

WILDFIRE PROTECTION PLAN

Crystal Park
6040 Bighorn Rd.
AKA 6040 Heather Ln.
Manitou Springs, CO

Pete and Lisa Youngwerth, Owners

September 21, 2020

Submitted to

El Paso County Land Use Office and the Crystal Park Fire Department

County Zoning Department

El Paso County, Colorado

WILDFIRE PROTECTION PLAN

This wildfire protection plan is submitted to the Land Use Office of the El Paso County Colorado County Zoning Department and the Crystal Park Fire Department to satisfy the requirements of both entities in regard to planning for wildfire protection and mitigation in connection with construction of a garage within the wildland-urban interface characteristic of much of El Paso County.

Property Subject to Plan

This plan is presented in connection with the planned construction of a detached garage for Pete and Lisa Youngwerth at 6040 Bighorn Rd AKA 6040 Heather Ln.

The site plan for the proposed garage is provided in the attached figure relative to the existing home already in place.

Regional Building Department has already approved plans as well as the Crystal Park Homeowners Association.

The site for the proposed garage is mostly level and is located on the existing driveway for the home. There are no trees or bushes on the proposed site of the garage. There is no ground cover on the existing driveway- it is all gravel.

In developing this plan, it was necessary to determine the required allocation of defensible space around the proposed home site and to identify the vegetation and forest characteristics in the immediate surroundings.

Drawing upon the information presented in Colorado State Forest Service, Quick Guide Series "Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones", (formally CSU Extension Factsheet 6.302), an inspection of the site and surrounding terrain has been conducted and the following plan developed in accordance with the guidance of the subject fact sheet.

Most importantly, the homeowner needs to recognize that firefighters will always do their best to protect you and your home, but ultimately, it is YOUR responsibility to protect your life, family, animals and property from Wildfire.

Structural Ignitability

Use of fire-resistant building materials is greatly encouraged in Crystal Park to the degree that all new construction or reroofing is required to be a Class "A" material. Exterior walls of non-combustible materials such as stucco or concrete boards are a good choice. The roof eaves and fascia can also be stucco or other fire resistant materials. Finally, windows are one of the weakest parts of a home and should be given careful consideration. For more information refer to the CSFS Fire Wise Construction: Site Design and Building Materials at www.csfs.colostate.edu.

Defensible Space

Defensible space is the area around a home that has been modified to reduce fire hazard. It will give your home a fighting chance against a wildfire. This entails developing three zones around all structures on the property as follows.

Defensible Space Management Zone 1 requires the maximum hazard reduction and will consist of an area of 30 feet around all structures on the site in which all flammable vegetation is removed. These 30 feet are measured from the outside edge of the structures. In the Youngwerth property Zone 1 areas of mitigation will be addressed.

Within this defensible zone, the following will be accomplished:

- Plant nothing within 5 feet of the structure. No plants may be placed directly between windows. Install non-flammable groundcover such as decorative rock.
- Prune and maintain any plants in Zone 1 to prevent excessive growth. Also, remove all dead branches, stems and leaves within and below the plant.
- Due to the wells in Crystal Park being household only, we are unable to irrigate, and are required to keep all landscape wild. Keep wild grasses mowed to a height of 6 inches or less.
- Do not store firewood or other combustible materials anywhere in this zone. Keep firewood at least 30 feet away from structures, and uphill if possible.
- Ideally, remove all trees from Zone 1 to reduce fire hazards. The more trees you remove, the safer your home will be.
- If you do keep any trees within the zone, consider them part of the structure and extend the distance of the entire zone accordingly.
- Remove any branches that overhang or touch the roof.
- Remove all pine needles and other debris from the roof and gutters.
- Rake all pine needles and other organic debris at least 10 feet away from all decks and structures.
- Remove slash, wood chips and other woody debris from Zone 1.

Defensible Space Management Zone 2 is an area of fuels reduction designed to diminish the intensity of a fire approaching your home. The width of Zone 2 depends on the slope of the ground where the structure is built. Typically, this Zone should extend at least 100 feet from all structures. If it extends beyond your property line, work with adjoining property owners to complete the defensible space.

Within this defensible zone, the following will be accomplished:

In accordance with the guidelines of "Creating Wildfire-Defensible Zones".

Tree Thinning and Pruning

- Remove all stressed, diseased, dead or dying trees and shrubs.
- Remove enough trees, (with the exception of mature stands of aspen), and large shrubs to create at least 10 feet between crowns. Crown separation is measured from the outermost branch of one tree to the nearest branch on the next tree. On steep slopes, increase the distance between tree crowns even more.

(This will include maintenance of a minimum distance of 30 feet between tree crowns on the steep slope of 20' where the slope is 21-40%, 15' where the slope is 11-20% and 10' if less than 11%.

- Remove all ladder fuels from under remaining trees. Prune tree branches off the trunk to a height of 10 feet from the ground or 1/3 the height, whichever is less.
- If your driveway extends more than 100 feet from your home, thin out trees within a 30 foot buffer along both sides of your driveway. Again, thin all trees to create 10 foot spacing between tree crowns.
- Small groups of 2 or 3 trees may be retained, but leave a minimum distance of 30 feet between their crowns and surrounding trees.
- Because Zone 2 forms an aesthetic buffer and provides a transition between zones, it is necessary to blend the requirements for Zone 1 and Zone 3.
Example- if you have a tree in Zone 2 with branches extending into Zone 1, the tree can be retained if there is proper crown spacing.
- Limit the number of dead trees (snags) to one or two per acre. Be sure snags cannot fall onto house, power lines, road or driveway.
- As in Zone 1, the more trees and shrubs removed, the more likely your home will survive a wildfire.

Shrub Thinning/Gambel Oak/Pruning and Surface Fuels

- Isolate shrubs may remain in Zone 2, provided they are not under tree crowns.
- Keep shrubs at least 10 feet away from the edge of tree branches. This keeps them from becoming ladder fuels.
- Minimum spacing recommendations between clumps of shrubs is 2 ½ times the mature height of the vegetation. As with tree-crown spacing, all measurements are made from the edge of vegetation crowns.
Example- for shrubs 6 feet high, spacing between shrub clumps should be 15 feet or more (measured from edge of the crowns of vegetation clumps). The diameter of these shrub clumps should not exceed 12 feet.
- Periodically prune and maintain shrubs to prevent excessive growth, and remove dead stems from shrubs annually. Common ground junipers should be removed whenever possible because they are highly flammable.
- Mow grasses as needed through the growing season, keeping them a maximum of 6 inches high. This is very critical in the fall, when grasses dry out.
- Mow Gambel Oak sprouts at least once a year in Zone 1 and Zone 2.
- Avoid accumulation of surface fuels, such as logs, branches, slash and wood chips greater than 4 inches deep.

Firewood

- Stack firewood uphill or on the same elevation as any structure, but at least 30 feet away. Never stack wood under a deck or against the structure.
- Clear any flammable vegetation that is within 10 feet of woodpiles.

Propane Tanks-No Natural Gas in Crystal Park

- Locate propane tanks on the same elevation as the structure. Clear any flammable vegetation that is within 10 feet of the tank.
- The propane tank should not be located below your house because if it ignites, the fire would tend to burn uphill. Conversely, if the tank is located above your home, and it develops a leak, gas will flow downhill into your home.
- Do not visible screen propane tanks with shrubs, vegetation or flammable fencing. Instead, install 5 feet of non-flammable ground cover around the tank.

Clipper

- Dispose of slash (limbs, branches and other woody debris) by clipping or lop-and-scatter (cutting into very small pieces and distributing it over the ground). Crystal Park has a chipper for this purpose.

Defensible Space Management Zone 3 is of no specified width. It should provide a gradual transition from Zone 2 to areas farther from the home that have other forest management objectives. Your local Colorado State Forest Service forester can help you with this zone.

Consider the following when deciding forest management objectives in Zone3:

- The healthiest forest is one that includes trees of multiple ages, size and species and where adequate growing room is maintained over time.
- Remember to consider the hazards associated with ladder fuels. A forest with a higher canopy reduces the chance of surface fire climbing into the tops of the trees. This is a priority on steep slopes.
- The greater number of snags- two or three per acre, standing or fallen- can be retained in Zone 3 to provide wildlife habitat. They should have a minimum diameter of 8 inches and pose no threat to power lines or firefighter access roads.
- Pruning is generally not necessary in Zone 3, but will help reduce ladder fuels, and enhance wildfire safety.
- Mowing is not necessary.
- Chipping or lop-and-scatter slash.

Other Recommendations

Windthrow

Lodgepole pine, Engleman spruce and Douglas-fir, are very susceptible to damage and uprooting by high winds or windthrow. If you see evidence of this around your home, consider making adjustments to these guidelines. It is highly recommended that you contact a professional forester to help design your defensible space, if you have windthrow concerns.

Water Supply

Crystal Park has a number of cisterns installed around the Park for the express purpose of firefighting.

Recommendations for Specific Forest Types

The above recommendations refer primarily to Ponderosa pine, Douglas fir and mixed conifer ecosystems.

Implementation

This plan is to be effected and provisions implemented on the Youngwerth site by the time of construction completion. This does not include adjacent sites within the boundary of the Defensible Space Management Zones owned by others, nor common ground owned by Crystal Park. The owner is encouraged to work with adjoining property owners to complete the defensible space. The owner is encouraged to contact the Crystal Park Forestry Committee (through the Crystal Park Office 719-685-9729) for further information.