

Code Connection

The customer newsletter for the construction and development community

CITY OF FOUNTAINS
HEART OF THE NATION



KANSAS CITY
MISSOURI

MAY 2001

INFILL HOUSING

While there are many challenges in constructing new single-family residences on existing platted lots in Kansas City's older neighborhoods, not all of what you may hear is true. Infill construction generally refers to the construction of new buildings in existing, developed portions of the city. Some of the myths surrounding infill construction include:

1. A single-family residence cannot be constructed on an existing parcel with a lot width of less than fifty feet and/or lot area less than required by the current zoning classification.
2. If an existing single-family residence on such a lot is destroyed, it cannot be rebuilt.
3. The Building Code requires more restrictive fire-resistive construction for new single-family residences on infill lots.

These myths are often accepted as truths by people who are trying to purchase older homes or vacant lots. In reality, the Zoning Ordinance and Building Code are very supportive of infill construction of single-family residences. The following regulations are applicable to residential construction in all existing residential zoning districts:

1. A single-family residence can be constructed or reconstructed on a lot of less than fifty feet in width provided the lot existed in this configuration prior to January 1, 1954, or annexation (exception exists in the height, yard and area regulations of all residential zoning classifications).
2. A single-family residence can be constructed or reconstructed on a lot with an area less than that required by the current zoning district classification, provided that the lot existed prior to June 4, 1923, or annexation or that the lot was created by a recorded subdivision plat.

(Continued on page 2)

HOLIDAY SCHEDULE:

Department of Codes
Administration (DCA) offices will be
closed on the following date:

Monday, May 28, 2001
Memorial Day

Wednesday, July 4, 2001
Independence Day

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INFILL HOUSING (Continued from page 1)

3. For single-family residences, the Building Code requires fire-resistive construction of exterior walls and protection of openings in exterior walls (windows, doors, etc.) when such walls are within three feet of a property line. In all residential zoning districts, the minimum side yard setback is four feet. Therefore, unless a setback variance is granted or projection exceptions authorized by Section 80-250 of the Zoning Ordinance are used, there are no requirements for fire-resistive construction of exterior walls.

There are some items that may contribute to increased costs for infill construction such as:

1. Demolition and site improvements. If an old structure has to be demolished or the foundation from a previous structure is encountered during excavation of the basement, costs can increase. An often unexpected benefit is that existing building sewer connections and water taps may be reused to serve the new residence; this can be a substantial savings in plumbing costs.
2. Lot splits or subdivision platting. In order to accommodate a new residence, it is often desirable to assemble a number of older platted lots and then divide them in order to increase the lot width and area.
3. Zoning variances for building setbacks – In many older neighborhoods, the front yard setbacks are often less than would be required today. In those instances, a new residence may be required to obtain a variance from the Board of Zoning Adjustment to allow the building to be constructed in line with the existing building setback line for the block.

Preparing early and anticipating longer lead times for starting construction could prevent these potential problems. There are a number of builders and property owners who are taking the plunge back into our older neighborhoods, and the rewards are many for both the owner and the neighborhood. □

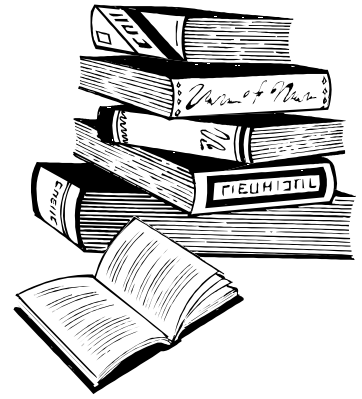




CODE CHAT

by Gary Marker, R.A.
Division Manager of Plans Review

BATHROOM THOUGHTS



In spite of the best intentions of code officials, building owners, designers and contractors to educate themselves, it seems that perplexing potty problems persist. The toilet room seems like a fairly simple design exercise, you say, so what problems could possibly be encountered? Please allow me to enumerate those throne room questions that seem to arise with some regularity.

The first question on most designers' minds (No, after that one.) is "how many plumbing fixtures must I provide for this occupancy?" 1997 UPC Section 413.1 states that plumbing fixtures shall be provided in a minimum number as shown in Table 4-1. As with all code tables, a large amount of critical information can be gleaned from the abundant footnotes and fine print, which I shall selectively highlight forthwith. The first fine print note (at the top of the table) references the reader to the building code and ANSI A-117.1 for requirements regarding the number and design of facilities to be accessible to the disabled. The second note states that the occupant loads used to determine the fixture count are those calculated in accordance with the building code for exiting requirements. Finally, a note states that the minimum number of fixtures shall be calculated at 50 percent male and 50 percent female based on the total occupant load. It should be noted that this requirement does not address special situations where the designer expects a higher number of occupants of one sex than the other. In those situations, the minimum number of facilities shall be determined per the table and any extra facilities may be added at the designer's discretion.

In order to facilitate proper usage of the table, footnote 1 states that one fixture is the minimum required for the number of persons indicated or any fraction thereof. As an example, if the table requires one fixture for 1-15 persons, one fixture is required whether there are 1 or 15 persons. Footnote 2 states that building categories not shown on the table shall be considered separately by the Administrative Authority. In such a case, DCA might either place the proposed use in a category of the table that it most nearly resembles or interpolate between categories in order to arrive at a reasonable requirement. For the sake of sanitation, footnote 3 (thankfully) prohibits the placement of drinking fountains in toilet rooms. Another important footnote is number 5, which permits the substitution of urinals (beyond the minimum number required) for water closets. However, the number of water closets shall not be reduced to less than two-thirds of the minimum requirement. Footnote 8 provides guidance as to the number of lavatories that may be considered to be equivalent to a given length of trough-type washbasins. Footnote 10 contains a *recommendation* that schools should be provided with toilet facilities on each floor having classrooms, along with two other important *requirements for all installations*: First, that the surface of the walls and floors to a point two feet in front of, four feet above the floor and two feet to each side of urinals shall be lined with non-absorbent materials; and, second, that trough urinals are prohibited. The definition of a restaurant and clarification on how to calculate the number of occupants for drive-in restaurants, along with requirements for employee facilities are included in footnote number 11. Footnotes 12 and 13 permit the substitution of water stations for drinking fountains in restaurants and specify the number of drinking fountains for offices, public buildings, schools, theatres, auditoriums and dormitories.

BATHROOM THOUGHTS (Continued from page 3)

Last, but not least, footnote 14 mandates that the total number of water closets for females shall be at least equal to the total number of water closets and urinals required for males (also known as “potty parity”). It should be noted that this does not prohibit installing more water closets and/or urinals for one sex than the other, but merely requires that the number provided for women shall be at least equal to the number which are *required* for men.

Are there any other requirements on the number of fixtures beside those listed in Table 4-1 and its footnotes? Yes. Section 413.5.1 states that, in buildings occupied by both customers and employees, a common set of fixtures may be used; and the number of required fixtures shall be based on either the number of employees or the number of customers, whichever is greater. Further, Section 413.6 states that, in food service establishments with an occupant load of 100 or more, separate facilities shall be provided for employees and customers.

If I have a high-rise building, may I place all required toilet facilities on the first (or 31st) floor? 1997 UPC Section 413.2.1 states that accessibility to required fixtures shall not exceed one vertical story. This means that the most distant toilet facilities are permitted to be from any given space, is within the next story above or below. For further clarification, Section 413.2.2 indicates that fixtures accessible only to private offices may not be counted to satisfy this requirement. Finally, for Group B and H occupancies, 1991 UBC Sections 705 and 905 permit toilet facilities to be located in a building adjacent to the building in question on the same property. It should be noted that this exception does not eliminate or reduce the above mentioned requirement from the UPC; but, instead, would apply only to buildings with a maximum of two stories and/or one below-grade level where the route of travel would not exceed one vertical story. Further, the toilet facilities in the adjacent building must be on the ground level; and the total travel distance shall not exceed that which is specified in 1997 UPC Section 413.5. (See DCA Interpretation CI2001-015.)

When are separate facilities for men and women required? UPC Section 413.3 states that separate facilities shall be provided for each sex; however, there are three exceptions. First, this requirement does not apply to residential installations. Second, where the occupant load served is 10 or less, a single, unisex facility is permitted. However, 1991 UBC Section 705 (c) requires separate facilities for Group B occupancies when the number of *employees* in an establishment exceeds four. Third, in business or mercantile occupancies with a total floor area of 1,500 square feet or less, a single, unisex facility is permitted. Finally, 1991 UBC Appendix Section 3112 (c) 6 permits the installation of one, unisex toilet facility in alterations to existing buildings where the modification of existing facilities is determined to be “structurally impractical” as defined therein.

Is there a maximum travel distance to toilet facilities? Yes. 1997 UPC Section 413.5.2 states that, for customer use facilities provided for retail stores, the maximum distance from the entry of any store to the toilet facilities shall not exceed 500 feet. Section 413.5.3 states that for common-use facilities (i.e., serving both customers and employees) provided for retail stores with an area not exceeding 150 square feet, the maximum distance from the entry of any store to the toilet facilities shall not exceed 300 feet.

Are toilet facilities required for workers during the construction of buildings? Yes. Section 413.7 requires that suitable toilet facilities shall be provided during construction.

Bad jokes notwithstanding, one does need to know more than three things to design a plumbing system. For any questions regarding this subject or any other code requirements, feel free to call the DCA Plans Review office at (816) 513-1500 and select option number 5, where helpful associates stand ready to provide assistance in applying code interpretations to individual situations. □

FROM THE FILES...
REAL CODE MODIFICATION REQUEST CASE HISTORIES

PARKING GARAGE REQUIREMENTS

**By Gary Marker, R.A.,
Division Manager of Plans Review**

The KCMO Code of Ordinances, Section 18-6, states that “The details and actions of granting modifications (to code requirements) shall be recorded and entered in the files of the Department of Codes Administration.” Doing so permits one to rationalize any apparent code discrepancies by investigating the files for the building in question. In order to facilitate this, DCA employs the Code Modification Request process, wherein the applicant submits a form stating the location of the property, the applicant name and the proposed code alternate. Once the form is submitted along with the required application fee, the request is reviewed and either approved, conditionally approved or denied. The Code Modification Request process is outlined in DCA Information Bulletin Number 101 (available on the web at www.kcmo.org). However, I am frequently asked, “What makes a good Code Modification Request?” This is another installment in a series of articles attempting to answer that question by presenting actual CMR case histories that have been **APPROVED** by DCA.

The request currently under consideration regards a proposed, Group B-1/B-2, four-story, 233,000 square foot, Type 1-FR parking garage with a basement and approximately 20,000 square feet of retail use located on the first floor. The applicant requested code modifications on the following issues.

First, 1991 UBC Section 705 (b) 2 requires this garage to be provided with ventilation capable of exhausting a minimum of 1.5 cfm per square foot of gross floor area. In lieu thereof, the applicant proposed to naturally ventilate the above-grade floors as permitted for open parking garages in UBC Section 709 (b) 2. The applicant noted that the below-grade floor will be provided with mechanical ventilation in accordance with UBC Section 705 (b) 2. This item was approved based on the concept that the openings provide the same ventilation capability, regardless of the occupancy classification.

Second, UBC Section 3309 (a) requires the stairs in this building to be enclosed. In lieu thereof, the applicant proposed to employ the provisions of UBC Section 3309 (a), exception 3, which permits the omission of the enclosure for stairways in open parking garages. The applicant noted that the stair would be enclosed on the lower level. This item was approved based on the concept that the exterior wall openings limit the amount of smoke and hot gasses which could accumulate in the garage, and thereby allow the exit path to remain clear, regardless of the occupancy classification.

Third, UBC Section 3303 (d) limits the travel distance within this garage to 150 feet. In lieu thereof, the applicant proposed to employ the provisions of UBC Section 3303 (d), last paragraph, which permits a travel distance of 250 feet in open parking garages. This item was approved based on the concept that the exterior wall openings limit the amount of smoke and hot gasses which could accumulate in the garage, and thereby allow the exit path to remain clear, regardless of the occupancy classification.

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Fourth, the south wall of this garage (north wall of retail building to the south) is located on the property line, a location at which UBC Section 1803 (b) prohibits all openings. The applicant proposes to create an opening at this location to access the retail building to the south and to treat the wall and opening therein as an area separation per UBC Section 505 (f). The applicant also proposed to employ this alternate in the east wall of this building which is also located on the property line and in which the applicant proposes to create an opening to the office/retail building to the east. This request was determined to meet the intent of the code because, by definition, area separation walls are permitted to be used to create separate buildings. It was approved on condition that these openings shall not be used as required exits until and unless appropriate deed restrictions are recorded on the adjacent properties in order to maintain the exit path.

Fifth, UBC Section 3207 (c) requires that the roof overflow drains be connected to drain lines independent from the roof drain lines. In lieu thereof, the applicant proposed to connect the overflow drains to the roof drain lines with an increase of one pipe size from the point of connection. This request was determined to meet the intent of the code and was approved. It has been commonly accepted by DCA in the past, based on the concept that any clogging of the drain line would either clear itself at the point of the increasing pipe size or, in the worst case, the overflow would function independently.

These alternates were primarily based on the concept that, all other conditions being equal, parking garage ventilation supplied by exterior openings as specified in UBC Section 709 (b) 2, combined with the relatively low incidence of fire events for the occupancy, creates a relatively safe environment. Item number five illustrates that area separation walls are believed to perform the same function, whether located inside the building or on the perimeter. Be sure to watch future editions of the Code Connection for more informative and interesting tales from the CMR files. □

NATIONAL CALENDAR OF EVENTS

May 2001

- 13-17 NFPA World Fire Safety Congress and Exhibition, Anaheim, CA
- 17-19 AIA 2001 National Convention, Denver, CO
- 19 CBO Exam, various locations
- 21-23 ASCE 2001 Structures Congress and Exposition, Washington, DC
- 22-24 FEMA Building Sciences Seminar, Emmitsburg, MD

June 2001

- 5-10 NAHB Spring Board of Directors' Meeting, Washington, DC
- 21-24 CSI 2001 Convention: Linking People, Technology and Information, Dallas, TX

September 2001

- 15-21 BOCA/ICBO Annual Conference, Cincinnati, OH
- 19 ICC Board of Directors' Meeting, Cincinnati, OH

October 2001

- 10-11 ANSI Annual Conference, Washington, DC
- 21-24 NCSBCS 34th Annual Conference "Transitions to the Future," Orlando, FL
- 28-Nov 1 SBCCI 56th Annual Research and Education Conference, Greensboro, NC

TOM BRIGGS HONORED BY THE IPMA GREATER KANSAS CITY CHAPTER

Tom Briggs, DCA's Manager of Business Services, recently attended the International Personnel Management Association (IPMA), Greater Kansas City Chapter's Annual Spring Training Conference at the Jack Reardon Civic Center on Friday, April 20, 2001. At the conference, Tom, who is the Past President of the Greater Kansas City IPMA Chapter, received the Thomas F. Lewinsohn Award, which is presented in honor of one of the Greater Kansas City Chapter's founding members. This award is presented to recognize and honor a member who has made outstanding contributions to the purpose and conduct of the Greater Kansas City Chapter. The major criteria are that any person selected be an active practitioner in personnel management promoting sound, positive, innovative, and effective personnel principles and be an active member in the Greater Kansas City Chapter motivating and promoting professional growth in the personnel field. Congratulations, Tom!



Tom receiving his award from the 2001 Chapter President, Susan Gray.

DCA STAFF CHANGES

Firoze Gashlightwala joined DCA as a Graduate Engineer in the Plans Review Division.

Phyllis Woodson promoted from a Customer Service Representative to a Customer Service Specialist in the Permits Division.

Glenn Longworth promoted from a Construction Code Inspector I to a Construction Code Inspector II in the Investigations Division.

Darrell Hernandez joined DCA as a Customer Service Representative in the Permits Division.

CITY MANAGER FORMS PLUMBING, MECHANICAL & FUEL GAS CODES SUBCOMMITTEE

The City Manager has formed a subcommittee that will review and make recommendations to the Kansas City, Missouri, City Council on Article V (Fuel Gas Code), Article VI (Mechanical Code), and Article VII (Plumbing Code) of the draft Kansas City Building and Renovation Code as developed by the 2000 Kansas City Building Code Update Committee. As you may be aware, the 2000 Update Committee completed their recommended draft of the codes last year. In order to reach a consensus on Articles V, VI and VII of that draft, this subcommittee will further review the recommendations of the 2000 Update Committee and suggest a compromise that will allow the City to move forward in adopting a new building code. The members of the Plumbing, Mechanical & Fuel Gas Codes Subcommittee are:

- George Saller, Chairman
- George Schluter, G.W.S., Inc.
- Phil Barrett
- August Huber III, Huber Construction
- John Yacos, MC Realty Services
- Tom Whitaker, Dunn Construction Co.
- Bob Rimel, All State Mechanical
- Charles Brandon, AD Jacobson
- Dan Axtel, Lexington Plumbing
- Paul Rodriguez, Rodriguez Mechanical
- Bill Tarpley, Plumbers Local Union 8
- Rick Wallace, Plumbers Local Union 8
- Aggie Stackhaus, Stackhaus Heating & Cooling
- John Delich, Executive Hills, Inc.

The first subcommittee meeting was held on Thursday, April 26, 2001, at the offices of the Home Builders Association, 600 East 103rd Street, Kansas City, Missouri, from 1:30 p.m. – 4:30 p.m. In the first meeting, the role and mission of the subcommittee was presented by Assistant City Manager John Franklin. A task force was also appointed by Chairman Saller to compare the provisions of the 2000 International Plumbing Code and the 2000 Uniform Plumbing Code. A Mechanical Code Task Force will be appointed at a later date. The next subcommittee meeting is scheduled for May 17 at which time the Plumbing Code Task Force is to present a report identifying significant differences between the two codes in question. Subsequent subcommittee meetings will be scheduled to discuss/review Article V (Fuel Gas), Article VI (Mechanical Code), and Article VII (Plumbing).

Mr. Franklin asked the subcommittee to make every effort to complete their deliberations within 60 days and that the recommendations be arrived at by a consensus of the group. He also pointed out that it was imperative that this group work to achieve an acceptable resolution to this matter and that there are no limitations being placed on the subcommittee in achieving this consensus. George Sharp, Assistant City Attorney; Greg Franzen, Division Manager of Inspections, DCA; and Gary Marker, Division Manager of Plans Review, DCA, are providing staff support for the subcommittee. □

REPORTING REQUIREMENTS FOR BACKFLOW PREVENTION ASSEMBLY TESTING NOW CONSOLIDATED

As a customer service initiative, DCA in conjunction with the Department of Water Services (DWS), have initiated the following change regarding backflow prevention device test reporting. This new procedure has been developed to eliminate duplication of responsibilities in the acceptance of backflow test reports from third-party certified backflow assembly testers. This change will make it easier for the certified testers in that all reporting will be made on a single form and sent to a single location.

- DWS will continue to perform plans review, permitting and inspection functions for all containment backflow devices located on a water service line in accordance with DWS ordinances.
- DCA will continue to perform plans review, permitting and inspection functions for all isolation backflow devices located at a point of cross-connection in a water distribution system in accordance with the Kansas City Building Code.
- Effective immediately *all* backflow assembly test reports for new and existing containment and isolation devices will be submitted directly from the certified tester to DWS. The report form will be as developed and maintained by DWS. DWS remains responsible for the tracking of the required annual inspections on these devices. The reports are to be submitted to:

Department of Water Services Backflow Unit
City Hall, 5th Floor
414 East 12th Street
Kansas City, MO 64106

- For those testable devices installed under a DCA permit, DCA will give written notice to our customers to submit test forms directly to DWS during the DCA inspection. DCA will document in the City’s inspection database when such notice is given on the DCA permit; DWS has access to this data by reporting from the database.

The DWS “Backflow Preventer Test Maintenance Form” is available on the Kansas City website at [http://www.kcwater.com](#), at DWS offices on the 5th floor of City Hall, or at any of DCA’s offices. If you have questions, you may contact Bill Steel, DWS Backflow Unit, at (816) 513-2173; or call DCA’s code question hotline at (816) 513-1511. □

DCA PLANS REVIEW AVERAGE TURNAROUND TIMES

FOUR-WEEK AVERAGES AS OF APRIL 1, 2001

New Commercial Buildings and Additions	3.6 weeks/plan
One- and Two-Family Dwellings	1 day/plan
All other Projects	0.9 week/plan

Code Connection

Department of Codes Administration
18th Floor, City Hall
414 East 12th Street
Kansas City, Missouri 64106

ADDRESS CORRECTION REQUESTED

DCA's on the Internet at www.kcmo.org/codes/

DCA Telephone Numbers: Area Code 816

Director's Office..... 513-1472
Deputy Director's Office 513-1500 (option 4)
City Hall Permit Center 513-1500 (option 3)
Plans Review Permit Center 513-1500 (option 5)
Commercial Plans Review 513-1500 (option 5)
One & Two Family Plans Review 513-1500 (option 5)
Inspections Division 513-1500 (option 2)
Special Inspections 513-1500 (option 2)
Investigations Division 513-1500 (option 2)
Business Services Division 513-1500 (option 3)
Contractor Licensing & Registration 513-1500 (option 6)

FAX Services:

FAX Permit Process..... FAX 513-1456
FAX Inspection Requests FAX 513-1536
FAX Publications Purchases..... FAX 513-1456
FAX One- and Two-Family Plans Branch..... FAX 513-1505
FAX Plans Review Comments
Call to request your comments 513-1500 (option 4)

Code Information:

Zoning, Floodplain, Airport Height Zone,
Permit Application Information 513-1500 (option 3)
Code Questions, Plans Submittal Information,
Plans Review Status..... 513-1500 (option 5)

Publication Ordering Information:

The following publications are available from DCA.

1. **Chapter 18, Kansas City Building Code** and related ordinances.
This is the building code adopting ordinance and contains local amendments to the adopted model codes. Price: \$6.00
2. **Special Inspections Program Manual.** Price: \$5.00
3. **Fee Schedule.** Price: \$2.50

To order, send a check payable to "City Treasurer" to:

Publications Order	You may FAX
DCA City Hall Permit Center	your order and pay
18th Floor, City Hall	by credit card. Call
414 East 12th Street	513-1500 for forms.
Kansas City, Missouri 64106	We'll FAX to you.

The following publications are available from the City Planning & Development Department 513-2846 FAX 513-2838).

1. **Chapter 80, Kansas City Zoning Ordinance.** Price: . . . \$25.00
2. **Chapter 66, Subdivision Regulations.** Price: \$6.00

The following publications may be available from the International Conference of Building Officials Local Office (455-3330 FAX 454-8887).

1. **1991 Uniform Building Code**
2. **1993 National Electrical Code**
5. **1992 CABO One & Two Family Dwelling Code**
6. **1993 Amendments to the CABO One & Two Family Dwelling Code**
7. **1997 Uniform Plumbing Code**
8. **1997 Uniform Mechanical Code**