

Wildland Presentation

Objectives

- Community Wildfire Protection Plan (CWPP)
- Prevention
- Mitigation
- Preparedness
- WUI Building Codes (Chief Strebel)
- Emergency Management (Chief Larsen)
- Deployment Overview



Community Wildfire Protection Plan (CWPP)

Provides direction in identifying best management practices in reducing wildfire risk through:

- Preparedness
- Prevention
- Mitigation



Preparedness

• WUI SOG R-13

- Wildland Incident Management
- Address items specific to Wildland Operations
- Structure Protection
- Apparatus Replacement R-9
 - -Type 6
 - -Type 1/3
- Wildland Specialty Approach R-11
 - Advanced Training (ENGB / FFT-1)
 - Engine Academy
 - Deployments
- Wildland PPE R-5



Prevention

- Public Education / Awareness (QR Code)
 - Measures you can take to safeguard your home from Wildfire
- Ready, Set, Go (Door-to-Door Outreach)
 - Ready Prepare long before threat of fire
 - Set Situational awareness
 - Go Act early follow through with your plan
- Community Wildland Outreach Day
 - Bell Canyon Preservation Trailhead May 17th from 9 a.m. 12 p.m.
- House Bill 48 / Home Inspections





Mitigation

- Dimple Dell Park Fuel Reduction
 - Back Country Horseman Volunteers
 - County Parks
- Beautification Day
- Sandy Parks and Recreation
- Pepperwood Creek HOA
 - HOA meeting with 100 plus homes



WUI Building Codes





WUI Building Codes

2006 UTAH WILDLAND-URBAN INTERFACE CODE





Utah Code

Effective 7/1/2019

15A-4-107 Amendments to IBC applicable to Sandy City.

The following amendments are adopted as amendments to the IBC for Sandy City:

- (1) A new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 An automatic sprinkler system shall be installed in accordance with NFPA 13 throughout buildings containing all occupancies where fire flow exceeds 2,000 gallons per minute, based on Table B105.1 (2) of the 2018 International Fire Code. A one- or two-family dwelling or a town home is not required to have a fire sprinkler system except in accordance with Section 15A-5-203."
- (2) A new IBC, Appendix N, is added and adopted as follows: "Appendix N BUILDINGS AND STRUCTURES CONSTRUCTED IN AREAS DESIGNATED AS WILDLAND-URBAN INTERFACE AREAS
 - AL 101.1 General. Buildings and structures constructed in areas designated as Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 International Wildland-Urban Interface Code, as modified herein, shall be used to determine the requirements for Ignition Resistant Construction."
- (3) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new Section 504.1.1 is added as follows: "504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure side of the structure, as determined by the fire code official, where defensible space is less than 50 feet as defined in Section 603 of the 2006 International Wildland-Urban Interface Code."
- (4) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION Subsections 505.5 and 505.7 are deleted.

Amended by Chapter 20, 2019 General Session





CHAPTER 4

WILDLAND-URBAN INTERFACE AREA REQUIREMENTS

SECTION 401 GENERAL

401.1 Scope. Wildland-urban interface areas shall be provided with emergency vehicle access and water supply in accordance with this chapter.

401.2 Objective. The objective of this chapter is to establish the minimum requirements for emergency vehicle access and water supply for buildings and structures located in the wildland-urban interface areas.

401.3 General safety precautions. General safety precautions shall be in accordance with this chapter. See also Appen-

SECTION 402 APPLICABILITY

402.1 Subdivisions.

402.1.1 Access. New subdivisions, as determined by this jurisdiction, shall be provided with fire apparatus access roads in accordance with the International Fire Code and access requirements in accordance with Section 403.

402.1.2 Water supply. New subdivisions as determined by this jurisdiction shall be provided with water supply in accordance with Section 404.

402.2 Individual structures.

402.2.1 Access, Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with fire apparatus access in accordance with the International Fire Code and driveways in accordance with Section 403.2. Marking of fire protection equipment shall be provided in accordance with Section 403.5 and address markers shall be provided in accordance with Section 403.6.

402.2.2 Water supply. Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

- 1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 for a nonconforming wa-
- 2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56

SECTION 403 ACCESS

403.1 Restricted access. Where emergency vehicle access is restricted because of secured access roads or driveways or where immediate access is necessary for life-saying or firefighting 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 approved by the code official and shall contain keys to gain necessary access as required by the code offi-

403.2 Driveways. Driveways shall be provided when any portion of an exterior wall of the first story of a building is located more than 150 feet (45 720 mm) from a fire apparatus access road. Driveways shall provide a minimum unobstracted width of 12 feet (3658 mm) and a minimum unobstructed height of 13 feet 6 inches (4115 mm). Driveways in excess of 150 feet (45 720 mm) in length shall be provided with turnarounds. Driveways in excess of 200 feet (60 960 mm) in length and less than 20 feet (6096 mm) in width shall be provided with turnouts in addition to turnarounds.

A driveway shall not serve in excess of five dwelling units.

Driveway turnarounds shall have inside turning radii of not less than 30 feet (9144 mm) and outside turning radii of not less than 45 feet (13 716 mm). Driveways that connect with a road or roads at more than one point may be considered as having a turnaround if all changes of direction meet the radii requirements for driveway turnarounds.

Driveway turnouts shall be an all-weather road surface at least 10 feet (3048 mm) wide and 30 feet (9144 mm) long. Driveway turnouts shall be located as required by the code offi-

Vehicle load limits shall be posted at both entrances to bridges on driveways and private roads. Design loads for bridges shall be established by the code official.

403.3 Fire apparatus access road. When required, fire apparatus access roads shall be 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 radii for fire apparatus; and 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 to protect structures and wildlands within the jurisdiction.

403.4 Marking of roads. Approved signs or other approved notices shall be provided and maintained for access roads and driveways to identify such roads and prohibit the obstruction thereof or both.

11

CHAPTER 5

SPECIAL BUILDING CONSTRUCTION REGULATIONS

SECTION 501 GENERAL

501.1 Scope. Buildings and structures shall be constructed in accordance with the International Building Code and this code.

Exceptions:

- 1. Accessory structures not exceeding 120 square feet (11 m2) in floor area when located at least 50 feet (15 240 mm) from buildings containing habitable spaces.
- 2. Agricultural buildings at least 50 feet (15 240 mm) from buildings containing habitable spaces.

501.2 Objective. The objective of this chapter is to establish minimum standards to locate, design and construct buildings and structures or portions thereof for the protection of life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels. The minimum standards set forth in this chapter vary with the critical fire weather, slope and fuel type to provide increased protection, above the requirements set forth in the International Building Code, from the various levels of hazards.

SECTION 502 FIRE HAZARD SEVERITY

The fire hazard severity of building sites for all buildings hereafter constructed, modified or relocated into wildland-urban

interface areas shall be established in accordance with Appen-

The fire hazard severity is allowed to be reduced by implementing a vegetation management plan in accordance with Ap-

SECTION 503 IGNITION-RESISTANT CONSTRUCTION

503.1 General, Buildines and structures hereafter constructed. modified or relocated into or within wildland-urban interface areas shall meet the construction requirements in accordance with Table 503.1. Class 1. Class 2 or Class 3 ignition-resistant construction shall be in accordance with Sections 504, 505 and 506, respectively.

SECTION 504 CLASS 1 IGNITION-RESISTANT CONSTRUCTION

504.1 General. Class 1 ignition-resistant construction shall be in accordance with Section 504.

504.2 Roof covering, Roofs shall have a Class A roof covering or a Class A roof assembly. For roof coverings where the profile allows a space between the roof covering and roof decking. the space at the cave ends shall be firestopped to preclude entry of flames or embers.

TABLE 503.1 IGNITION-RESISTANT CONSTRUCTION

	FIRE HAZARD SEVERITY							
	Moderate Hazard Water Supply ^b		High	Hazard	Extreme Hazard			
DEFENSIBLE			Water Supply ^b		Water Supply ^b			
SPACE*	Conforming ⁴	Nonconforming*	Conforming ^d	Nonconforming*	Conforming	Nonconforming		
Nonconforming	IR 2	IR 1	IR I	IR I N.C.	IR 1 N.C.	Not Permitted		
Conforming	IR 3	IR 2	IR 2	IR I	IR 1 IR 1 N.C.			
1.5 x Conforming	Not Required	IR3	IR 3	IR 2	IR 2	IR I		

- a. Access shall be in accordance with Section 402.
- h. Subdivisions shall have a conforming water supply in accordance with Section 402.1.
- IR 1 = Ignition-resistant construction in accordance with Section 504.
- 192.7 a funition-resistant construction in accordance with Section 504. IR 3 = Ignition-resistant construction in accordance with Section 506.
- N.C. = Exterior walls shall have a fire-resistance rating of not less than 1-hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.
- c. Conformance based on Section 603
- d. Conformance based on Section 404.
- c. A nonconforming water supply is any water system or source that does not comply with Section 404, including situations where there is no water supply for structure protection or fire suppression.

2006 UTAH WILDLAND-URBAN INTERFACE CODE





CHAPTER 6

FIRE PROTECTION REQUIREMENTS

SECTION 601 GENERAL

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

601.2 Objective. The objective of this chapter is to establish minimum requirements to mitigate the risk to life and property from wildland fire exposures, exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels.

SECTION 602 AUTOMATIC FIRE SPRINKLER SYSTEMS DELETED

SECTION 603 DEFENSIBLE SPACE

603.1 Objective. Provisions of this section are intended to modify the fuel load in areas adjacent to structures to create a defensible space.

603.2 Fuel modification. In order to qualify as a conforming defensible space for individual buildings or structures on a property, fuel modification shall be provided within a distance from buildings or structures as specified in Table 603.2. For all other purposes, the fuel modification distance shall not be less than 30 feet (9144 mm) or to the property line, whichever is less. Distances specified in Table 603.2. Stall be measured on a horizontal plane from the perimeter or projection of the building or structure as shown in Figure 603.2. Distances specified in Table 603.2 may be modified by the code official because of a

site-specific analysis based on local conditions and the fire protection plan.

Persons owning, leasing, controlling, operating or maintaining buildings or structures requiring defensible spaces are responsible for modifying or removing nonfire-resistive vegetation on the property owned, leased or controlled by said person.

Trees are allowed within the defensible space, provided the horizontal distance between crowns of adjacent trees and overhead electrical facilities or unmodified fuel is not less than 10 feet (3048 mm). Deadwood and litter shall be regularly removed from trees.

Where ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants are used as ground cover, they are allowed to be within the designated defensible space, provided they do not form a means of transmitting fire from the native growth to any structure.

TABLE 603.2 REQUIRED DEFENSIBLE SPACE

WILDLAND-URBAN INTERFACE AREA	FUEL MODIFICATION DISTANCE (feet)
Moderate hazard	30
High hazard	50
Extreme hazard	100

For SI: 1 foot = 304.8 s

603.3 Community fuel modification zones. Fuel modification zones to protect new communities shall be provided when required by the code official in accordance with Section 603, in order to reduce fuel loads adjacent to communities and structures.

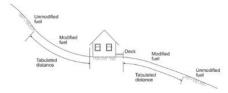


FIGURE 603.2 MEASUREMENTS OF FUEL MODIFICATION DISTANCE

2006 UTAH WILDLAND-URBAN INTERFACE CODE

19

APPENDIX C

FIRE HAZARD SEVERITY FORM

This appendix is to be used to determine the fire hazard severity.

A. Subdivision Design	Points		
1. Ingress/Egress		C. Topography	
Two or more primary roads	1	Located on flat, base of hill, or setback at crest of hill	1
One road	10	On slope with 0-20% grade	5
One-lane road in, one-lane road out	15	On slope with 21-30% grade	10
2. Width of Primary Road		On slope with 31% grade or greater	15
20 feet or more	1	At crest of hill with unmitigated vegetation below	20
Less than 20 feet	5		
3. Accessibility		D. Roofing Material	
Road grade 5% or less	1	Class A Fire Rated	1
Road grade 5-10%	5	Class B Fire Rated	5
Road grade greater than 10%	10	Class C Fire Rated	10
		Nonrated	20
4. Secondary Road Terminus			
Loop roads, cul-de-sacs with an outside turning radius of 45 feet or greater	1	E. Fire Protection-Water Source	
Cul-de-sac turnaround	5	500 GPM hydrant within 1,000 feet	1
Dead-end roads 200 feet or less in length	8	Hydrant farther than 1,000 feet or draft site	5
Dead-end roads greater than 200 feet in length	10	Water source 20 min, or less, round trip	10
5. Street Signs		Water source farther than 20 min., and	
Present but unapproved	3	45 min. or less, round trip	15
Not present	5	Water source farther than 45 min., round trip	20
B. Vegetation (IUWIC Definitions)		F. Siding and Decking	
1. Fuel Types		Noncombustible siding/deck	1
Surface		Combustible siding/no deck	5
Lawn/noncombustible	1	Noncombustible siding/combustible deck	10
Grass/short brush	5	Combustible siding and deck	15
Scattered dead/down woody material	10	Compastione storing and occa.	1.5
Abundant dead/down woody material	15		
Overstory		G . Utilities (gas and/or electric)	
Deciduous trees (except tall brush)	3	All underground utilities	1
Mixed deciduous trees and tall brush	10	One underground, one aboveground	3
Clumped/scattered conifers and/ortall brush	15	All aboveground	5
Contiguous conifer and/or tall brush	20		
2. Defensible Space		Total for Subdivision	
70% or more of lots completed	1	Moderate Hazard	50-75
30% to 70% of lots completed	10	High Hazard	76-100
Less than 30% of lots completed	20	Extreme Hazard	1014

27

2006 UTAH WILDLAND-URBAN INTERFACE CODE

Emergency Management-Incident Stages-

Mitigation

Reduce the risk Lessen the impact Identify hazards/vulnerabilities

<u>Preparedness</u>

Plan and train for how to respond Identify resources and expertise Plan how to use resources



<u>Response</u>

Support Incident Commanders and First Responders

Recovery

Reestablish basic infrastructure Provide for the safety of residents Restore essential community functions



Emergency Management -Emergency Operations Center-



The Sandy City Emergency Operations Center

Staffed by representatives from all departments within the city to coordinate and support the emergency work being done out in the field.



Emergency Management-Evacuation Kits-

Have prepacked kits with essentials (for each family member) such as:

- Medicine
- Family and insurance/financial records
- Phone numbers and emergency contacts
- Cash (ATMs may not work)
- Credit cards
- Change of clothing
- Food and water for each household member for up to 72 hours.





^{*}Babies or Special Needs Individuals*

Emergency Management-Evacuation Kits-

Emergency Prep for your Pet

- 3 days of food & water
- Travel bowls
- Printed Medical Records
- Collar with updated ID& rabbies tags
- Medications
- Crate or pet carrier
- Litter & litter box
- Waste Bags
- Photo of your pet





Emergency Management-Preparing for an Evacuation-



- Keep your vehicle fueled.
- Back your vehicle into an open space, facing the direction of escape.



Emergency Management-Preparing for an Evacuation-

Keep an emergency supply bag inside your vehicle including your pet's emergency bag and carrier.







Emergency Management-Community Evacuation Plan-

Evacuation Tips

Evacuate Immediately

If you wait until the last minute, you may encounter heavy or blocked traffic. Also, heavy smoke, burning embers, or debris that may make it hard to see.







-Community Evacuation Plan-

Evacuation Tips (Continued)

Stay Informed

Listen to television or radio broadcasts for current emergency instructions.

Sign up to receive emergency alerts and warnings at:

Sandy.utah.gov/myalerts



This allows up-to-date notifications from the City and Emergency Management.

Emergency Management-Community Evacuation Plan-

Evacuation Tips (Continued)

Know the Sandy City Emergency Evacuation Plan

- Plan and practice two ways out of your neighborhood.
- Know your workplace, school and commuter route evacuation plans.
- Know where and how you are going to leave.
- Ready, Set, Go! Program



Sandy City, Utah Emergency Operations Plan Urban-Wildland Interface

Snowbird 15 mi.

Alta 16 mi.

Wildland-Urban Interface Area: That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

A Command Post / Staging Areas			1 Shelters		Evacuation Routes	
Α	Hidden Valley Park	East-South Fire	1	Mountain America Expo Center	9400 S	
В	Granite Elementary	East-North Fire	2	Jordan High School	Dimple Dell Rd	
С	10600 S 1300 E	Dimple Dell East Fire	3	Alta High School		
D	Lone Peak Park	Dimple Dell West Fire	4	Senior Citizen Center	Wasatch Blvd Sout	



Interactive

Map



Primary Emergency Operations Center

Secondary Emergency Operations Center

Sandy City Hall

Fire Station 31



Emergency Management-Community Evacuation Plan-

Evacuation Tips (Continued)



Designate a Family Meeting Place

Make sure every family member knows where your primary meeting place will be. Have a secondary meeting place available if needed.



-Community Volunteers Shelter Locations-











-Returning Home-

Monitor television and radio news, as well as emergency alert notifications.

Do not return home before local officials say it is safe to return.





Emergency Management-Recovery-







Deployment - Silver King Fire







Deployment - Park Fire





Sandy

Deployment - Red Rock Fire





Sandy

Deployment - Logan Fire

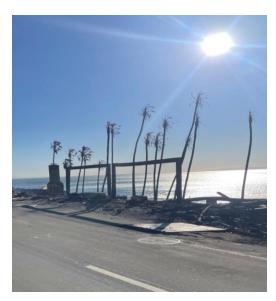






Deployment - Palisades Fire









Deployment - Palisades Fire







THANK YOU!

Any questions?

