



Community Development

BUILDING INSPECTION NEWSLETTER

OCTOBER 2006

CITY OF GREELEY
COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING INSPECTION DIVISION
1100 10th Street, Suite 114

*This newsletter has been produced by the City of Greeley staff in an effort
to provide better communication with the construction community.*

If you have any questions or would like to see certain items addressed in this newsletter, please call (970) 350-9830.

S E R V I N G O U R C O M M U N I T Y • I T ' S A T R A D I T I O N

We promise to preserve and improve the quality of life for Greeley through timely, courteous and cost effective service.

STAFF

*Rebecca L. Safarik
Community Development Director
350-9785*

*Tim Swanson
Chief Building Official
350-9853*

*Building Inspector Technician
350-9832*

*Denise Tenorio
Administrative Specialist
336-4028*

*Lidia Garcia-Ryder
Clerical Assistant
350-9830*

*Steve Gregory
Building/Electrical Inspector
350-9834*

*Matt Wagy
Plans Examiner/Building/Plumbing Inspector
350-9837*

*Randy Eckhardt
Building/Electrical Inspector
350-9381*

*John Phillips
Plans Examiner/Building Inspector
336-4157*

*Shane Gremmer
Building/Electrical Inspector
350-9836*

*Mike Giroux
Building Inspector
350-9835*

ANOTHER PERSONNEL CHANGE

If you will look above, you will see that the Building Inspection Technician position is empty. October 4th is set to be Regina Rivera-Liscano's last day working for the Building Inspection Division. Regina started with the Division in June of 1993, as a Permit Technician. After a couple months off in the summer of 1997, Regina came back as an Administrative Specialist. Then in the summer of 2001, Regina moved into the Building Inspection Technician position. Her experience in all areas of the office will be missed greatly. Regina does not have any specific plans, but is looking forward to some time off, and spending more time with her family.

We will be advertising and interviewing soon, and hopefully get someone on board in the position. But in the meantime, your patience will be appreciated, as we will all be trying to fill the big shoes Regina is leaving behind.



BUILDING INSPECTION DIVISION

CITY OF GREELEY'S WEBSITE



The City is constantly working on its website and we strive to keep our Division webpage updated also. The following link will lead you to the City Code's Chapter 16, which has all the construction related code amendments that the City has currently adopted.

<http://www.greeleygov.com/cog/OrgPages/3/title16.pdf>

If you follow this link it will lead you to our division home page where you can get a variety of forms, applications, design info, and other valuable information.



<http://www.greeleygov.com/cog/PageHome.asp?fkOrgID=50>

While your there, click on the home page link and explore the entire city site, you would be surprised at the amount of information that is available.

THRESHOLD MEASURING

In the past, under the 1997 Uniform Building Code, the code text was silent on how to measure the stair rise from a tread, or landing, through the threshold of an exterior type door, including garage/house entry doors. The only guidance we had was from the Handbook to the 1997 UBC, which had a drawing showing the measurement was to be taken from top of the adjacent tread, or

landing, to the finished floor inside the threshold. While the handbook was not code, it was the only reference available that attempted to specify how to measure threshold situations.

Once the 2003 International Residential/Building Codes were adopted, the code itself clarified the measurement, through the text, consistently referring to the "top of threshold" when specifying measurements at a threshold.

When we adopted the I-Codes, we realized there would be a period of time required to re-educate those contractors that dealt with this code requirement. It has been this offices policy since we adopted the codes, to use this time as a training opportunity for the contractors. We have accepted a measurement that would fall in between the two different points, the "top of threshold", to the "finished floor", as long as all other requirements of the rise were compliant. We then could educate the contractor as to the proper way to measure the rise.

It has been 18 months since we adopted the I-Codes, and we feel that it is time to start fully enforcing the code text as it is written. Any permit applied for after August 1, 2006, will be required to fully comply with the code requirement, without exception. The measurement must be taken from the adjacent tread, or landing, to the top of the threshold. If you have any questions on this requirement, feel free to contact the office and ask to speak to a plans examiner or one of the inspectors.



ROUGH-IN

Just another reminder, we require all of the basement rough-ins to be complete at the time the rough-in inspection is requested for the whole house. This includes, but not limited to;

- ✓ Furnace(s) and water heater(s) set.
- ✓ Vents, and vent connectors, to the water heater(s) and furnace(s) installed.
- ✓ Required combustion air ducting installed.
- ✓ Gas piping installed, and under test.
- ✓ Sump pit piping completed to exterior.
- ✓ PRV installed.
- ✓ Electrical installed for the future sump pump.
- ✓ Electrical bonding, and grounding done.
- ✓ Basement windows installed.



Failure to comply with these installation requirements will, at the minimum, force a reinspection. Or, it could cause the inspection to be postponed entirely, until the rough-in installations are completed, causing even more delays.

WHY INSPECTIONS FAIL

The following is a list of items frequently found on correction notices:

- Fire blocking in all vertical and horizontal chases. (i.e., soffits, drop ceilings, tops of flue chases, tops of unusable space chases)
- Cut and/or notched trusses and joists. If you aware of this problem, prior to inspection contact a structural engineer or manufacturers representative for their recommended repair, make the repair



and have the repair instructions on site.

- Missing truss specs. If the specs aren't there, most likely there's missing bracing.
- Improper use, or installation of, hangers, connectors and fasteners.
- Missing address numbers. Both temporary at construction, or permanent at final.
- Structures not dried in properly, meaning all wall sheathing installed, minimum felt and flashings on roof, exterior windows and doors installed.
- Tempered glass not installed in hazardous locations. Most frequent areas failed are;
 - 1) Within 24" of **ANY** door.
 - 2) Glazing in walls enclosing stairways/landings, or within 5' of the bottom/top of stairways, where the bottom edge of the glass is less than 60' above a walking surface.
 - 3) Within 60" vertical of a standing surface and drain inlet in tub/shower.
 - 4) When **ALL** of the following occur;
 - a) An individual pane is greater than 9',
 - b) Bottom edge is less than 18 " to the floor,
 - c) Top edge is greater than 36" off the floor,
 - d) One or more walking surfaces within 36" horizontally of the plane of the glazing.
- Rough-in discharge pipe for the sump pit not done.
- Furnace and water heater vent connectors too long, or not installed at all.
- Electrical rough-in not done on furnace and/or sump receptacle.
- Exhaust fan ducts not connected.



- Gas pipe not completed, or not under test.
- Plumbing test cards not signed and on site.
- GFCI outlet at sump not on a dedicated circuit.
- Improperly wired GFCI receptacle outlets.
- Receptacle outlets connected with reversed polarity.
- Smoke detectors not on a lighting circuit.
- Incorrect clearance between light fixture and shelves in a closet.



General contractors, take a few minutes and walk your projects prior to requesting an inspection. These are simple corrections that if taken care of ahead of time, could keep your project from having unnecessary delays.

FURNACE AND WATER HEATER REPLACEMENT

We would like to remind Plumbing and Heating contractors that it is a requirement to obtain building permits and installing furnaces and air conditioning equipment. Special attention should be paid to the installation, as requirements for clearances, combustion air, vent connector length, condition of existing chimneys will be the same as new. If it doesn't comply with new requirements, it will need to be brought up to code.



Permits are required to be obtained **prior** to commencing work, unless it is an emergency repair or replacement, in which case a permit must be obtained the first business day following the installation. Contractors not obtaining permits will be

stop-worked, and the permit fee will be doubled. Contractors that continue to fail to obtain permits could be putting their license, and right to work in Greeley, in jeopardy.

When the installation is complete, please remind the homeowner that they need to call and schedule a Final Inspection. We still have a large amount of these type of permits that show up as expired.

MAYOR'S FALL BREAKFAST



It's that time of the year again, the Mayor's fall Builders Breakfast. On Wednesday, October 11th at 7:30 A.M. in

Room 101 at the Recreation Center, Mayor Tom Selders will host the get-together. This fall the Mayor will make opening comments before introducing our guests. Kelly Peters, the new Economic Development Coordinator for Greeley, will meet the group and let us know what she's been up to. There will also be a discussion on the Regional Transportation Authority that has been forming.

CONTRACTOR'S LICENSING UPDATE

At the May 23rd City Council Work Session, a citizen inquired about why general contractors were not required to be licensed in the City of Greeley. The Mayor's reply was that it had been looked at previously and that Council, could and will, look at it again in the future.



At the June Weld County Builders Association meeting, there was a spirited debate in regards to this rather contentious subject. The end result was a vote as to whether or not the Association would, or would not support, the City moving forward

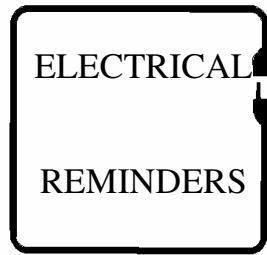
with licensing general contractors. The vote was to not support a move to licensing.

There was continued discussion at the Builders Brown Bag lunch that Community Development has monthly, with the leadership from both Weld County Builders Association, and Home Builders Association of Northern Colorado. The result of both of these discussions, was that the City would not be pursuing contractor licensing at this point in time, that the builders support would be necessary for it to move forward.

The Building Inspection Division will continue to register contractors, who voluntarily pass the International Code Council's Contractor License test. This list of registered contractors is available for citizens at the office, and on the Divisions Webpage.

CONNECTORS AND FASTENERS

In the past couple months it has come to our attention that some of the engineered connectors such as joist hangers, beam hangers and "hurricane clips" are not being installed with the proper fasteners. The majority of the products used in this area are made by Simpson who has an abundance of information available regarding the installation of their products. A few minutes of research, prior to installing any connectors, can save a lot of time later on. Improper installation can lead to lost time at the minimum, with repairs and reinspecting holding up the job. If you're uncertain about which fasteners to use, contact your local Simpson Representative, or your supplier.



NEC ARTICLE 517.13 (A) & (B)

The City of Greeley and State of Colorado Electrical Board interprets that any structure that is occupied by any professional with the letters M.D. after their name shall meet the wiring method requirements of NEC 517.13. This is extended to chiropractic offices also. Standard Type MC Cable does not meet the requirements for redundant grounding means. Type HCF (Health Care Facility) MC or AC Cable must be utilized in these applications or some type of metallic conduit system such as RMC or EMT.



2005 NATIONAL ELECTRICAL CODE AMENDMENTS

Last Fall the City of Greeley, City Council formally adopted the 2005 National Electrical Code and several amendments to this Code. You may view these amendments by logging on to the City of Greeley's web site at www.greeleygov.com, and clicking on "your government" and then "city code" and go to Section 16.32 of the Electrical Code.



A few of those amendments include the following:

2005 NEC Article 90.8(A). Future Expansion and Convenience.

The following paragraph was added to the existing: Provisions shall be provided in the initial electrical installations to allow for future additional loads, feeders and branch circuits. A minimum of three (3), full size breaker spaces shall be provided in each panelboard at the time of final inspection. In addition, a minimum of a one (1) inch spare conduit or adequate pull wire provision shall be provided from each flush mounted panelboard into the attic space and also into the basement or crawl space for future use.



2005 NEC Article 210.1(C)(3). Bathroom Branch Circuits.

The following paragraph was added to the existing Exception: A minimum of one lighting outlet (not required by this Code to be GFCI protected) shall be connected so as not to be protected by the GFCI personnel protection device.

2005 NEC Article 210.52(I) Added. Framing in Basements.

In new construction and remodels, if all or any part of the walls of an unfinished basement is framed, the electrical receptacle outlets as required by NEC 210.52, and switch and luminaire outlets as required by NEC 210.70 shall be installed. If the walls, floors, and ceilings are not going to be finished, the outlet devices do not have to be installed, however, the outlet boxes shall have blank cover plates installed on them before the final inspection can be approved. If receptacle outlets are installed, they shall have GFCI protection for personnel, if no floor covering is installed at the time of final inspection.

2005 NEC 210.52(J) Added. Sump Pit Receptacle Outlet.

A 125-volt, single-phase, 15- or 20- ampere receptacle outlet shall be installed adjacent to and within 18” of the sump pit as required by 16.28.460 (Plumbing Section). This receptacle outlet shall be on a dedicated branch circuit and shall be GFCI protected.

2005 NEC Article 230.70(A)(1). Readily Accessible Location.

The following paragraph was added to the existing: For a one-family dwelling, the service disconnecting means shall be located on the exterior of the structure adjacent to or combined with the utility meter enclosure.

2005 NEC Article 334.10(2)and 334.10(3). Uses Permitted for Types NM, NMC and NMS Cables.

(2) Multifamily dwellings permitted to be of Types III, IV, and V construction up “up to three (3) stories in height only and their accessory structures”, except as prohibited in 334.12.

(3) Deleted in its entirety.

These changes now only allow Type NM-B cable (Romex) to be used in residential construction only and only to a height of three stories within the city limits of Greeley.



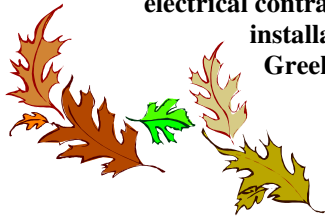
2005 NEC Article 342.10(B) and Article 344.10(B). Corrosions Environment.

Due to the corrosive effect of the soils on metal in the City of Greeley, all IMC and RMC, elbows, couplings, and fittings shall be protected with approved protective coatings or wrapped with approved pipe wrap if in direct contact with the earth.

2005 NEC Article 348.60 and Article 350.60. Flexible Metallic Conduit and Liquidtight Flexible Metallic Conduit.

Both Articles are amended to read: An equipment grounding conductor shall be installed in all flexible metallic conduits and shall be installed in accordance with Article 250.134.(B)

Other amendments have been adopted that document installation methods required by the City of Greeley for several years. Log onto the City of Greeley’s web site (www.greeleygov.com) to review Sections 16.32.010 through 16.32.470 of the Greeley Municipal Code for information on those amendments as well as the revised Administration and Enforcement Section 16.32.190 for electrical contractors and installations in Greeley.



For tenant finish and major projects, a complete set of electrical drawings must be submitted with the permit application. In addition to the above items, these plans shall include:

- Luminaire schedule
- Luminaire layout including exit and egress fixtures
- Receptacle outlet layout
- MDP and/or panel board(s) layout
- Circuitry of all luminaries
- Circuitry of all outlets and devices
- Panel board schedule showing balanced loads

In other words, the contractor needs to provide a complete set of working drawings submitted with the permit application. It is a lot easier to do the field installation if you have already laid it out on paper. Plus, the City of Greeley can review the plans to see if they meet NEC requirements.



TEMPORARY ELECTRICAL SERVICES

ELECTRICAL PLAN SUBMITTALS



When a permit application is submitted for any project where the electrical service exceeds 200 amperes, the following shall be submitted for the application to be processed:

1. Load calculations
2. One-line diagram
3. Fault current calculations

For core and shell projects, use the values in the 2002 NEC Table 220.3(A).

As some of you may have already found out the hard way, we are checking the Available Fault Current on construction temporaries. The only single phase transformers you can set a regular “house” temporary, without cold sequencing, is a 25 KVA transformer. 50 KVA and larger transformers exceed the 10K limit that the breakers in the temporary are rated for, and will have to be cold sequenced with the appropriate fuses. *References: 2005 NEC Article 110.9 and XCEL Energy Standard for Electric Installations, page 48.*



STAIRWAY ILLUMINATION

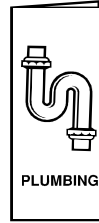
2003 International Residential Code R303.6 requires that all interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads. Interior stairways shall be provided with an artificial light source located in the immediate vicinity of each landing of the stairway. For interior stairs, the artificial light sources shall be capable of illuminating treads and landings to levels not less than 1 foot-candles (11 lux) measured at the center of treads and landings. Exterior stairways shall be provided with an artificial light source located in the immediate vicinity of the top landing of the stairway. Exterior stairways providing access to a basement from the outside grade level shall be provided with an artificial light source located in the immediate vicinity of the bottom landing of the stairway.



Exception: An artificial light source is not required at the top and bottom landing, provided an artificial light source is located directly over each section.



Your Plumbing Connection



PLUMBERS

Section 604.9 of the 2003 International Plumbing Code requires the use of an A.S.S.E approved water hammer arrestor on all quick closing valves. Building Inspection has been requiring them on all washer boxes, effective September 1, 2005. Please have them installed at rough-in inspection.

C.S.S.T. GAS PIPING

The City of Greeley Building Inspection Department will be requiring gas calculations on all new construction. Please have them ready at the time of rough inspection along with all other required paper work.

For all who use any type of C.S.S.T. gas piping, the City of Greeley Building Inspection Department will also require the use of black iron gas piping on all exterior walls. Once in the attic, the use of transition fitting may be used and C.S.S.T. piping can continue through out the structure.

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PLANNING & ZONING DIVISION

COMMUNITY EXCELLENCE IN DESIGN AWARD WINNERS ANNOUNCED

The City of Greeley announced its 3rd Annual Community Excellence in Design Awards at its July 18th Council meeting, recognizing four development projects constructed during 2004-2005 which demonstrate exceptional design elements. The community award is the product of Greeley's Comprehensive Plan and Development Code which call for stronger building design to promote unique and creative structures throughout the community. A panel of community judges evaluated the nominations for their creativity in design, attention to detail and ability to provide a distinctive structure for the purpose it was intended and in a manner that typifies or exceeds community design expectations.

The three winners of this year's Community Excellence in Design Awards are:

- ④ University of Northern Colorado Foundation – Winner in the Institutional category
Architect: AH Architecture, PC & Art Hoy
Builder: Thissen Construction Corp.
Owner: UNC Foundation

- ④ St. Michael's Office Building – Winner in the Commercial category
Architect: Thorp Associates P.C. & Roger M. Thorp
Builder: Fisbeck/Sheel
Owner: Meyer Farms Development Inc.
Landscape Architect: Vignette Studios

- ④ Swift & Company Addition – Winner in the Commercial category
Architect: Chris Wesche at The Neenan Co.
Builder: The Neenan Company
Owner: Swift & Company
Landscape Architect: BHA Design Incorporated
Designer: Bob Hosanna at The Neenan Co.

Honorable Mention recognition was awarded to the following project:

- ④ Arby's Restaurant, Commercial category
Architect & Landscape Architect: Greenberg+ Short & Brennan Architects
Builder & Owner: The Bailey Company, L.L.L.P.

The award winners and their projects may be viewed at the City of Greeley website, www.greeleygov.com, and project information and display materials may be viewed at the City of Greeley, City Hall at 1000 10th Street, if you have any questions please call 350-9780.

