



RESIDENTIAL BUILDING PERMIT PACKET

Climatic & Geographic Design Criteria
Submittal Checklist
Final Check List - City Engineer
Building Permit Application
Mechanical Permit Application
Permit Routing Sheet
Energy Information
Water Tap Application
Water Meter Information

January 2021



CITY OF CAÑON CITY

Building Department

P.O. Box 1460 • 128 Main Street
 Cañon City, CO 81215-1460
 (719) 276-5253 • Fax: (719) 269-9017

CLIMATIC & GEOGRAPHIC DESIGN CRITERIA FOR CAÑON CITY, CO UNDER THE 2018 IRC AND 2018 IBC.

RESIDENTIAL DESIGN CRITERIA

GROUND SNOW LOAD ^o	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographic Effects ^k	Special wind Region ^l	Windborne debris zone ^m		Weathering ^a	Frost line depth ^b	Termite ^c				
30	100	Engineer of Record	Yes	No	B	Severe	27"	Slight to Moderate	Not Required	FEMA Flood Maps CCMC TITLE 21	2000	54.2° F.
MANUAL J DESIGN CRITERIA ^a												
Elevation	Altitude correction factor ^e	Coincident wet bulb	Indoor winter design relative humidity	Indoor winter design dry-bulb temperature	Outdoor winter design dry-bulb temperature	Heating temperature difference						
5332	0.83	59°	30%	70°	5°	65°						
Latitude	Daily range	Summer design grains	Indoor summer design relative humidity	Indoor summer design dry-bulb temperature	Outdoor summer design dry-bulb temperature	Cooling temperature difference						
38	H	-33 to -48	50%	75°	94°	19°						

COMMERCIAL DESIGN CRITERIA

Section 1608.2 Ground Snow Loads.

Snow loads for Cañon City are as follows: Snow Load (Ground and Roof) shall be 30 psf. Reductions in snow load below 30 psf are not permitted in ASCE 7-16 Sections 7.3, 7.4, 7.7, 7.8, or 7.13.1. The 30 psf snow load shall be increased by the importance factor of 1.10 for Risk Category III and 1.20 for Risk Category IV buildings and other structures.

Section 1609.3 Basic Design Wind Speed.

The basic design wind speed, V , in mph, for the determination of the wind loads shall be determined by Figures 1609.3(1) through (8). The basic design wind speed, V , for use in the design of Risk Category II buildings and structures shall be obtained from Figures 1609.3(1) and 1609.3(5). The basic design wind speed, V , for use in the design of Risk Category III buildings and structures shall be obtained from Figures 1609.3(2) and 1609.3(6). The basic design wind speed, V , for use in the design of Risk Category IV buildings and structures shall be obtained from Figures 1609.3(3) and 1609.3(7). The basic design wind speed, V , for use in the design of Risk Category I buildings and structures shall be obtained from Figures 1609.3(4) and 1609.3(8). The basic design wind speed, V , for the special wind regions indicated near mountainous terrain and near gorges shall be in accordance with local jurisdiction requirements. The basic design wind speeds, V , are as follows:

- Buildings and Structures of Risk Category I: VULT = 115 mph, VASD = 90 mph
- Buildings and Structures of Risk Category II: VULT = 126 mph, VASD = 100 mph
- Buildings and Structures of Risk Category III or IV: VULT = 139 mph, VASD = 110 mph

1612.3 Establishment of flood hazard areas.

To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for Fremont County, Colorado and incorporated areas," dated July 3, 2012, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.



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BUILDING PERMIT APPLICATION SUBMITTAL CHECKLIST

APPLICATION TYPE: RESIDENTIAL BUILDING

SUBMITTAL CHECKLIST *(Incomplete applications will not be accepted)*

The information listed here is to help you prepare a complete application for building in the City of Cañon City. These are the minimum requirements for the review of a building permit application. In some cases, more information than is listed here may be needed depending on the project and site specific issues.

If you are in doubt as to what will be needed for your project, please contact the Building Department. We are always happy to help!

REQUIRED FOR ALL APPLICATIONS SUBMITTED FOR RESIDENTIAL HOUSING

- Submittal Checklist.** Include a completed checklist with your application.
- Building Permit Application.** Include a completed and signed Building Permit Application form (*See Attachment: Building Permit Application*).
- Required Routing Sheet Approvals.** It is the responsibility of the permit applicant to secure approvals from the external agencies (fire dept., health dept., etc.) indicated on the Required Approvals Routing Sheet (*See Attachment: Routing Sheet*).
- Copy of Warranty Deed.** Title Commitment or other documentation showing property ownership. This should also include information about easements, etc.
- Improvement Location Certificate or Surveyed Site Plan.** Prepared and stamped by a surveyor licensed in the state of Colorado. Prior to first inspection, property must be pinned by a surveyor licensed in the state of Colorado and setbacks are to be dimensioned and verified by the surveyor in the field.
- Water Tap Application/Proof of Water.** This is to be submitted in the form of a paid receipt from the supplying water purveyor (Cañon City or Park Center Water District). This is to be submitted prior to applying for a building permit. The application for water from Cañon City can be found at www.canoncity.org. (*See also Attachments: Water Tap Application & Meter Pit Placement for New Construction*).
- Proof of Sewer or Septic.** This is to be submitted in the form of a paid receipt from the Fremont Sanitation District. Septic systems are to be reviewed and approved by Fremont County call 719-276-7460 for more information.

- **Site (plot) Plan.** For *residential development*, this includes carports, sheds over 200 square feet and fences. All site plans must be drawn to a legible scale for review and include the following:
 - Site orientation. (North arrow)
 - Legal description and property address.
 - Lot lines and property size in square feet.
 - Adjacent road and street names.
 - Easements, right of ways, building setbacks, water body setbacks, and building envelopes.
 - Proposed and existing utility improvements. (utility poles, transformers, culverts, etc.)
 - Proposed and existing structures.
 - Existing waterways and drainages and related Base Flood Elevations, Floodplain and Floodway delineation if applicable.
 - Drainage Plan – arrows indicating drainage direction and slope.
 - Sidewalk (public) – sidewalk min. width 5 feet. Thickness 6 inches adjacent to mountable curb.
 - Access driveways and their grades, sidewalks, parking, paving and curb cut locations.
 - Location of wells and individual sewage disposal systems.
 - Top of foundation wall elevation related to contours on site plan and adjacent street edge of pavement or top back of curb (Top of Foundation lowest elevation must be at least 1 foot above the highest point of the edge of pavement/top back of curb adjacent to the property).
 - Square footage of all structure footprints and external flatwork (sidewalks, driveways, patios, etc.)

- **Plans Prepared by an Architect or Engineer.** The signed and dated stamp/seal of the architect or engineer responsible for the preparation of the plans shall be applied directly to:
 - 1) each sheet of the reproduced drawings,
 - 2) addenda and revisions,
 - 3) cover, title page, and table of contents of specifications, and
 - 4) title page of engineering reports.

- **Floor Plan** to scale (preferably ¼" to the foot) showing:
 - a. Use of all rooms
 - b. Dimensions and square footage of each room including closets, etc.
 - c. Window and door sizes and locations and type (examples: slider, single hung, etc.)
 - d. Stair locations, state rise and run and number of risers, landing size.
 - e. Smoke/Carbon Monoxide detector locations.
 - f. Locations of fire rated walls. In residential this is the separation between the house and the garage.
 - g. Header sizes for doors, windows and any other openings.

- **Floor Framing Plan** showing:
 - a. Lumber size, grading and species. If plywood web joist are used state if TJI, BCI, LPI or other and which series (provide floor joist layout from manufacture).
 - b. Span from support to support.
 - c. On center spacing (12", 16", 19.2", 24")
 - d. Girder size supporting floor system (if applicable) could be a knee wall.
 - e. Header sizes for any openings (such as stairs to upper level, crawl space access).
 - f. Stair hole framing.

- **Elevation Drawings** showing:
 - a. All four sides (or all exposed elevations)
 - b. Windows and doors
 - c. Exterior wall coverings (Masonite siding, brick stucco, etc.)
 - d. Foundation ventilation opening. State size and free opening area.

- **Roof Framing Plan** showing:
 - a. Lumber size grade and species. If plywood web joist state if TJI, BCI, LPI, or other and which series.
 - b. On center spacing (12", 16", 19.2", 24")
 - c. If manufactured trusses are used, provide engineer's wet stamped details.
 - d. Provide roof plan showing truss layout. Show truss number and location on plan.
 - e. Show all roof bearing locations.
 - f. Show plan view of roof (as if you were looking down from above).

- **Drawings of Structural Details** such as:
 - a. Connections at post and beam, beam to wall, footing and post, ledger and wall.
 - b. Bathroom detail.
 - c. Stairs, guardrail and handrails. This would show stairs in profile.

- **Engineered Foundation.** Required on all new structures and additions except the following that are not in the Special Flood Hazard Area: one story residential detached garages not exceeding 800 square feet of floor area. Foundation plans must be prepared by a qualified registered professional engineer licensed in the State of Colorado. The foundation design must be site specific and include a soils investigation & lab analysis report.

- **Soils Investigation & Lab Analysis Report.** Foundation plans must be prepared by a qualified registered professional engineer licensed in the State of Colorado.

- **Mechanical Permit Application.** Include a completed and signed Mechanical Permit Application form (See also Attachment: Mechanical Permit Application).

- **Mechanical Plan** showing:
 - a. Location of mechanical equipment.
 - b. BTU input and output of all appliances.
 - c. Vent size of all appliances and copy of calculation if a multiple appliancevent.
 - d. Combustion air opening sizes, location and calculations.
 - e. Provide ACCA Manual J, S & D (Energy Code).

- **Energy Code.** See Attachment: Energy Conservation Code Design, Submittal, Inspection, and Compliance Requirements.

- **Floodplain Development Permit.** This is required when the subject structure is located within the Special Flood Hazard Area. A permit application must be completed by a registered professional engineer licensed to do work in the state of Colorado. This permit application with all required elements must be submitted to the City Engineer for review and approval. Contact Engineering Department at 719-276-5291 to determine applicability.

- **Stormwater Drainage Easement.** When a development is traversed by a drainage way including, but not limited to, a watercourse, swale, channel, irrigation ditch, or stream, the owner shall execute an easement agreement for stormwater and/or drainage purpose(s) for the benefit of the City. The easement shall conform substantially to the banks of the drainage way with such width as will be necessary to fulfill the purpose(s) of the easement, as determined by the City, and the agreement shall grant the City the right to access adjacent property to perform any necessary acts related to the easement. If necessary, the City may require a survey of the easement and the costs of such survey shall be paid by the applicant. Wherever possible, it is desirable that the drainage be maintained by an open channel with landscaped stabilized banks and adequate width for conveyance for the 1% annual chance historic maximum potential volume of flow. Contact Engineering Department at 719-276-5291 to determine applicability.

- **Drainage, Erosion, Sediment & Control (DESC) Permit.** Contact Engineering Department at 719-276-5291 to determine applicability.

- **Right-of-Way Permit.** This is required for all work and encroachments in the public right-of-way such as sidewalk and driveway construction, culvert installation, landscaping that involves lane closure, dumpster placement, etc. Contact Engineering Department at 719-276-5291 to determine applicability.

- **Access Agreement.** This is required for projects adjacent to designated thoroughfares. Contact Engineering Department at 719-276-5291 to determine applicability.

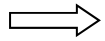
FINAL CHECKLIST – CITY ENGINEER

APPLICATION TYPE: RESIDENTIAL BUILDING • FINAL ROUTING SIGN-OFF

The information listed here is to help you prepare complete submittals for sign-off by the Engineering Department in obtaining final sign off of building permit and/or Certificate of Occupancy in the City of Cañon City. These are the minimum requirements for the final review and approval. In some cases, more information than is listed here may be needed depending on the project and site specific issues. If you are in doubt as to what will be needed for your project, please contact the City Engineer.

(Incomplete submittals will not be accepted)

PROJECT ADDRESS: _____



INSPECTIONS REQUIRED BY ENGINEERING DEPARTMENT

- For *Residential Building Permits*:
 - Top of foundation:** wall elevation (Top of Foundation lowest elevation must be at least 1 foot above the highest point of the edge of pavement/top back of curb adjacent to the property) *prior to concreteplacement*.

Inspection Date

Inspector Signature

- Site grading and drainage improvements.**

Inspection Date

Inspector Signature

- Culvert Installation.**
- Not applicable*

Inspection Date

Inspector Signature

- Site Stabilization.**

Inspection Date

Inspector Signature

- Right-of-Way Improvements:** Sidewalk, curb, gutter, etc.
- Not applicable*

Inspection Date

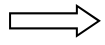
Inspector Signature

- Floodplain Development Permit Compliance:** Flood vents, etc.
- Not applicable*

Inspection Date

Inspector Signature

FINAL CHECKLIST – CITY ENGINEER cont...



SUBMITTALS REQUIRED BY ENGINEERING DEPARTMENT

Floodplain Development Permit.

Not applicable

Compliance Certification: must be completed by a registered professional engineer licensed to do work in the state of Colorado.

Approval Date

Approver Signature

Elevation Certificate (As-Built): must be completed by a registered professional engineer or land surveyor licensed to do work in the state of Colorado

Approval Date

Approver Signature

Drainage, Erosion, Sediment & Control (DESC) Permit: close out and paid fees.

Not applicable

Approval Date

Approver Signature

Right-of-Way Permit: close out and paid fees.

Not applicable

Approval Date

Approver Signature



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BUILDING PERMIT APPLICATION

ALL INFORMATION REQUIRED

OWNER'S NAME: _____ DATE: _____

OWNER'S ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

OWNERS TELEPHONE NUMBER:() _____

JOB SITE ADDRESS: _____

PARCEL NUMBER: (CONTACT FREMONT COUNTY ASSESSORAT 719.276.7310) _____

LEGAL DESCRIPTION: _____

CONTRACTOR'S BUSINESS NAME: _____

CONTRACTOR'S LICENSE # _____ TELEPHONE NUMBER: _____

VALUATION OF WORK (INCLUDE LABOR AND MATERIALS): \$ _____

DETAILED DESCRIPTION OF WORK: _____

PROVIDE THE FOLLOWING INFORMATION IF SUBMITTING A SITE PLAN WITH APPLICATION:

1. LOCATION OF PROPOSED CONSTRUCTION AND EXISTING STRUCTURES.
2. SQUARE FOOTAGE AREA OF EACH BUILDING (INCLUDE SHEDS, CARPORTS, PATIOS, ETC.).
3. SET BACK DIMENSIONS FROM PROPERTY LINE FOR ALL STRUCTURES.
4. LOT DIMENSIONS / LOT SQUARE FOOTAGE.
5. STREETS, ALLEYS, EASEMENTS AND ANY OTHER "RIGHT OF WAY".
6. LOCATION OF WATER, SEWER, GAS AND ANY OTHER UNDERGROUND UTILITIES (IFKNOWN).

OWNER / CONTRACTOR

PRINT NAME

SIGNATURE

FOR OFFICE USE ONLY

ZONE DISTRICT: _____

PERMIT NUMBER: _____

LICENSED: (YES) _____ (NO) _____

URBAN RENEWAL: (YES) _____ (NO) _____

RESIDENTIAL SITE PLAN

Indicate North

I/WE HEREBY CERTIFY THAT THE PROPOSED CONSTRUCTION WILL CONFORM TO THE DIMENSIONS AND USES SHOWN ABOVE AND THAT NO CHANGES WILL BE MADE WITHOUT PRIOR APPROVAL FROM THE CANON CITY BUILDING DEPARTMENT.

PRINT NAME

SIGNATURE OF OWNER/CONTRACTOR

RESIDENTIAL SITE PLAN (EXAMPLE)



ADDRESS: _____

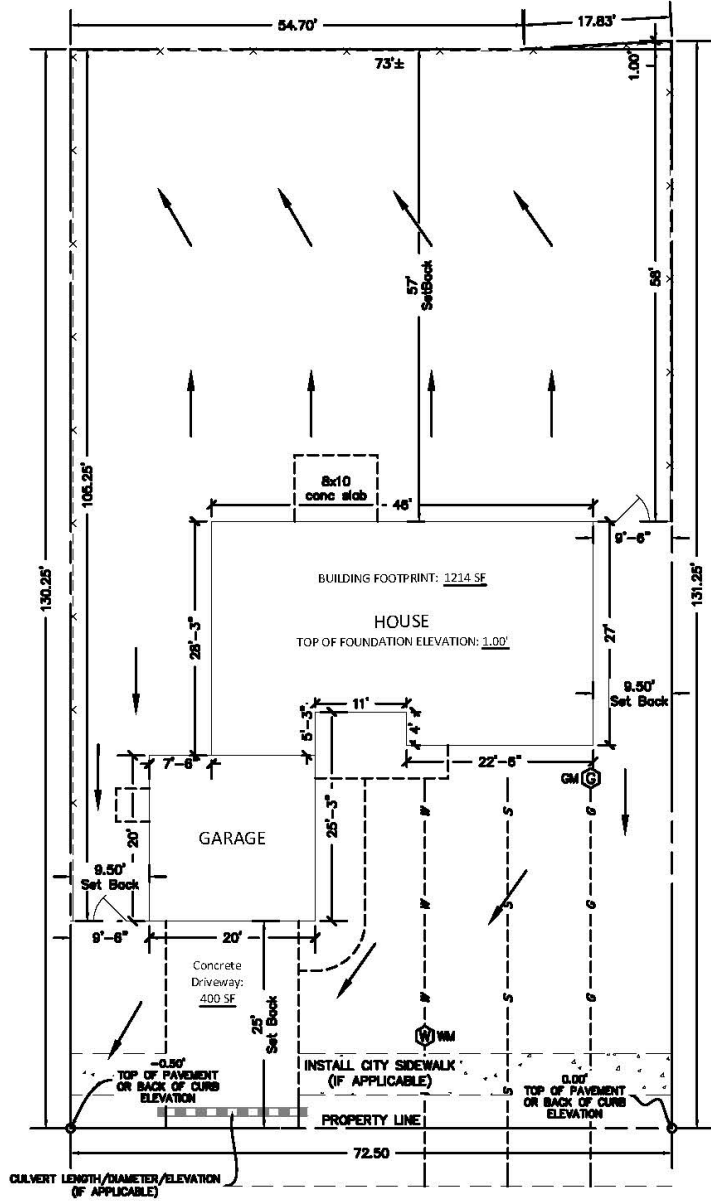
OWNERS: _____

**LEGAL DESCRIPTION:
(EXAMPLE)**

LOT 1, BLOCK 2, SOUTH SUBDIVISION.

- LEGEND**
- PROPERTY LINE
 - FENCE
 - GATE
 - DRAINAGE ARROWS
 - WATER W/ WATER METER
 - SEWER
 - GAS W/ GAS METER

NOTES: _____





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MECHANICAL PERMIT APPLICATION

ALL INFORMATION IS REQUIRED

OWNER'S NAME: _____ DATE: _____

OWNER'S ADDRESS: _____ CITY: _____

STATE: _____ ZIP: _____

OWNERS TELEPHONE NUMBER: () _____

JOB SITE ADDRESS: _____

PARCEL NUMBER: (CONTACT FREMONT COUNTY ASSESSOR AT 719-276-7310) _____

LEGAL DESCRIPTION: _____

CONTRACTOR'S BUSINESS NAME: _____ LIC _____

#: _____ CONTRACTOR'S TELEPHONE NUMBER: _____

VALUATION OF WORK (INCLUDE LABOR AND MATERIALS): \$ _____

PERMIT FEE (PER MECHANICAL FEE SCHEDULE): \$ _____

DETAILED DESCRIPTION OF WORK: _____

I HEREBY UNDERSTAND AND AGREE TO INSTALL ALL WORK IN ACCORDANCE WITH THE MOST CURRENT ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL RESIDENTIAL CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL FUEL GAS CODE, CAÑON CITY ZONING ORDINANCE AND ALL OTHER APPLICABLE FEDERAL, STATE, COUNTY AND CITY REQUIREMENTS.

OWNER / CONTRACTOR

PRINTED NAME

SIGNATURE

FOR OFFICE USE ONLY

ZONE DISTRICT: _____
LICENSED: (YES) _____ (NO) _____

PERMIT NUMBER: _____
URBAN RENEWAL: (YES) _____ (NO) _____

Mechanical Fee Schedule	
Valuation of Work:	Permit Fee:
Not more than \$2,000.00	\$30.00
More than \$2,000.00	\$30.00 plus, \$10.00 per each \$1,000.00 valuation or fraction thereof.

Effective 01/01/2021



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REQUIRED APPROVALS ROUTING SHEET

Project: _____ Permit #: _____
 Address: _____ Lot: _____
 _____ Block: _____ Subdivision: _____
 Owner: _____ Contractor: _____
 Comments: _____

RESIDENTIAL WILL TAKE APPROXIMATELY 14 BUSINESS DAYS TO COMPLETE PRIOR TO ISSUANCE OF A BUILDING PERMIT. COMMERCIAL PLANS TYPICALLY TAKE APPROXIMATELY 24-30 WORKING DAYS FOR INITIAL REVIEW AND ROUTING. LARGE COMMERCIAL PROJECTS MAY REQUIRE A LONGER TIME TO PLAN REVIEW.

It is the responsibility of the building permit APPLICANT to secure the required approvals from the indicated departments. This must be accomplished prior to issuance of the building permit and for commercial projects again at the completion of the project prior to final inspection and/or issuance of the Certificate of Occupancy. **THE PROPERTY MAY NOT BE OCCUPIED UNTIL A FINAL INSPECTION IS DONE AND A CERTIFICATE OF OCCUPANCY IS ISSUED.** FAILURE TO COMPLY COULD RESULT IN YOUR BEING CITED WITH A MISDEMEANOR IN ACCORDANCE WITH 15.02.040 OF THE CAÑON CITY MUNICIPAL CODE.

CORE APPLICATION ROUTING NECESSARY

Below are the primary routing approval signoff's. Please contact the Building Department to see if any can be eliminated. 719-276-5253

NOTE: PLANS SHOULD ACCOMPANY THIS ROUTING SLIP AND ADEQUATE TIME SHOULD BE AFFORDED TO THOSE ENTITIES FROM WHICH APPROVAL IS REQUESTED TO REVIEW THE PLANS.

DEPARTMENT

**APPROVAL PRIOR TO
PRIOR TO ISSUANCE OF PERMIT**
Approval Date: Authorized

**APPROVAL
FINAL OR C/O**
Approval Date: Authorized

City Engineer	_____	_____	*See attached final checklist
City Planning & Zoning	_____	_____	_____
County Health Department*	_____	_____	_____
Fire District	_____	_____	_____
Water Department*	_____	_____	_____

**for commercial applications only*

City Engineer	Adam Lancaster	719.269.9011	Fax 719.269.9017	128 Main Street, Cañon City, CO 81212
Planning & Zoning	Patrick Mulready	719.276.5294	Fax 719.269.9017	128 Main Street, Cañon City, CO 81212
County Health	Amy Jamison	719.276.7450	Fax 719.276.7451	201 N. 6 th Street, Cañon City, CO 81212
Fire District	Ron Cook	719.275.8666	Fax 719.275.1486	1475 N. 15 th Street, Cañon City, CO 81212
Water Department	Cole Mock	719.276.5263	Fax 719.269.9034	1525 S. 9 th Street, Cañon City, CO 81212



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2018 International Residential Energy Conservation Code. Energy Conservation Design, Submittal, Inspection, and Compliance.

The City of Cañon City Building Department has adopted the 2018 International Residential Energy Conservation Code, effective January 1, 2021. All references to the energy code requirements are in the 2018 International Residential Code under Chapter 11. This handout will summarize the new submittal requirements for energy code compliance. This applies to building permits for all new residential projects, including detached one-and-two family homes, townhomes, and multi-family projects (R-2, R-3 and R-4) not more than three stories above grade plane.

IRC Chapter 11 Section N1103 Systems. Requirements for HVAC systems and mechanical ventilation systems. Please see table below for ACCA Manual J design requirements for Cañon City, Colorado.

MANUAL J DESIGN CRITERIA ^a						
Elevation	Altitude correction factor ^c	Coincident wet bulb	Indoor winter design relative humidity	Indoor winter design dry-bulb temperature	Outdoor winter design dry-bulb temperature	Heating temperature difference
5332	0.83	59°	30%	70°	5°	65°
Latitude	Daily range	Summer design grains	Indoor summer design relative humidity	Indoor summer design dry-bulb temperature	Outdoor summer design dry-bulb temperature	Cooling temperature difference
38	H	-33 to -48	50%	75°	94°	19°

There are three design paths that the designer can take to show compliance with the energy code. Option #1 is the Prescriptive Path per IRC Chapter 11 Section N1102; Option #2 is the Simulated Performance Alternative Path per IRC Chapter 11 Section N1105; and Option #3 is the Energy Rating Index Compliance Alternative per IRC Chapter 11 Section N1106.

OPTION #1 – PRESCRIPTIVE PATH

IRC Chapter 11 Section N1102 has the requirements for the prescriptive path. The plans need to show the following information. All information shall be per tables within Chapter 11 using Climate Zone 5.

1. **Building Thermal Envelope per Section N1102.1 through N1102.1.5.** Provide all the exact location of the building thermal envelope. Information shall be delineated on the plans, details, and section views. (Within the prescriptive path there are three alternatives N1102.1.2 Insulation and fenestration criteria, N1102.1.4 U-factor alternative and N1102.1.5 Total UA alternative which is REScheck).

2. **Specific Insulation Requirements per Section N1102.2.** Provide all insulation “R” values, materials, and locations to be installed (walls, ceilings, cantilever floors, floors over garage, crawl space, basement walls, etc.) per Section N1102.2.1 through N1102.2.13 and Table N1102.1.2.
3. **Fenestration per Section N1102.3.** Provide all fenestration U factors per Section N1102.3.1 through N1102.3.5 and Table N1102.1.2. This will apply for all glazing in windows, skylights and doors.
4. **Air Leakage per Section N1102.4.** Provide details on how all areas listed in Sections N1102.4.1 through N1102.4.5 will be accomplished. Including N1102.4.1.2 Testing. (Blower door test)

OPTION #2 – SIMULATED PERFORMANCE ALTERNATIVE

This option is available per IRC Chapter 11 Section N1105. Please be aware that Section N1105.2 also requires compliance with the mandatory requirements of Sections N1101.13 be met.

N1101.13 (R401.2) Compliance.

Projects shall comply with one of the following:

1. Sections N1101.14 through N1104.
2. Section N1105 and the provisions of Sections N1101.14 through N1104 indicated as “Mandatory.”
3. The energy rating index (ERI) approach in Section N1106.

N1105.4.2 (R405.4.2) Compliance report.

Compliance software tools shall generate a report that documents that the proposed design complies with Section N1105.3. A compliance report on the proposed design shall be submitted with the application for the building permit. Upon completion of the building, a compliance report based on the as-built condition of the building shall be submitted to the building official before a certificate of occupancy is issued. Batch sampling of buildings to determine energy code compliance shall only be allowed for stacked multiple-family units.

Compliance reports shall include information in accordance with Sections N1105.4.2.1 and N1105.4.2.2. Where the proposed design of a building could be built on different sites where the cardinal orientation of the building on each site is different, compliance of the proposed design for the purposes of the application for the building permit shall be based on the worst-case orientation, worst-case configuration, worst-case building air leakage and worst-case duct leakage. Such worst-case parameters shall be used as inputs to the compliance software for energy analysis.

N1105.4.2.1 (R405.4.2.1) Compliance report for permit application.

A compliance report submitted with the application for building permit shall include the following:

1. Building street address, or other building site identification.
2. A statement indicating that the proposed design complies with Section N1105.3.
3. An inspection checklist documenting the building component characteristics of the proposed design as indicated in Table N1105.5.2(1). The inspection checklist shall show results for both the standard reference design and the proposed design with user inputs to the compliance software to generate the results.
4. A site-specific energy analysis report that is in compliance with Section N1105.3.
5. The name of the individual performing the analysis and generating the report.
6. The name and version of the compliance software tool.

N1105.4.2.2 (R405.4.2.2) Compliance report for certificate of occupancy.

A compliance report submitted for obtaining the certificate of occupancy shall include the following:

1. Building street address, or other building site identification.
2. A statement indicating that the as-built building complies with Section N1105.3.
3. A certificate indicating that the building passes the performance matrix for code compliance and indicating the energy saving features of the buildings.
4. A site-specific energy analysis report that is in compliance with Section N1105.3.
5. The name of the individual performing the analysis and generating the report.
6. The name and version of the compliance software tool.

N1105.4.3 (R405.4.3) Additional documentation.

The building official shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the standard reference design.
2. A certification signed by the builder providing the building component characteristics of the proposed design as given in Table N1105.5.2(1).
3. Documentation of the actual values used in the software calculations for the proposed design.

OPTION #3 –ENERGY RATING INDEX COMPLIANCE ALTERNATIVE

N1106.1 (R406.1) Scope.

This section establishes criteria for compliance using an Energy Rating Index (ERI) analysis.

N1106.2 (R406.2) Mandatory requirements.

Compliance with this section requires that the provisions identified in Sections N1101.13 through N1104 indicated as “mandatory” and in Section N1103.5.3 be met. The building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficients in Table 402.1.1 or 402.1.3 of the 2009 International Energy Conservation Code.

Exception: Supply and return ducts not completely inside the building thermal envelope shall be insulated to an R-value of not less than R-6.

N1106.3 (R406.3) Energy rating index.

The Energy Rating Index (ERI) shall be determined in accordance with RESNET/ICC 301 except that the ERI reference design ventilation rate shall be in accordance with Equation 11-1.

Ventilation rate, CFM = (0.01 x total square foot area of house) + [7.5 x (number of bedrooms + 1)]

(Equation 11-1)

Energy used to recharge or refuel a vehicle used for transportation on roads that are not on the building site shall not be included in the ERI reference design or the rated design.

N1106.4 (R406.4) ERI-based compliance.

Compliance based on an ERI analysis requires that the rated design be shown to have an ERI less than or equal to the appropriate value indicated in Table N1106.4 when compared to the ERI reference design.

**TABLE N1106.4 (R406.4)
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX^a
1	57
2	57
3	57
4	62
5	61
6	61
7	58
8	58

a. Where on-site renewable energy is included for compliance using the ERI analysis of Section N1106.4, the building shall meet the mandatory requirements of Section N1106.2, and the building thermal envelope shall be greater than or equal to the levels of efficiency and SHGC in Table N1102.1.2 or Table N1102.1.4.

N1106.5 (R406.5) Verification by approved agency.

Verification of compliance with Section N1106 shall be completed by an approved third party.

N1106.6 (R406.6) Documentation.

Documentation of the software used to determine the ERI and the parameters for the residential building shall be in accordance with Sections N1106.6.1 through N1106.6.3.

N1106.6.1 (R406.6.1) Compliance software tools.

Software tools used for determining ERI shall be Approved Software Rating Tools in accordance with RESNET/ICC 301.

N1106.6.2 (R406.6.2) Compliance report.

Compliance software tools shall generate a report that documents that the ERI of the rated design complies with Sections N1106.3 and N1106.4. The compliance documentation shall include the following information:

1. Address or other identification of the residential building.
2. An inspection checklist documenting the building component characteristics of the rated design. The inspection checklist shall show results for both the ERI reference design and the rated design, and shall document all inputs entered by the user necessary to reproduce the results.
3. Name of individual completing the compliance report.
4. Name and version of the compliance software tool.

Exception: Where an otherwise identical building model is offered in multiple orientations, compliance for any orientation shall be permitted by documenting that the building meets the performance requirements in each of the four (north, east, south and west) cardinal orientations.

N1106.6.3 (R406.6.3) Additional documentation.

The code official shall be permitted to require the following documents:

1. Documentation of the building component characteristics of the ERI reference design.
2. A certification signed by the builder providing the building component characteristics of the rated design.
3. Documentation of the actual values used in the software calculations for the rated design.

N1106.6.4 (R406.6.4) Specific approval.

Performance analysis tools meeting the applicable sections of Section N1106 shall be approved. Documentation demonstrating the approval of performance analysis tools in accordance with Section N1106.6.1 shall be provided.

N1106.6.5 (R406.6.5) Input values.

Where calculations require input values not specified by Sections N1102, N1103, N1104 and N1105, those input values shall be taken from RESNET/ICC 301.

REQUIRED INSPECTIONS BY THE CAÑON CITY BUILDING DEPARTMENT**At rough frame inspection:**

Sealing of all plates and penetrations
Air Barrier assemblies
Verification of window stickers

At Insulation Inspection:

Insulation Installation
Vapor Retarder

POST A PERMANENT CERTIFICATE PER N1101.14 (POST BEFORE FINAL INSPECTION)

N1101.14 (R401.3) Certificate (Mandatory).

A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall indicate the predominant R-values of insulation installed in or on ceilings, roofs, walls, foundation components such as slabs, basement walls, crawl space walls and floors, and ducts outside conditioned spaces; U-factors of fenestration and the solar heat gain coefficient (SHGC) of fenestration, and the results from any required duct system and building envelope air leakage testing performed on the building. Where there is more than one value for each component, the certificate shall indicate the value covering the largest area. The certificate shall indicate the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall indicate “gas-fired unvented room heater,” “electric furnace” or “baseboard electric heater,” as appropriate. An efficiency shall not be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.

REQUIRED BLOWER DOOR TESTING TO BE PROVIDED BEFORE FINAL CO

N1102.4.1.2 (R402.4.1.2) Testing.

The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding five air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Where required by the building official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.



CITY OF CAÑON CITY

Engineering Department

P.O. Box 1460 • 128 Main Street
Cañon City, CO 81215-1460
(719) 269-9011 • Fax: (719) 269-9017

WATER TAP APPLICATION

FOR CONNECTION TO WATER SYSTEM

(PLEASE PRINT)

DATE: _____ SIZE OF TAP REQUESTED: _____

USE: RESIDENTIAL SINGLE NON-RESIDENTIAL MULTI-UNIT # UNITS _____

PROPERTY OWNER NAME: _____

SERVICE ADDRESS: _____

BILLING ADDRESS: _____

PHONE NUMBER: _____

EMAIL ADDRESS: _____

LEGAL DESCRIPTION OF PROPERTY TO BE SERVED: _____

Note: For taps larger than 1-inch, applicant will supply meter, meter pit, curb stop box (if applicable). For all services other than Single Family Residences a Testable Backflow Prevention Assembly is required and supplied by applicant.

SIGNATURE

OFFICIAL USE ONLY

Permit No. _____

(As a requirement of subdivision approval or tap approval)

WATER LINE EXTENDED OR ENLARGED/ AS-BUILT DELIVERED? YES NO N/A

PAYMENT MADE IN LIEU OF EXTENSION OR ENLARGEMENT? YES NO N/A

REBATE PAYMENT MADE? YES NO N/A

WATER SERVICE AGREEMENT REQUIRED & CONDITIONS MET? YES NO N/A

RECORDED PLAT RECEIVED? YES NO N/A

SIZE OF TAP APPROVED _____ WATER MAIN SIZE: _____

INSIDE OUTSIDE LPWD

PUMP ZONE: I(A) I(B) I(C) II III

IMPACT FEE \$ _____ Notes: _____

REBATE FEE \$ _____

CASH-IN-LIEU FEE \$ _____

TAP FEE \$ _____

METER & PIT FEE \$ _____ **TOTAL FEE \$** _____

CITY ENGINEER

DATE

DATE PAID

RECEIPT #



CITY OF CAÑON CITY

Water Department

1525 S. 9th Street
Cañon City, CO 81212
(719) 269-9022

METER PIT PLACEMENT FOR NEW CONSTRUCTION

Meter Pits for new commercial structures are to be placed at the location where the service line has been stubbed into the lot during subdivision development. Builders are encouraged to identify the location of the water tap prior to layout of the structure on the lot to avoid any possible conflict such as a concrete driveway. If the decision is made to install the driveway where the meter pit is to be set then accommodations will have to be designed into the driveway slope to provide a flat area so that the meter pit is set per Water Department specifications.

In addition the Water Department shall inspect each meter pit at the time of the installation. Once the installation of the meter pit has been completed the inspection will be documented and signed off on to protect the work of the individual who originally installed the meter pit. It will be the responsibility of the Builder/Owner to make sure that the meter pit is kept protected once it has been installed. Should the meter pit incur damage after it has been installed it will be the responsibility of the Builder/Owner to notify the Water Department of the damage. The Water Department shall inspect the meter pit and determine what needs to be done to repair the damage at the Builder/Owner's expense.

If there are any questions please contact Cole Mock, City of Cañon City Water Distribution Supervisor at 719-269-9022.