COMMERCIAL PLAN REVIEW

This packet is provided to assist in assembling a successful plans review submittal. The information is a summary of construction, mechanical, plumbing, electrical and elevator plan review requirements, and is not intended as a substitute for the Code. In addition to Pikes Peak Regional Building Department, consult government departments in the jurisdiction of the project site for additional criteria (a contact list is provided on page 7 of this packet.)

PIKES PEAK REGIONAL BUILDING DEPARTMENT

The Department enforces building codes through plan reviews and site inspections; grants licenses to building and mechanical contractors, registers electrical and plumbing contractors who are licensed by the state of Colorado; oversees floodplain management; assigns new addresses; and issues permits to build, alter, convert, repair, move or demolish structures. Pikes Peak Regional Building Department provides services to:

Colorado Springs **El Paso County** **Fountain** **Monument** **Manitou Springs**

Green Mountain Falls **Palmer Lake** **City of Woodland Park** **Calhan**

COMMERCIAL PLAN REVIEW OVERVIEW

“Commercial” is defined as any type of building except one- and two-family dwellings, townhomes, and their accessory structures which are classified as “Residential.” Condominium and apartment projects are classified as “Commercial.”

A plan review fee is paid when the plan submittal is accepted for review, electronically or in-person. The fee is calculated as a percentage of the Building Permit fee (refer to the current permit fee schedule). Additional Plan Review (APR) fees will be assessed when a plan requires three or more reviews. Review times are subjective as every plan is reviewed in the order it is received and can vary due to the project scope and if plans must be amended and rerouted through departments. Electronic submittal of plans through www.pprbd.org is preferred, however other submittal options may be available, contact the department to discuss.

In addition to Pikes Peak Regional Building Department, governmental departments for the project site review plans for zoning, fire, engineering, traffic engineering, utilities, water, waste water, and health and environmental criteria, as applicable.

Before submitting plans for review, make certain all required information is complete, included, and accurate. Plans cannot be amended until the conclusion of each review cycle, which includes all governmental departments. Incomplete or inaccurate information will require correction and resubmittal of plans for another review cycle, possibly causing delays.

PLAN REVIEW SUBMITTALS — One complete set is required for plan review

- Code Study Form (https://www.pprbd.org/File/ByAlias/CodeStudyForm)
- Approved Development plans
- Approved Final Landscape plans
- Final plat
- Approved Grading & Erosion Control plans
- Approved water plans
- Utility plans
- Accessibility plans (if R, I-1 or I-2 occupancy)
- Architectural plans
- Elevator plans (if applicable)
- Mechanical plans
- Plumbing plans
- Electrical plans
- Structural plans with soils report

RESUBMITTAL PROCEDURES

Paper plans are required to complete an entire review cycle before they are released to the applicant or submitter. Electronic submittals provide a “progress set” during the review process that is available through the submitter’s web portal. It is up to the submitter to provide the redlined plan set to the design team. All plans must be resubmitted using the same format as the original submittal: paper or electronic. When re-submitting an electronic plan, complete revised documents, not single corrected sheets, must be provided. Paper plan re-submittals allow for a new page to be inserted into the plan set an the old page removed. ALL old pages are to be returned with the corrected set at time of re-submittal, regardless of the reason the page was replaced. Both procedures must occur PRIOR to the plan being resubmitted.

SPLICE (PLAN CHANGE) PROCEDURES

Plans may be modified after the Permit is issued, and this is referred to as a "splice". Splices may be submitted electronically through the contractor's dashboard when they are logged into their PPRBD.org account. The "ADD SPLICE" button can be found on the Permit Details screen for each project. To process a paper splice, present one copy of the revised sheet(s) to the permit counter to obtain your Plan Labels. Paper splices will need to be scanned after final approval. Most splices can be reviewed during a walk-through appointment, however, the plan review department may ask that you submit larger splices electronically, as noted above. There will be a fee to process a splice, with the minimum being $50.

BASIC DESIGN INFORMATION

CODES

Jurisdictions served by Pikes Peak Regional Building Code have adopted the following codes:

2023 Pikes Peak Regional Building Code (PPRBC)	2021 International Existing Building Code (IEBC)
2021 International Building Code (IBC)	2021 International Plumbing Code (IPC)
2021 Int'l Energy Conservation Code (IECC)	2021 Int'l Swimming Pool and Spa Code (ISPSC)
2021 International Fuel Gas Code (IFGC)	2023 National Electrical Code (NEC)
2021 International Mechanical Code (IMC)	2017 ICC/ANSI A117.1 Accessibility Standard
Colorado Model Electric Ready and Solar Ready Code (CMERSRC)	ASME A17.1, 2019 Edition, Safety Code for Elevators & Escalators
ASME A17.3, 2005 Edition, Safety Code for Existing Elevators & Escalators	ASME A18.1 - 2017 Edition, Safety Standard for Vertical Platform Lifts and Stairway Chairlifts

The International Fire Code and amendments are adopted by the Fire authority. Contact those agencies directly for plan submittal requirements (see page 7).

The following criteria must be included on submittal documents:

SNOW LOADS

Grade Plane - Average elevation of finished ground level adjacent to the building at exterior walls.

Flat Roof Snow Load - Structure shall be designed for the specified uniform snow load, and need not act concurrently with unbalanced loading and drifting. Load may be reduced for slope per ASCE 7-16, however, **no other reductions are permitted**.

Unbalanced Roof Snow Load - Structure shall be designed for unbalanced loading per ASCE 7-16, Section 7.6, where applicable. Balanced and unbalanced loads shall be analyzed separately. **Winds from all directions shall be accounted for when establishing unbalanced loads**.

Grade plane	**Below 7000'**	**At or above 7000'**
	Ground snow load - Pg : 43 psf uniform	Ground snow load - Pg : 57 psf uniform
	Flat roof snow load - Pf : 30 psf uniform	Flat roof snow load - Pf : 40 psf uniform

Design factors

Exposure Factor Ce : 1.0
Thermal Factor Ct : 1.0
Importance Factor I : 1.0
} Minimum based on Occupancy Category per Table 1604.5

WIND LOADS

Basic wind speed

Category I/II:	130 mph (V_{ult})
Category III:	135 mph (V_{ult})
Category IV:	140 mph (V_{ult})

Exposure category: Exposure C required

EARTHQUAKE LOADS

- Code sets spectral response factors and cannot be numerically less than the specified values.

Short period spectral response Ss : 18.5%
1-Second spectral response S1 : 5.9%

LIVE & DEAD LOADS

- Refer to Code

PREPARING THE COMMERCIAL PLANS SUBMITTAL

PROFESSIONAL SEALS & STAMPS

- The seal of a design professional licensed by the State of Colorado is required on each sheet of the commercial plans.
- The seal, wet, raised, or electronic, must be signed and dated by the design professional. Please verify that an electronic stamp does not lock an electronic submittal from markups.
- Cut sheets and manufacturer's details must bear a seal.
- Soils reports may bear seals on the cover only.

COVER SHEET

The following information is required on the Cover Sheet of the plans submittal package.

- **Project description**
- **Site address**
- **Name, address, phone numbers** (include all design professionals associated with the project)
- **Sheet legend**
- **Vicinity map**
- **Code Study** (see below)

CODE DATA

(provided on plans, *in addition to* the Code Study Form)

SCOPE OF WORK — If the scope is self evident, a more definitive description is not required. If the submittal is part of a phased project, such as core/ shell or tenant finish, the scope of work must be clarified in a written or graphical description, or both (*see next page*).

OVERALL BUILDING DESCRIPTION

- Total building area in square feet
- Height
- Number of levels (including basements)
- Area of each level in square feet

SITE DESCRIPTION OF PROPERTY

- Minimum distance to lot lines (platted, assumed, or middle of ROW) for each side of building – measured at right angles from the face of the wall.

BUILDING CODE ANALYSIS

- Occupancy classification
- Mixed Occupancies, include all that apply:
  - Accessory use
  - Non-separated uses
  - Separated uses
  - Combined
- Area in square feet of each occupancy, tabular or graphically
- Required occupancy separation
- Type of Construction
- Mixed types of construction, *provide the following*:
  - Area in square feet of each type of construction
  - Any required Fire Walls

CODE DATA (cont)

FIRE AREAS

- Area in square feet of each "Fire Area" as defined in Code

PRESENCE OF FIRE SPRINKLERS & REASONS

Include all that apply:

- Allowable area
- Height increase
- Occupancy classification
- Basement only
- Required by other than IBC

BASIC ALLOWABLE AREA

- Non-separated occupancies worst case scenario
- Sum of ratios, if applicable
- Multi-story

ALLOWABLE AREA AND/OR HEIGHT INCREASE

- Frontage calculations
- Sprinklers
- Unlimited area provisions

FIRE RESISTIVE REQUIREMENTS

Refer to Code

EGRESS REQUIREMENTS

- Occupant load calculations
- Exit width calculations
- Number of exits required (total for the building and for each area of consideration)
- Door hardware as required

PLANS REVIEWED IN PHASES

Based on the scope of the work, a phased plan submittal may be accepted, but must adhere to the limited components specified. Please be aware that every phase of a phased project will obtain reviews in **all** required review departments. Each phase must be released for permitting in **all** required review departments before a permit for that phase will be issued.

FOUNDATION ONLY

FOUNDATION ONLY PERMIT is limited to the following scope of work:

- Below grade construction of piers, footers, foundation walls, pads and related components
- Basement slab including recessed floor or elevator pits (no above grade structure or walls)
- Underground plumbing and electrical conduit, but no wiring
- Site work and utilities permitted by other agencies or departments (not within building perimeter)

FOUNDATION ONLY PLANS MUST INCLUDE THE FOLLOWING:

- Development plan approved by Planning in project site jurisdiction
- Civil plans
  - Water approved by purveyor
  - Wastewater approved by purveyor
  - Electrical approved by purveyor
  - Landscape plan approved by zoning/planning in site jurisdiction
  - Grading erosion control plan approved by zoning/planning in site jurisdiction
- Soils Report*
- Foundation design*
- Partial structural design specifying loads to foundation, material specifications and design criteria

FOUNDATION ONLY(CONT)

- Architectural drawings to include:
  - Code data* (page 3 in this packet)
  - Architectural site plan showing fire separation distances on all sides
  - Dimensioned floor plan for each level drawn to scale and proposed area uses indicated
  - Elevation drawings for all building sides
  - Site specific elevator specifications (if applicable)
  - IECC compliance for envelope to determine any below grade insulation
  - Elevator pit, sump pit, and shaft wall measurements in relation to site specific elevator specifications (if applicable)
- Code Study Form application*

** Requires stamp, seal and signature by a design professional licensed by the State of Colorado*

SUPERSTRUCTURE — Plans include the "**Foundation Only**" plan components *as well as* the building envelope (skin) and structural elements above the ground level, to include:

- Complete structural design to include all framing plans, sections, details.
- Roof sections and details, as well as drainage calculations.
- Exterior wall sections and details, to include listed assemblies (if applicable)
- Site specific preliminary elevator shop drawings / submittals (if applicable)

Note: "Superstructure" plans cannot include interior finishes, non-bearing walls, mechanical, electrical or plumbing with the exception of temporary power or heating during construction. In addition, fire protection systems are limited to the requirements of Code. Shafts, elevators and stair enclosures cannot be included unless they are integral to the structure.

CORE/SHELL — Plans include the "**Foundation Only**" and "**Superstructure**" plan components and core elements, and may include any of the following:

- Stair enclosures
- Shafts
- Electrical, elevator, and mechanical rooms and equipment, to include gas lines and duct penetrations through the roof or exterior walls. Mechanical supply and return drops may terminate into the space with medium and high pressure trunk lines allowed.
- Interior finishes, Mechanical, Electrical and Plumbing completed **in areas accessed by multiple tenants** such as lobbies, corridors, and restrooms. Demising walls are allowed to be built in multi-tenant buildings. No other interior partitions are allowed.
- Electrical service, electrical panels and basic lighting fixtures
- Restroom facilities may be roughed in only or completed. Partial finishes are not allowed.
- Exterior walls may be drywalled

Each separate tenant will require an interior finish plan and permit, which may require additional modifications to the core and shell elements.

COMMERCIAL PLANS REQUIRE THE FOLLOWING INFORMATION

Architectural plans are drawn to a minimum 1/8" scale (to include electronic submittals) on a minimum 18" x 24" size material. Include all that is applicable to the project including but not limited to:

ARCHITECTURAL

Code Study Form

Demolition plan *if applicable*

IECC/ComCheck *if applicable*

Life safety plan *if 2 or more exits are required*

Accessibility plans *if R, I-1 or I-2 occupancy*

Architectural site plan

- Show fire separation distances on all sides

Floor plans

- Graphically indicate the scope of work
- Provide dimensions and scale
- Label proposed use of each space
- Proper exits
- Fire-rated vertical assemblies
- Indicate egress travel distance

Reflected ceiling plans

- Ceiling finish
- Fire resistance, if any
- Exit sign locations

Exterior elevations

- Indicate roofing material and slope
- Show finished grade

Roof plan (solar ready)

- Location and size of the solar ready zone(s)

Sections

- Indicate fire-rated horizontal assemblies

Details

- Wall types
- Windows
- Stairs
- Restrooms dimensioned for accessibility standards

Door schedules

- Door and frame rating as required
- Hardware schedule

STRUCTURAL

- Specifications & design criteria (page 2 in this handout)
- Foundation plan with soils report
- Floor framing plan
- Roof framing plan
- Structural sections and details

FOR DETAILED ELECTRICAL, MECHANICAL, PLUMBING, AND ELEVATOR REQUIREMENTS, SEE THE FOLLOWING HANDOUTS:

- Commercial Electrical Plan Review Requirements
- Commercial Mechanical Plan Review Requirements
- Commercial Plumbing Plan Review Requirements
- Elevator Plan Review Requirements

FIRE RESISTIVE CONSTRUCTION & SEPARATION CRITERIA

Indicate all assemblies of rated construction to include, but not limited to, the following:

- Exterior walls
- Fire barriers
- Fire walls
- Fire partitions
- Incidental use areas
- Shaft enclosures
- Horizontal assemblies
- Exit stair enclosures
- Corridors
- Members requiring individual encasement
- Fire Resistive construction based on the type of construction

EXITS

This guide is intended to be used by the designer or reviewer to ensure that exiting requirements have been met. This is a summary of the most common issues regarding exiting design.

NUMBER OF EXITS REQUIRE FOR EACH SPACE

For each space under consideration on the plans, write, “Space under consideration.” This may be a single room or a group of rooms having a common means of egress.

- Occupancy Classification
- Area in square feet
- Occupant load factor
- Number of occupants
- Number of exits required

SEPARATION OF EXITS

- When 2 exits are required, the distance between the exits must be equal to or more than 1/2 the diagonal dimension of the area served or 1/3 the diagonal if the building is sprinklered.
- When more than 2 exits are required, they must be arranged a reasonable distance apart so that if one exit becomes blocked, others will be available.

TRAVEL DISTANCE TO THE EXIT

- Common path of egress travel
- Exit access travel distance

TRAVEL THROUGH INTERVENING ROOMS

The code specifically prohibits travel through intervening

rooms with some of the following exceptions:

- Adjoining room/area is accessory to the area served;
- It is not a high hazard (H occupancy); and
- There is a recognized path of egress to an exit.

CORRIDORS

Most occupancies (A, B, E, F, M, S, U) require corridors to be 1-hour rated unless the building is sprinklered or the occupant load served by the corridor is 30 or less.

INTERIOR EXIT STAIR AND RAMP ENCLOSURES & FIRE-RESISTIVE RATINGS

- Exit stair and ramp enclosures cannot have any openings except those required for egress from normally occupied spaces.
- Rated assemblies must address opening protectives required per code.
- Members requiring individual encasement must be identified on the plans.

SHAFTS & ELEVATORS

- Elevator is considered a shaft if enclosed and must be protected as such.
- Elevator lobby protection is specified where required by code.
- Elevator cannot be located in stair or exit enclosure.
- Access to an exit gained through an elevator lobby is acceptable if another exit is provided that complies with code.

The general intent of the code is to allow the occupant passage through successive spaces of increased protection from an occupied space to the public way. As an occupant reaches a higher level of protection, the passage cannot revert to a lower protective level.

LIFE SAFETY PLAN

A Life Safety Plan (LSP) is required for all commercial projects intended for occupancy, not to include foundation only, super structure, or core/shell, where two or more means of egress are required. This is to be a separate plan from the Architectural Floor Plan, as they serve two different functions. The information presented on the LSP shall be sealed by the licensed Architect of record and include the following:

- Specify occupancy(s)
- Specify separated or non-separated occupancies
- Provide complete allowable area calculations to include all equations and sum-of-ratios when applicable (*not required for remodels only)*
- Indicate incidental use areas and separation requirements
- Specify total occupant load of building, or space, with an occupant load breakdown per usage
- Specify egress width requirements for all exit elements
- Specify maximum travel distance
- Specify maximum common path of travel
- Indicate all exits
- Label all exit sign locations and all means of egress illumination device locations.
- Clearly identify the following on the plan, with hourly requirements, as applicable:

  ⇒Fire Walls

  ⇒Fire Barriers

  ⇒Fire Partitions

  ⇒Smoke Barriers

  ⇒Smoke Partitions
- Provide proposed listing reference for all rated assemblies (GA, UL, etc.)
- Identify shafts, interior exit stairs, exit passageways, corridors, etc.

  •Specify if building is sprinklered or not, and indicate what type of system is being used

ACCESSIBILITY PLAN REQUIRED FOR ALL GROUP R OCCUPANCIES, TOWNHOUSES, I-1 AND I-2 OCCUPANCIES

An accessibility plan must be provided for all Group R, I-1, and I-2 occupancies constructed out of the IBC and Townhouses constructed out of the IRC. The accessibility plan must include:

1. Unit point requirements per Colorado Revised Statutes (CRS) 9-5 for the entire development, as applicable, to include types of units to be provided
2. Unit quantity requirements per Chapter 11 of the IBC, as applicable
3. Unit quantity requirements per Section R320 of the IRC, as applicable
4. An architectural site plan of the entire development to include the following:
   - GROUP R, I-1, and I-2: Building addresses and Building Types for all buildings
   - TOWNHOUSES: Building addresses to include lot numbers for all buildings
5. Simplified architectural floor plan(s) for each building being submitted, to include the following:
   - GROUP R, I-1, and I-2: Individual unit numbers (secondary addressing) for all units in the building on all levels, indicating level of accessibility per unit (Accessible, Type A, Type B, etc.)
   - TOWNHOUSES: Individual addresses/unit numbers for all units in the building, indicating level of accessibility per unit (Type A, Type B, Type B visitable, etc.)

DEPARTMENTS THAT REVIEW PLAN SUBMITTALS

Contact information is listed in the typical order of the review process, and includes most departments. After plans are submitted for review, you may track the progress on our web site, under PLAN CHECK, by the assigned plan number or project address.

Pikes Peak Regional Building Department		
Plan Review	719-327-2880	www.pprbd.org
Enumeration	719-327-2960	www.pprbd.org
Floodplain Management	719-327-2889	www.pprbd.org
Elevators	719-327-2880	www.pprbd.org
Development Services (Zoning)		
Colorado Springs Development Review	719-385-5982	www.coloradosprings.gov
El Paso County Development Services	719-520-6300	www.co.elpasoco.com
Fountain Planning & Zoning	719-322-2028	www.fountaincolorado.org
Green Mountain Falls City Clerk	719-684-9414	www.gmfco.us
Manitou Springs Planning	719-685-4398	www.manitousprings_co.gov
Monument Planning	719-481-2954	www.townofmonument.net
Palmer Lake	719-481-2953	www.ci.palmer_lake.co.us
Woodland Park	719-687-5202	www.city-woodlandpark.org
Calhan	719-347-2586	www.calhan.co
Fire Authority		
Colorado Springs	719-385-5982	www.coloradosprings.gov
https://coloradosprings.gov/sites/default/files/inline-images/commercial_construction_submittal_info.pdf		
CSFD does reviews for several fire jurisdictions throughout El Paso County. Please visit their website for the complete list.		
Cimarron Hills Fire	719-591-0960	www.cimarronhillsfire.org
Fountain Fire	719-382-7800	www.fountaincolorado.org
Manitou Springs Fire	719-685-1444	www.msvfd.com
Palmer Lake Fire	719-481-2902	www.palmerlakefire.org
Security/Stratmoor Hills Fire	719-392-3271	www.securityfiredept.org
Green Mountain Falls	719-684-2293	
Engineering		
Colorado Springs	719-385-5979	www.coloradosprings.gov
El Paso County	719-520-6460	www.co.elpasoco.com
El Paso County Heath Department	719-578-8968	www.co.elpasoco.com
Colorado Springs Utilities		
Applications and Permits	719-668-8111	www.csu.org
Gas/Electrical Division	719-668-8259	www.csu.org
Wastewater and Water Division	719-668-8259	www.csu.org

Suburban communities located outside of the city of Colorado Springs are served by several different utility providers and fire districts. Please call the appropriate phone number listed above under "Zoning" for information. Links to most cities and townships served by Regional Building Department are also available on