

### **6.3.3. Fire Protection and Wildfire Mitigation**

#### **(A)A. General.**

**(1) Purpose and Intent.** To ensure that proposed development is reviewed in consideration of the wildfire risks and need to provide adequate fire protection in order to:

- Regulate development, buildings, and structures so as to minimize the hazard to public health, safety, and welfare;
- Ensure that adequate fire protection is available for new development;
- Implement wildfire hazard reduction in new development;
- Encourage voluntary efforts to reduce wildfire hazards; and
- Reduce the demands from the public for relief and protection of structures and facilities;

#### **1. Purpose.**

The purpose of this section is to ensure that proposed development is reviewed in consideration of the need to provide adequate fire protection, minimize the hazard to public health, safety, and welfare, and provide requirements for the protection of structures and facilities.

#### **2. Applicability.**

This section shall apply to all development applications and permits within the unincorporated areas of El Paso County that are outside the boundaries of a Fire District.

**(2) Applicability.** This Section shall apply to all development applications and permits within the unincorporated areas of El Paso County. The standards and requirements related to construction in wildland areas are applicable on land that is shown as forested on the Vegetation Map or to areas identified in the wildland fire risk and hazard mitigation plan, if required by the approval of that plan.

#### **3. No Permit or Approval Granted without Compliance.**

No development permit shall be approved or issued unless in compliance with the provisions of this section. Notwithstanding the foregoing, the PCD Director has the authority to grant administrative variances to the design standards of this section provided the alternative design is completed by a qualified professional and meets the intent of this section.

#### **4. Development Outside Fire Authority Boundaries.**

Proposed subdivisions outside the boundaries of a Fire District shall petition for inclusion into a district. Waivers of this requirement may only be approved by the BOCC. An applicant's waiver request shall, at a minimum, include the following:

- A letter from the nearest Fire District justifying why inclusion is not feasible; and
- A letter or report from a Third-Party Fire Reviewer providing a recommendation to the BOCC that the proposed development complies with this section.

If a waiver of this requirement is approved, evidence of a contract for service from a Fire District is required.

#### **5. Combustible Materials for Commercial Use.** Propane tanks and other combustible liquids storage shall conform to NFPA 30: Flammable and Combustible Liquids Code and NFPA 58: Liquefied Petroleum Gas Code. A Fire Protection Report and/or a report detailing mitigation of wildland fuels may be required.

**(3) Relationship to Other Standards.** Where a conflict exists between adopted fire district or fire department standards and this Code, the Board of County Commissioners may choose to approve an alternative design which accomplishes the purpose of this section and provides an equivalent benefit to the development. The Fire Authority should provide a recommendation regarding whether the alternative design accomplishes the intent of this section and whether it provides an equivalent benefit to the development.

**(4) Responsibility of Fire Authority.** It is the responsibility of the Fire Authority to provide recommendations as to whether a new development meets the applicable fire code standards for the respective area. If a new development does not meet the applicable standards, then the fire authority should provide comments regarding areas of non-compliance and recommendations for achieving compliance.

**(5) Basis of Standards.** The basis of the standards in this Section is the most current standards adopted by the National Fire Protection Agency (NFPA) and the Colorado State Forest Service (CSFS).

**(6) Wildfire Hazard Maps/Vegetation Map.** El Paso County shall maintain a Vegetation Map depicting wildfire hazard areas of the County either based on vegetation type or wildfire hazard analysis, which shall be the official map for the purposes of applying this Section.

**(B) Reports and Commitments Standards for Subdivisions.**

**1. (1) Fire Protection Report.** A Fire Protection Report is required for ~~any all subdivision applications, or other development application as determined by the PCD Director,~~ and shall include ~~the Fire Authority's capabilities, including existing and proposed equipment, facilities, services, response time to provide fire protection for the proposed subdivision, an analysis of compliance with the Fire Protection and Wildfire Mitigation Section of this Code, and an analysis of compliance with the applicable fire code.~~ at a minimum the following:

- ~~A letter of commitment from the Fire Authority to provide structural fire protection (only applicable if inclusion is not feasible);~~
- ~~Water supply for fire suppression; and~~
- ~~An analysis of compliance with this Code.~~

~~A Fire Protection Report prepared by a qualified professional may be required as determined by the PCD Director.~~

**(2) Fire Protection Commitment.** A written commitment to provide structural fire protection may be required for any proposed subdivision and the PCD Director may be requested for other development applications.

**(3) Mitigation Costs Included in Construction Financial Assurance.** If the Board of County Commissioners determines that wildfire mitigation issues are significant enough to require mitigation associated with development construction activities, the cost of the mitigation shall be included in the construction financial assurance. The Fire Authority may, at its discretion, choose to provide a recommendation to the Board of County Commissioners regarding whether the cost associated with performing wildfire mitigation is appropriate and should be secured and accounted for within the financial assurance estimate and associated collateral for the overall development.

**(4) Development Outside Fire District or Fire Department Boundaries.** Proposed subdivisions outside the boundaries of a fire district or fire department shall annex into a department or provide evidence of a contract for service from a Fire District or Fire Department. Waivers of this requirement may only be approved by the Board of County Commissioners. An applicant's waiver request shall, at a minimum, include the following:

- ~~A letter from the nearest fire district or fire department demonstrating that annexation is not economically feasible.~~

- A letter or report from a Third Party Fire Reviewer providing a recommendation to the Board of County Commissioners that the proposed development complies with the Fire Protection and Wildfire Mitigation Section of this Code. In the case of a conflict between adopted standards and this Code, the Third Party Fire Reviewer may recommend an alternative design which accomplishes the purposes of this section and provides an equivalent benefit to the development.

**(5) Plat Notes Required.** Notice of any wildfire mitigation issues or obligations may be required by the County through conditions of approval or notes placed on the face of the plat.

### **(C) Design Standards.**

#### **1.2. (1) Water Supply.**

- General.** Water supply systems used for fire protection purposes shall be installed and maintained in accordance with current NFPA standards 22, 24, 1140, and 1142, as applicable. The required fire flow for one or more buildings of a planned building area (also referred to as the planned building group by the NFPA) shall be calculated per the following conditions: determined by the Fire Authority using locally adopted codes, or as specified per the following conditions:
  - For areas without municipal-type water systems, NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting, shall be applied.
  - For those areas with municipal-type water systems, nationally recognized criteria shall be applied. For those areas with municipal-type water systems, nationally recognized criteria, such as NFPA, National Fire Academy (NFA), and International Organization for Standardization (ISO), shall be applied.

#### **b. Automatic Fire Protection.**

Design for aAutomatic fire protection shall be in compliance with the applicable adopted fire code. If a property is not within an area of the County having an adopted fire code, then the design for automatic fire protection shall comply with the latest edition of NFPA 13, 13R or 13D as applicable. shall be in compliance with the adopted Pikes Peak Regional Building Code.

#### **c. Areas with Central Water Systems.** This paragraph is applicable to a water supply installed and maintained by a public utility company or other public entity, on public property, in the road, or in an approved dedicated easement.

**(i) Water Distribution System Pressure.** The water ~~distribution supply~~ system shall be capable of delivering fire flow at a minimum rating of 20 pounds per square inch for each hydrant connected to the ~~distribution~~ system within the proposed subdivision.

**(ii) Dead-End Mains.** Dead-end mains shall not exceed 600 feet in length for main sizes less than 10 inches in diameter.

**(iii) Fire Hydrant Spacing.** Fire hydrants shall be located so that all residential structures are within 500 feet and all nonresidential structures are within ~~150-400~~ feet of a hydrant. Fire hydrants shall be installed adjacent to a road or emergency vehicle lane at a spacing not to exceed ~~660-1000~~ feet of vehicle travel distance. ~~Where the proposed buildings warrant, the The Fire Authority PCD Director may recommend require~~ a greater spacing distance or require additional hydrants and closer spacing based upon ~~the applicable Fire Code or~~ NFPA standards ~~where the proposed buildings warrant.~~

**(iv) Fire Hydrant Accessibility.** Fire hydrants shall be accessible to ~~a Fire Dd~~istrict ~~or fire department~~ apparatus from ~~maintained public a-~~roads, (i.e., ~~maintained public roads,~~ privately-maintained roads, or emergency vehicle access roads,) or unobstructed emergency vehicle lanes (i.e., such as driveways, parking drive aisle~~s~~, or emergency vehicle lane~~s~~).

**(v) Fire Hydrant Supply Lines.** Fire hydrants shall be supplied by not less than a ~~6-six-~~inch diameter main installed on a looped system, or by not less than an ~~8-eight-~~inch diameter main if the system is not looped or the fire hydrant is installed on a dead-end main exceeding 300 feet in length.

**(vi) Fire Hydrants in Parking Areas.** Fire hydrants located in parking areas shall be protected by barriers that will prevent physical damage from vehicles without obstructing hydrant operation.

**(vii) Fire Hydrant Relationship to Roads.** Fire hydrants shall be located within ~~twelve 6~~ feet of the edge of the pavement unless there is a conflict with the ECM, ~~or the Fire Authority recommends another location is more acceptable for fire district or fire department use.~~ All roads and emergency vehicle lanes shall be designed to maintain a minimum unobstructed clearance of ~~3-three~~ feet around fire hydrants.

**(viii) Fire Hydrant Easements.** Easements for fire hydrants shall be provided and dedicated ~~to the appropriate fire or water authority for fire and water~~

authority use when the hydrants are not within a public road right-of-way. The easement shall afford accessibility to the hydrant from the right-of-way.

**(ix) Release of Financial Assurance for Water Supply Systems.** The contractor, installer, or owner of water supply systems shall provide a letter of acceptance from the water district prior to release of construction financial assurance for the system. The contractor, installer, or owner of water supply systems shall demonstrate by testing that the capacity of the water supply system will meet fire protection design requirements prior to release of construction financial assurance for the system. The testing shall be certified by a qualified professional. The tests may be provided to the Fire Authority if requested.

**d. Areas without Central Water Systems.**

**i. Fire Cisterns.**

- Fire Cisterns Required: Fire cisterns shall be provided in planned building areas which are not served by hydrants, unless an alternative fire protection water supply that complies with NFPA is approved. the Fire Authority has recommended and the approval authority has approved an alternative fire protection water supply system. All currently recognized water supplies may be considered when determining the need for and the placement of new water storage sites.
- Construction and Design Standards: Construction and design of fire cisterns shall be in accordance with the approved plans and conform to the requirements of the NFPA standard 1142 for construction, size of cistern, and capacity. on water supplies for suburban and rural fire fighting.
- Design Standards for Subdivisions with More than One Cistern: For subdivisions where more than one fire cistern is required, fire cisterns shall meet the requirements of the NFPA standards for water supplies for suburban and rural fire fighting. For this type of subdivision, fire cisterns shall be designed for the largest building allowed by zoning in the worst case hazard and construction class.
- Design Standards for Subdivisions with One Cistern: For subdivisions where only one fire cistern is required, the minimum capacity of the fire cistern shall meet the requirements of the NFPA standards on water supplies for suburban and rural fire fighting, or shall have a total capacity equal to 300 gallons for each acre within the subdivision plus 3,000 gallons per dwelling unit, whichever is greater.

- Cistern Turnaround: A dedicated turnaround shall be placed no more than ~~50-fifty~~ feet from a fire cistern, and the standpipe shall be within ~~twelve~~<sup>8</sup> feet of the nearest usable portion of the dedicated right-of-way or approved easement, unless otherwise recommended ~~by the applicable Fire Authority~~ and approved by the ~~approval authority~~County.
- Easements Required: Fire cistern easements shall be provided and dedicated to the appropriate ~~fire department~~Fire Authority at the time of platting to afford accessibility of the cistern from a public road. Easements shall be of sufficient size to facilitate maintenance.
- **Travel Distance.** The County may determine that a cistern is not required upon an evaluation from a qualified professional on recognized water supplies within a two (2) mile travel distance.

ii. **Dry Hydrants.**

- **Use of Dry Hydrants:** Dry hydrants may be provided in combination with fire cisterns or other approved fire protection water supply systems. Plans for dry hydrants shall ~~identified on the final plat and/or site development plans, be submitted to the Fire Authority for recommendation and approved by the approval authority. Dry hydrants shall comply with NFPA 1142.~~
- ~~Construction Standards: Construction and installation of dry hydrants shall be in accordance with the approved plans and conform to the requirements of the NFPA standards on water supplies for suburban and rural fire fighting.~~
- ~~Accessible: Dry hydrants shall be located to be accessible under all weather conditions.~~
- ~~Clearance: Dry hydrants shall have a minimum clearance of 20 feet on each side and be located a minimum of 100 feet from any structure. Highway or road traffic shall not be impaired during the use of the dry hydrant.~~
- ~~Protected: Dry hydrants shall be protected from damage by vehicular and other perils, including freezing and damage from ice and other objects.~~

- **Visible:** Dry hydrant locations shall be made visible from the main roadway during emergencies by reflective marking and signage and shall be in conformance with the NFPA requirements. All identification signs shall be approved by the highway authority prior to installation if they are to be located on the right-of-way or are subject to State laws.
- **Access to Hydrant:** Vehicle access shall be designed and constructed to support the heaviest vehicle.
- **Maintenance of Dry Hydrant:** The County shall approve the ownership and maintenance responsibilities for dry hydrant facilities per the NFPA 1142 Standards. Dry hydrants shall be checked and maintained at least quarterly. Thorough surveys shall be conducted, to reveal any deterioration in the water supply situation in ponds, streams, or cisterns. Grass, brush, and other vegetation shall be kept trimmed and neat. Vegetation shall be cleared for a minimum 3 foot radius from around hydrants. The hydrant shall be painted as needed, with reflective material to maintain visibility during emergencies. The Fire Authority may make a recommendation regarding the ownership and maintenance responsibilities for the facilities per the NFPA 1142 Standards. The approval authority will approve the ownership and maintenance responsibilities for the facilities.
- **Maps and Location/Detail Drawings:** The Fire Authority and El Paso County Sheriff's Office shall maintain in a safe location, the maps and records of dry hydrant system locations, installation, tests, inspections, maintenance and repairs. When the property is not within a Fire Protection District it is the responsibility of the property owner and El Paso County Sheriff's Office to maintain in a safe location, the maps and records of dry hydrant system locations, installation, tests, inspections, maintenance and repairs.
- **Easements Required:** Dry hydrant easements shall be provided and dedicated to the appropriate fire departmentFire Authority (or County where there is no fire department) to afford accessibility of the dry hydrant from a public road. Easements shall be of sufficient size to facilitate maintenance.

iii. **Water Supply Requirements.** The owner of the cistern or dry hydrant is responsible for planning, developing, permitting, and continual provision

of a sufficient water supply necessary to maintain the fire protection requirements of a cistern system or dry hydrant system, to the satisfaction of the ~~approval authority with recommendation by the Fire Authority~~ County.

**3. Roads.** This paragraphSection shall apply to all roads providing access to a ~~planned building area~~ development whether or not they are dedicated as County-maintained public roads.

- a. **Roads Constructed to County Standards.** All roads, including private roads and emergency vehicle access roads, shall be designed and constructed according to this Code and the ECM. Emergency vehicle access roads shall, at a minimum, be constructed to the County's gravel road standard if open to the public. Emergency vehicle access roads which are not open to public travel shall meet the non-road access standards
- b. **Roads within 150 Feet of Development.** Roads or emergency vehicle lanes shall be provided within 150 feet of all development except single family residential development.
- c. **Two Access Routes Required.** Access to a ~~planned building area~~ development shall be provided by a minimum of 2 separate routes in accordance with the requirements of this Code and the ECM if a single access exceeds the cul-de-sac exceeds the length allowed by the ECM. The distance between the access routes shall be half the frontage length of the development.
- d. **Turnaround Required on Dead-End Roads.** Every dead-end road more than 300 feet in length shall be provided with a roadway termination meeting ECM standards.

**(e) Road Grades in Wildland Fire Areas.** Within wildland fire areas, ~~road grades steeper than 10 percent may be permitted where the Fire Authority and ECM Administrator recommend that the mitigation measures are adequate and the approval authority approves the mitigation measure.~~

**4. Non-Road Access.** The following minimum standards shall apply to emergency vehicle lanes, driveways, and parking lot drive lanes serving as emergency vehicle lanes.

- a. **Emergency Access Provided.** Access for emergency responders, ingress, egress, and evacuation shall be provided for all buildings.

- b. **Driveways Required.** Where any point of a building is greater than 150 feet from a road, a driveway meeting ~~these the~~ standards of this Code shall be provided to within 150 feet of the furthest point on the building.
- c. **Emergency Vehicle Lanes Required.** ~~The Fire Authority may recommend emergency vehicle lanes be provided. Emergency vehicle lanes shall be provided as required by the approval authority. The County may require that emergency vehicle lanes be provided per Chapter 18 of NFPA to ensure fire-fighting apparatuses can gain reasonable access to a building. The responding Fire District may recommend emergency vehicles lanes be provided.~~

- e.d. **Emergency Access Lane Design.** An emergency vehicle lane shall be designed and constructed to enable fire-fighting apparatus to maneuver broadside or directly forward within a minimum of ~~5~~ five feet and a maximum of 25 feet of ~~structures~~buildings.

- e. **Driveway and Emergency Vehicle Lanes.**

- i. **Driveways.** ~~Driveways greater than 150 feet in length and no more than 300 feet in length shall not be less than 10 feet in unobstructed width. Where the driveway is greater than 300 feet, it shall be provided with turnouts or turnarounds at locations approved by the County.~~
- ii. **Emergency Vehicle Lanes.** ~~Emergency vehicle lanes providing one-way travel shall be a minimum of 16 feet in width, and emergency vehicle lanes with two-way travel shall be a minimum of 24 feet in width. Dead-end emergency vehicle lanes in excess of 300 feet in length shall be provided with turnouts and turnarounds approved by the County. The turnaround at the terminus shall have a minimum radius of 50 feet. The County may approve, as an alternative, a "hammerhead" turnaround to provide emergency vehicles with a three-point turnaround.~~

~~(e) Width of Driveway and Emergency Vehicle Lanes. Where the driveway is greater than 150 feet in length, it shall be not less than 10 feet in unobstructed width. Emergency vehicle lanes providing one-way travel shall be a minimum of 16 feet in width, and fire lanes with two-way travel shall be a minimum of 24 feet in width.~~

- f. **Vertical Clearance.** At least 13 feet ~~6 inches and one-half feet~~ of vertical clearance shall be provided and maintained over the full width of an emergency vehicle lane or driveway.

- g. **Turns.** ~~Required driveways~~ **Driveways** shall be designed, constructed, and maintained to accommodate the turning radius of the largest apparatus typically used to respond to that location. A turn in an emergency vehicle lane shall be constructed with a minimum radius of 25 feet at the inside curb line and a minimum radius of 50 feet at the outside curb line.
- h. **Grades.** Road grades steeper than 10 percent may be ~~permitted~~ **allowed** where the ~~Fire Authority and ECM Administrator recommend~~ **County agrees** that the mitigation measures are adequate and the ~~approval authority~~ **County** approves the mitigation measure.
- i. **Emergency Vehicle Lanes Connecting to Roads.** Emergency vehicle lanes connecting to roads shall be provided with curb cuts extending at least ~~2~~ **two** feet beyond each edge of the fire lane.

**(j) Turnouts and Turnarounds Required.**

**(i) Driveways.** ~~Where the required driveway is greater than 300 feet, it shall be provided with turnouts or turnarounds at locations approved by the approval authority with recommendation from the Fire Authority.~~

**(ii) Turnarounds Required.** ~~The fire authority may provide a recommendation regarding turnarounds. Dead-end emergency vehicle lanes in excess of 300 feet in length shall be provided with turnouts and turnarounds as approved by the approval authority. The turnaround at the terminus shall have a minimum radius of 50 feet. The approval authority shall be authorized to approve, as an alternative, a "hammerhead" turnaround to provide emergency vehicles with a three-point turnaround.~~

- j. **Load Design.** Emergency vehicle lanes and ~~required~~ driveways shall be designed, constructed, and maintained to accommodate the load of the largest apparatus ~~typically used to respond to that location that typically is used to respond to that location.~~
- k. **Bridges or Drainage Crossings.** A bridge or drainage crossing on an emergency vehicle lane or ~~required~~ driveway shall be designed to accommodate the load of the largest apparatus typically used to respond to that location. The load limit shall be clearly posted at the approaches to the bridge.
- l. **Landscaping Maintained.** Landscaping or other obstructions shall be maintained in a manner that provides unobstructed access for ~~fire department~~ **Fire Authority** operations.

## 5. Gates.

- a. **Gate Location and Dimensions.** Gates shall be located a minimum of 30 feet from the public right-of-way and shall not open outward. The clear opening provided through a gate shall be 2 feet wider than the traveled waya minimum of 16 feet in width.
- b. **Locks.** Fire Districtdepartment personnel shall have ready access to locking mechanisms on a gate restricting access. to a fire line. Proposed changes to access shall be approved by the Fire Authority. Use of Knox products shall be coordinated with the applicable Fire Authority.

## ~~(D) Construction in Wildland Fire Areas.~~

### ~~(1) General.~~

- ~~(a) Applicability.~~ All structures potentially threatened by wildland fire shall be designed, located, and constructed to comply with this Section.
- ~~(b) Risk Assessment Required.~~ A wildland fire risk and hazard severity assessment shall be performed for all structures and groups of structures adjacent to wildland fuels.
- ~~(c) Maintenance of Property.~~ After construction, continued maintenance of the grounds and storage of combustible materials shall be performed to maintain these requirements.
- ~~(d) Location of Buildings and Building Envelopes.~~ Buildings located closer than 30 feet to a vegetated slope shall require special mitigation measures in accordance with NFPA 1144, Standard for Protection of Life and Property from Wildfire. Building envelopes shall not include gullies, fire chimneys, saddles, or other terrain conducive to wildfire spread.
- ~~(e) Roof Design and Materials.~~ Only roof covering assemblies rated Class A shall be used in a wildland area. The specific class shall be consistent with the wildland fire risk and hazard severity assessment.
- ~~(f) Accessory Structures.~~ Outbuildings, patio covers, gazebos, and other accessory structures shall be separated from the main structure by a minimum of 30 feet.
- ~~(g) Access to Structures.~~ At least one approved means of vehicular access shall be provided to each structure or other nonstructural fire hazard in accordance with the following:

(i) For structures or nonstructural fire hazards exceeding two stories or 30 feet in height above average adjacent ground level, or 12,000 square feet of gross floor area, no less than 2 separate approved means of access shall be provided.

(ii) Approved vehicular access shall be provided to within 150 ft of any point of the exterior wall of each structure. Where two means of vehicular access are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

**(h) Access to Structures Not Protected by Automatic Sprinklers.** An approved means of vehicular access shall be provided to within 30 feet of all points of at least 2 exterior walls for any structure not protected by automatic sprinklers that exceeds 2 stories or 30 feet in height above average adjacent ground elevation. Single and two-family dwellings are exempt from this requirement.

**(i) Access to Structures Protected by Automatic Sprinklers.** For any structure protected by an automatic sprinkler system, an approved means of vehicular access shall be provided to within 400 feet of any point of the exterior wall. For any structure exceeding 3 stories or 35 feet in height above average adjacent ground elevation and protected by an automatic sprinkler system, an approved means of vehicular access shall be provided to within 30 feet of all points of at least 2 exterior walls.

**(j) Separation Between Structures.** A structure in a planned building area shall be separated from another structure by at least 30 feet and shall be located at least 25 feet from a lot, parcel, or tract line. A structure in a planned building area that exceeds 2 stories or 30 feet in height above average adjacent ground elevation and is not protected by an automatic sprinkler system shall be separated from other structures by at least 50 feet and shall be located at least 25 feet from a lot, parcel, or tract line.

**(2) Wildland Fire and Hazard Mitigation Plan Required.**

**(a) General Plan Standards and Requirements.**

When a subject lot, parcel, or tract falls within a wildland fire area, a wildland fire risk and hazard mitigation plan shall be prepared by a qualified professional and shall be tailored to the stage of development application and the stage of

subdivision-related construction. A higher level of plan may be submitted at any stage of the process so long as it is implemented at the final stage of development. Plans shall utilize the Colorado State University (CSU) Guidelines and NFPA standards, as applicable. Additional fire precaution measures may be required because of fire hazard in the following areas:

- (i) Areas depicted as forested on the Vegetation Map;
- (ii) Areas rated as fire hazards by the CSFS;
- (iii) Where slopes in or adjacent to proposed development are in excess of 20%; or
- (iv) Where the local fire protection agency identifies a specific fire danger.

**(b) Development of Plan.**

**(i) General Mitigation Plan Requirements.** This plan shall include, but not be limited to, the following:

- Access, ingress, egress, and evacuation;
- Fuel modification;
- Water supply;
- Construction, location, and design of structures; and
- Ignition potential.

**(ii) Approval of Wildland Fire and Hazard Mitigation Plan.**

The Approval Authority shall approve the mitigating measures relative to access, defensible space, water supply, and construction based on the relative risk and hazard rating.

**(3) Wildland Fire Risk and Hazard Severity Analysis Required.**

**(a) Risk Assessment to be Performed.** A risk and hazard rating analysis shall be performed to determine the level of the wildland fire threat to life and values at risk prior to building permit authorization in high hazard areas unless completed as part of the wildland fire and hazard mitigation plan.

**(b) Basis for Mitigation Measures.** The risk and hazard ratings shall be the basis for the implementation of mitigation measures relative to vegetation, other combustibles, and construction criteria.

**(c) Analysis Rating Factors.** The following shall be considered in analyzing the risk factors:

- The history of local wind, relative humidity, temperature, and fine fuel moisture content shall be considered in determining defensible space.
- All vegetative fuels and other combustible materials shall be evaluated for their potential to contribute to the intensity and spread of wildland fire.
- Slope and aspect shall be evaluated as to their potential to increase the threat of wildland fire to life or improved lot, parcel, or tract.
- The factors determining required defensible space shall include the history of wildland fire for the area.
- Fire-safe routes for emergency service apparatus and for egress shall be evaluated.
- Other factors that can affect the risk of ignition or the spread of wildland fire on improved lot, parcel, or tract, including the risk of structure fires spreading to vegetation, shall be part of the analysis.

**(d) Recommendation of Wildland Fire Risk and Hazard Rating.** The rating assignments developed to meet the requirements of this Code may be reviewed by the Fire Authority who may provide a recommendation regarding the rating.

**(4) No Permit or Approval Granted without Compliance.** No permit or approval associated with development, construction or occupancy shall be approved or issued until the provisions of this standard are satisfied. Notwithstanding the foregoing, the Planning and Community Development Director shall have the authority to grant administrative variances to the design standards of this Section upon the finding of two or more of the following criteria:

- The fire authority responsible for providing fire protection services, as applicable, to the project has adopted a fire code with a more stringent design standard from that contained herein;
- The application of a design standard will cause undue hardship or practical exceptional difficulties; or
- An alternate design standard will satisfy the intent and meet the goals of these Fire Protection and Wildfire Mitigation Regulations.

**(5) Defensible Space Requirements.**

**(a) General.** The Defensible Space Requirements in Table 6.8 shall be implemented as minimum requirements in association with development in any Wildland Fire Area.

**Table 6-8. Defensible Space Clearing and Structural Summary (Recommendations from NFPA by Wildland Fire Hazard Severity Analysis)**

Low Hazard	High Hazard
<p>9.14 m (30 ft) clearance.</p> <p>Class A roof.</p> <p>No portion of trees or other vegetation within 3.048 m (10 ft) of chimney outlets.</p> <p>Trees within defensible space shall be pruned to minimize ladder fuels.</p>	<p>9.14 m (30 ft) irrigated.</p> <p>Class A roof.</p> <p>30.48 m (100 ft) fuel treatment.</p> <p>Noncombustible siding/decks, and boxed eaves.</p> <p>Selected fire-resistant trees within 9.1 m (30 ft) of structures.</p> <p>Selected thinning of trees and shrubs.</p> <p>Trees within defensible space shall be pruned to minimize ladder fuels.</p> <p>All trees and shrubs pruned of dead material.</p> <p>No portion of trees or other vegetation within 3.48 (10 ft) of chimney outlets.</p>

**(b) Maintenance of Defensible Space and Associated Fuel Break**

**Thinning.** Defensible space and fuel break thinning work shall be completed and maintained to the standards described in the Colorado State University's Cooperative Extension Fact Sheet 6.302. The responsibility for maintaining defensible space and associated fuel break thinning lies with the landowner. Noncompliance with defensible space maintenance standards will be enforced as a zoning violation.

**(6) Fuels Modification During Development and After Construction.**

**(a) Identification of Modification Required.** Identification of fuel modification measures may be required in order to reduce the threat of wildfire. If fuel modification is determined to be necessary, the plan shall be prepared by a qualified professional. A fuel modification plan shall comply with NFPA requirements. Required elements shall include but are not limited to the following:

- Identification of fuel type, volume and loading, in conjunction with an assessment of slope and aspect, to determine the ability for a wildfire to spread;
- Reduction of fuel loading and modification of fuel types to reduce the risk to structures or adjacent vegetation, including the creation of fuel breaks; and
- Creation of defensible space to protect structures from approaching wildfire and reduce the potential for turning a structure fire into a wildfire.

**(b) Fuel Modification Standards.** When the Wildland Fire Risk and Hazard Mitigation Plan requires establishment of a fuel modification area:

- The modifications shall extend at least 30 feet from structures;
- Ground fuels within the defined defensible space shall be treated or removed;
- Live vegetation within the defensible space shall have dead material removed and shall be thinned and pruned;
- Dead or downed fuels within the defensible space of buildings shall be removed or treated to maintain the fuel modification area;
- Vegetation under trees within the fuel modification area shall be maintained at a height that will preclude ground fire from spreading in the tree crown;
- The fuel modification plan shall include a maintenance element with the responsibility for maintenance defined;
- In these areas all slash (fallen trees, shrubs, pulled stumps, and other combustible materials) may be required to be disposed of from an area extending to at least 150 feet from the road centerline prior to the acceptance of any roads;
- All slash shall also be removed from the vicinity of the home sites prior to final building inspection; and
- Continuous proper forest management to maintain a low wildfire danger shall be guaranteed.

**(7) Combustible Materials.** Propane tanks and other combustible liquids storage shall conform to NFPA 30, Flammable and Combustible Liquids Code, NFPA 58, Liquefied Petroleum Gas Code, and the Wildland Fire Risk and Hazard Mitigation Plan. Other combustible materials shall be removed from the defensible space or stored in conformance with the fire protection plan.

(Res. No. 17-374, Exh. A, 12-12-2017; Res. No. 21-36, Exh. A, 1-26-2021)

## **6.3.4. WILDLAND-URBAN INTERFACE AREAS**

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### **A. Applicability**

This section applies to areas within unincorporated El Paso County that are not located within a Fire District and are located within the Wildland-Urban Interface as defined in Appendix E to the Code. Where there is a conflict between Appendix E and the other provisions of this Code, Appendix E shall govern.

### **B. General**

- 1. Wildland-Urban Interface Requirements.** Properties within the Wildland-Urban Interface must comply with Appendix E.
- 2. Road Grades within Wildland-Urban Interface Areas.** Within Wildland-Urban Interface Areas, road grades steeper than 10 percent may be permitted where the County recommends that the mitigation measures are adequate and approves the mitigation measure.
- 3. Plat Notes Required.** Notice of any wildfire mitigation issues or obligations may be required by the County through conditions of approval or notes placed on the face of the plat.

### **C. Wildland Hazard and Mitigation Plan**

**A. Wildland Hazard and Mitigation Plan.** When a subject lot, parcel, or tract falls within the Wildland Urban Interface area, a wildland fire risk and hazard mitigation plan prepared by a qualified professional may be required by the PCD Director. A wildland fire risk and hazard mitigation plan shall include, at a minimum, the following:

- Access, ingress, egress, and evacuation.**
- Water supply.**
- Construction, location, and design of structures.**
- Ignition potential.**
- Implementation of mitigation measures relative to vegetation, other combustibles, and construction criteria.**
- Structure hardening and defensible space requirements**
- The history of local wind, relative humidity, temperature, and fine fuel moisture content shall be considered in determining defensible space.**
- All vegetative fuels and other combustible materials shall be evaluated for their potential to contribute to the intensity and spread of wildland fire.**

- Slope and aspect shall be evaluated as to their potential to increase the threat of wildland fire to life or improved lot, parcel, or tract.
- The factors determining required defensible space shall include the history of wildland fire for the area.
- Fire-safe routes for emergency service apparatus and for egress shall be evaluated.
- Other factors that can affect the risk of ignition or the spread of wildland fire on improved lot, parcel, or tract, including the risk of structure fires spreading to vegetation, shall be part of the analysis.

### **6.3.5. DEVELOPMENT LOCATED WITHIN THE BOUNDARIES OF A FIRE DISTRICT**

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#### **1. Applicability.**

This section shall apply to all areas within the unincorporated areas of El Paso County that are within the boundaries of a Fire Authority.

#### **2. Relationship to Other Standards.**

When located within the boundaries of a Fire Authority, the Fire Authority is responsible for determining compliance with the adopted Fire Code. The County shall determine compliance with ECM requirements. The Fire Authority may apply the standards of this Code for fire protection and wildfire mitigation when the adopted Fire Code does not provide specific regulations.

#### **3. Letter of Compliance.**

The PCD Director may require a letter from the applicable Fire Authority stating the proposed development complies with the requirements of the adopted Fire Code.

### **6.3.4. Forestry**

#### **(A) General.**

**(1) Purpose.** To ensure that proposed development is reviewed in consideration of forestry issues to:

- Identify forest health concerns and inform purchasers of developed lot, parcel, or tract;
- Improve overall forest health; and
- Implement wildfire hazard reduction.

**(2) Applicability.** The provisions of this Section shall apply to the review and approval of all development applications and permits on land that is forested.

**(3) Vegetation Map of Forested Areas.** El Paso County shall maintain a Vegetation Map depicting forested areas of the County, which shall be the official map for purposes of this Chapter. Additional mapping of infected and diseased tree locations may be maintained by the ESD.

**(B) Forestry Management Standards.**

**(1) Forestry Management to Conform to ESD Recommendations.** The applicant should consult with the ESD prior to submission of the development application. ESD input should be reflected in design of the project.

**(2) Forestry Management to Conform to CSU Guidelines.** Development applications and permits should utilize the CSU Guidelines with respect to forest management including wildfire mitigation and pest control.

**(3) Maintenance Responsibilities.** Forestry management begins at the time of development, but extends as an obligation of the HOA and property owners into perpetuity. Categories of responsibility that should be addressed in the development include: (1) homeowner (responsibility to maintain, etc.); (2) HOA (Common areas, HOA enforcement against homeowners, obligation to maintain in private road tracts, etc.); (3) builder (what to be shown on site, existing vegetation, vegetation which is to be removed or thinned, etc.); and (4) developer (responsibility to complete requirements of the plan, relationship to financial assurance, relationship to warranty/maintenance bond, relationship to future filings, relationship to buildings, etc.).

**(4) Forestry Management Plan.**

**(a) Forestry Management Plan Required.** A forestry management plan shall be developed and submitted with the development application. The plan should describe the overall forestry management program for the subject property in conformance with the standards identified.

**(b) Recording of Plan.** Implementation of the forestry management plan shall be accomplished by the recording of the development guide (in the case of a PUD) or the final plat and related documents (in the case of a subdivision).

**(c) Mitigation Costs Included in Construction Financial Assurance.** If the forest health issues are significant enough in the determination of the PCD Director to require mitigation associated with development construction activities, the cost of the mitigation shall be included in the construction financial assurance.

**(d) Plat Notes Required.** Notice of any forest health issues may be required by the County through conditions of approval or notes placed on the face of the plat.