

ORDINANCE NO. _____

AN ORDINANCE AMENDING ARTICLE 8 OF CITY CODE CHAPTER 25-12 BY ADDING SECTIONS 25-12-181 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE, SECTION 25-12-182 CITATIONS TO THE WILDLAND-URBAN INTERFACE CODE AND SECTION 25-12-183 LOCAL AMENDMENTS TO THE WILDLAND-URBAN INTERFACE CODE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. Article 8 (*Reserved*) of City Code Chapter 25-12 (*Technical Codes*) is amended to change the title to Wildland-Urban Interface Code and add new sections 25-12-181, 25-12-182 and 25-12-183 to read as follows:

ARTICLE 8. WILDLAND-URBAN INTERFACE CODE *Reserved.*

§ 25-12-181 – WILDLAND-URBAN INTERFACE CODE.

(A) The International Wildland-Urban Interface Code and Appendices A through D, 2015 Edition, published by the International Code Council (“2015 Wildland-Urban Interface Code”), are adopted and incorporated by reference into this section with the changes described in Subsection (B) and amendments in Section 25 12-183 (*Local Amendments to the 2015 Wildland-Urban Interface Code*).

(B) The following sections are amended or deleted:

101.4	101.5		
102.4	102.4.2	103.1	103.2
104.1	104.2	104.3	104.3.1
104.5	104.6	104.7	105.1
105.3	106.2	107.1	107.2
107.4	107.4.1	107.4.2	107.5
107.6.1	107.7	107.8	107.10
108.2	108.3	108.7	108.8
108.10	108.11	108.12	109.1
109.1.2	109.1.2.1	109.1.2.2	109.1.2.3
109.1.4	109.1.4.1	109.1.4.2	109.1.4.3
109.2.1	109.2.2	109.3	109.4
109.4.2	109.4.3	109.4.4	109.4.5

Commented [BM1]: Table revised to correct errors and for current proposed amendments .

109.4.5.2	109.4.5.2.1	109.4.5.3	109.4.5.3.1
109.4.5.5	109.4.5.6	109.4.6	109.4.7
110.1	110.2	110.3	110.4
111.2	111.3	112.1	112.2
112.4	112.5	113.1	113.2
114.2	114.3	114.4	202
302.3	402.1.1	402.1.2	402.2.1
403.1	403.2.3	403.3	404.1
404.3	404.3.1	404.3.2	404.4
404.6	404.7	404.8	404.9
404.10.1	404.10.2	404.10.3	501.1
501.2			
503.1	Table 503.1	504.1	504.3
504.7	504.7.1	504.8	504.9
504.11	505	506	602
603.2.3	601.1		
604.4	606.1	606.2	Appendix D

(C) The city clerk shall retain a copy of the 2015 Wildland-Urban Interface Code with the official ordinances of the City of Austin.

Source: Ord. 201XXXXX-XX.

§ 25-12-182 - CITATIONS TO THE WILDLAND-URBAN INTERFACE CODE.

In the City Code, "Wildland-Urban Interface Code" means the 2015 Wildland-Urban Interface Code as adopted by Section 25-12-181 (*International Wildland-Urban Interface Code*) and as amended by Section 25-12-183 (*Local Amendments to the Wildland-Urban Interface Code*).

Source: Ord. 201XXXXX-XX.

§ 25-12-183 - LOCAL AMENDMENTS TO THE WILDLAN-URBAN INTERFACE CODE.

1
2 The following provisions are local amendments to the 2015 Wildland-Urban
3 Interface Code. Each provision in this section is a substitute for the identically
4 numbered provision deleted by Section 25-12-181(B) (*Wildland-Urban Interface*
5 *Code*) or is an addition to the 2015 Wildland-Urban Interface Code:

6
7 **101.1 Title.** These regulations shall be known as the Wildland-Urban Interface Code
8 of the City of Austin [~~NAME OF JURISDICTION~~], hereinafter referred to as "this
9 code". All references to jurisdiction in this code shall mean the City of Austin.

10 **101.4 Retroactivity.** The provisions of the code shall apply to conditions arising
11 after the adoption thereof, conditions not legally in existence at the adoption of this
12 code and conditions that, in the opinion of the code official, constitute a distinct
13 hazard to life or property.

14 **Exception:** Provisions of this code that specifically apply to existing conditions are
15 retroactive.

16 **101.5 Additions or alterations.** Additions or alterations shall be permitted to be
17 made to any building or structure without requiring the existing building or structure
18 to comply with all of the requirements of this code, provided the addition or
19 alteration conforms to that required for a new building or structure.

20 **Exception:** Provisions of this code that specifically apply to existing conditions are
21 retroactive.

22 Additions or alterations shall not be made to an existing building or structure that
23 will cause the existing building or structure to be in violation of any of the provisions
24 of this code nor shall such additions or alterations cause the existing building or
25 structure to become unsafe. An unsafe condition shall be deemed to have been
26 created if an addition or alteration will cause the existing building or structure to
27 become structurally unsafe or overloaded; will not provide adequate access in
28 compliance with the provisions of this code or will obstruct existing exits or access;
29 will create a fire hazard; will reduce required fire resistance or will otherwise create
30 conditions dangerous to human life.

31 **102.4 Referenced codes and standards.** The codes and standards referenced in this
32 code shall be those that are listed in Chapter 7 (*Referenced Standards*) and Chapter
33 80 of the Fire Code, as amended, establishes the codes and standards referenced in
34 the Wildland-Urban Interface Code, and such codes and standards shall be

Commented [BM2]: The exception in this section and section 101.5 was deleted in response to concerns over applying fire protection requirements of chapter 6, primarily defensible space, to existing development throughout the WUI area. AFD will continue to promote Firewise programs for voluntary provision of defensible space and reserve authority to recognize distinct hazards to life or property.

Commented [BM3]: 102.4 and 102.4.2 were amended to match the Fire Code. 102.4.1 was not changed as there were no conflicts identified as in the Fire Code conflicting mechanical and plumbing codes and standards.

Commented [BM4]: This section does not override other City regulations. These referenced codes and standards are limited to those listed in these chapters and do not include the Land Development Code. 102.2 Other laws states "The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law."

considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

102.4.2 Provisions in referenced codes and standards. Unless precedence is specified by another ordinance of the City, where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced standard.

SECTION 103 FIRE PREVENTION ENFORCEMENT AGENCY

DESIGNATION OF THE CODE OFFICIAL

103.1 General ~~Creation of enforcement agency.~~ The Austin Fire Department, under the direction of the Fire Chief, is authorized to implement, administer and enforce the Wildland-Urban Interface Code. All references to code official in this code shall mean the Fire Chief. Appointments, deputies, authority of the code official, compliance alternatives, appeals, permits, plans and specifications, inspection and enforcement, certificate of completion, temporary structures and uses, fees, service utilities, and stop work orders, shall follow the provisions of the fire code, as amended, unless additional requirements specific to this code are left in place or adopted locally. The department of ~~INSERT NAME OF DEPARTMENT~~ is hereby created and the official in charge shall be known as the code official.

107.1 General. Where not otherwise provided in the requirements of the International Building Code or International fire code, as amended, or other codes, as amended, permits are required in accordance with section 107.2 through 107.10.

107.2 Permits required. Unless otherwise exempted, buildings or structures regulated by this code shall not be erected, constructed, altered, repaired, moved, removed, converted, demolished or changed in use of occupancy unless a separate permit for each building or structure has first been obtained from the code official.

For buildings or structures erected for temporary uses, see Appendix A, Section A108.3, of this code.

Where required by the code official, a permit shall be obtained for the following activities, operations, practices or functions within a wildland urban interface area:

1. ~~Automobile wrecking yard.~~

2. ~~Candles and open flames in assembly areas.~~

Commented [BM6]: Temporary uses and activities, operations, practices, or functions are all covered in the fire code as amended.

Commented [BM5]: Changes in this section were made mostly to match the Fire Code.

3. Explosives or blasting agents.
4. Fireworks.
5. Flammable or combustible liquids.
6. Hazardous materials.
7. Liquefied petroleum gases.
8. 2. Lumberyards.
9. Motor vehicle fuel dispensing stations.
10. Open burning.
11. Pyrotechnical special effects.
12. Tents, canopies and temporary membrane structures.
- 13.3. Tire storage.
- 14.4. Welding and cutting operations.

108.1 General. Plans, engineering calculations, diagrams and other data shall be submitted in at least two sets with each application for a permit as required by the fire code, as amended, and as required by this code. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the code official is authorized to require additional documents to be prepared by a registered design professional.

Exception: Submission of plans, calculations, construction inspection requirements and other data, if it is found that the nature of the work applied for is such that reviewing of plans is not necessary to obtain compliance with this code.

108.3 Site plan. In addition to the requirement for plans in City Code Title 25, Land Development including the fire code, as amended, and other codes, as amended, the *International Building Code*, site plans and residential and commercial building permit applications, shall include topography, width and percent of grade of access roads, landscape and vegetation details if required to demonstrate defensible space or a vegetation management plan, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition-resistant construction of buildings, structures and their appendages, and roof classification of buildings and site water supply systems.

108.7 Vicinity plan. In addition to requirements of the fire code as amended, the requirements for site plans and commercial building permit applications, plans shall include details regarding the vicinity within 300 feet (91 440 mm) of lot lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads.

SECTION 202

DEFINITIONS

All definitions in Section 202 are adopted unless revised [R], new [N] or deleted [D] as shown here.

[R] **FUEL, HEAVY.** Vegetation consisting of round wood 3 to 8 inches (76 to 203 mm) in diameter. See fuel models G, I, J, K and U for Closed Juniper Woodland and Mixed Juniper Hardwood Forest described in Appendix D.

[R] **FUEL, LIGHT.** Vegetation consisting of herbaceous plants and round wood less than 1/4 inch (6.4 mm) in diameter. See fuel models G, I, J, K and U for Sparse Dry Climate Grass described in Appendix D.

[R] **FUEL, MEDIUM.** Vegetation consisting of round wood 1/4 to 3 inches (6.4 to 76 mm) in diameter. See fuel models G, I, J, K and U for Aggrading Juniper Shrub described in Appendix D.

[R] **GREEN BELT.** A series of connected open spaces that may follow natural features such as ravines, creeks or streams. A fuel break designated for a use other than a fire break.

[R] **IGNITION-RESISTANT CONSTRUCTION, CLASS 1.** A schedule of additional requirements for construction in wildland-urban interface areas based on extreme fire hazard.

[D] **IGNITION-RESISTANT CONSTRUCTION, CLASS 2.** A schedule of additional requirements for construction in wildland-urban interface areas based on high fire hazard.

[D] **IGNITION-RESISTANT CONSTRUCTION, CLASS 3.** A schedule of additional requirements for construction in wildland-urban interface areas based on moderate fire hazard.

1 **[R] WILDLAND-URBAN INTERFACE AREAS.** Any developed area where
2 conditions affecting the combustibility of both wildland and built fuels allow for the
3 ignition and spread of fire through the combined fuel complex That geographical
4 area where structures and other human development meets or intermingles with
5 wildland or vegetative fuels.

6 **[N] DISTINCT HAZARD.** Threat to life or property from conditions affecting
7 ignition, spread or intensity of wildfire or as determined by tables 502.1 and 503.1
8 or Appendix C.

9
10 **302.1 Declaration.** The Austin City Council legislative body shall declare the
11 *wildland-urban interface areas* within the jurisdiction. The *wildland-urban*
12 *interface areas* shall be based on the findings of fact. The *wildland-urban interface*
13 boundary shall correspond to natural or man made features.

14 **302.3 Review of wildland-urban interface areas.** The code official shall
15 reevaluate and recommend modification to the *wildland-urban interface areas* in
16 accordance with section 302.1 on a 3-year basis or more frequently as deemed
17 necessary by the Austin City Council legislative body.

18 **402.1.1 Access.** New subdivisions, as determined by City Code Title 25, Land
19 Development, this jurisdiction shall be provided with fire apparatus access roads in
20 accordance with the fire code, as amended, *International Fire Code* and access
21 requirements in accordance with Section 403.

22 **402.1.2 Water Supply.** New subdivisions, as determined by City Code Title 25,
23 Land Development, this jurisdiction shall be provided with fire apparatus access
24 roads in accordance with the fire code, as amended, *International Fire Code* and
25 access requirements in accordance with Section 404.

26 **402.2.1 Access.** Individual structures hereafter constructed or relocated into or
27 within *wildland-urban interface areas* shall be provided with fire apparatus access
28 and driveways in accordance with City Code Title 25, Land Development, the fire
29 code, as amended, *International Fire Code* and driveways in accordance with
30 Section 403.2. Marking of fire protection equipment shall be provided in accordance
31 with Section 403.5 and address markers shall be provided in accordance with the fire
32 code, as amended Section 403.6.

33 **402.2.2 Water Supply.** Individual structures hereafter constructed or relocated into
34 or within *wildland-urban interface areas* shall be provided with a conforming water

Commented [BM7]: Revised definition to allow inclusion of ember zone.

Commented [BM8]: Findings of fact to support the location of these areas will be drawn from the 2014 Austin-Travis County Community Wildfire Protection Plan and inputs used to establish the wildland-urban interface areas for Austin and Travis County; climate, topography, fuel configurations, both natural and built, and response capabilities.

Commented [BM9]: Findings of fact have been written to include 1) Local fire environment, 2) Community values, 3) Land development in the wildland-urban interface, and 4) Limited firefighting resources (i.e. in cases of multiple starts during drought conditions and extreme fire weather)

1 supply in accordance with City Code Title 25, Land Development, the fire code, as amended, and Section 404.

3 **403.1 Restricted access.** Where emergency vehicle access is required because of secured access roads or driveways or where immediate access is necessary for life saving or fire-fighting purposes, the code official is authorized to require a key box to be installed in an accessible location. The key box shall be of a type as required by the fire code, as amended *approved* by the code official and shall contain keys to gain necessary access as required by the code official.

9 **403.2.3 Service limitations.** A driveway shall not serve in excess of 8 dwelling units and shall be in accordance with City Code Title 25, Land Development, and the fire code, as amended.

12 **Exception:** Where such driveways meet the requirements for fire apparatus access roads in accordance with section 503 of the fire code, as amended *International Fire Code*.

15 **403.3 Fire apparatus access road.** Where required, fire apparatus access roads shall be in accordance with the fire code, as amended all weather roads with a minimum width of 20 feet (6096 mm) and a clear height of 13 feet 6 inches (4115 mm); shall be designed to accommodate the loads and turning radius for fire apparatus; and shall have a gradient negotiable by the specific fire apparatus normally used at that location within the jurisdiction. Dead end roads in excess of 150 feet (45 720 mm) in length shall be provided with turnarounds as *approved* by the code official. An all weather road surface shall be any surface material acceptable to the code official that would normally allow the passage of emergency service vehicles typically used to respond to that location within the jurisdiction.

25 **404.1 General.** Where provided in order to qualify as a conforming water supply for the purpose of Table 503.1 or as required for new subdivisions in accordance with Section 402.1.2, adequate water supply shall be determined by the fire code Section 507.3 and Appendix B105.1 and B105.2, as amended an approved water source shall have an adequate water supply for the use of the fire protection service to protect buildings and structures from exterior fire sources or to suppress structure fires within the *wildland-urban interface area* of the jurisdiction in accordance with this section.

33 **Exception:** Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).

Commented [BM10]: Sections 403.4, 403.4.1, 403.5, 403.6, 403.6.1, 403.6.2, and 403.6.3 proposed to be deleted because marking of roads and fire protection equipment and address markers are covered in the Fire Code and Land Development Code.

1 **501.1 Scope.** Buildings and structures located in the wildland urban interface area
2 shall be constructed in accordance with City Code Title 25, Land Development
3 including the fire code, as amended, other codes, as amended, *International Building*
4 *Code* and this code.

5 **Exceptions:**

- 6 1. Accessory structures not exceeding the allowed square footage per City
7 Code Title 25, Land Development including the fire code, as amended,
8 and other codes, as amended, 120 square feet (11m²) in floor area where
9 located not less than 50 feet (15 240 mm) from buildings containing
10 habitable spaces.
- 11 2. Agricultural buildings not less than 50 feet (15 240 mm) from buildings
12 containing habitable spaces.

13 **501.2 Objective.** The objective of this chapter is to establish minimum standards to
14 locate, design and construct buildings or portions thereof for the protection of life and
15 property, to resist damage from wildfires, and to mitigate building and structure fires
16 from spreading to wildland fuels. The minimum standards set forth in this chapter
17 vary with proximity to 40 acre or greater contiguous wildland fuel areas ~~the critical~~
18 ~~fire weather~~, slope, and fuel type to provide increased protection, above the
19 requirements set forth in the fire code, as amended, and other codes, as amended,
20 *International Building Code*, from the various levels of hazard.

Table 502.1
Fire Hazard Severity

Fuel- Model ^b	< 1 Day ^a		2 to 7 days ^a		> 8 days	
	Slope (%)		Slope (%)		Slope (%)	
	< 40	41 to 60	< 40	41 to 60	< 40	41 to 60
	M	M	M	M	M	M
Light	M	M	M	M	M	M
	M	M	M	M	M	M
Medium	M	M	M	M	M	M
	M	M	M	M	M	M
Heavy	H	H	H	H	H	H
	H	H	H	H	H	H

Critical Fire Weather Frequency

Fuel- Model ^b	< 10		10 to 25		> 25	
	Slope (%)		Slope (%)		Slope (%)	
	< 10	10 to 25	< 10	10 to 25	< 10	10 to 25
	M	M	M	M	M	M
Light	M	M	M	M	M	M
	M	M	M	M	M	M
Medium	M	M	M	M	M	M
	M	M	M	M	M	M
Heavy	H	H	H	H	H	H
	H	H	H	H	H	H

E = Extreme hazard;

H = High hazard;

M = Moderate hazard

a. Days per annum

b. Where required by the Fire Chief code official, fuel classification shall be based on the historical fuel type for the area.

503.1 General. Buildings and structures hereafter constructed, modified or relocated into or within the *wildland-urban interface areas* shall meet construction requirements in accordance with section 504 table 503.1. Class 1, Class 2 or Class 3, ignition resistant construction shall be in accordance with Sections 504, 505 and 506 respectively. Materials required to be ignition-resistant materials shall comply with the requirements of Section 503.2.

Permits shall not be granted for structures with extreme hazard severity, nonconforming access, nonconforming water supply, and nonconforming defensible space.

Section 504

Class 1 Ignition Resistant Construction

Commented [BM11]: Section revised to remove reference to table and add language to retain not permitted conditions from the table.

1 **504.1 General.** Class 1 ignition-resistant construction shall be in accordance with
2 sections 504.2 through 504.11.

3 **504.3 Protection of eaves.** Eaves and soffits 50 feet (15 240 mm) or closer to a 40
4 acre (4.05 ha) or greater contiguous area of *light, medium and/or heavy fuel* shall be
5 protected on the exposed underside by ignition-resistant materials or by materials
6 *approved* for not less than 1-hour fire-resistance-rated construction, 2-inch (51 mm)
7 nominal dimension lumber, or 1-inch (25 mm) nominal fire-retardant treated lumber
8 or ¾-inch (19.1 mm) nominal fire-retardant-treated plywood, identified for exterior
9 use and meeting the requirements of Section 2303.2 of the *International Building*
10 *Code*. Fascias are required and shall be protected on the backside by ignition-
11 resistant materials or by materials *approved* for not less than 1-hour fire-resistance-
12 rated construction or 2-inch (51 mm) nominal dimension lumber.

13 Combustible eaves, fascias and soffits more than 50 feet (15 240 mm) from a 40 acre
14 (4.05 ha) or greater contiguous area of *light, medium and/or heavy fuel* shall be
15 enclosed with solid materials with a minimum thickness of ¾-inch (19 mm).
16 Exposed rafter tails shall not be permitted unless constructed of heavy timber
17 materials.

18 **504.5 Exterior walls.** Exterior walls of buildings or structures 50 feet (15 240 mm)
19 or closer to a 40 acre (4.05 ha) or greater contiguous area of *light, medium and/or*
20 *heavy fuel* shall be constructed with one of the following methods:

- 21 1. Materials *approved* for not less than 1-hour fire-resistance-rated construction
22 on the exterior side.
- 23 2. *Approved noncombustible* materials.
- 24 3. Heavy timber or log wall construction.
- 25 4. Fire-retardant-treated wood on the exterior side. The fire-retardant-treated
26 wood shall be labeled for exterior use and meet the requirements of Section
27 2303.2 of the *International Building Code*.
- 28 5. Ignition-resistant materials on the exterior side.

29 Such material shall extend from the top of the foundation to the underside of the roof
30 sheathing.

31 **504.7 Appendages and structures.** *Unenclosed accessory structures* attached to
32 buildings with habitable spaces and projections, such as decks and fences, shall be
33 not less than 1-hour fire-resistance-rated construction, heavy timber construction or
34 constructed of one of the following:

Commented [BM12]: Class 1, 2 and 3 ignition resistant construction sections from the model code were combined in 1 section. HBA representatives claim all new construction already meets class 3 standards. It is not necessary to have a separate section for class 2 since the only differences from class 1 were class B roof allowed and less protection of eaves. Therefore all new construction in WUI areas will require class A roofs. The less protective standard for eaves is added to section 504.3 here.

Commented [BM13]: From IWUIC IR class 2

Commented [BM14]: Revised due to ambiguity over dimensions. Rules could specify options for fencing to reduce risk of structure ignition and impact to trees overhanging combustible fences.

1. *Approved noncombustible materials.*

2. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code*.

3. Ignition-resistant building materials in accordance with Section 503.2.

504.8 Exterior glazing. Exterior exterior windows, window walls and glazed doors, windows within exterior doors, and skylights 50 feet (15 240 mm) or closer to a 40 acre (4.05 ha) or greater contiguous area of *light, medium and/or heavy fuel* shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes.

504.9 Exterior doors. Exterior doors 50 feet (15 240 mm) or closer to a 40 acre (4.05 ha) or greater contiguous area of *light, medium and/or heavy fuel* shall be approved *noncombustible* construction, solid core wood not less than 1 3/4 inches thick (44 mm), or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 504.8.

Exception: Vehicle access doors.

504.10 Vents. Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m²) each. Such vents shall be covered with *noncombustible* corrosion-resistant mesh with openings not to exceed 1/8 inch (3.3 mm) 1/4-inch (6.4 mm), or shall be designed and *approved* to prevent flame or ember penetration into the structure.

Exception: Openings required to be clear by other codes, as amended, provided flame or ember penetration could not reach combustible materials or surfaces.

504.11 Detached accessory structures. Detached accessory structures 50 feet (15 240 mm) or closer to a 40 acre (4.05 ha) or greater contiguous area of *light, medium and/or heavy fuel* and less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials *approved* for not less than 1-hour fire resistance-rated construction, heavy timber, log wall construction, or constructed with *approved noncombustible* materials or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

Commented [BM15]: This would address dryer vents or similar exhaust vents where debris accumulation could cause a fire hazard or impede equipment function.

1 **601.1 Scope.** The provisions of this chapter establish general requirements for new
2 and existing buildings, structures and premises located within *wildland-urban*
3 *interface areas*.

Commented [BM16]: Revised to correspond with sections 101.4 and 101.5 removing exceptions for retroactivity to parts of the code specifically applying to requirements for existing.

4 **603.2.2 Trees.** Trees are allowed within the *defensible space* provided they are in
5 accordance with Section 604.4 the horizontal distance between crowns of adjacent
6 trees and structures, overhead electric facilities or unmodified fuel is not less than 10
7 feet (3048 mm).

8 **603.2.3 Groundcover.** Deadwood and litter shall be regularly removed from trees.
9 Where ornamental vegetative fuels or cultivated ground cover, such as green grass,
10 ivy, succulents or similar plants are used as ground cover, they are *Ground cover*
11 vegetation, understory plants and shrubs, leaf litter, and mulch are allowed to be
12 within the designated *defensible space*, provided they do not form a means of
13 transmitting fire from native growth to tree canopies or any structures.

Commented [BM17]: Revised to only address risk of fire spread to tree canopies or structures. Criteria can address specifics starting with ignition resistance of the structure.

14 **604.4 Trees.** Tree crowns extending to within 10 feet (3048 mm) of any structure
15 shall be pruned to maintain a minimum horizontal clearance of 10 feet (3048). Trees
16 crowns within the *defensible space* shall be maintained pruned to remove limbs
17 located less than 6 feet (1829 mm) above the ground surface adjacent to the trees to
18 prevent fire from entering or spreading through canopies in accordance with City of
19 Austin regulations. transmission to any structure and to provide a clear area for fire
20 suppression operations. Overhead electric line clearance shall comply with the City
21 of Austin Utilities Criteria Manual Section 1 - Austin Energy Design Criteria.

Commented [BM18]: Environmental Commission conditions to add language here to require a qualified arborist and follow standards of care as required for public trees may exceed City authority to enforce. As with application of defensible space it would be promoted through outreach and education programs or required in situations that allow for special conditions in exchange for other development rights. 6-3-42 requires removal of diseased tree. Reference to City of Austin regulations means Chapter 6-3 as well as title 25.

22 **606.1 General.** The storage of liquefied petroleum gas (LPgas) and the installation
23 and maintenance of pertinent equipment shall be in accordance with the fire code,
24 as amended, International Fire Code or, in the absence thereof, recognized standards
25 and NFPA 58.

26 **606.2 Location of containers or tanks.** LP-gas containers or tanks shall be located
27 within the defensible space in accordance with the fire code, as amended,
28 International Fire Code and NFPA 58.

29
30 **Appendix D (replaced entirely)**

31 **FUEL MODELS FIRE DANGER RATING SYSTEM**

32 (Section 3.2.1 from the Austin-Travis County Community Wildfire Protection Plan available on-
33 line at <http://www.austintexas.gov/wildfireprotectionplan> or by contacting the City of Austin Fire
34 Department. Section references and citations are as found in that plan.)
35

The most commonly used fire behavior fuel models assume that central Texas vegetation is best described by fuel model variables representative of a shrub group that includes southern California chaparral. However, recent research indicates that while Texas juniper woodlands may look similar to California chaparral communities, fuel loads and fire behavior are distinctly different (White et al. 2009, White et al. 2010). Specifically, Ashe juniper and certain chaparral species may appear to have similar growth forms and vegetative characteristics, but chaparral species are highly flammable and cold and drought intolerant, which can lead to lots of dead fuel. In contrast, central Texas vegetation has higher live-fuel moistures and less dead-fuel loads than are usually associated with chaparral vegetation (White et al. 2009, White et al. 2010). Fires originating in juniper woodlands have slower rates of spread than fires in chaparral vegetation communities because the juniper canopy has a higher proportion of live, moist foliage. Also, juniper woodlands often include hardwoods, such as oaks, that reduce the potential for canopy fire spread with their relatively sparse arrangement of leaves and branches in the canopy. Due to these attributes, active canopy fires are rare in mature juniper/hardwood forest. However, when active canopy fire does occur (i.e., during extreme drought and high temperatures) in central Texas woodlands, specifically closed juniper and aggraded juniper woodlands (see below for further descriptions), the fire intensity causes stand-replacing fires which is very similar to how fire behaves in lodgepole pine in western North America. For these reasons, and for the purposes of this document and the model described in Section 4.0, regionally specific fuel type data were developed for the Balcones Canyonlands Preserve by White et al. (2009) to more accurately model fire behavior in central Texas.

Sparse, dry-climate grass, or grassland, is dominated by generally short grasses that may be sparse or discontinuous (Scott and Burgan 2005). Pastures are also considered grasslands.

Aggraded juniper shrub fuel type is dominated by live oak-juniper and juniper savanna. It's present throughout the county and includes both Ashe juniper (*Juniperus ashei*), predominantly in western Travis County, and eastern redcedar (*Juniperus virginiana*), predominantly in eastern Travis County. Juniper scorch and mortality values by size class are nearly identical between these two *Juniperus* species (Engle and Stritzke 1995).

Closed juniper woodland has sufficient canopy closure to limit growth of tall grass (18 inches or more tall) to less than 50 percent of the ground cover. Juniper, including Ashe juniper and/or eastern redcedar, and deciduous trees are the dominant vegetation types.

Mixed juniper hardwood forest fuel type is 25-percent juniper, 75-percent deciduous class.