%	12%
	5000-6999	301	790,054	226,961	1,017,015	18%	22%
	7000-11999	243	697,145	382,037	1,079,182	32%	35%
	12000-14999	94	317,411	265,906	583,317	44%	46%
	15000-19999	12	44,336	41,887	86,223	54%	49%
	20000-24999	0	0	0	0		
	25000+	0	0	0	0		
MR3	ALL	47	160,344	42,307	202,651	21%	21%
	0-4999	8	18,646	1,959	20,605	4%	10%
	5000-6999	12	37,829	3,600	41,429	6%	9%
	7000-11999	16	60,671	13,393	74,064	20%	18%
	12000-14999	10	38,391	21,411	59,802	37%	36%
	15000-19999	1	4,807	1,944	6,751	28%	29%
	20000-24999	0	0	0	0		
	25000+	0	0	0	0		

Phasing

The Working Group's proposals represent a significant departure from current zoning. Despite much analysis and testing, some of the effects of the changes are unclear. This is particularly true of the basement calculation: the Working Group did not have access to data on existing grades in the City, and therefore could make only an informed judgment about the average percentage of a basement that would likely count toward FAR. Actual results will certainly vary by dwelling and neighborhood, but it is unclear if the overall average will also vary from the estimate.

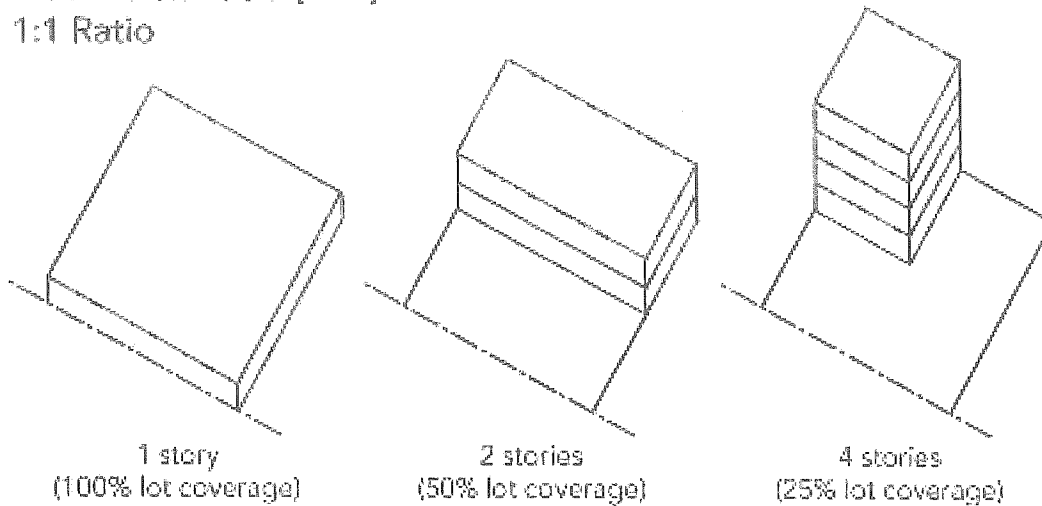
Because of these uncertainties, the Group strongly recommends a period of phasing in of the proposed changes, for two reasons. First, a phase-in period will allow additional data to be gathered to further assess the amendments. Second, a phase-in period will also allow the public to become accustomed to the changes and to plan their construction projects accordingly.

Specifically, the Working Group recommends that the FAR "bonus" adopted last summer and set to sunset July 31, 2010, be extended another six months, through January 31, 2011. This six month period would give homeowners and those in the design and building professions adequate time to adjust to the new system. During this time, the Group also recommends that the City require FAR calculations be made according to both the existing and the new systems as a way to collect additional data on its likely impacts. The new system would go into effect February 1, 2011, and the Working Group has volunteered to reconvene in one year from this date to assess how well it is working and to recommend minor modifications if needed.

Attachment 1: Explanation of Floor Area Ratio

An FAR of “1” might look like any of the following:

Floor Area Ratio (FAR) 1:1 Ratio



In Newton, residential FAR limits range from .2 to .4, which translates to a maximum allowed gross floor area for a dwelling of 20% to 40% of lot size. FAR limits for each zoning district are given below:

Zoning District	FAR Limit
SR1	.25 (lots created before 12/7/53) .20 (all others)
SR2	.3
SR3	.35
MR1	.4
MR2	.4
MR3	.4

Graphic from http://www.lacity.org/lahd/curriculum/images/ch_far.gif

Attachment 2: Proposed Amendments to Section 30-1, Definitions

Add the following definitions to Sec. 30-1:

Carport: A one-story roofed structure permanently open on at least three sides and designed for or used for occupancy by a motor vehicle. For the purposes of this ordinance, a one-story port-cochere meets the definition of a carport.

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.

Porch: A roofed projection that extends from the façade of a residential structure and that is neither heated nor air conditioned. A porch may share no more than two exterior walls with the residential structure. Railings or solid walls on the projecting facades of the porch may be no higher than 36" as measured from the finished porch floor; the remainder of these facades may be open to the elements or enclosed by mesh, glass, or similar material.

Porch, enclosed: A porch enclosed by either permanent or detachable glass or other similar material.

Amend the following definitions in Sec. 30-1:

Floor area ratio (proposals underlined):

- (a) For residential structures in residential districts, gross floor area of all buildings on the lot divided by total lot area.
- (b) For all others: Gross floor area of all buildings on the lot divided by total lot area. Any portion of a basement not used for storage, parking or building mechanicals shall be included in determining floor area ratio.

Floor area, gross:

- ~~(a) For residential structures in residential districts, the sum of the floor area within the perimeter of the outside walls of the building without deduction for garage space, hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces, or other features exclusive of any portion of a basement as defined in this section. For atria, open wells and other vertical open spaces, floor area shall be calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by ten (10). Excluded from the calculation are bays or bay windows which are cantilevered and do not have foundations and which occupy no more than ten (10) per cent of the wall area on~~

~~which they are mounted and any space in an attic or half story above the second story as defined in this ordinance.~~

- (a) For residential structures and buildings accessory to residential structures in residential districts, the sum of the floor area of all principal and accessory buildings whether or not habitable, except as excluded below. Floor area measurements shall be taken within the perimeter of the outside walls of each building without deduction for garage space, hallways, stairs, closets, thickness of walls, columns, atria, open wells and other vertical open spaces, or other features as defined in this section.

a. Gross floor area shall include:

- i. First and second stories;
- ii. Any space above the second story, whether finished or unfinished, that meets all of the following criteria:
 1. Lies within the area of a horizontal plane that is five (5) feet above the floor and which touches the side walls and/or the underside of the roof rafters;
 2. Is at least seven (7) feet in any horizontal dimension, as measured within the area having a wall height of five feet or more;
 3. Has a minimum ceiling height of seven (7) feet on at least 50 percent of its required floor area; and
 4. Has a floor area of not less than 70 square feet as measured within the area having a wall height of five feet or more.
- iii. Atria, open wells, and other vertical open spaces, where floor area shall be calculated by multiplying the floor level area of such space by a factor equal to the average height in feet divided by ten (10);
- iv. Enclosed porches;
- v. Attached garages;
- vi. Detached garages and any space above the first story of a detached garage that has a ceiling height of 7' or greater;
- vii. Other detached accessory buildings, such as sheds or cabanas, except as exempted in (b)(iii) below.
- viii. A portion of mass below the first story, to be calculated as follows:

$X/Y * \text{Floor area of mass below first story}$

Where:

X = Sum of the width of those sections of exposed walls below the first story having an exterior height equal to or greater than four (4) feet as measured from existing or proposed grade, whichever is lower, to the top of the first floor

Y = Perimeter of exterior walls below first story

b. Gross floor area shall not include:

- i. Unenclosed porches;

- ii. Carports; and
- iii. One detached accessory building equal to or less than 120 square feet in size.

(b) For all others: The floor area within the perimeter of the outside walls of the building without deduction for hallways, stairs, closets, thickness of walls, columns or other features.



NEWTON BOARD OF ALDERMEN

February 7, 2011

Information Session

Petition #142-09(6): Floor area ratio



Overview

- Definition of FAR
- Background of FAR and FAR Reform
- FAR Working Group Process and Findings
- FAR Proposals
- Planning Department Analysis
- Planning Department Recommendations



Definition of FAR

Current FAR limits for residential districts in Newton:

- SR1 = .2 or .25 (depending on age of lot)
- SR2 = .3
- SR3 = .35
- MR1, MR2, MR3 = .4



Definition of FAR

- “FAR limit” – maximum FAR as defined in zoning
- “Allowable GFA” – maximum allowed gross floor area a house is allowed under FAR limits without a special permit
- “Actual FAR” – the FAR of an actual house, calculated based on gross floor area and lot size



History of Residential FAR in Newton

Concerns arose about large, out-of-scale development made possible by:

- Exemptions from GFA (and therefore FAR)
- Large expansions made without regard to FAR under 50% demolition rule



FAR Working Group

- Appointed by President of Board of Aldermen and Mayor in 2009
 - Treff LaFleche, Architect
 - Chris Chu, Architect
 - Henry Finch, Architect
 - K. Edward Alexander,
American Society of
Architects, Emeritus
 - Tom Greytak, Homeowner
 - Peter Sachs, Architect
 - Alan Schlesinger, Attorney
- Joined/supported by staff of Planning Department,
Commissioner of Inspectional Services



Working Group Process

- Field work and initial data analysis
 - Mapping FAR across City & field visits
 - Data analysis
 - Examples from ISD, Planning of specific cases
- Preliminary proposals & testing
- Final proposals



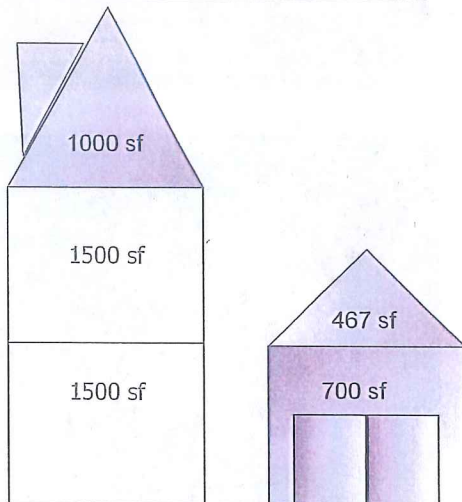
Working Group Findings

2. Addressing exemptions in definition of “Gross Floor Area” is central to reforming FAR

- “GFA” currently includes: first/second stories, attached garages, enclosed porches if heated
- “GFA” currently excludes: basements, most attics, detached structures

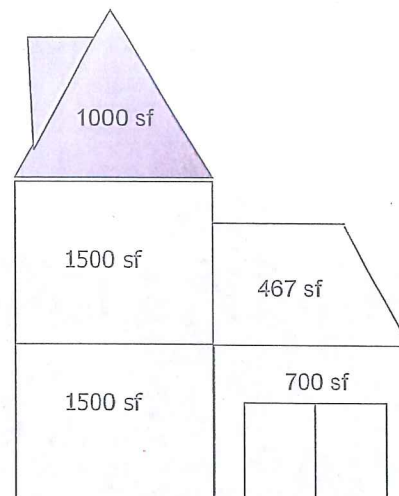
FAR limit: .3 (SR2 district)
Lot size: 10,000 sf.
Allowable gross floor area: 3,000 sf

Actual square footage: 5167 sf
Gross floor area: 3000 sf
Actual FAR=.3
Areas in grey= exempt from GFA & FAR



FAR limit: .3 (SR2 district)
Lot size: 10,000 sf
Allowable gross floor area: 3,000 sf

Actual square footage: 5167 sf
Gross floor area: 4167 sf
Actual FAR=.42
Areas in grey= exempt from GFA & FAR



Houses with equivalent square footage may have different actual FARs

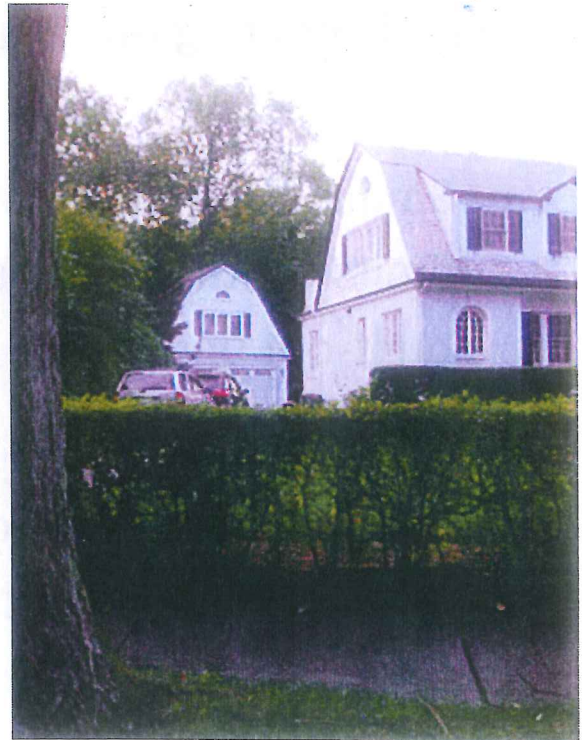
Attics

- May add significantly to mass above grade but currently exempt if less than $\frac{2}{3}$ size of the floor



Accessory Spaces

- Detached structures & space above detached garages is currently exempt and may add significantly to mass





Working Group Findings

3. FAR is limiting on small lots

- Small lots are more likely to be constrained by FAR limits – either exceeding them already, or close built-out under FAR
- Median residential lot (for SF, 2F, and 3F in residential districts): **9,457 sq. ft.**



Working Group Findings

4. FAR is limited as a preservation tool:

- Zoning districts too “blunt” – more variation in City’s neighborhoods than can be accounted for in residential zones with single FAR limit
- FAR does not address aesthetics



Working Group Proposals - Definitions

- 1. Amend definition of “Gross Floor Area” to include more elements of residential structures, eliminate exemptions**

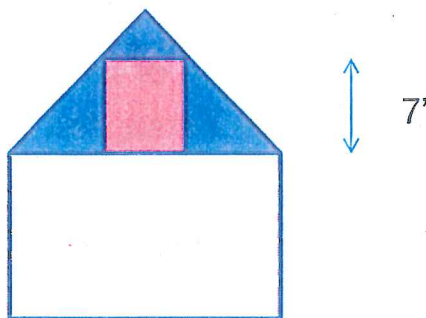


Working Group Proposals - Definitions

- **Attic areas:** Any space above the second story, whether finished or unfinished, that meets all of the following criteria:
 - It lies below the area of a horizontal plane that is five (5) feet above it and which touches the side walls and/or the underside of the roof rafters;
 - Is at least seven (7) feet in any horizontal dimension, as measured within the area having a wall height of five feet or more;
 - Has a minimum ceiling height of seven (7) feet on at least 50 percent of its required floor area; and
 - Has a floor area of not less than 70 square feet as measured within the area having a wall height of five feet or more.

Working Group Proposals - Definitions

- *Space above garages:*
 - Detached garages and any space above the first story of a detached garage that has a ceiling height of 7' or greater



Working Group Proposals - Definitions

- ***Mass below first story:***

A portion of mass below the first story, to be calculated as follows: The lesser of 50% of the floor area of mass below first story OR the following: X/Y * floor area of mass below first story, where:

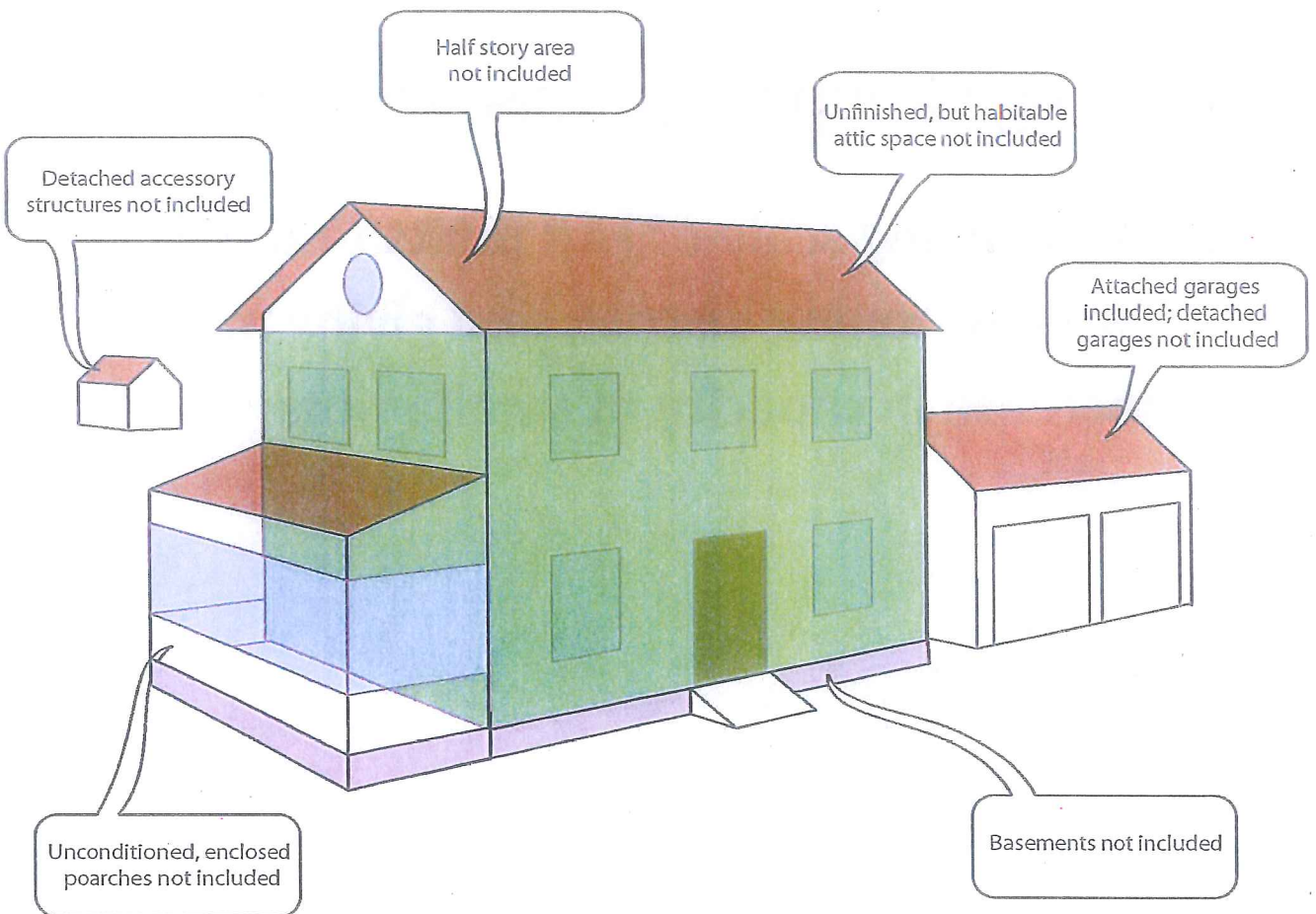
X = Sum of the width of those sections of exposed walls below the first story having an exterior height equal to or greater than four (4) feet as measured from existing or proposed grade, whichever is lower, to the top of the subfloor of the first story

Y = Perimeter of exterior walls below first story



Working Group Proposals - Definitions

- **Porch:** A roofed structure with sides not more than sixty percent (60%) enclosed by impermeable walls, attached to and accessible from the primary structure, and not heated or air conditioned. A porch may share no more than two exterior walls with the residential structure. Railings or solid walls on the projecting facades of the porch may be no higher than 36" as measured from the finished porch floor; the remainder of these facades may be open to the elements or enclosed by mesh, glass, or similar material.
- **Porch, enclosed:** A porch enclosed for any portion of the year by any nonpermeable material such as glass or a similar material.
- **Porch, unenclosed:** A porch that at all times is either enclosed by permeable materials such as mesh or similar material or is unenclosed by any material.





Working Group Proposals – FAR Limits

- 2. New sliding scale of FAR limits tied to lot size and zoning district, and giving modest increase in capacity to smaller lots**

Lot Size Category (sq. ft.)	FAR Range for Lot Size Category/Zone				
	SR1	SR2	SR3	MR1	MR2/MR3
0 to 4999	.46	.46	.48	.58	.58
5000 to 6999	.46 to .43	.46 to .43	.48	.58 to .53	.58 to .53
7000 to 9999	.43 to .33	.43 to .38	.48 to .41	.53 to .48	.53
10000 to 14999	.33 to .31	.38 to .33	.41 to .38	.48	.53 to .43
15000 to 19999	.31 to .28	.33	.38	.48 to .43	.43 to .38
20000 to 24999	.28 to .26	.33	.38 to .36	.43 to .38	.38
25000+	0.26	.33	.36	.38	.38



Working Group Proposals – FAR Limits

- While ranges and formulas would be in Zoning Ordinance, Planning and ISD would also provide an **online calculator** that could give FAR limit for particular lot based on zone and lot size
- Sample calculator (draft version) is online at:
<http://newtonma.gov/planning/FAR.php>



Working Group Proposals – FAR Bonus

- **Proposed bonus differs from what is offered today:**
 - .05 above FAR limits for additions to existing homes
 - An extra .02 for additions to existing homes where new construction meets new setbacks or doesn't extend further toward old setbacks
 - .05 for new construction on old lots meeting new lot setback and lot coverage standards
- **Proposed bonus gives .02 for any new construction on old lots provided new portion MEETS new lot setback standards**



Analysis

Usability / enforceability:

- More complex to ascertain FAR limit for particular lot though online calculator would be easy to use
- Regulations clearer, loopholes eliminated, making enforcement easier
- Ensure that FAR functions more closely to the goal of regulating *mass above grade*



Analysis

Neighborhood impacts

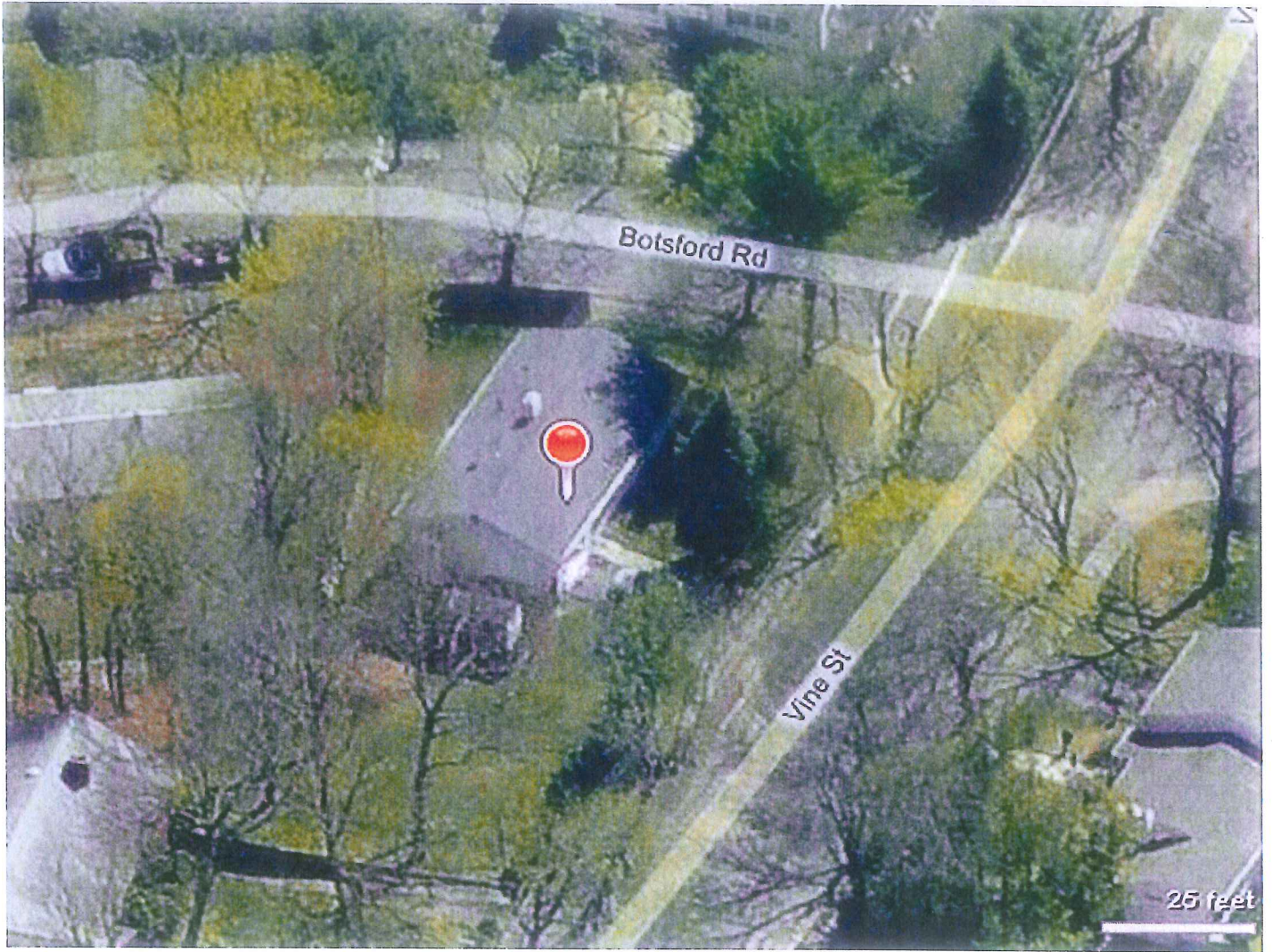
- FAR is a poor tool to achieve neighborhood or housing preservation, but does affect both
- Will affect different housing styles differently
 - Existing houses without currently exempt elements will gain relatively more; existing houses with attics, detached garages, etc. may gain relatively less or become more constrained
 - Effects may be felt on neighborhood level as well



Hammond St

Incorporates Unattached
Garage into FAR calculation

25 feet

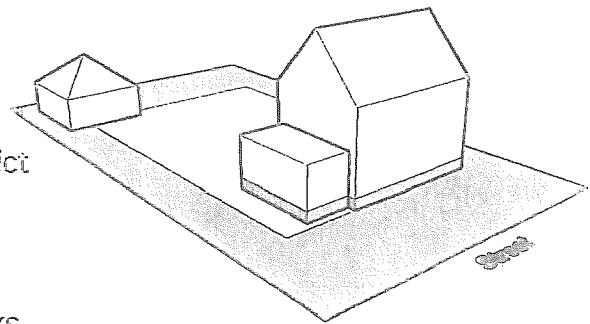


Warning: not
directly
comparable

			COMPARED TO CURRENT ZONING, NO BONUS			COMPARED TO CURRENT ZONING WITH .05 BONUS		
		Total	Increase in	Percent	Percent	Increase in	Percent	Percent
Lot Size	Number		Developable GFA Between Current and Proposed	Undeveloped GFA Current Policies [excludes "free" elements]	Undeveloped GFA Under Proposed Policies	Developable GFA Between Current and Proposed	Undeveloped GFA Under Current Policies	Undeveloped GFA Under Proposed Policies
SR1	ALL	1,599	41	38%	33%	(964)	46%	33%
	0-4999	2	NA	0%	0%	NA	0%	0%
	5000-6999	18	513	5%	17%	289	10%	17%
	7000-9999	83	280	4%	10%	73	10%	10%
	10000-14999	294	305	11%	12%	(249)	20%	12%
	15000-19999	489	421	22%	24%	(312)	33%	24%
	20000-24999	186	(80)	30%	23%	(1,229)	41%	23%
	25000+	527	253	51%	44%	(2,084)	59%	44%
SR2	ALL	7,799	42	31%	27%	(454)	39%	27%
	0-4999	108	64	1%	4%	39	2%	4%
	5000-6999	655	240	4%	10%	68	10%	10%
	7000-9999	1,990	249	12%	15%	(97)	21%	15%
	10000-14999	3,314	174	28%	26%	(402)	37%	26%
	15000-19999	1,149	(94)	40%	33%	(977)	48%	33%
	20000-24999	308	(133)	46%	38%	(1,372)	54%	38%
	25000+	275	(135)	58%	51%	(1,900)	64%	51%
SR3	ALL	6,217	200	38%	37%	(182)	45%	37%
	0-4999	436	167	8%	12%	17	14%	12%
	5000-6999	1,366	316	17%	22%	51	25%	22%
	7000-9999	2,652	384	32%	35%	13	39%	35%
	10000-14999	1,337	81	46%	41%	(505)	52%	41%
	15000-19999	261	(186)	58%	51%	(1,009)	63%	51%
	20000-24999	85	(173)	61%	54%	(1,327)	66%	54%
	25000+	80	(595)	76%	70%	(2,411)	79%	70%

Example House and Lot

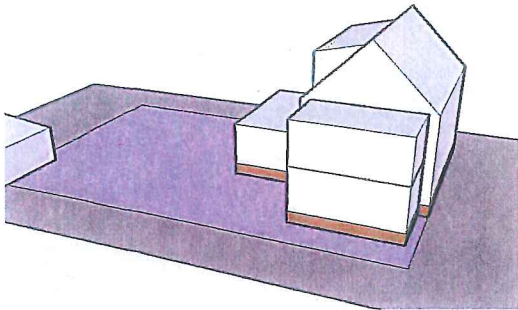
11,000 sq. ft lot (80' x 138') in an SR1 district
 Pre-1954 setback lines shown
 Garage subject to separate 5' setback



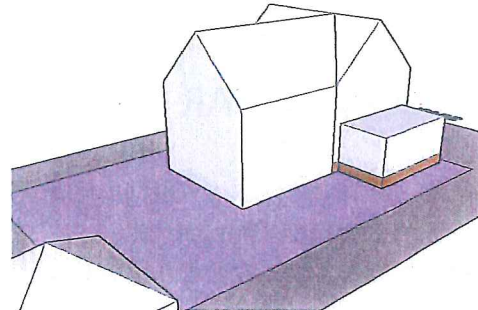
Additions will comply with Post-1953 setbacks

Gross Floor Area			
	Current GFA		Proposed GFA
Basement	----		----
1st Floor	1000		1000
2nd Floor	1000		1000
3rd Floor	----		580
Sun Room	270		270
Garage	----		480
<u>Total GFA</u>	<u>2270</u>		<u>3330</u>
FAR	0.206		0.303
FAR Limits			
	Table	Table + Bonus	Proposed
	0.250	0.300	0.346

More Extensive Projects



All 3 Single Additions



2 1/2 Story Addition

		Current	Proposed
Sum of 3	Added GFA	690	807
Previous Single	Total GFA	2960	4137
Additions	FAR	0.269	0.376
2 1/2 Story	Added GFA	1352	1971
Addition	Total GFA	3622	5301
	FAR	0.329	0.482

FAR Limits

Table	Table + Bonus	Proposed
0.250	0.300	0.346



	Lot Size Category (Sq. Ft.)	Total Number of Lots	Current Nonconformity Rate, Assuming No Bonus	Current Nonconformity Rate, Assuming .05 bonus for houses 10 or more years old	Proposal Nonconformity Rate
SR1	ALL	1,599	26%	14%	25%
	0-4999	2	100%	100%	100%
	5000-6999	18	72%	61%	39%
	7000-9999	83	75%	43%	45%
	10000-14999	294	49%	24%	50%
	15000-19999	489	27%	14%	24%
	20000-24999	186	12%	8%	22%
	25000+	527	0%	0%	9%
SR2	ALL	7,799	23%	12%	20%
	0-4999	108	95%	84%	78%
	5000-6999	655	70%	40%	41%
	7000-9999	1,990	37%	16%	28%
	10000-14999	3,314	14%	6%	16%
	15000-19999	1,149	4%	2%	10%
	20000-24999	308	1%	1%	7%
	25000+	275	0%	0%	2%
SR3	ALL	6,217	15%	8%	11%
	0-4999	436	57%	37%	42%
	5000-6999	1,366	27%	16%	20%
	7000-9999	2,652	10%	4%	6%
	10000-14999	1,337	3%	1%	4%
	15000-19999	261	0%	0%	1%
	20000-24999	85	0%	0%	4%
	25000+	80	0%	0%	0%



Recommendation

Planning Department recommends adoption

- GFA definition eliminates loopholes, undesirable design incentives
- More enforceable and clear
- Sliding scale is nuanced, provides modest increases for smaller lots without overburdening neighbors
- .02 bonus provides incentive for stricter setbacks
- Preferable to other options studied (no increase in FAR limits, flat increase, other sliding scale approaches)

Department of Planning and Development Inspectional Services Department



FAR INFORMATION SESSION NOVEMBER 15, 2011

Introductions

2

- John Lojek, Commissioner of Inspectional Services
- Jennifer Molinsky, Chief Planner, Long-Range Planning, Department of Planning and Development

Overview of Session

3

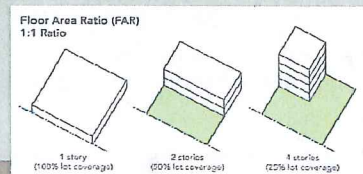
- FAR Basics
 - What counts toward FAR?
 - What is the FAR limit?
 - Limited FAR bonus
- Special Permits
- Your questions

Floor Area Ratio

4

Floor Area Ratio =
$$\frac{\text{gross floor area of building(s) on lot}}{\text{lot size}}$$

Floor area ratio (FAR) regulates the amount of **gross floor area** that can be built on a site



Floor Area Ratio

5

- Residential FAR limits range from .33 to .58 in Newton; commercial FAR limits from 1.00 to 3.00
 - Example: 10,000 sq. ft. lot, FAR limit of .50 = 5,000 sq. ft. GFA
- “Gross Floor Area” is basis for FAR and **may vary from city to city**
- Newton recently changed definition of Gross Floor Area and FAR limits for residential zones

Role of FAR

6

FAR's role is to regulate *mass above grade*

Distinct role from Newton's other dimensional controls

Dimensional Control	Regulates
Height limits, half story regulations	Building proportions
Lot coverage, open space requirements	Open space provision
Setback requirements	Placement of structure on lot, distance from abutters/street
FAR	Above-ground mass

Role of FAR

7

- Tells **how much** Gross Floor Area can be put on a lot
- Relevant for understanding:
 - Lot build-out for new construction
 - How large an addition can be
- **Existing** space can be finished without concern for FAR
- As previously, FAR calculations needed when applying for permits to do additions to existing houses or totally new construction

Recent Changes to FAR

8

- Adopted February 2011 in Ordinance Z-77
- Affects 1 and 2 family structures in residential zoning districts – all other FAR regulations unchanged
- Took effect October 15, 2011
- Monitoring continues to assess effectiveness

Recent Changes to FAR

9

1. **New definition of Gross Floor Area** – eliminated exemptions, count above-ground mass
2. **New sliding scale of FAR limits** – raised limits, tied them to lot size, and gave modest increase in capacity to smaller lots
3. **New modest bonus** – for building to new setback lines on old lots

Recent Changes: What Counts?

10

New definition of “Gross Floor Area”

- Eliminates previous exemptions
- With a few exceptions, *if it's above ground, it counts*

Residential Building Element	Previous Definition of GFA (Included in FAR)	New Definition of GFA (Included in FAR)
Basements, crawl spaces, and other above-grade elements below first story	Excluded	Portions may be included depending on grade; never more than 50% of floor area
First and second stories	Included	Included
Atria/other vertical spaces	Included	Included
Space above the second story	Included if full third story; excluded if spaces meets definition of a half story	Portions may be included – those roughly exceeding 70 sq. ft.
Enclosed porches	Included only if heated	Included if enclosed
Open porches, carports, port-cocheres	Excluded	Excluded
Attached garages	Included	Included
Detached garages and any space above	Excluded	Garages included; portion of space above may be included
Other detached accessory buildings	Excluded	Included, one shed up to 120 sq. ft. may be exempt

Mass Below First Story

12

Concerned with basements, crawl spaces, etc. more than 4' out of the ground



Mass Below First Story

13

- **Concern:** All basements floor area now counts toward FAR
- **Fact:** Portions of some basements count, but never more than 50% of a basement floor area. *Some basements do not count at all.*
- **Concern:** Existing basements can't be finished.
- **Fact:** If it's within the existing building envelope, an existing basement **can** be finished without regard to FAR

Mass Below First Story

14

- **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.
- **Basement areas:** A portion of mass below the first story, to be calculated as follows:
The lesser of 50% of the floor area of mass below first story OR the following:
 $X/Y \times \text{floor area of mass below first story}$, where:
X = Sum of the width of those sections of exposed walls below the first story having an exterior height equal to or greater than four (4) feet as measured from existing or proposed grade, whichever is lower, to the top of the subfloor of the first story
Y = Perimeter of exterior walls below first story

Mass Below Grade

15

Example 1:

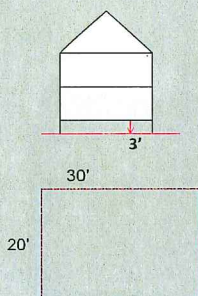
Basement perimeter is 100'
Foundation is 3' out of ground at all points

Formula: $x/y \times \text{floor area}$

Then:

$$0/100 \times 600 = 0$$

0 sq. ft. of basement floor area counts toward GFA



Mass Below Grade

16

Example 2:

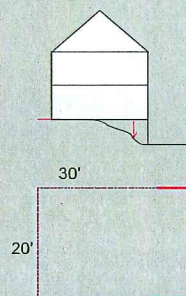
Basement perimeter is 100'
Entire rear wall is a walk-out and portions of two sides have portions over 4' tall

Assume 30' of perimeter (in red) has height of 4' or more, then:

$30/100$ or 30% of basement floor area would count toward GFA

$$30/100 \times 600 \text{ sq. ft.} = 180 \text{ sq. ft.}$$

180 sq. ft. of basement floor area counts toward GFA



Mass Below Grade

17

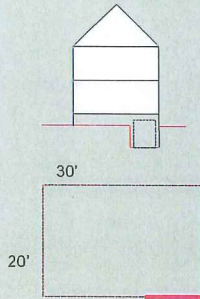
Example 3:

Basement perimeter is 100'
Foundation is 3' out of ground except for garage under

Assume 10' of perimeter (in red) has height of 4' or more, then:

$$10/100 * 600 \text{ sq. ft.} = 60 \text{ sq. ft.}$$

60 sq. ft. of basement floor area counts toward GFA



First and Second Stories, Atria

18

- First and second stories, atria and other vertical spaces: all count as they did under previous regulations – **no change**
- Calculation: multiply the floor level area of such space by a factor equal to the average height in feet divided by 10

Area Above the Second Story

19

Concerned with significant mass above second story, habitable or not



Area Above the Second Story

20

- **Concern:** All attic space, even crawl spaces, now counts toward FAR
- **Fact:** Portions of some space under sloped roofs count; some does not

Area Above the Second Story

21

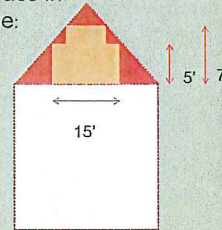
Any space above the second story, whether finished or unfinished, that meets all of the following criteria:

- It lies below the area of a horizontal plane that is five (5) feet above it and which touches the side walls and/or the underside of the roof rafters;
- Is at least seven (7) feet in any horizontal dimension, as measured within the area having a wall height of five feet or more;
- Has a minimum ceiling height of seven (7) feet on at least 50 percent of its required floor area; and
- Has a floor area of not less than 70 square feet as measured within the area having a wall height of five feet or more.

Area Above the Second Story

22

Meets dimensional requirements for habitable space in building code:

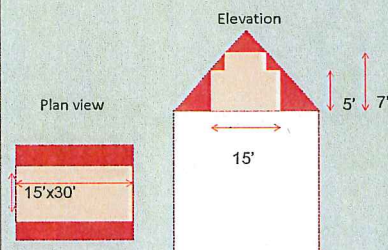


- Within plane that is 5' above the floor & touches rafters
- At least 7' in any horizontal direction
- Minimum ceiling height of 7' on at least 50% of floor area
- Floor area of 70 sq. ft. or more (measured on area that has at least 5' ceiling)

Area Above the Second Story

23

Example 1

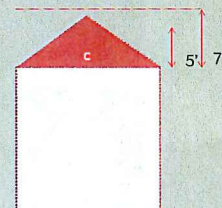


- Within plane that is 5' above the floor & touches rafters
- At least 7' in any horizontal direction
- Minimum ceiling height of 7' on at least 50% of floor area
- Floor area of 70 sq. ft. or more (measured on area that has at least 5' ceiling)
- $15 \times 30 = 450$ sq. ft. counts toward FAR

Area Above the Second Story

24

Example 2



- Within plane that is 5' above the floor & touches rafters
- At least 7' in any horizontal direction
- Minimum ceiling height of 7' on at least 50% of floor area
- Floor area of 70 sq. ft. or more (measured on area that has at least 5' ceiling)
- 0 sq. ft. count toward FAR

Cathedral Ceilings

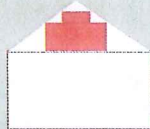
25

- Previous calculation: Considered as an atria
- New calculation: considered as area under a sloped roof



Atria calculation: multiply floor area by average height/10

600 sq. ft. * 15/10 = 900 sq. ft.



New calculation: calculate area under sloping roof as if there is a floor

Depending on slope of roof, could be higher or lower than under atria calculation

Porches

26

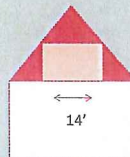
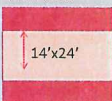
- **Porch:** A roofed structure with sides not more than sixty percent (60%) enclosed by impermeable walls, attached to and accessible from the primary structure, and not heated or air conditioned. A porch may share no more than two exterior walls with the residential structure. Railings or solid walls on the projecting facades of the porch may be no higher than 36" as measured from the finished porch floor; the remainder of these facades may be open to the elements or enclosed by mesh, glass, or similar material.
- **Porch, enclosed:** A porch enclosed for any portion of the year by any nonpermeable material such as glass or a similar material.
- **Porch, unenclosed:** A porch that at all times is either enclosed by permeable materials such as mesh or similar material or is unenclosed by any material.
- **Enclosed porches now count toward FAR; unenclosed porches will not**

Garages

27

- Attached garages continue to count toward FAR
- Detached garages now also count toward FAR
- Second floors in detached garages now count if ceilings above 7'

Plan View



24'x 24' garage
14'x24' has ceiling over 7'
14'x24'=336 sq. ft. counts toward FAR

Carports

28

- **Carport:** A one-story roofed structure permanently open on at least three sides and designed for or used for occupancy by a motor vehicle. For the purposes of this ordinance, a one-story port-cochere meets the definition of a carport.

Other Detached Structures

29

- Count toward FAR under new regulations
- One exception for shed of 120 sq. ft. or less

Previous FAR Calculations for Regulations in Effect Until October 15, 2011			New FAR Calculations for Regulations Effective October 15, 2011		
Inputs			Inputs		
1.	First story	1000	1.	First story	1000
2.	Attached garage		2.	Garage, detached or attached	
3.	Second story	1000	3.	Second story	1000
4.	Attic, open wells, and other vertical spaces		4.	Attic, open wells, and other vertical spaces	
5.	Floor area above the second story if it is more than 2/3 the floor area of the story directly below (otherwise "0")		5.	Certain floor area above the second story ^{2b}	494
6.	Enclosed porches if heated (otherwise "0")		6.	Enclosed porches ^{2b}	
			7.	Mass below first story ^{2b}	348
			8.	Area above detached garages with a ceiling height of 7' or greater	
			9.	Other detached accessory buildings (one detached building up to 120 sq. ft. is exempt)	
FAR of Proposed Structure(s)			FAR of Proposed Structure(s)		
A.	Total gross floor area (sum of rows 1-6 above)	2000	A.	Total gross floor area (sum of rows 1-9 above)	2842
B.	Lot size	5409	B.	Lot size	5409
C.	FAR = A/B	.37	C.	FAR = A/B	.52
Allowed FAR			Allowed FAR		
	Allowed FAR			Allowed FAR	
	SR1= .2 or .25 depending on age of lot			see FAR calculator at www.newtonma.gov/planning/far.php	
	SR2= .3				
	SR3= .35				
	MRI, 2, 3= .4				
	Bonus of .02 to .07 if eligible ^{1a}			Bonus of .02 if eligible ^{1a}	
	TOTAL Allowed FAR (add two rows above)			TOTAL Allowed FAR (add two rows above)	

Finishing Existing Space

31

Q: I have an existing house with unfinished space (e.g. attic, basement). Can I finish that space? Do I need to do FAR calculations?

A: You may finish ANY existing space without regard to FAR.

Recent Changes: What are the new FAR limits?

32

New sliding scale of FAR limits tied to lot size and zoning district, and giving modest increase in capacity to smaller lots

Intent:

- Raise FAR limits to account for more elements counting
- Raise capacity slightly for smaller lots

FAR Limits As Of October 15th (excludes bonus)

SR1		SR2		SR3	
Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*
<= 5,333	.46	<= 5,333	.46	<= 7,217	.48
5,334-6,000	.45	5,334-6,000	.45	7,218-7,652	.47
6,001-6,666	.44	6,001-6,666	.44	7,653-8,086	.46
6,667-7,151	.43	6,667-7,294	.43	8,087-8,521	.45
7,152-7,454	.42	7,295-7,882	.42	8,522-8,956	.44
7,455-7,757	.41	7,883-8,470	.41	8,957-9,391	.43
7,758-8,060	.40	8,471-9,058	.40	9,392-9,826	.42
8,061-8,363	.39	9,059-9,647	.39	9,827-10,833	.41
8,364-8,666	.38	9,648-10,500	.38	10,834-12,499	.40
8,667-8,969	.37	10,501-11,500	.37	12,500-14,166	.39
8,970-9,272	.36	11,501-12,500	.36	14,167-21,250	.38
9,273-9,575	.35	12,501-13,500	.35	21,251-23,750	.37
9,576-9,878	.34	13,501-14,500	.34	23,751 and above	.36
9,879-11,250	.33	14,501 and above	.33		
11,251-13,750	.32				
13,751-15,833	.31				
15,834-17,500	.30				
17,501-19,166	.29				
19,167-21,250	.28				
21,251-23,750	.27				
23,751 and above	.26				

FAR Limits As Of October 15th (excludes bonus)

MR1		MR2/MR3	
Lot Size (sq. ft.)	Allowable FAR*	Lot Size (sq. ft.)	Allowable FAR*
<= 5,199	.58	<= 5,199	.58
5,200-5,999	.57	5,200-5,999	.57
6,000-6,999	.56	6,000-6,999	.56
7,000-7,999	.55	7,000-7,999	.55
8,000-8,999	.54	8,000-8,999	.54
9,000-9,999	.53	9,000-9,999	.53
10,000-10,999	.52	10,000-10,999	.52
11,000-11,999	.51	11,000-11,999	.51
12,000-12,999	.50	12,000-12,999	.50
13,000-13,999	.49	13,000-13,999	.49
14,000-14,999	.48	14,000-14,999	.48
15,000-15,999	.47	15,000-15,999	.47
16,000-16,999	.46	16,000-16,999	.46
17,000-17,999	.45	17,000-17,999	.45
18,000-18,999	.44	18,000-18,999	.44
19,000-19,999	.43	19,000-19,999	.43
20,000-20,999	.42	20,000-20,999	.42
21,000-21,999	.41	21,000-21,999	.41
22,000-22,999	.40	22,000-22,999	.40
23,000-23,999	.39	23,000-23,999	.39
24,000 and above	.38	24,000 and above	.38

www.newtonma.gov/planning/far.php

City of Newton Planning & Development - Newton, MA

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Residential Floor Area Ratio (FAR)

Floor area ratio, or FAR, measures the amount of gross floor area that can be built on a lot. It is the ratio of gross floor area of a building to the lot area on which it sits.

Newton's Zoning Ordinance sets maximum FARs for residential districts and districts within the city of Newton. It also sets maximum FARs for commercial districts.

The City of Newton recently adopted changes to the FAR regulations for residential districts in order to encourage more housing. The changes took effect on October 15, 2014. The changes are summarized in the attached document and the changes are summarized in the attached document.

For more information, please see the [FAR calculator](#) or visit the [City of Newton Planning & Development](#) website.

FAR Calculator

The calculator below estimates FAR values under the new FAR regulations that took effect on October 15, 2014. (Only for residential lots.)

Zone:

Lot Size:

Zone:

Lot Size:

City of Newton Planning & Development

New FAR Bonus

36

Modest bonus for building to new setback lines

Bonus of .02 for new construction/additions on old (pre-1954) lots built to new side setback standards

Intent: Encourage new construction to new setback requirements

New FAR Bonus

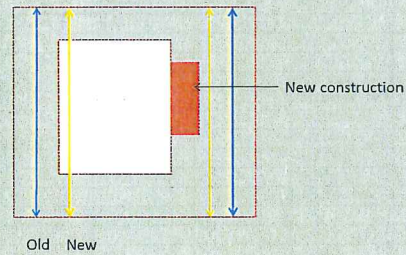
37

- **Previous bonuses:**
 - .05 above FAR limits for additions to existing homes
 - An extra .02 for additions to existing homes where new construction meets new setbacks or doesn't extend further toward old setbacks
 - .05 for new construction on old lots meeting new lot setback and lot coverage standards
- **New bonus gives .02 for any new construction on old lots provided new portion meets new lot setback standards**

FAR Bonus

38

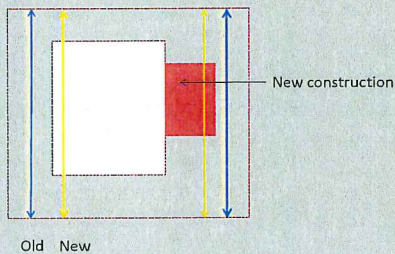
Example 1: Qualifies for new bonus



FAR Bonus

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Example 1: Does not qualify for new bonus



FAR Bonus

40

- New FAR bonus may not create or increase nonconformities with respect to lot coverage or open space
- New FAR bonus may not be used in conjunction with *de minimis* section of Zoning Ordinance (30-21(c))

Previous FAR Calculations for Regulations in Effect Until October 15, 2011		New FAR Calculations for Regulations Effective October 15, 2011	
Inputs		Inputs	
1. First story	1000	1. First story	1000
2. Attached garage		2. Garage, detached or attached	
3. Second story	1000	3. Second story	1000
4. Atria, open wells, and other vertical spaces		4. Atria, open wells, and other vertical spaces	
5. Floor area above the second story if it is more than 2/3 the floor area of the story directly below (otherwise "0")		5. Certain floor area above the second story ^b	494
6. Enclosed porches if heated (otherwise "0")		6. Enclosed porches ^a	
		7. Mass below first story ^b	348
		8. Area above detached garages with a ceiling height of 7' or greater	
		9. Other detached accessory buildings (one detached building up to 120 sq. ft. is exempt)	
FAR of Proposed Structure(s)		FAR of Proposed Structure(s)	
A. Total gross floor area (sum of rows 1-6 above)	2000	A. Total gross floor area (sum of rows 1-9 above)	2842
B. Lot size	5403	B. Lot size	5403
C. FAR = A/B	.37	C. FAR = A/B	.52
Allowed FAR		Allowed FAR	
Allowed FAR SR1= .2 or .25 depending on age of lot SR2= .3 SR3= .35 MR1, 2, 3= .4	.40	Allowed FAR see FAR calculator at www.newtonma.gov/planning/far.php	.57
Bonus of .02 to .07 if eligible ^a	.07	Bonus of .02 if eligible ^a	.02
TOTAL Allowed FAR (add two rows above)	.47	TOTAL Allowed FAR (add two rows above)	.59

Exceeding FAR Limits

42

- As before, owners can apply for a **special permit** to exceed FAR limits
- Special permits are granted by the Board of Aldermen
- Main criteria for FAR special permit is that "proposed structure is consistent with and not in derogation of the size, scale and design of other structures in the neighborhood"
- Efforts to streamline FAR special permit applications

Exceeding FAR Limits

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- Planning Department welcomes owners, architects, and others to meet at **Development Review Meetings** to discuss options or to begin the special permit process
- To schedule, call 617-796-1120

Implementation

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- Policies took effect October 15
- Data collection & monitoring
- Regular reporting to Board of Aldermen
- For more information, please visit www.newtonma.gov/planning/far.php
- To add your name to an email list for FAR updates, please send an email to far@newtonma.gov

FAR Frequently Asked Questions

What is FAR?

Floor area ratio, or FAR, regulates the amount of gross floor area that can be built on a lot. It is a ratio of gross floor area to lot size, or:

$$\text{FAR} = \frac{\text{Gross floor area of building(s) on a lot}}{\text{lot size}}$$

The purpose of FAR is to regulate above-ground mass; that is, the built mass that one can see from the street or a neighboring property. It is one of several dimensional regulations used in Newton in residential districts, including:

- Minimum lot sizes
- Setbacks (which regulate the distance between a structure and the street or neighboring lots)
- Building height and story limits
- Maximum lot coverage (regulating how much of a lot can be covered with buildings and other impermeable surfaces)
- Minimum open space requirements

The purpose of these dimensional requirements is to allow development of residential lots in ways that balance the interests of both owners and neighbors.

What are "FAR limits"?

FAR limits are described in Newton's Zoning Ordinance. They represent the maximum allowed FAR for residential structures in each zoning district.

What is "actual FAR"?

An existing or proposed home has an "actual FAR," the gross floor area of the residential structure or structures divided by the lot size. The Zoning Ordinance describes what elements of a structure are included in gross floor area.

What changes have been made to FAR?

The Board of Aldermen recently adopted changes to the floor area ratio (FAR) regulations for one- and two-family homes and accessory structures in residential zoning districts. The changes amend what building elements count toward FAR. They also amend the FAR limits: instead of a flat FAR limit for each zoning district, the new

regulations provide a sliding scale where the FAR limit is tied to lot size and zoning district.

What properties are affected by the recent FAR changes?

The FAR changes affect one- and two-family residential structures, and their accessory structures, in residential districts. All other buildings and properties should follow existing FAR regulations as laid out in the Zoning Ordinance.

When do the changes take effect?

The new FAR regulations took effect on October 15, 2011. Until then, the current FAR regulations, including the "FAR bonus," will stay in effect.

I have an attic/basement that is currently unfinished. Can I finish the space under the new regulations, or will this not be allowed?

Under the new regulations, you can finish any existing space (e.g. attic, basement) without regard to FAR.

Can I finish an existing basement or attic in my house after October 15?

Yes! You can finish any space within your existing building envelope without regard to FAR.

How do I know what FAR limit applies to my property?

The easiest way to see the new FAR limit for your property is to [click here](#). You can also visit apps.newtonma.gov/far/index.php. This website has an online FAR calculator that will give you an FAR limit that applies to a particular lot size in a particular zone.

To use the calculator, you will need to know your zoning district and lot size. (The Assessor's database has estimates of lot sizes and zoning information (<http://assessing.newtonma.gov/NewtonMAWebApp/>) and associates at the Inspectional Services Department desk in City Hall can also assist in identifying your property's zone and estimating lot size. A zoning map is also available at <http://www.newtonma.gov/MIS/GIS/maplist/zoningdisclaim.htm>.)

Note that, under the new FAR regulations, a bonus of .02 is available for construction on lots created before 1954, provided that new construction complies with setback requirements for post-1953 lots and the new construction does not create or increase nonconformities with respect to lot coverage or open space. The bonus also may not be used in conjunction with Section 30-21 (c) of the Zoning Ordinance, the de minimis rule. If applicable to your property/project, the .02 should be added to the FAR limit shown in the FAR calculator to find the total FAR limit for your property. Setback requirements can be found in the zoning ordinance in Section 30-15, Table 1 (an online

version of the Zoning Ordinance is located at:
<http://www.newtonma.gov/legal/ordinance/title.htm>).

How do I measure the various elements included in FAR?

Please see the "Floor Area Ratio Worksheet" for instructions on how to calculate FAR under the new regulations. Associates at the Inspectional Services Desk can also answer specific calculation questions.

When I calculate my allowed FAR or the actual FAR of my house or proposed construction, how many decimal places do I calculate to?

Calculations should be made to two decimal places.

I have an existing house and want to finish the attic or basement. Do I need to do an FAR calculation?

You do not need to do an FAR calculation if you want to finish space within the existing building shell. You do need to *do* an FAR calculation if you want to build an addition, replace a portion of your existing house, or build entirely new construction

I want to enclose a porch. Under the new FAR regulations, do I need to do an FAR calculation?

Yes, you need to do an FAR calculation to ensure that by enclosing your porch, you are within allowable FAR.

Under new FAR regulations, can I get a special permit to exceed FAR limits?

Yes, as under current regulations, one may apply for a special permit to exceed FAR limits. Information on the special permit process is available at:
http://www.newtonma.gov/Planning/special_permits.htm.

Under the new FAR requirements, when measuring space above the second story, one of the requirements for space counting toward FAR is that the space "is at least seven feet in any horizontal dimension, as measured within the area having a wall height of five feet or more." Must space be 7' in just one direction to count toward FAR, or must it be 7' in all directions?

Space must be 7' in all directions to count toward FAR.

SECTION 30-15

TABLE 1 — DENSITY & DIMENSIONAL CONTROLS IN RESIDENCE DISTRICTS AND FOR RESIDENTIAL USE

ZONING DISTRICT	MINIMUM REQUIRED LOT AREA	LOT AREA PER UNIT ¹	SET BACKS			TOTAL FLOOR AREA	BUILDING HEIGHT ^{2,4,5,6, 7}	MAXIMUM NUMBER OF STORIES ³	MAXIMUM BUILDING LOT COVERAGE	MINIMUM AMOUNT OF OPEN SPACE
			FRONTAGE	FRONT	REAR					
SINGLE RESIDENCE 1 Single Dwelling Units Lots created before 12/7/53	25,000	25,000	140	40	20	25	36	2.5	15%	70%
	15,000	25,000	100	25	12.5	25	36	2.5	20%	65%
<i>Special Permits:</i>										
Single Att. Dwelling Units (30-8(b)(13)) Single Family Detached (30-15(k))*	3 acres	25,000	140	40	25	25	36	2.5	15%	70%
	5 acres	15,000	50	15	7.5	15	36	2.5	20%	65%
SINGLE RESIDENCE 2 Single Dwelling Units Lots created before 12/7/53	15,000	15,000	100	30	15	15	36	2.5	20%	65%
	10,000	15,000	80	25	7.5	15	36	2.5	30%	50%
<i>Special Permits:</i>										
Single Att. Dwelling Units (30-8(b)(13)) Single Family Detached (30-15(k))*	2 acres	15,000	100	30	25	25	36	2.5	20%	65%
	5 acres	10,000	50	15	7.5	15	36	2.5	30%	50%
SINGLE RESIDENCE 3 Single Dwelling Units Lots created before 12/7/53	10,000	10,000	80	30	10	15	36	2.5	30%	50%
	7,000	10,000	70	25	7.5	15	36	2.5	30%	50%
<i>Special Permits:</i>										
Single Att. Dwelling Units (30-8(b)(13)) Single Family Detached (30-15(k))*	1 acre	10,000	80	30	25	25	36	2.5	30%	50%
	5 acres	7,000	50	15	7.5	15	36	2.5	30%	50%
MULTI-RESIDENCE 1 Single & Two Family Dwellings Lots created before 12/7/53	10,000	5,000	80	30	10	15	36	2.5	30%	50%
	7,000	3,500	70	25	7.5	15	36	2.5	30%	50%
<i>Special Permits:</i>										
Attached Dwellings (30-9(b)(5)) Single & Two Family Detached (30-15(k))*	15,000	4,000	80	25	25	25	36	2.5	25%	50%
	5 acres	7,000	50	15	7.5	15	36	2.5	30%	50%
MULTI-RESIDENCE 2 Single & Two Family Dwellings Lots created before 12/7/53	10,000	5,000	80	25	10	15	36	2.5	30%	50%
	7,000	3,500	70	25	7.5	15	36	2.5	30%	50%
<i>Special Permits:</i>										
Attached Dwellings Multi-Family Dwelling Garden Apartments (30-9(d)) Single & Two Family Detached (30-15(k))*	15,000	4,000	80	25	25	25	36	2.5	25%	50%
	10,000	3,000	80	25	7.5	15	36	3	30%	50%
	24,000	2,000	80	20	14	15	36	3	35%	35%
	5 acres	7,000	80	15	7.5	15	36	2.5	30%	50%

ZONING DISTRICT	MINIMUM REQUIRED LOT AREA	LOT AREA PER UNIT ¹	SET BACKS			TOTAL FLOOR AREA RATIO ⁸	BUILDING HEIGHT ^{2, 4, 5, 6, 7}	MAXIMUM NUMBER OF STORIES ³	MAXIMUM BUILDING LOT COVERAGE	MINIMUM AMOUNT OF OPEN SPACE
			FRONTAGE	FRONT	SIDE	REAR				
MULTI-RESIDENCE 3 Single & Two Family Dwellings Lots created before 12/7/53	10,000	5,000	80	15	7.5	15	36	2.5	30%	50%
	7,000	3,500	70	15	7.5	15	36	2.5	30%	50%
	15,000	4,000	80	25	10	15	36	2.5	25%	50%
	10,000	1,200	80	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
	5 acres	7,000	50	15	7.5	15	36	2.5	30%	50%
<i>Special Permits:</i> Attached Dwellings	10,000	1,200	80	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
Multi-Family Dwelling	10,000	1,200	80	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
Single & Two Family Detached (30-15(k)) ⁴	10,000	1,200	80	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
Residential Care Facility (30-9(f)) ⁷	10,000	1,200	80	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
MULTI-RESIDENCE 4 Single & Two Family Dwellings	10,000	5,000	80	15	10	15	36	2.5	30%	50%
<i>Special Permits:</i> Multi-Family Dwelling	3 acres	1,000	-	50	50	50	-	3	20%	30%
Residential Care Facility ⁷	3 acres	1,200	-	15	1/5 bldg. ht.	1/2 bldg. ht.	42	3	45%	30%
BUSINESS #1, #2, #3 & #4	10,000	1,200	80	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)
MIXED USE 1 AND 2	10,000	10,000	80	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)	SEE TABLE 3 AND 30-15(h)
MIXED USE 3/TOD	9 acres	1,200	80	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls
MIXED USE 4	10,000	1,000	80	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls	SEE TABLES 3 for other dimensional controls

¹ This column is used for purposes of determining residential density in cases where more than one dwelling unit is provided on a lot.

² Building height shall also regulate structures.

³ Allow three stories by special permit if the proposed structure is consistent with and not in derogation of the size, scale and design of other structures in the neighborhood.

⁴ No space above the maximum height established in Table 1 shall be habitable.

⁵ Allow by special permit in a Multi-Residence 3 District a multi-family dwelling structure to have a maximum building height of 48 feet and a maximum number of stories of 4, provided that there is a minimum lot size of 10 acres; the distance from any street(s) abutting the lot to such multi-family dwelling structure is no less than 150 feet and the distance between such structure and abutting properties is no less than 75 feet and the front, side, and rear setbacks for the lot are 50 feet from the lot line.

⁶ A building with a sloped roof shall have a maximum height of thirty-six (36) feet. A building with a flat roof shall have a maximum height of thirty (30) feet.

⁷ A residential care facility in the Multi-Residence 3 District or Multi-Residence 4 District with a sloped roof or a multi-family structure in the Multi-Residence 3 District with a sloped roof shall have a maximum height of forty-two (42) feet. A building with a flat roof shall have a maximum height of thirty-six (36) feet.

⁸ See Sec. 30-15(u) Table A for determining Floor Area Ratio (FAR) for single and two-family dwellings.

⁹ Editor's note—"Open Space Preservation Development" was formerly called "Cluster Development."

(Ord. No. Z-44, 03-16-09; Ord. No. Z-91, 06-06-11; Ord. No. Z-77, 02-22-11; Ord. No. Z-108, 04-17-12; Ord. No. A-4, 10-01-12)