

APPENDIX O WILDFIRE RISK REDUCTION

SECTION O101 – GENERAL

O101.1 Scope. It is the intent of Loveland Fire Rescue Authority (LFRA) and the City of Loveland (City) to reduce wildfire risk in a cost-effective manner, while maintaining the aesthetic qualities of the wildland urban interface area. Wildfire risk reduction requirements shall be in accordance with this appendix, the City Unified Development Code (UDC) and all other applicable requirements of the locally adopted 2021 International Fire Code, 2021 International Building Code, and 2021 International Residential Code.

O101.2 Community risk reduction. Residing in or near wildland urban interface areas involves increased wildfire risks that may not apply in more urbanized developed areas. Wildfire risk reduction utilizes a combination of ignition-resistant materials and construction (structure hardening), fuels management, and community education to reduce the risk of wildfire ignition and spread in the Wildfire Zone as defined in this appendix.

O101.3 Applicability. Unless other more restrictive requirements apply, this appendix shall be applicable to all new buildings, additions, and repairs in the Wildland Urban Interface area, including buildings designed and constructed in accordance with the International Residential Code and the International Building Code.

Exceptions:

1. One-time addition not exceeding 200 square feet in area.
2. Replacement of siding or roof not exceeding 100 square feet in a 12-month period.
3. Replacement of one attic vent.

SECTION O102 – GENERAL DEFINITIONS

CLASS A FIRE RATED ROOF ASSEMBLY. Roof assemblies that are effective against severe fire test exposures, in accordance with UL 790 (ASTM E 108). The system consists of a roof covering component serving as both a roof covering and a roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly can include an underlayment, a thermal barrier, insulation or a vapor retarder. Approved Class A materials include but are not limited to asphalt shingles, clay tile, concrete (standard weight and lightweight), metal or stone-coated metal, slate and hybrid composite synthetic. Solid wood materials are prohibited.

CLASS B FIRE RATED ROOF ASSEMBLY. Roof assemblies that are effective against moderate fire test exposures, in accordance with UL 790 (ASTM E 108).

COMMUNITY WILDFIRE PROTECTION PLAN (CWPP). A collaborative plan developed by a community in an area at-risk from wildfire. The process is the collaboration between communities and agencies interested in reducing wildfire risk. The plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure and recommends measures to reduce structural ignitability throughout the at-risk community. The plan may address issues such as wildfire response, hazard mitigation, community preparedness or structure protection, or all of the above. (National Wildfire Coordinating Group, 2023)

FUELS MANAGEMENT. The modification of vegetation. Fuels management is intended to protect structures from wildfire as well as to reduce fire from spreading to the wildland urban interface.

IGNITION RESISTANT MATERIALS. A type of building material that resists ignition or sustaining flaming combustion sufficiently as to reduce losses from wildland urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames.

WILDFIRE. An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.

WILDFIRE ZONE. For the purpose of this code, that portion of the City of Loveland and its Growth Management Area within the LFRA District boundary. This is generally located west of Wilson Avenue, and west of Taft Avenue north of West 57th Street, as depicted in Figure O102.1.

WILDLAND. An area in which development is essentially nonexistent, except for roads, railroads, power lines and similar facilities.

WILDLAND URBAN INTERFACE AREA (WUI). That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

SECTION 0103 – IGNITION-RESISTANT MATERIALS AND CONSTRUCTION

O103.1 Structure hardening. The following requirements shall be enforced for all homes constructed or reconstructed or completing an addition of more than 200 square feet or replacing more than 100 square feet of roof or siding in a 12-month period, unless otherwise permitted by the fire code official.

O103.1.1 Roof. A Class A roof assembly shall be installed on all residential occupancies and a minimum Class B roof covering shall be installed on other occupancies, unless otherwise permitted by the fire code official.

O103.1.2 Exterior cladding, eaves and soffits. Exterior cladding, eaves and soffits shall be constructed of ignition-resistant materials approved by the fire code official. Approved materials include, but are not limited to fiber-cement board, stucco, masonry/brick, manufactured stone and similar materials. Natural wood siding, cedar siding, hardboard, vinyl and similar combustible materials are not allowed.

Exception 1: Natural wood or plastic products used for fascia, trim board materials and trim accents, such as corbels, false rafter tails, faux trusses, shutters and decorative vents material are allowed when painted or as approved by the fire code official, and heavy timber or dimensional log construction.

Exception 2: Heavy timber or dimensional log construction for exterior cladding/siding.

O103.1.3 Overhangs and projections. For any portion of the attached structure with projections or overhangs, the area below the projections or overhangs shall have all horizontal under-floor areas enclosed with ignition resistant materials.

Exception: Heavy timber or dimensional log construction is allowed.

O103.1.4 Exterior doors. Exterior doors shall be noncombustible or solid core not less than 1 ¾-inches thick. Windows within doors and glazed doors shall be tempered safety glass or multi-layered glazed panels.

Exception: Decorative single pane glazing in front entry doors is allowed.

O103.1.5 Windows. Exterior windows shall be a minimum double pane. Tempered panes are preferable but not required.

O103.1.6 Attic vents. All attic vents shall be screened with wire mesh or hardware cloth having openings no larger than 1/8-inch unless an alternative design or product is allowed by the fire code official. Soffit vents are allowed. Gable vents may be allowed but only as approved by the fire code official.

O103.1.7 Gutters and downspouts. Gutters and downspouts that are of non-combustible construction shall be installed such that the leading edge of the roof is finished with a metal drip edge so that no wood sheathing is exposed. The drip edge shall extend into the gutter. Vinyl gutters may be allowed but must have a non-combustible landing area on the ground below the roof line, that is a minimum 5-foot distance from the side of the structure or foundation. NOTE: Although not required, gutter caps are highly recommended to prevent combustible debris from collecting in the trough.

O103.1.8. Decks. Decks and other habitable spaces shall be of ignition resistant or non-combustible decking materials, such as composite or metal decking. Wood is not permitted to be used for the decking surface but can be used for all large structural components and railings.

O103.1.9 Exterior walls, posts and columns. The base of exterior walls, posts or columns shall be protected on the bottom side with provisions such as fire-resistant foam or wire mesh having openings no larger than 1/8-inch to protect them from ember intrusion and still allow for weeping and moisture control.

O103.1.10 Spark arrestor or cap. Chimneys serving fireplaces, as well as other heating appliances in which solid or liquid fuels are used, shall have an approved spark arrestor or cap.

O103.2 Alternative materials. Alternative materials or construction methods not specifically addressed in Section O103 may be considered on a case-by-case basis if found to have comparable ignition-resistant properties and as approved by the fire code official.

SECTION 0104 – FUELS MANAGEMENT

O104.1 General. Fuels management shall comply with this section, unless otherwise approved by the fire code official.

O104.2 Landscaping materials. Landscaping shall comply with O104.2.1 to O104.2.4.

O104.2.1 Mulch and decorative rock. Only ignition-resistant landscaping, including but not limited to, decorative rock, gravel and pavers shall be used within 5 feet of the exterior of the home and in planting beds in common areas, parks and open space. Combustible mulch, such as shredded hardwood or bark chips, is not allowed. Organic mulches may be applied around the dripline of trees and shrubs (maximum circumference to conserve fuel moisture).

O104.2.2. Clearance to main structure. No highly combustible brush, trees or shrubs shall be placed within 15 feet of a home or accessory structures such as sheds, decks, or pergolas. The trunks of deciduous trees may be allowed to be planted up to 10 feet from structures when approved by the fire code official.

O104.2.3 Pruning of limbs. Trees shall be pruned to a height of up to 10 feet above the ground and shall not have limbs overlap other trees. Tree clusters may be allowed if sufficient clear area is provided and approved by the fire code official.

O104.2.4 Clearance of tree branches to structures or appurtenances. Tree branches shall not extend over or under the roof or eaves and shall not be within 15 feet of a deck or similar combustible projection, wood burning appliance or chimney.

O104.3 Approved plants. Plant species within the wildland urban interface shall comply with a FireWise plant list approved by the fire code official.

O104.4 Fences. Fences shall comply with 104.4.1 to 104.4.3

104.4.1 Fences connecting to structures. The last 4 feet a fence or gate that connects to a home or accessory structure shall be constructed of ignition-resistant materials, such as metal, stone or composite products.

O104.4.2 Fences adjacent to open spaces. Fences constructed adjacent to parks, common areas, open space, and environmentally sensitive areas shall be an open two- or three-rail design. Wire mesh may be placed on the interior side of the fence.

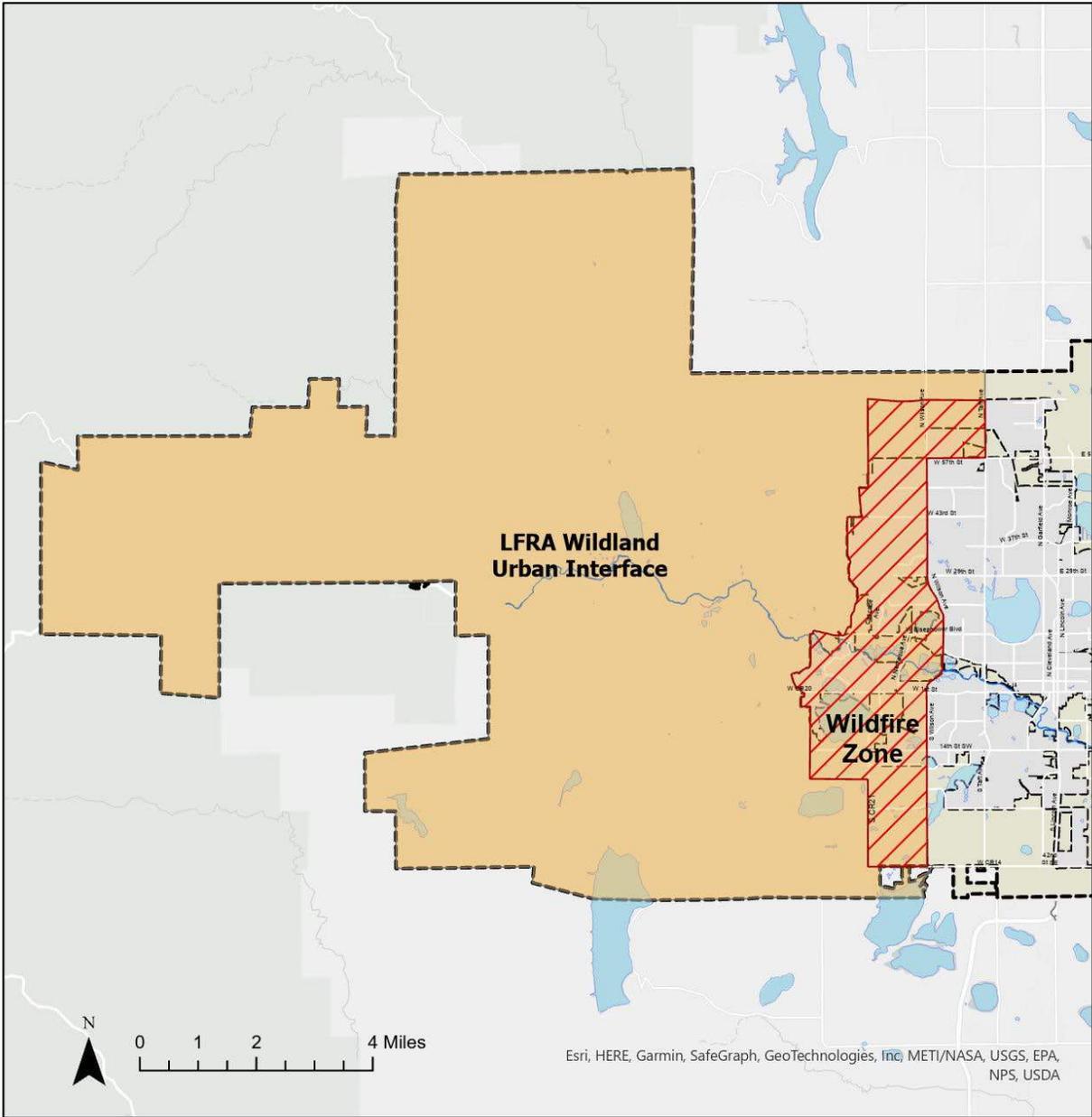
O104.4.3 Privacy fences. Privacy fences shall have a minimum 2-inch separation between the bottom of the fence and the ground, and the planks shall not have separation gaps of more than 1 inch. Wire mesh may be placed on the interior side of the fence. Back-to-back fences and shadow box fences are prohibited.

O104.5 Park common areas. Play structures, picnic shelters, benches, trash receptacles and other similar structures within parks, open space and common areas shall be constructed of ignition resistant materials.

SECTION 0105 – PERMIT REVIEW REQUIREMENTS

O105.1 Construction permit review requirements. All construction permit submittals must be reviewed and approved by the fire code official prior to permit issuance and prior to final inspections. As part of the permit review process, the fire code official or designee will provide specific recommended wildfire mitigation measures. A final LFRA inspection to verify compliance will be required prior to issuance of the Certificate of Occupancy by the City of Loveland Building Division.

FIGURE O102.1 LFRA WILDLAND URBAN INTERFACE AND WILDFIRE ZONE



Legend

-  Wildfire Zone
-  LFRA Wildland Urban Interface
-  Municipal Boundary
-  LFRA Boundary

