



## Agenda Item # 5

**TO:** Metropolitan Planning Commissioners  
**FROM:** Mark Donaldson, MPC Executive Director  
**PREPARED BY:** Dave Hill, MPC Deputy Director  
**DATE:** October 27, 2014  
**SUBJECT:** *City of Knoxville Zoning Ordinance Amendments:  
Floor Area Ratio (FAR) Amendments for C-4, C-5, and C-6 Districts*

### **REQUEST**

Consider approval of a recommendation to amend the City of Knoxville Code of Ordinances, Appendix B – Zoning Regulations, Article II and Article IV, Sections 2.2.7, 2.2.8, 2.2.9 and 2.5, related to **Floor Area Ratio (FAR)** and other area requirements for certain commercial zoning districts.

### **BACKGROUND**

Recently, the City of Knoxville Building Official requested that the Floor Area Ratio (FAR) measures for the C-4 (Highway and Arterial Commercial District), C-5 (Tourist Commercial District), and C-6 (General Commercial Park) zoning districts be corrected and/or clarified.

In reviewing past City zoning ordinances, MPC staff found that, at minimum, corrections are needed due to past amendments affecting the definition and calculation of FAR.

Floor Area Ratio requirements were added to the City Zoning Ordinance in 1971 (Ordinance 5224, 9-28-1971). At that time, FAR's were added for the C-4 and C-5 districts only. By 1985, the C-6 zone was created, and FAR's were included for that zone. Since then, incremental changes to the FAR definition and related requirements have created confusion regarding administration and enforcement of C-4 and C-5 district area requirements. In 2007, FAR's were used in the South Waterfront form based code, and were used again in 2013 as part of the Cumberland Avenue Corridor form based code.

The proposed amendments shown below are intended to make corrections and eliminate administrative review ambiguities. Specifically, the proposed definition of Floor Area Ratio reflects professionally accepted terms, including the method for calculation. The remainder of the amendments reflect the original intent of the FAR measure used, and clarify that the FAR standard is the maximum allowed. An option is included to eliminate the use of FAR's should the Metropolitan Planning Commission and Knoxville City Council decide to make commercial zoning district area requirements more uniform and consistent in application.

### **PROPOSED ZONING ORDINANCE AMENDMENTS**

A summary of the specific amendments proposed include:

Zoning Ordinance Section	Current City Zoning Regulation	Proposed Amendment
<b>Article II Definitions</b>	Floor to area ratio (FAR): The ratio of building area to parcel area. FAR is calculated by adding all of the areas of each floor of the building together and dividing by the gross area of the parcel on which the building is sited.	<b>Floor Area Ratio (FAR): The ratio of gross floor area to parcel area. FAR is calculated by dividing the gross floor area of the building(s) by the gross area of the parcel on which the building(s) is sited.</b>
	<i>Intent: Correct the definition name (FAR); clarify the definition.</i>	
<b>Article IV Section 2.2.7.F.</b>  C-4 Highway and Arterial Commercial District	F. Floor area ratio. The floor area ratio for buildings in the C-4 highway and arterial commercial district shall be 1:60. Height and lot coverage for structures in this district shall be governed by this floor area ratio except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.	F. Floor area ratio. The floor area ratio for buildings in the C-4 highway and arterial commercial district shall be <b>no greater than 1.60</b> . Height and lot coverage for structures in this district shall be governed by this floor area ratio except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.
<i>Intent: Clarify that the FAR listed is the maximum allowed and change it to a measure that was originally intended.</i>		
<b>Article IV Section 2.2.8.F.</b>  C-5 Tourist Commercial District	F. Floor area ratio. The floor area ratio for building in the C-5 tourist commercial district shall be 1:20. Height and lot coverage for structures in this district shall be governed by this floor area ratio, except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.	F. Floor area ratio. The floor area ratio for building in the C-5 tourist commercial district shall be <b>no greater than 1.20</b> . Height and lot coverage for structures in this district shall be governed by this floor area ratio, except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.
<i>Intent: Clarify that the FAR listed is the maximum allowed and change it to a measure that was originally intended.</i>		
<b>Article IV Section 2.2.9.D.1.</b>  C-6 General Commercial Park District	1. [Floor area ratio.] The following floor area ratios shall be applied in the general commercial park: One-story structures: 0.50 FAR. Two-story structures: 1.00 FAR. Three-story structures: 1.50 FAR. Four-story structures: 2.00 FAR. For each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.	1. [Floor area ratio.] The following <b>maximum</b> floor area ratios shall be applied in the general commercial park: One-story structures: 0.50 FAR. Two-story structures: 1.00 FAR. Three-story structures: 1.50 FAR. Four-story structures: 2.00 FAR. For each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.
<i>Intent: Clarify that the FAR measures are the maximum allowed.</i>		
<b>Article IV Section 2.5</b> Summary of Area Regulations (Columns labeled "Area" and "Maximum Lot Coverage / Height")	<b>C-4</b> "Area" Column: Floor area ratio, 1:6 "Maximum Lot Coverage / Height" Column: Governed by floor ratio; see article IV, section 2.2.7.F	"Area" Column: Floor area ratio, <b>maximum 1.60</b> "Maximum Lot Coverage / Height" Column: Governed by <b>maximum 1.60</b> floor <b>area</b> ratio; see article IV, section 2.2.7.F
	<b>C-5</b> "Area" Column: Floor area ratio, 1:2 "Maximum Lot Coverage / Height" Column: Governed by floor ratio; see article IV, section 2.2.8.F	"Area" Column: Floor area ratio, <b>maximum 1.20</b> "Maximum Lot Coverage / Height" Column: Governed by <b>maximum 1.20</b> floor <b>area</b> ratio; see article IV, section 2.2.8.F
	<b>C-6</b> "Area" Column: See article IV, section 2.2.9.D, for floor area ratios  "Maximum Lot Coverage / Height" Column: Governed by floor ratio; see article IV, section 10, F	"Area" Column: <b>Maximum floor area ratios:</b> <ul style="list-style-type: none"> <li>• <b>One-story structures: 0.50 FAR</b></li> <li>• <b>Two-story structures: 1.00 FAR</b></li> <li>• <b>Three-story structures: 1.50 FAR</b></li> <li>• <b>Four-story structures: 2.00 FAR</b></li> <li>• <b>0.25 added to FAR for each additional story</b></li> </ul> "Maximum Lot Coverage / Height" Column: Governed by floor <b>area</b> ratio; see article IV, section <b>2.2.9.D</b>
	<i>Intent: Change table in Section 2.5 to reflect proposed amendments.</i>	

## **ANALYSIS**

**Floor Area Ratio (FAR)** is a measure defined as the amount of gross floor area of a structure(s) in proportion to the size of a development site, and is a measure of development intensity (or density). FAR is calculated by dividing gross floor area by development site area. For example, for a 20,000 SF building on a 10,000 SF lot,  $FAR = 20,000 \div 10,000 = 2.0$ . FAR does not specify how the 20,000 SF of gross floor area is situated on the lot – the building could be 4 stories tall with a 5,000 SF footprint or 2 stories tall with a 10,000 SF footprint, or some other combination. Without other area requirements such as setbacks, parking requirements, landscaping, or maximum heights, FAR's do little to define the maximum building envelope permitted on a given site, although they do limit maximum building height to some extent. This may be desirable if the intent is to provide maximum design flexibility to a developer.

The value in using FAR in zoning regulations is that it provides a proportional measure of development intensity that can be applied to sites that vary in size. FAR's also provide a high level of design flexibility regarding the arrangement of floor space on any given site. FAR's have two specific uses: (1) to limit the intensity of land use to address potential negative impacts, and (2) to control the mass and scale of development. Many communities use FAR's to coordinate development intensity with infrastructure capacity (i.e. – transportation). Some communities use minimum FAR's to achieve increased development intensities along transit corridors or within neighborhood centers and mixed use districts, or provide FAR bonuses when amenities such as open space or plazas are included in project design. When FAR's are used to control development mass and scale, other area requirements are almost always used to describe maximum building envelopes allowed.

Knox County zoning regulations do not contain any FAR measures. Chattanooga - Hamilton County do not use FAR's, nor does Memphis include FAR's in their recently adopted development code (form based code). Nashville does use FAR's quite extensively, but in association with several other measures such as setbacks, maximum impervious surface ratios, maximum building height at setback line, and slope of height control plane (which requires upper story setbacks). Nashville's commercial district FAR restrictions range from 0.25 (Neighborhood Commercial) to 0.60 (Commercial Service), with a maximum 5.0 FAR in the downtown (Commercial Core). Use of FAR's in large U.S. cities, particularly for their downtown areas and other densely developed districts, is very common. Use of FAR's in residential districts or smaller cities is less common.

No documentation has been found that explains why FAR's were not used for other Office and Commercial zones (especially the C-2 district), nor is it apparent why existing FAR measures were set at their specific levels. The C-3 and C-4 zones, for example, have many similarities – yet C-3 area requirements use traditional area requirements (setbacks, maximum lot coverage, maximum height) to describe maximum building envelope, whereas C-4 uses setbacks and FAR to describe maximum development density.

More importantly, the FAR measures selected for C-4 (1.6) and C-5 (1.2) have little influence on the density of typical commercial development in their respective zones. With the exception of offices, hotels, and motels that may exceed 45 feet in height (churches, schools, hospitals, public, and semi-public structures have provisions for exceeding height limits; Article V, Section 5), most commercial development in Knoxville is one or two stories. Yard setbacks and parking requirements are far more influential in limiting the amount of C-4, C-5, or C-6 floor space that can be built on any given site.

A recent commercial development illustrates this point. University Commons, the retail complex located on Cumberland Avenue just west of the UT campus, is a fairly dense shopping center built on top of a parking garage. Even though the property is zoned C-3, the same project could have been built in a C-4 zone. Total garage and commercial floor space is about 456,000 SF; site size is 11.85 acres. The project FAR is 0.88, almost less than half of maximum 1.6 FAR permitted.

The table below shows existing office and commercial zoning district area requirements:

Comparison of Current City of Knoxville Commercial Zoning District Area Requirements										
Zoning District		Example Locations	Yard Setbacks			Maximum Lot Coverage	Height Restrictions	Off-Street Parking	Land-scaping	FAR
			Front	Side	Rear					
C-1	Neighborhood Commercial	Scattered: Washington Pike, Whittle Springs Rd, Kenesaw / Keowee, E. Woodland, Rutledge / McCalla	25'	None except 12' for combination commercial / residential or 20' adjacent to residential districts	30'	35%	35'	Yes	None	No
C-2	Central Business District	Downtown Area	5'	None	None	None up to 6 stories; 85% for 17+	None	None	None	No
C-3	General Commercial District	Kingston Pike, Broadway, N. Central, Magnolia Ave.	25'	None except 25' adjacent to residential districts	30' for rear service area; 15' if abutting residential district	75%	45'; 90' allowed for offices	Presumed (Not mentioned)	None	No
C-4	Highway and Arterial Commercial District	Clinton Hwy., Chapman Hwy., Parkside Dr.	50' if fronting an arterial; 35' all others	12'; 50' if abutting residential district	10'; 30' for rear service area; 50' if abutting residential district	None	None	Yes	None	Yes 1.6
C-5	Tourist Commercial District	W. Oldham / I-275. Papermill Dr., Some on Kingston Pike	50' if fronting an arterial; 35' all others	12'; 50' if abutting residential district	10'; 30' for rear service area; 50' if abutting residential district	None	None	Yes	None	Yes 1.2
C-6	General Commercial Park District	Dean Hill / Northshore; Northshore / Pellissippi; Baum Dr., Downtown West Blvd.	25'	20'; 60' if abutting residential district	None; 30' for rear service area; 60' if abutting residential district	None	None	Yes	Yes; Required yards, parking areas, and open spaces	1S-0.5 2S-1.0 3S-1.5 4S-2.0 Each add'l story: +0.25
C-7	Pedestrian Commercial District	Replaced by Cumberland Form Based Code	Refers to the Cumberland Corridor Design Guidelines which were replaced by the Cumberland Avenue District Form Based Code. Current height and bulk regulations use building setbacks, build-to zones, parking setbacks, outdoor amenity space, building height, and other measures to regulate permitted structural envelopes					Yes for dwelling units; none for all other uses	Yes	No

**PRIOR ACTION / REVIEW**

Based on annual editions of the City of Knoxville Zoning Code kept in the MPC library, changes affecting FAR requirements are noted below:

**City Zoning Code as Amended through August 1970** (Original Code Adopted in December 1963)

Definition: No FAR definition.

C-4: Minimum 10,000 SF Lot Area; 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; 40% maximum lot coverage; 45' maximum building height.

- C-5: Yard and maximum lot coverage requirements – same as C-4; 35' or 3 stories maximum height.
- C-6: District did not exist.

**City Zoning Code as Amended through July 1984**

Definition: FAR calculated as (Gross Floor Area ÷ Total Lot Area) X 100

- C-4: 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; FAR = 160.
- C-5: Yard requirements – same as C-4; FAR = 120.
- C-6: FAR: One-story structures: 0.50; Two-story structures: 1.00; Three-story structures: 1.50; Four-story structures: 2.00; for each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

**City Zoning Code as Amended through July 1985**

Definition: FAR defined as the relationship between the number of square feet of the floor area in buildings and number of square feet of lot area; no mention of how to calculate.

- C-4: 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; FAR = 160.
- C-5: Yard requirements – same as C-4; FAR = 120.
- C-6: FAR: One-story structures: 0.50; Two-story structures: 1.00; Three-story structures: 1.50; Four-story structures: 2.00; for each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

**City Zoning Code as Amended through March 2009**

Definition: Same as in current zoning code. Changed title from *Floor Area Ratio* to *Floor to Area Ratio*.

- C-4: 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; FAR = 160.
- C-5: Yard requirements – same as C-4; FAR = 120.
- C-6: FAR: One-story structures: 0.50; Two-story structures: 1.00; Three-story structures: 1.50; Four-story structures: 2.00; for each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

**City Zoning Code as Amended through March 2009**

Definition: Same as in current zoning code. Changed from Floor Area Ratio to Floor to Area Ratio.

- C-4: 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; FAR = 160.
- C-5: Yard requirements – same as C-4; FAR = 120.
- C-6: FAR: One-story structures: 0.50; Two-story structures: 1.00; Three-story structures: 1.50; Four-story structures: 2.00; for each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

**City Zoning Code as Amended through December 2009**

Definition: Same as in March 2009 and current zoning code. Changed from Floor Area Ratio to Floor to Area Ratio.

- C-4: 35' front yard, 50' fronting arterial street; 12' side yards, 50' if abutting residential district; 10' rear yard, 30' for service areas, 50' if abutting residential district; FAR (changed) = 1:60.
- C-5: Yard requirements – same as C-4; FAR (changed) = 1:20.
- C-6: FAR: One-story structures: 0.50; Two-story structures: 1.00; Three-story structures: 1.50; Four-story structures: 2.00; for each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

## **OPTIONS**

1. Limit amendments the city zoning code to those minimally necessary to clarify the original intent of the FAR definition and C-4, C-5, and C-6 FAR requirements. This option would be considered a corrective action. The result would likely have little impact, since most commercial district development is one- or two-stories in height, and development intensity is actually influenced more by yard setback and parking requirements than it is by FAR.
2. Remove FAR requirements from the city zoning code and use other area requirements to describe maximum development intensity and building envelope for the C-4, C-5, and C-6 zoning districts. The existing format for the C-3 zoning district related to maximum height and maximum lot coverage could be adjusted to replace FAR requirements altogether.

## **STAFF RECOMMENDATION**

Staff recommends Option #1. At this time, the best course of action may be to correct the FAR requirements for the C-4 and C-5 zoning districts to match the intent of the 1970 FAR requirements, correct the FAR definition (and calculation), and clarify that all FAR measures are the maximums allowed. The FAR requirements will likely not control development intensity unless a multi-story hotel or motel is constructed. Instead, other area requirements combined with required parking will typically continue to determine maximum development density.

The area requirements for city office and commercial zoning districts deserve evaluation and possible changes, but they should be reviewed comprehensively if and when substantive amendments are considered. The 2003 Knoxville – Knox County General Plan 2033 (adopted in May 2003) recommends improved development regulations in the form of a Unified Development Code. The improvement of office and commercial area regulations would be appropriate should such an effort be launched.

## **ATTACHMENTS**

Draft Ordinance

**ORDINANCE**

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF KNOXVILLE TO AMEND ORDINANCE NO. 3369, KNOWN AND CITED AS “THE ZONING ORDINANCE OF THE CITY OF KNOXVILLE, TENNESSEE,” TO AMEND, APPENDIX B – ZONING REGULATIONS, ARTICLE II AND ARTICLE IV, SECTIONS 2.2.7, 2.2.8, 2.2.9 AND 2.5, RELATED TO FLOOR AREA RATIO (FAR) AND OTHER AREA REQUIREMENTS FOR CERTAIN COMMERCIAL ZONING DISTRICTS.**

**ORDINANCE NO:** \_\_\_\_\_

**REQUESTED BY:** MPC

**PREPARED BY:** Law

**APPROVED ON 1<sup>ST</sup>**

**READING:** \_\_\_\_\_

**APPROVED ON 2<sup>ND</sup>**

**READING:** \_\_\_\_\_

**APPROVED AS AN EMERGENCY**

**MEASURE:** \_\_\_\_\_

**MINUTE BOOK:** \_\_\_\_\_ **PAGE** \_\_\_\_\_

**WHEREAS,** the City of Knoxville Plans Review and Inspections Department has requested that the Knoxville – Knox County Metropolitan Planning Commission review and prepare amendments to the City of Knoxville Zoning Code related to Floor Area Ratio (FAR) requirements; and

**WHEREAS,** Metropolitan Planning Commission staff reviewed incremental changes made to FAR requirements between 1970 and 2009; and

**WHEREAS,** current FAR requirements contain errors that hamper clear and concise administration and enforcement of development standards set forth in the zoning code for the C-4, C-5, and C-6 zoning districts; and

**WHEREAS,** amendments are needed to correct errors, fulfill the intent of the FAR requirements when originally adopted, and make other changes intended to enable clear administration and enforcement; and

**WHEREAS**, public notice on the proposed amendments for the Metropolitan Planning Commission meeting on December 11, 2014 was published in the *Knoxville News Sentinel* on November 7, 2014, and public notice for the City Council meeting on January 6, 2014 was published in the *Knoxville News Sentinel* on December 19, 2014.

**WHEREAS**, at its December 11, 2014 meeting, the Metropolitan Planning Commission recommended to the Council of the City of Knoxville that the request amend the City of Knoxville Zoning Code be approved; and

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF KNOXVILLE:**

**SECTION 1:** That “The Zoning Ordinance of the City of Knoxville, Tennessee,” being Ordinance No. 3369, be and the same is hereby amended, so as to change the text of the zoning ordinance as follows (bold, highlighted, and underlined):

**A. Article II, Definitions:** Replace the definition of “Floor to Area Ratio” in its entirety with the following:

**Floor Area Ratio (FAR): The ratio of gross floor area to parcel area. FAR is calculated by dividing the gross floor area of the building(s) by the gross area of the parcel on which the building(s) is sited.**

**B. Article IV, Section 2.2.7.F.** C-4 Highway and Arterial Commercial District Section F. is changed as follows:

*Floor area ratio.* The floor area ratio for buildings in the C-4 highway and arterial commercial district shall be **no greater than 1.60**. Height and lot coverage for structures in this district shall be governed by this floor area ratio except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.

**C. Article IV, Section 2.2.8.F.** C-5 Tourist Commercial District Section F. is changed as follows:



*Floor area ratio.* The floor area ratio for building in the C-5 tourist commercial district shall be **no greater than 1.20**. Height and lot coverage for structures in this district shall be governed by this floor area ratio, except that all front, side and rear yard requirements will limit the total amount of lot which may be covered with structure.

**D. Article IV, Section 2.2.9.D.1. C-6 General Commercial Park District**

**Section 1. is changed as follows:**

*[Floor area ratio.]* The following **maximum** floor area ratios shall be applied in the general commercial park:

One-story structures: 0.50 FAR.

Two-story structures: 1.00 FAR.

Three-story structures: 1.50 FAR.

Four-story structures: 2.00 FAR.

For each additional story above four, add twenty-five one-hundredths (0.25) to the floor area ratio.

**E. Article IV, Section 2.5 Summary of Area Regulations (Columns labeled “Area” and “Maximum Lot Coverage / Height”)**

The table in Section 2.5 is changed as follows:

District	Existing	Amendment
C-4	“Area” Column: Floor area ratio, 1:6 “Maximum Lot Coverage / Height” Column: Governed by floor ratio; see article IV, section 2.2.7.F	“Area” Column: Floor area ratio, <b>maximum 1.60</b> “Maximum Lot Coverage / Height” Column: Governed by <b>maximum 1.60</b> floor <b>area</b> ratio; see article IV, section 2.2.7.F
C-5	“Area” Column: Floor area ratio, 1:2 “Maximum Lot Coverage / Height” Column: Governed by floor ratio; see article IV, section 2.2.8.F	“Area” Column: Floor area ratio, <b>maximum 1.20</b> “Maximum Lot Coverage / Height” Column: Governed by <b>maximum 1.20</b> floor <b>area</b> ratio; see article IV, section 2.2.8.F
C-6	“Area” Column: See article IV, section 2.2.9.D, for floor area ratios “Maximum Lot Coverage / Height” Column: Governed by floor ratio; see article IV, section 10, F	“Area” Column: <b>Maximum floor area ratios:</b> <ul style="list-style-type: none"> <li>• <b>One-story structures: 0.50 FAR</b></li> <li>• <b>Two-story structures: 1.00 FAR</b></li> <li>• <b>Three-story structures: 1.50 FAR</b></li> <li>• <b>Four-story structures: 2.00 FAR</b></li> <li>• <b>0.25 added to FAR for each additional story</b></li> </ul> “Maximum Lot Coverage / Height” Column: Governed by floor <b>area</b> ratio; see article IV, section <b>2.2.9.D</b>

**SECTION 2:** The following Metropolitan Planning Commission documents are attached as Collective Exhibit 1 to this Ordinance and made a part hereof by reference: The Knoxville/Knox County Metropolitan Planning Commission Staff Report, an excerpt from the Minutes of the Metropolitan Planning Commission meeting of December 11, 2014, and Public Notices.

**SECTION 3:** This Ordinance shall take effect seventeen (17) days from and after its passage, the welfare of the City requiring it.

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Presiding Officer of the Council

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Recorder