

HANCOCK SUBDIVISION II

A REPLAT OF LOT 39, CHAPARRAL HILLS

IN THE NE 1/4 OF SECTION 36, T 11 S, R 67 W OF THE 6th P.M.,
EL PASO COUNTY, COLORADO

KNOW ALL MEN BY THESE PRESENTS:

THAT BILL AND VICKI HANCOCK LIVING TRUST, BILLY C HANCOCK AND VICKIE L HANCOCK, TRUSTEES, BEING THE OWNERS OF THE FOLLOWING DESCRIBED TRACT OF LAND:

TO WIT:

LOT 39, CHAPARRAL HILLS AS RECORDED IN PLAT BOOK 1-7 AT PAGE 2 UNDER RECEPTION NUMBER 824585 OF THE RECORDS OF THE EL PASO COUNTY, COLORADO, CLERK AND RECORDER AND LOCATED IN A PORTION OF THE NORTHEAST ONE-QUARTER OF SECTION 36, TOWNSHIP 11 SOUTH, RANGE 67 WEST OF THE 6th P.M., EL PASO COUNTY, COLORADO. SAID LOT CONTAINS 5.06 ACRES, MORE OR LESS.

OWNERS' CERTIFICATION:

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED, AND PLATTED SAID LANDS INTO LOTS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF "HANCOCK SUBDIVISION II". ALL PUBLIC IMPROVEMENTS SO PLATTED ARE HEREBY DEDICATED TO PUBLIC USE AND SAID OWNER SOLELY HEREBY COVENANT AND AGREE THAT THE PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND THAT PROPER DRAINAGE AND EROSION CONTROL FOR SAME WILL BE PROVIDED AT SAID OWNERS' EXPENSE. ALL TO THE SATISFACTION OF THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO UPON ACCEPTANCE. BY RESOLUTION, ALL PUBLIC IMPROVEMENTS SO DEDICATED WILL BECOME MATTERS OF MAINTENANCE BY EL PASO COUNTY, COLORADO. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES.

IN WITNESS WHEREOF:

THE AFOREMENTIONED, BILL AND VICKI HANCOCK LIVING TRUST, BILLY C HANCOCK, TRUSTEE, HAS EXECUTED THIS INSTRUMENT THIS _____ DAY OF _____ 2026, A.D.

BILL AND VICKI HANCOCK LIVING TRUST, BY BILLY C HANCOCK, TRUSTEE

STATE OF COLORADO

COUNTY OF EL PASO

THE ABOVE AND AFOREMENTIONED INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____ 2026, A.D., BY BILLY C HANCOCK AS TRUSTEE OF THE BILL AND VICKI HANCOCK LIVING TRUST

WITNESS MY HAND AND OFFICIAL SEAL.

MY COMMISSION EXPIRES _____ NOTARY PUBLIC _____

IN WITNESS WHEREOF:

THE AFOREMENTIONED, BILL AND VICKI HANCOCK LIVING TRUST, VICKIE L HANCOCK, TRUSTEE, HAS EXECUTED THIS INSTRUMENT THIS _____ DAY OF _____ 2026, A.D.

BILL AND VICKI HANCOCK LIVING TRUST, BY VICKIE L HANCOCK, TRUSTEE

STATE OF COLORADO

COUNTY OF EL PASO

THE ABOVE AND AFOREMENTIONED INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____ 2026, A.D., BY VICKIE L HANCOCK AS TRUSTEE OF THE BILL AND VICKI HANCOCK LIVING TRUST.

WITNESS MY HAND AND OFFICIAL SEAL.

MY COMMISSION EXPIRES _____ NOTARY PUBLIC _____

SURVEYOR'S CERTIFICATION:

I, CHRISTOPHER THOMPSON, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY THAT THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE IN JUNE 2024, BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON. THAT MATHEMATICAL CLOSURE ERRORS ARE LESS THAN 1:10,000, AND THAT SAID PLAT HAS BEEN PREPARED IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO DEALING WITH MONUMENTS, SUBDIVISION OF SURVEYING OF LAND.

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____ 2026

CHRISTOPHER THOMPSON
ROCKY MOUNTAIN LAND SERVICES
4465 NORTHSPARK DRIVE SUITE 303
COLORADO SPRINGS, COLORADO 80907

P.L.S. NO. 198273

COUNTY APPROVAL:

THIS PLAT "HANCOCK SUBDIVISION II" WAS APPROVED FOR FILING BY THE EL PASO COUNTY, COLORADO PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT DIRECTOR ON THE _____ DAY OF _____ 20____, SUBJECT TO ANY NOTES OR CONDITIONS SPECIFIED HEREON.

"HANCOCK SUBDIVISION II" IN ITS ENTIRETY IS AMENDED FOR THE AREAS DESCRIBED BY THIS PLAT AMENDMENT/LOT LINE ADJUSTMENT SUBJECT TO ALL COVENANTS, CONDITIONS, AND RESTRICTIONS RECORDED AGAINST AND APPURTENANT TO THE ORIGINAL PLAT RECORDED IN THE OFFICE OF THE EL PASO COUNTY CLERK AND RECORDER UNDER RECEPTION NUMBER 824585

PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR

EASEMENTS:

UNLESS OTHERWISE INDICATED, ALL SIDE, FRONT AND REAR LOT LINES ARE HEREBY PLATTED ON EITHER SIDE WITH A TEN (10') FOOT PUBLIC UTILITY AND DRAINAGE EASEMENT UNLESS OTHERWISE INDICATED. THE SOLE RESPONSIBILITY FOR MAINTENANCE OF THESE EASEMENTS IS HEREBY VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.

THIS PROPERTY IS SUBJECT TO ALL REQUIREMENTS, NOTES, CONDITIONS, COVENANTS AND OBLIGATIONS AS DEPICTED ON THE RECORDED PLAT OF CHAPARRAL HILLS AS RECORDED UNDER RECEPTION NUMBER 824585 OF SAID COUNTY RECORDS.

NOTES:

1. ALL PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING PROPER STORM WATER DRAINAGE IN AND THROUGH THEIR PROPERTY PUBLIC DRAINAGE EASEMENTS AS SPECIFICALLY NOTED ON THE PLAT SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS UNLESS OTHERWISE INDICATED. STRUCTURES, FENCES, MATERIALS OR LANDSCAPING THAT COULD IMPED THE FLOW OF RUNOFF SHALL NOT BE PLACED IN DRAINAGE EASEMENTS.
2. NO DRIVEWAY SHALL BE ESTABLISHED UNLESS AN ACCESS PERMIT HAS BEEN GRANTED BY EL PASO COUNTY.
3. THE SUBDIVIDERS AGREE ON BEHALF OF HIM/HERSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES, THAT SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNEES SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM (RESOLUTION NUMBER 23-337) OR ANY AMENDMENTS THEREIN, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND IN PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY.
4. EXCEPT AS OTHERWISE NOTED ON THE PRELIMINARY PLAN, INDIVIDUAL LOT PURCHASERS ARE RESPONSIBLE FOR CONSTRUCTING DRIVEWAYS, INCLUDING NECESSARY DRAINAGE CURBS/VENTS PER LAND DEVELOPMENT CODE 8.3.3.C2 AND 8.2.1.C3 DUE TO THEIR LENGTH. SOME OF THE DRIVEWAYS MUST BE APPROVED BY THE FIRE DISTRICT.
5. NO BASEMENTS OR INHABITABLE BELOW GRADE AREAS ARE ALLOWED UNLESS SITE SPECIFIC GROUND WATER MONITORING CONDUCTED OVER A FULL ANNUAL CYCLE DEMONSTRATES A MINIMUM 3-3 FEET OF VERTICAL SEPARATION BETWEEN THE LOWEST FLOOR ELEVATION AND GROUNDWATER, OR SITE GRADING HAS DEMONSTRABLY MITIGATED SHALLOW GROUNDWATER CONDITIONS.
6. SITE SPECIFIC SOILS AND FOUNDATION INVESTIGATIONS MUST BE CONDUCTED BEFORE THE ISSUANCE OF BUILDING PERMITS. THESE INVESTIGATIONS SHOULD INCLUDE SWELLING LABORATORY TESTING AND GEOTECHNICAL ANALYSIS TO CONFIRM THE STABILITY OF FOUNDATIONS, ASSESS THE FEASIBILITY OF BASEMENTS AND DESIGN APPROPRIATE SUB-SURFACE DRAINAGE AND STRUCTURAL SYSTEMS.

WILD FIRE PLAT NOTES:

THIS PROJECT IS IN A LOW/MODERATE HAZARD FIRE INTENSITY AREA PER THE COLORADO STATE FOREST SERVICE WILDFIRE RISK ASSESSMENT PROGRAM REQUIRING HARDENED STRUCTURE AND DEFENSIBLE SPACE.

1. LOW HAZARD HARDENED STRUCTURE TO CONSIST OF A MINIMUM CLASS A ROOFING AND A DEFENSIBLE SPACE OF 30 FEET CLEARANCE AND NO PORTION OF TREES OR OTHER VEGETATION WITHIN 10 FEET OF CHIMNEY OUTLETS. TREES WITHIN DEFENSIBLE SPACE SHALL BE PRUNED TO REMOVE LADDER FUELS.
2. MODERATE HAZARD AREAS SHALL MEET THE REQUIREMENTS OF LOW HAZARD AREAS IF SITE PLANS ARE SUBMITTED PRIOR TO THE ADOPTION OF THE COLORADO WILDFIRE RESILIENCY CODE AFTER THE ADOPTION OF THE COLORADO WILDFIRE RESILIENCY CODE. MODERATE HAZARD AREAS SHALL MEET THE REQUIREMENTS OF HIGH HAZARD AREAS.
3. HIGH HAZARD HARDENED STRUCTURE TO CONSIST OF A MINIMUM CLASS A ROOFING, NON-COMBUSTIBLE SIDING/DECORING, LEAVES AND OVERHANGS. A DEFENSIBLE SPACE OF 30 FEET IRRIGATED 100 FEET FUEL TREATMENT, SELECTED FIRE RESISTANT TREES WITHIN 30 FEET OF STRUCTURES, AND SELECTED THINNING OF TREES AND SHRUBS. TREES WITHIN DEFENSIBLE SPACE SHALL BE PRUNED TO REMOVE LADDER FUEL. ALL TREES AND SHRUBS PRUNED OF DEAD MATERIAL, NO PORTION OF TREES OR OTHER VEGETATION WITHIN 10 FEET OF CHIMNEY OUTLETS.
4. WATER SUPPLIES FOR FIRE PROTECTION SHALL BE SUPPLIED PER THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE OR IF THERE IS AN ADOPTED FIRE CODE FOR THE FIRE DISTRICT THE PROJECT IS IN.
5. MAINTENANCE OF DEFENSIBLE SPACE SHALL BE CONTINUED IN CONFORMANCE WITH THE EXISTENCE OF THE STRUCTURE.
6. DEFENSIBLE SPACE AND MITIGATION SHALL BE IN ACCORDANCE WITH THE APPROVED WILDLAND FIRE AND HAZARD MITIGATION PLAN.

RECORDING:

STATE OF COLORADO

COUNTY OF EL PASO

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD AT MY OFFICE AT _____ O'CLOCK _____ THIS _____ DAY OF _____ 2026, A.D., AND IS DULY RECORDED AT RECEPTION NUMBER _____ OF THE RECORDS OF EL PASO COUNTY, COLORADO.

STEVE SCHEMER, EL PASO COUNTY CLERK AND RECORDER

FEE

BY _____ DEPUTY

SURCHARGE: _____

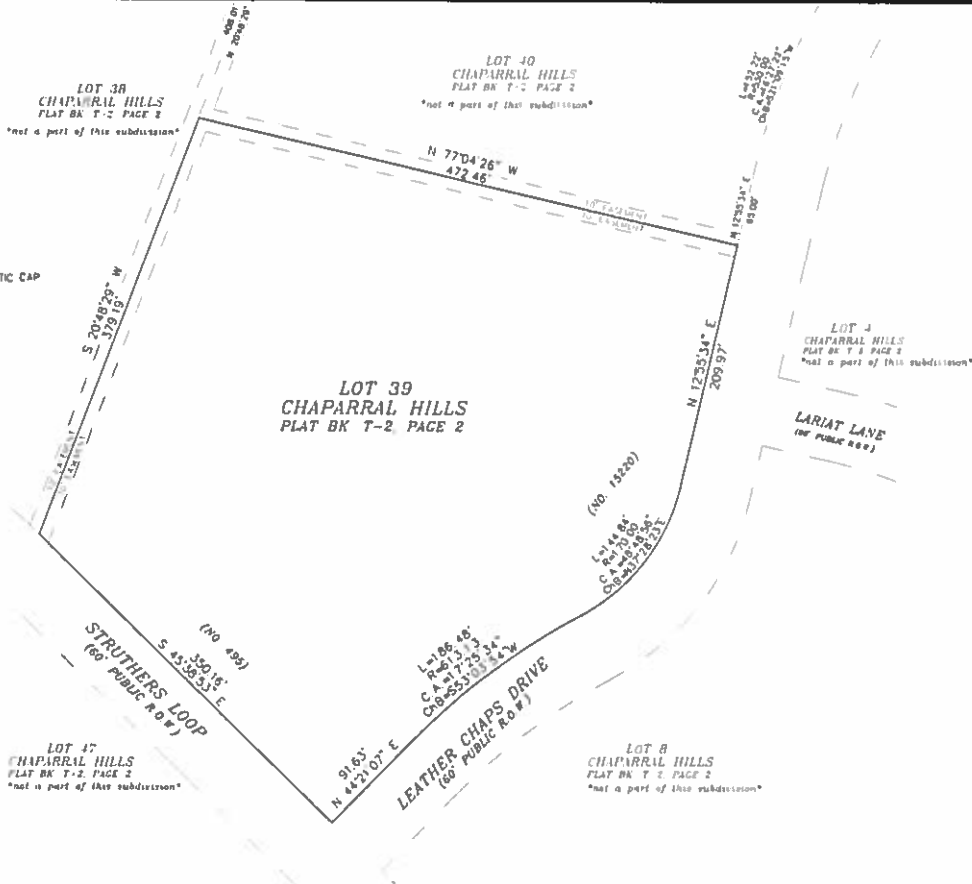
PCD FILE NO. VR264



HANCOCK SUBDIVISION II

A REPLAT OF LOT 39, CHAPARRAL HILLS
IN THE NE 1/4 OF SECTION 36, T 11 S, R 67 W OF THE 6th P.M.,
EL PASO COUNTY, COLORADO

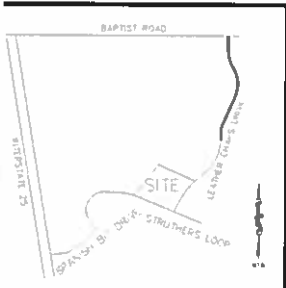
as platted:



LEGEND

- INDICATES A FOUND REBAR WITH NO CAP
- △ INDICATES A SET NO. 4 REBAR WITH PLASTIC CAP CAP STAMPED "RMLS NO 19825"
- (NO #####) INDICATES THE PROPERTY ADDRESS

VICINITY MAP



as replatted:



SCALE: 1" = 50'
JOB NO.: 45032
MAY 6, 2025
PAGE 2 OF 2

NOTICE
(1) ALL DIMENSIONS OF RECORD ARE INDICATED ON THE "AS PLATTED" PORTION. ALL ACTUAL DIMENSIONS BETWEEN FOUND MONUMENTS ARE DENOTED ON THE "AS REPLATTED" PORTION.
(2) EACH LOT WILL HAVE AN INDIVIDUAL PRIVATE DRIVEWAY LOCATED WITHIN SAID LOT ONLY THERE WILL BE NO COMMON OR SHARED DRIVEWAYS.

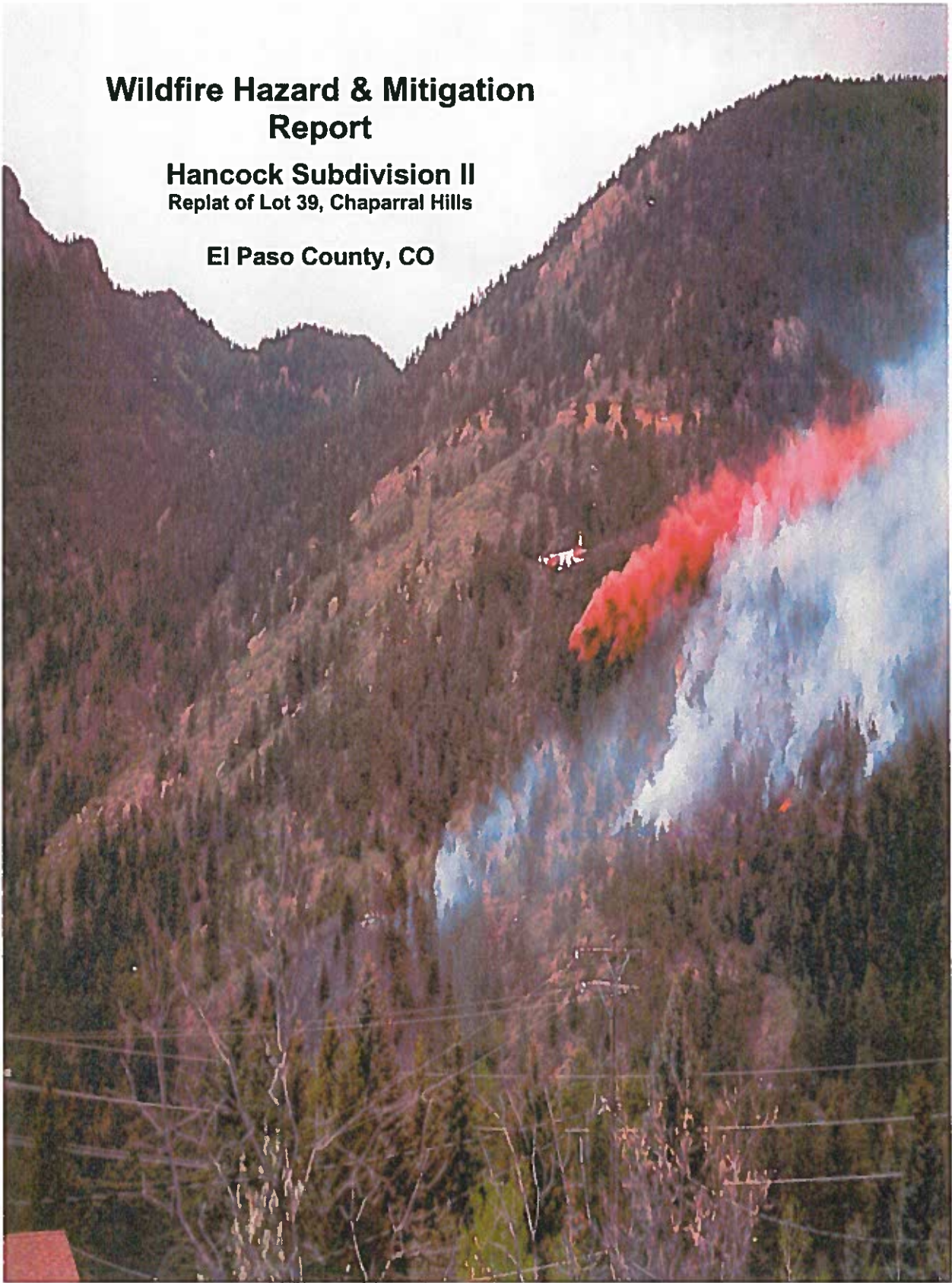
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ROCKY MOUNTAIN LAND SERVICES
4445 WORTHINGTON DRIVE, SUITE 303
COLORADO SPRINGS, COLORADO 80907
719-630-0259

Wildfire Hazard & Mitigation Report

**Hancock Subdivision II
Replat of Lot 39, Chaparral Hills**

El Paso County, CO



Wildfire Hazard Evaluation Report

For the

Hancock Subdivision II

Replat of Lot 39, Chaparral Hills

El Paso County, CO

Prepared for: **Bill and Vickie Hancock Living Trust**
15220 Leather Chaps Drive
Colorado Springs, CO 80921-2419
(719) 661-9768

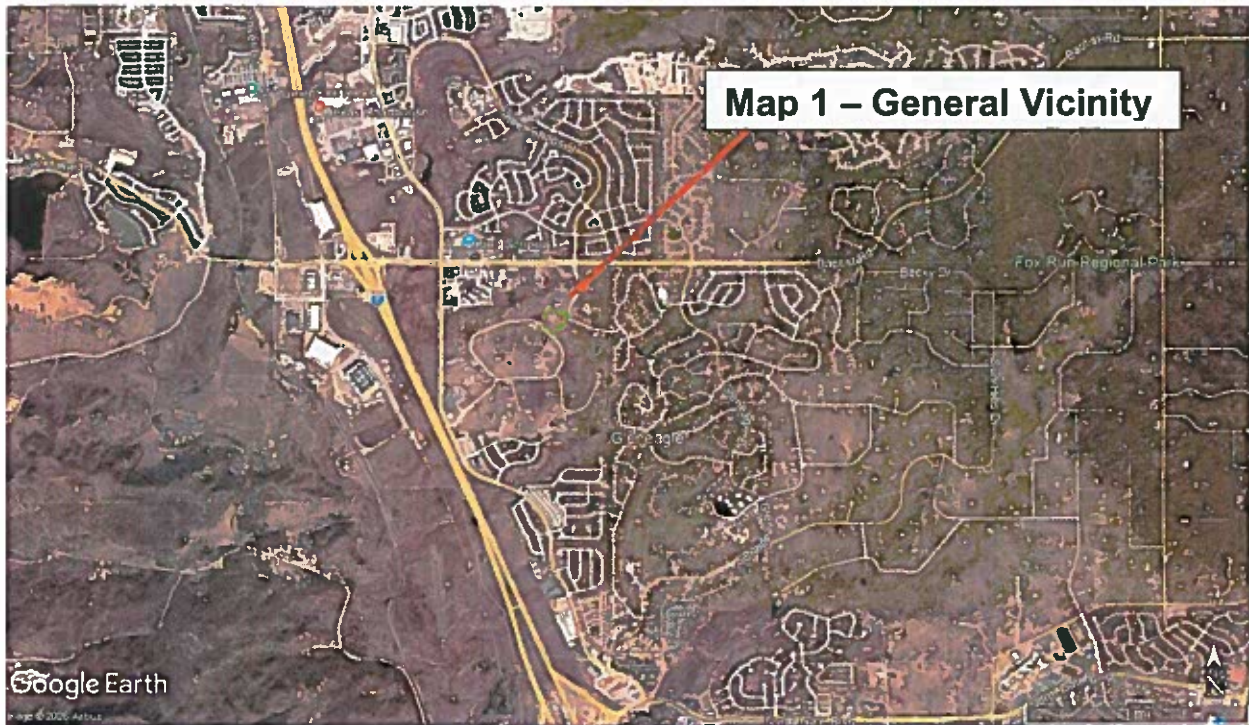
Prepared by: **Stephen J. Spaulding**
Consulting Forester
423 Crystola Canyon Road
Woodland Park, CO 80863-9130
(719) 641-0769

Warning and Disclaimer: The degree of protection from wildfire hazards intended to be provided by this plan is considered reasonable for planning purposes. It is based on accepted forestry and fire science methodology. This plan is intended to aid the Hancock Subdivision II in minimizing the dangers and impacts from wildfire hazards. Fire is a natural force and a historical part of the ponderosa pine and native grassland ecosystems. Therefore, unforeseen or unknown wildfire conditions, natural or man-made changes in conditions such as climate, vegetation, fire breaks, fuel materials, fire suppression or protection devices, and ignition sources may contribute to future damages to structures and land uses even though properly permitted within designated wildfire hazard areas.

April 2026

General Description

The Hancock Subdivision II is in unincorporated El Paso County located within a community better known as Chaparral Hills. The property is located immediately north of the intersection of Leather Chaps Drive and Struthers Loop. The property is 5.04 acres in size, and it is to be subdivided into two (2) lots of equal size. The parcel numbers listed under this report are identified with the El Paso County Assessor's as Schedule Number 7136002071 and 7136002072.



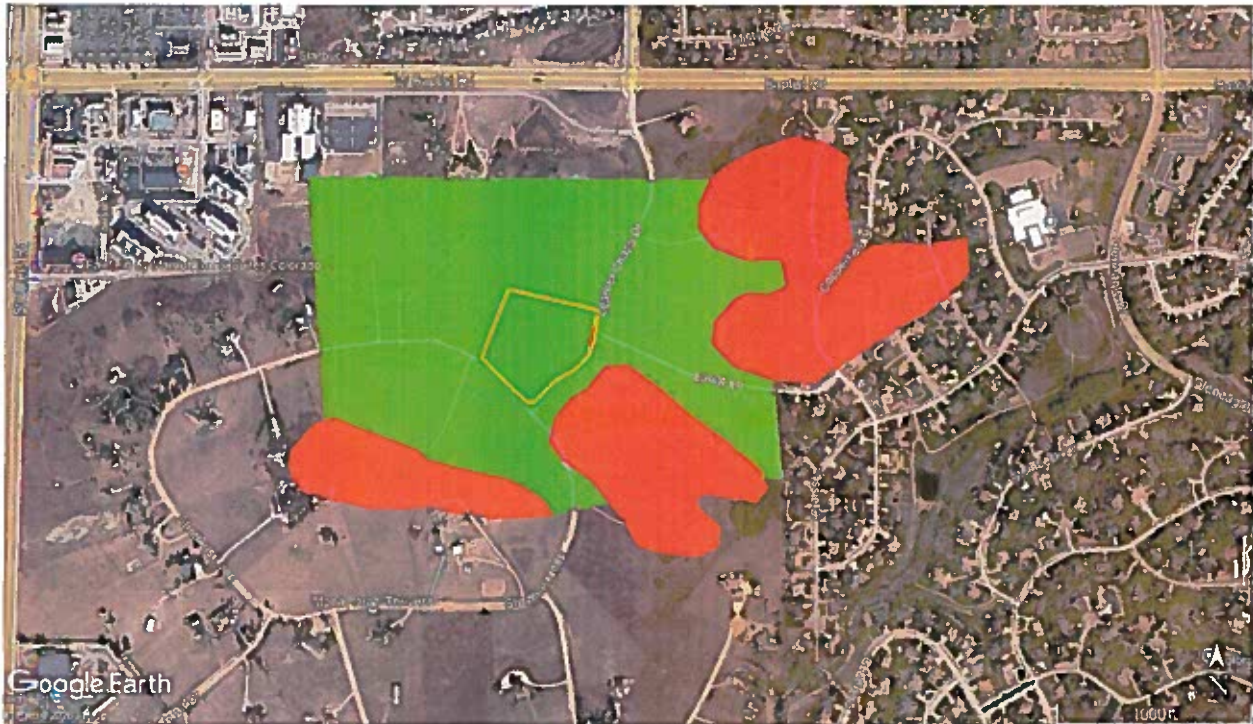
The subject property is bordered entirely by private land. The Pair-A-Dise Subdivision lies to the west with the Chaparral Filing #18 to the south. The east and north properties lie in the Chaparral Hills subdivision.

The subject property does lie within the Wildland Urban Interface, but the risk should be considered low. While there is residential development in the area, most structures are situated on large lot sizes ranging from 2.5 acres up to five acres. This translates to wide spacing between structures and lowers the risk of a wildfire spreading from structure to structure.

The area does not have a significant wildfire history. The closest large wildfire was the Black Forest Fire that burned in June of 2013. The fire location is approximately 10 miles away from the subject property. It was the most destructive wildfire measured by the number of homes destroyed at that time, surpassing the Waldo Canyon Fire in 2012.

Wildfire Hazard

Based upon the Wildfire Hazard Area Map (WHAM) developed by the Colorado State Forest Service (CSFS) in 1976, the proposed development of the Pyramid Mountain Amended PUD contains a low hazard for grass (see Map 2).



Legend: Green – Low Hazard – Grass, Red – Severe Brush

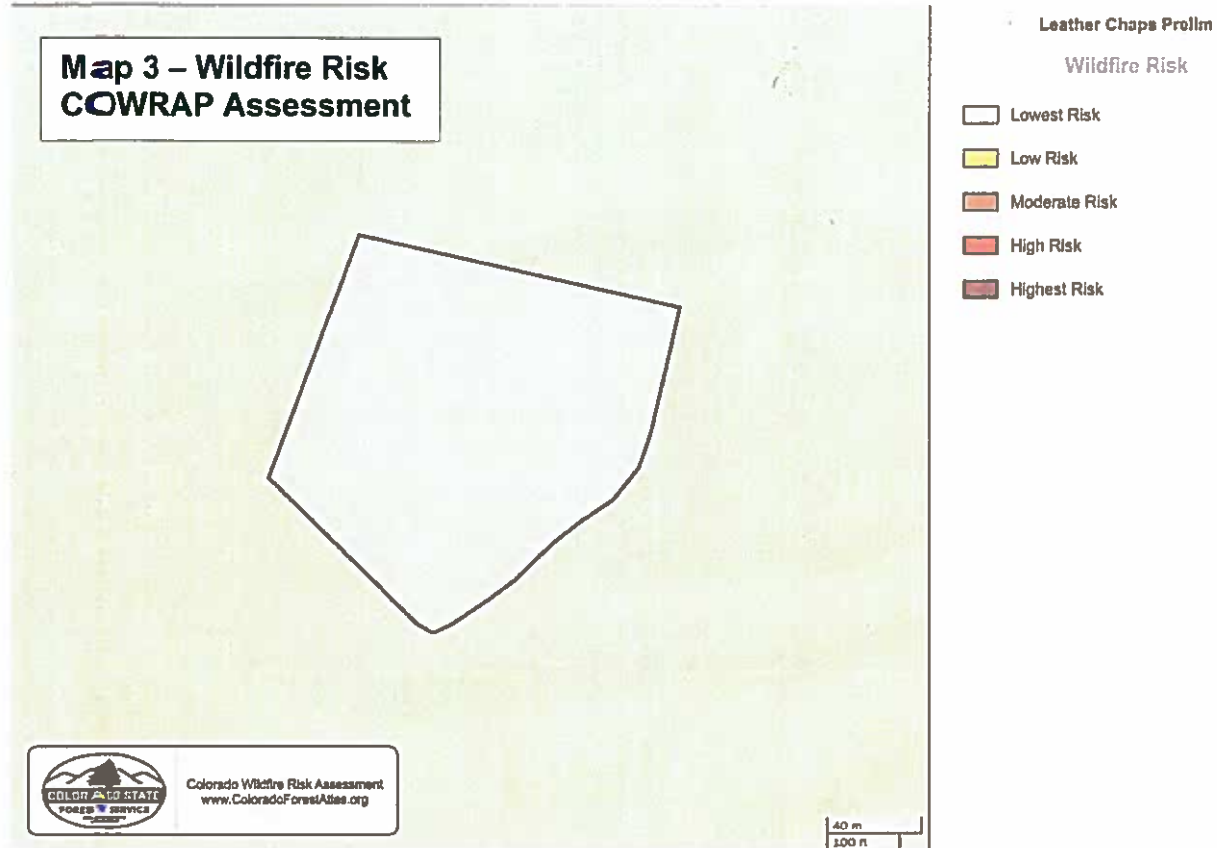
Since the publication of this hazard map series, the CSFS developed a wildfire risk assessment tool in 2012 referred to as the Colorado Wildfire Risk Assessment Web Portal (CO-WRAP). This assessment was recently updated to include wildfire events and acres mitigated up to 2017. A copy is attached to this report.

Within the assessment report, the Wildfire Risk to Assets within the property is considered the Lowest (see Map 3). Wildfire risk is a composite rating which identifies the probability of loss or harm from a wildfire. Risk identifies the greatest impacts from a wildfire to a range of assets, such as the level of Wildland Urban Interface. Wildfire Risk is determined uniformly across the entire state.

The Lowest Rating is probably a result of two factors. The first being the low number of structures in the area and widely spaced proximity of structures to one another. The second is the fuel type which is mowed or low grass.

The Burn Probability is the annual probability of any location becoming subjected to a wildfire event. The assessment assigns a rating of low to low-moderate (see Appendix C). This is not unexpected as there appears to be low use of the roadway in the immediate area. It would be reasonable to anticipate ignitions occurring from passing

traffic. In the last ten years there are only two reported ignition incidents in the area and neither is in proximity to the property (see Map 4).

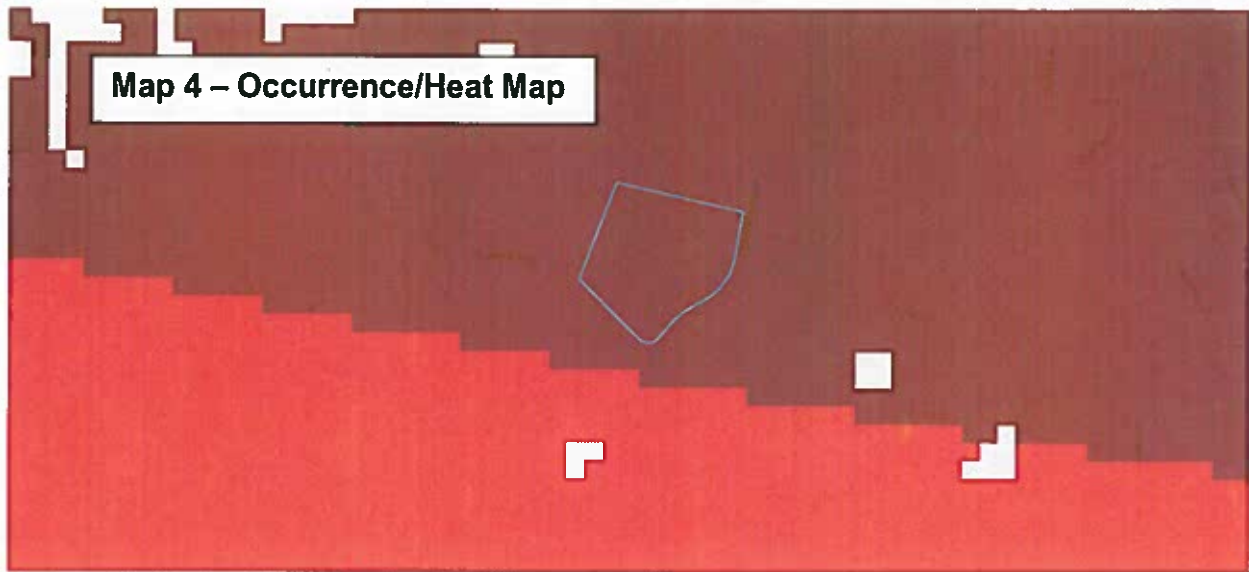


The CO-WRAP assessment uses a detailed and distinct series of fuel models. This is a more dynamic approach, but it does not delineate between smaller fuel beds but considers them uniform across large areas. So even though there may be clusters of shrubs or grasses present, a refined timber fuel model might be described incorporating these variations.

A field inspection was performed on April 26th, 2026, and again on April 28th, 2026, to determine if any change should be made to the CO-WRAP assessment.

The low number of residential units, the low WUI risk factor and the managed grass fuel in and around the subject property influences the lowest risk to the assets rating.

The Heat Map which represents fire occurrence, is an ignition density map that displays the likelihood of a wildfire starting based on historical ignition patterns. While the map indicates the highest risks, the number of actual ignitions reported is very low.



Map 4 – Occurrence/Heat Map

Dark red indicates the highest probability.



Map 5 – Known Ignitions

Reported Ignitions in Red. There may be others that were not reported.

The Burn Probability of Low is confirmed. There is a maintained drainage ditch along the this and neighboring properties. The roadway itself is composed of graded dirt. This would reduce any discarded burning material from vehicles from igniting any grass. The absence of significant tree cover reduces ignitions from lightning strikes.

Based upon the field inspection coupled with the COWRAP assessment, **the wildfire risk was confirmed as the Lowest.**

Wildfire Behavior

This rating considers the role of the three major components that affect wildfire behavior: fuels, topography and weather. These three components will be examined in relation to the .Hancock II subdivision.

Fuels

The area was field checked, and the results of the COWRAP Assessment were adjusted. based upon the observed fuel models on the property. The USDA – Forest Service Intermountain Forest and Range Experiment Station in Ogden, Utah, developed these fuel model descriptions. They are used as aids in estimating fire behavior (see Appendix A).

The criteria for choosing a fuel model reflects that wildfire will burn in that fuel type which best supports that fire to spread. There may be more than one fuel model represented on any given area of land. In addition, current and expected weather conditions will influence the condition of these fuels.

From the COWRAP assessment most of the property is considered as Moderate Load, Dry Climate Grass–Shrub (GS2). This fuel model is comprised of approximately three (3) acres. The GS2 model describes ground fuels that would be composed of shrubs that are one (1) to three (3) feet tall combined with a moderate cover of grass.

However, the assessment may be incorrect in selecting this fuel model. Photo 1 shows the absence of a quantity of shrubs growing on the property that would be representative of GS2. Likewise, the grass has been disturbed with patches of bare mineral soil and appears to be mowed to a low height. This would more closely represent fuel model GR1, Short, Sparse Dry Climate Grass.

The assignment of the GS2 fuel model is appropriate if the entire area is viewed. There are several clusters of Gambel Oak and small stands of ponderosa pine on neighboring properties. Some of these oak patches and pine stands have been thinned, reducing their availability to burn. The presence of this vegetation is far removed from the property and should not affect any fire behavior to it.



Photo 1. A view of the grass looking across the property towards the north/northwest.

An assumption could be made that the area will continue to receive regular maintenance by mowing the grass. However, if the grass were allowed to grow and mature without regular mowing, it would create a deeper fuel bed in which to burn (see Photo 2).



Photo 2. This photo depicts the grass growing on the neighboring lot to the west.

The grass in the photo has a fuel bed approximately two (2) feet in depth and is closely representative of Fuel Model GR2, Low Load, Dry Climate Grass. Shrubs, if any are present, do not contribute to an increase in fire behavior.

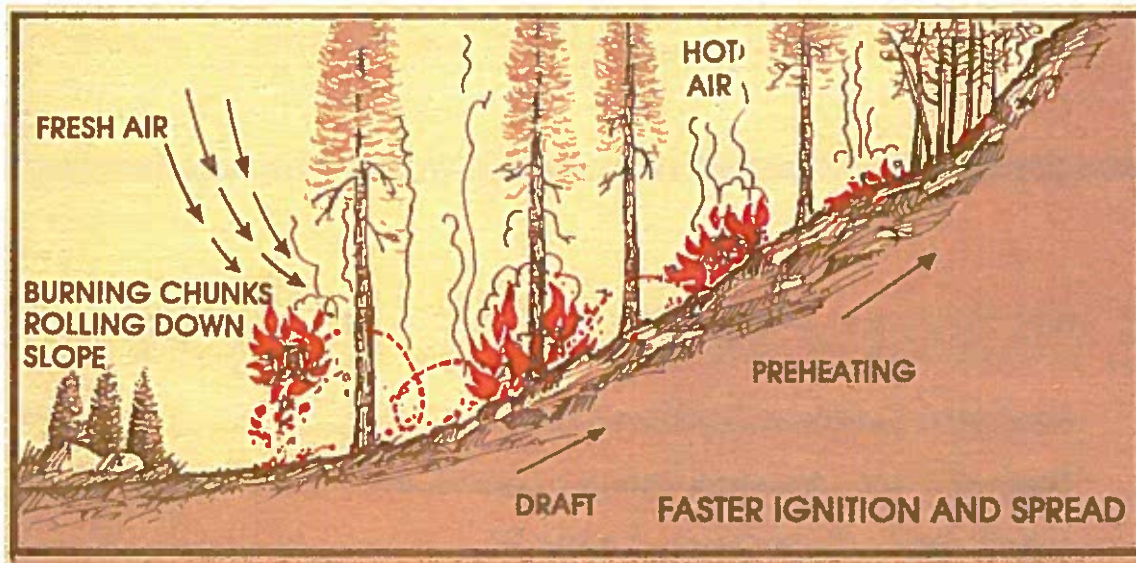
Based on the observed vegetation present and its current condition, the fuel model is best described as GR1.

Topography

The topography of the site is one of the main factors that will influence the spread of fire. The aspect or compass direction that any slope faces influence the fuel type that exists and the amount of preheating these fuels receive by the sun. Aspect can also influence the effects of diurnal winds, as they move upslope during the daylight hours and down slope during the evening and early morning hours.

As the percentage of slope increases, the rate of fire spread by convection increases. In other words, wildfire burns faster moving uphill (see Figure 1).

Figure 1. Slope Affects Fire Spread



The slope on the property is relatively flat. From the northern border to Struthers Loop the slope is calculated at approximately 2%. The topography of the property should not significantly influence the spread or intensity of wildfire.

Only slopes greater than 25% are considered extreme slopes in their effect on wildfire behavior.

Weather

Weather is the most variable of all the factors. The accumulative effects of weather over time can influence vegetation curing and fuel moisture content.

Grass, for example, are described as being one-hour time lag fuels. Time lag is a measure of the rate at which a given dead fuel gains or loses moisture. Hence grasses tend to be influenced by the weather conditions on an hourly basis. Wood fuels that are three inches in diameter or larger are considered 1,000-hour time lag fuels. This type of fuel requires a long period of dry or wet weather to affect its combustibility.

Winds can influence the direction and rate of spread of wildfire. Of greater concern is the short spotting of the fire by embers transported by winds ahead of the main fire.

The effect of wind on a fire was on display most dramatically during the Marshall Fire in Boulder County (December - 2021) . This fire grew to over 6,200 acres and destroyed 1,084 homes. The wind gusts of up to 115 miles per hour were reported. The wildfire reached the town of Superior, three miles away, in just one hour.

It should be noted that this level of high wind activity is not uncommon in northern portions of El Paso County. Finally, it should not be assumed that the main periods of

fire danger would be in the summer months. As history has shown, out of season fire events are much more common than might be expected by the public. The dry weather conditions of 2025 – 2026 provides an excellent example.

While the weather may contribute greatly to a wildfire event, it is immune to outside influences.

Predicted Fire Behavior

Using the USDA – Forest Service BehavePlus fuel modeling system 5.05, the following predictions can be made based upon an 80-degree temperature day with a relative humidity of 18% with little cloud cover at 1:00 p.m. in the month of July.

Using the inputs of the 1-hour dead moisture being 7%, the 10-hour and 100-hour dead fuels are both set at 10%; live herbaceous (grasses) and live woody stems are set at 200%. This would be an expectation of mid-summer growth. It could be a windy day, or the site is experiencing strong downdrafts from thunderstorms, so the windspeed is set at 10 mph. Slopes steepness is set at 2%.

Based on these inputs, wildfire would spread at a rate of 6.6 feet per hour with a flame length of one (1) to two (2) inches.

If the fuel model is changed to GR2 to reflect an absence of maintenance, the outcome does not change. Keeping the same fuel model but assuming drought conditions as currently being experienced the 1-hour dead fuel moisture is lowered to 3%. The 10-hour and 100-hour dead fuels have dried to 5%. The live fuel moisture is 50%, reflecting an early dry growing season.

The wind speed of 10 mph and a slope of 2%, remain the same as in the previous example. With the drier conditions, flame lengths could reach up to nine (9) to ten (10) feet. The rate of spread accelerates up to 9,042 feet per hour or 150 feet per minute.

The probability of fuels igniting in advance of the fire front is 86%. In the time that it may take for the fire to be noticed, reported to the fire department's dispatch office and for the arrival of the initial attack force, assume 15 minutes, the fire could have traveled over 2,250 feet or close to one-half mile from its ignition point.

It is predicted that local suppression forces will not be able to contain the initial fire outbreak with mobile engines and hand constructed control lines. This assumes a severe case scenario using fuel model GS2.

It should be noted that these predictions are based upon normal weather conditions prevailing over the course of a year. Weather conditions that were exhibited from the winter of 2022 through the present date have been outside of normal conditions resulting in the catastrophic losses experienced throughout the western United States this past fire season. Again, the Marshall Fire provides an insight into what fire behavior might occur even in the winter season.

If such conditions are present on or in the vicinity of the proposed development site, any wildfire event can be predicted to be more severe and resistant to initial control efforts.

Wildfire Mitigation

It should be noted here that the occurrence of a wildland fire on this property and any subsequent spread of a wildfire to adjacent land could never be eliminated. In the Spaatz Fire, near Monument, suppression forces were able to arrive on scene in approximately four minutes after the fire was reported. Even with this rapid response, the wildfire reached a size of 67 acres before it was controlled.

The potential for loss can be reduced, and the odds can be improved that initial response forces can be successful in keeping a wildfire to the smallest size possible and structure loss to a minimum. But even with the best efforts of suppression forces, there will always exist a level of risk of loss to wildfire.

The only way to reduce the risk of loss from wildfire is to modify the factors that influence fire behavior. Of the three factors discussed previously, the only factor that could be modified prior to a wildland fire is the fuels. The efforts in modifying fuels can be targeted to their arrangement, continuity and availability.

- **Arrangement**

The arrangement of fuel considers the size, shape and compactness of the fuel itself. Smaller fuel sizes have greater surface area exposure for preheating. If these smaller sized fuels are only lightly compacted in spacing this results in easier ignition and increased combustion.

Fuels that are tightly compacted and larger in size have lower surface areas. This reduces ignition and combustion.

One technique in reducing the readily ignitable fuel level would be to remove fuels, such as dead leaves, fallen limbs and other small organic debris, from any construction site. However, it is not practical to remove these types of fuels from the entire property.

During the construction phase of any structure, the most likely source of ignition will come from personnel and activities. These sources of ignition may come from flammable chemicals, improperly discarded cigarettes, shorts in electrical equipment, and other means.

It is suggested here that the reduction of the most ignitable fuel be done in areas that are within fifty feet of the pad of any proposed structure or improvement. This will reduce the amount of readily ignitable fuel in proximity to the structure. It will also retard the spread of a fire and provide suppression forces additional time to contain a fire quickly.

Once a structure is built, a Home Ignition Zone should be established. This should be given consideration as proposed building sites are in a grass fuel, particularly if not maintained to a low height.

Home Ignition zones coupled with Defensible Space are intended to slow a fire down so that it may be controlled and extinguished. There are three zones that comprise a Home Ignition Zone. Detailed information these concepts can be found on the Colorado State Forest Service website at the following link: [Protect Your Home & Property from Wildfire | Colorado State Forest Service | Colorado State University](#)

The first zone is the one that contains the most opportunity for modification. This zone is designed to prevent flames from coming in direct contact with the structure and extends out for a minimum of five feet from any structure. A brief synopsis of the steps that can reduce the risk of ignition of a structure from a fire is found below.

Use non-flammable, hard surface materials in this zone, such as rock, gravel, sand, cement, bare earth or stone/concrete pavers. Remove all flammable vegetation, including shrubs, slash, mulch and other woody debris. Do not store firewood or other combustible materials inside this zone.

The second zone extends from 5 to 10 feet from any structure. To retard the spread of fire in Zone 2 may include all or some of the following steps described below.

Mow grasses to 4 inches tall or less where practical. About the windbreaks or conservation plantings of Eastern red cedar, these groups of trees may be left in areas of Zone 2. Spacing of 30 feet should be maintained between remaining tree groups to ensure a fire does not jump from one group to another, which is currently the case. Remove ladder fuels under remaining trees. Prune tree branches to a height of 6-10 feet from the ground or a third of the total height of the tree, whichever is less. Due to the short height of the surface fuel bed, the Eastern red cedar has already been sufficiently pruned (see Photo 3). Remove stressed, diseased, dead or dying trees or shrubs as necessary.

Zone 3 is mostly concerned with improving forest health. Any locations within this zone with excessive fuel load should receive treatments as described in Zone 2.

Additional information on the development of wildfire safety zones is available through the Colorado State Forest Service at the following link: [2021 CSFS HIZGuide Web.pdf](#)

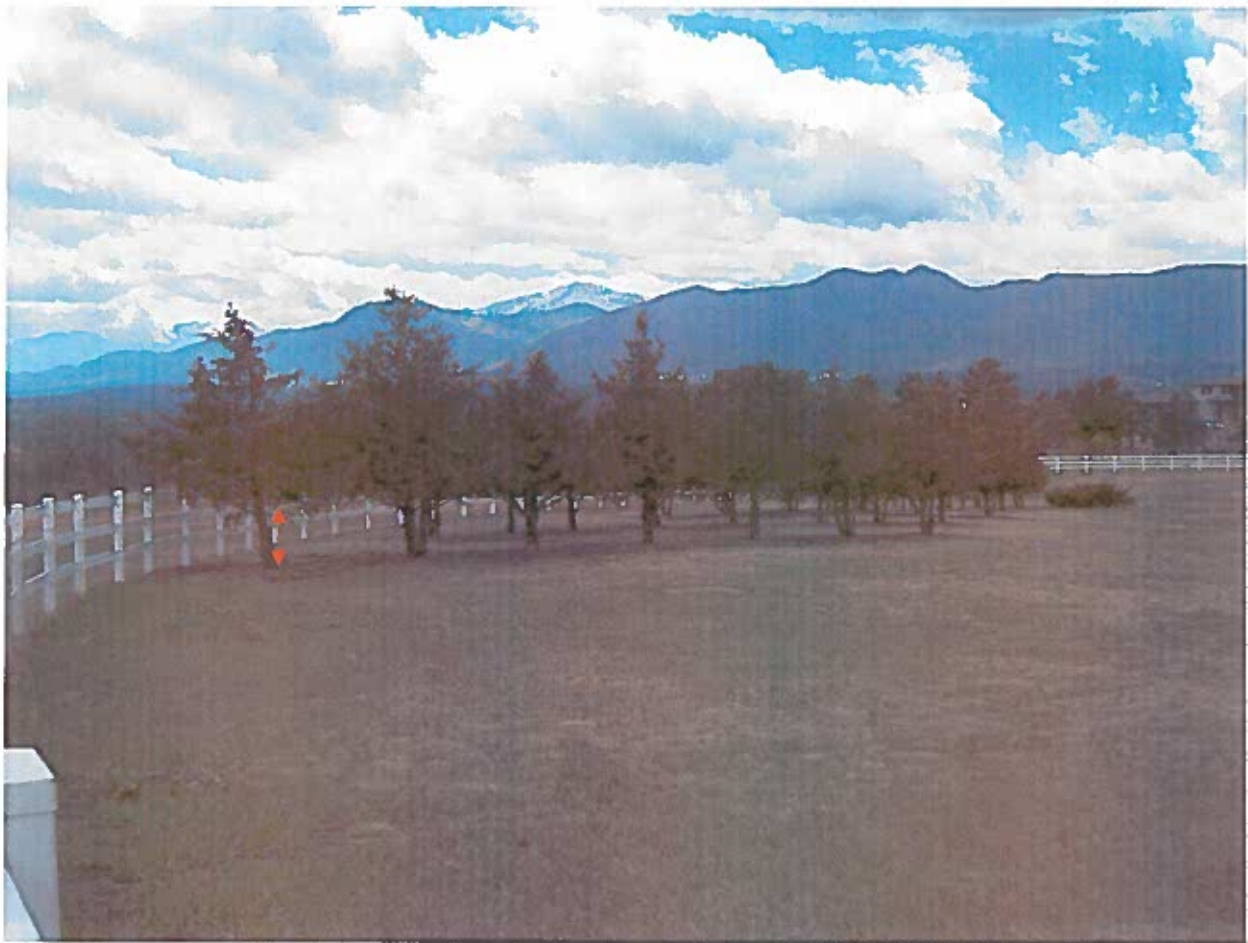


Photo 3. A group of Eastern red cedars that are located along Leather Chaps Drive. Note that the trees are appropriately pruned at the base in relation to the height of the ground fuel.

- **Continuity**

The second factor affecting fuels that can be modified is their continuity. Is the fuel continuous or patchy in nature? Is the fuel layered in such a manner that it can leave the ground and spread into a vegetative canopy?

In this instance, the fuels in the grass fuel model are continuous, but sparse as has been described previously.

- **Availability**

The final consideration is the availability of the fuel to be physically burned. This factor is influenced by the weather on a daily or yearly basis and cannot be readily influenced.

The current weather patterns have contributed to a long-term drought situation that has influenced the availability of the fuels to burn. The trend of above average daytime temperatures and below normal precipitation levels have allowed fuels to reach a higher

state of availability than might normally be the case, particularly during winter months. This may result in wildfire acting in a manner that might be more characteristic of mid-to-late summer burning conditions.

Other Considerations

Firebrands & Secondary Ignitions

It is becoming more apparent that structure loss is not occurring during the passage of a burning wildfire front but from ignition of the structure by firebrands and secondary ignitions. Firebrands are burning materials or embers that are lifted into the air by convective wind currents. Firebrands can be cast hundreds of feet in advance of the fire front.

Research and case studies in Australia have found that there is a 50% probability of loss of structures that are 100 – 200 feet from the fire front. This would seem to indicate that firebrands are a major contributing factor of structure loss.

In the U.S., studies indicate there is 90% probability that a structure with a non-flammable roof and that is at least 100 feet from the fuel bed will not be lost during a wildfire. However, this statistic may be misleading as the Cedar Fire (CA) in 2003 indicated that 60% -70% of the structures lost were ignited by firebrands. This would also infer that solely relying on 'defensible space' for structure protection may not be adequate.

In a professional paper by Scott (2005), the exposure of a structure to embers and firebrands is discussed. In an inference to fuel mitigation in the 'defensible space' zones, Scott states that "In no case is complete removal of the forest canopy required to mitigate crown fire potential near a structure." This infers that 'defensible space', while a good starting point, may not be the whole solution in preventing structure loss.

Currently, fire-safe construction is the recommended protocol for fire brand risk reduction by the professional wildfire community.

Roads and Driveways

Roads and driveways to individual lots should be constructed in accordance with NFPA 1141, *Fire Protection for Planned Building Groups*. Specifically, road widths should not be less than twenty-four feet to allow for simultaneous access of emergency equipment and evacuation of visitors.

Driveways should provide a minimum width of twelve feet and a minimum vertical clearance of fifteen feet. The grade of any driveway should not exceed 12%. The entrance to any driveway from public roads should not exceed a ninety-degree angle. A turnaround should be provided at all structure sites on driveways over three hundred feet in length. These turnarounds should be within fifty feet of any structure.

Landscaping

The vegetation that is used in the landscaping of the structure should be fire resistant. For example, ornamental junipers can be very flammable and easily ignited by aerial firebrands. Planting these shrubs near the exterior walls of any residential structures provide a readily available fuel source that could threaten the structure and divert suppression forces to protect the building instead of controlling the wildfire.

From the historical fire record of the region, the ignition of ornamental junipers around structures is a major contributor to damage and subsequent loss. **It is strongly recommended that the use of junipers and any other lowing growing ornamental conifer in the landscape be prohibited within thirty feet of a structure's foundation.**

It is assumed here that a native landscape is the preferred condition. Grass should be mowed on a regular basis where it is within proximity to any planned residential structure and outbuildings.

An alternative to irrigated green space would be to line the footprint of the foundation of the structure with rock. If rock is used, it should be placed at a minimum width of five feet from the foundation. This will prevent flame lengths from reaching the building.

There are many different sizes and types of rock available. It should be noted here that it would be necessary to remove leaves and other litter from within this rock fuel break on an annual basis.

The white fence surrounding the property also has a wire mesh fence on the inside. It is assumed this was placed in to keep any pets, such as dogs or small livestock, inside the confines of the property. A consequence of this metal fence is the accumulation of wind-blown weeds and other debris (see Photo 4).

This debris, if ignited, should not directly affect the spread of wildfire. It will likely produce more flaming embers and ignite the Eastern red cedar canopy. The torching of the cedar should not directly influence the spread of a fire as well.

This debris should be removed and disposed of. Inspections of debris accumulation should be performed regularly, particularly after high wind events.



Photo 4. Wind-blown debris trapped by the metal fence. This provides sufficient fuel to ignite the canopy of the cedar.

Construction Considerations

Predictable sources of fuel that will burn and allow entry of wildfire into the structure will be debris that is trapped under or next to the building or accumulation in the roof gutters. Porch, foundation, roof and ventilation openings should be screened off or enclosed to keep debris from accumulating and burning underneath. This is particularly important where wooden decks are planned at ground level. This was a factor in the loss of structures in the Waldo Canyon Fire. These location concerns were also expressed in a joint publication by [Green Builder Media](#) and the NFPA. This recently released e-book, 'Design with Fire in Mind', can be downloaded using the link. Go to the Resources tab and click on e-books.

During the Waldo Canyon Fire, burning decks were removed to prevent the spread of the fire into the main residential structure. This was due to embers being blown underneath wooden decks. The flammable debris present under the deck ignited, resulting in the deck itself burning and subsequently damaging or destroying the main residential structure.

It is strongly recommended that all decks that are planned at ground level be required to be sealed off and enclosed to prevent the accumulation of flammable debris underneath them.

The National Institute of Standards and Technology published results from experiments that examined how fire spread toward a structure is affected by combustible fences and mulch under conditions that may be encountered in a wildland-urban interface fire.

The study found that firebrands capable of igniting spot fires downwind were generated by nearly all combinations of fence and mulch tested. Mulch was placed under the fences to mimic debris that commonly accumulates under or around them. A target mulch bed at the base of a constructed structure tested the ability of firebrands produced by the burning fence and mulch (simulated debris) to ignite spot fires that threatened the structure.

The result was that all wood fences with mulch (simulated debris) at the base caused spot fires in the target mulch bed. In summary, fire spread is more likely with wood and wood-plastic composite fences than with fences made of vinyl or noncombustible materials such as stone, brick, or steel.

More details on this study can be found at [Wind-Driven Fire Spread to a Structure from Fences and Mulch \(nist.gov\)](#)

In a wildfire risk assessment in a local development, a significant entry point for fire into a house was through the eaves, overhangs or soffits. These locations can trap embers and combustible gas or heat, that can ignite the structure.

Based upon recommendations from FEMA, overhangs, if used, should be enclosed with a flat, horizontal soffit with a one-hour fire resistance rating. The fascia should be constructed of non-combustible material.

The combustibility of a roof is one of the most important factors in determining the risk of a structure to damage or loss from wildfire. The use of combustible materials such as wood shingles does not necessarily increase their susceptibility to fire. However, as a wood shingle roof ages and is influenced by the weather, individual shingles may start to warp, curl, and lose the tightness that was exhibited upon initial installation.

Siding materials, while not as critical as compared to roof, can help to lower the overall risk of a structure to damage from wildfire. Where a high wildfire risk exists, the wildfire intensity could ignite combustible siding material

It is recommended that where slopes exceed 15% in areas where the wildfire hazard is considered high, non-combustible siding materials should be used in the construction of structures.

Due to the increased loss of structures to wildfire events nationwide, there is growing emphasis on 'hardening the structure.' A recent report published by Headwaters Economics discusses the costs of added protection during construction of a residential structure. A copy of the full report can be downloaded at: [Construction Costs for a Wildfire Resistant Home, California Edition \(headwaterseconomics.org\)](https://www.headwaterseconomics.org/reports/construction-costs-for-a-wildfire-resistant-home-california-edition)

The report lists several construction improvements that are relatively inexpensive to install.

It is assumed here that there may be a wood burning fireplace constructed either inside or on an outside patio. If so, the location for storage of firewood needs to be considered.

It is strongly suggested that firewood storage be located at least fifteen (15) feet away from any structure.

Water Supply

The property is within unincorporated land of El Paso County, and fire protection is provided by the Tri-Lakes Monument Fire Protection District. At present, there is one hydrant available water supply for extended fire suppression. It is located in the northeast corner of the intersection of Leather Chaps Drive and Lariat Lane. This hydrant location is just to the south and east of the driveway to 15220 Leather Chaps Drive.

The initial response to a wildfire event could be from Station 3 of the Monument Fire Protection District. The station is located at 1855 Woodmoor Drive and is approximately four and four tenths (4.4) miles away from the property. It may take upwards of 11 minutes to reach the property.

The district has the availability of 3 engines, 1 tower ladder, 3 brush trucks and 2 water tenders at any given time. These resources are further boosted by the Donald Westcott FPD, which is in process of consolidating with the Tri-Lakes Monument FPD.

Station 5 may also respond to an incident. It is located at 15055 Highway 83 and is five and nine tenths (5.9) away from the property. It may take upwards of ten (10) minutes to reach the property.

In the event of extended attack on a wildfire, a hydrant is located at the northwest corner of Lyons Trail and Toreva Drive, approximately one-half mile north of the property. Another option is the hydrant in the parking lot of the Big R store off Spanish Bit Drive, which is a little over three-quarters of a mile away. This location provides a safe and secure location for refilling any tankers (see Map 5).



The blue diamonds indicate the locations of fire hydrants.

Forest Management

There is no forest management required. The trees on the property were planted for conservation purposes such as privacy and as a windbreak. No further maintenance is needed currently.

Appendix A

Fuel Model Descriptions

Fuel Model 1 Summary Page

Source: Anderson, Hal E. Aids to Determining Fuel Models for Estimating Fire Behavior, National Wildfire Coordinating Group, General Technical Report INT-122, April 1982.

"This report presents photographic examples, tabulations, and a similarity chart to assist fire behavior officers, fuel management specialists, and other field personnel in selecting a fuel model appropriate for a specific field situation. Proper selection of a fuel model is a critical step in mathematical modeling of fire behavior and fire danger rating.

Short Sparse Dry Climate Grass (GR1) Summary Page

Low Load, Dry Climate Grass (GR2) Summary Page

Moderate Load, Dry Climate Grass-Shrub (GS2) Summary Page

Source: Scott, Joe H. & Burgan, Robert E. 2005. Standard fire behavior fuel models: a comprehensive set for use with Rothermel's (1972) surface fire spread model. Gen. Tech. Rep. RMRS-GTR-153, Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 72 p.

"This report describes a new set of standard fire behavior fuel models for use with Rothermel's surface fire spread model and the relationship of the new set to the original 13 fire behavior fuel models."

FUEL MODEL DESCRIPTIONS
Grass Group

Fire Behavior Fuel Model 1

Fire spread is governed by the fine, very porous, and continuous herbaceous fuels that have cured or are nearly cured. Fires are surface fires that move rapidly through the cured grass and associated material. Very little shrub or timber is present, generally less than one-third of the area.

Grasslands and savanna are represented along with stubble, grass-tundra, and grass-shrub combinations that met the above area constraint. Annual and perennial grasses are included in this fuel model. Refer to photographs 1, 2, and 3 for illustrations.

This fuel model correlates to 1978 NFDRS fuel models A, L, and S.

Fuel model values for estimating fire behavior

Total fuel load, < 3-inch dead and live, tons/acre	0.74
Dead fuel load, 1/4-inch, tons/acre	.74
Live fuel load, foliage, tons/acre	0
Fuel bed depth, feet	1.0



Photo 1. Western annual grasses such as cheatgrass, medusahead ryegrass, and fescues.



Photo 2. Live oak savanna of the Southwest on the Coronado National Forest.



Photo 3: Open pine—grasslands on the Lewis and Clark National Forest

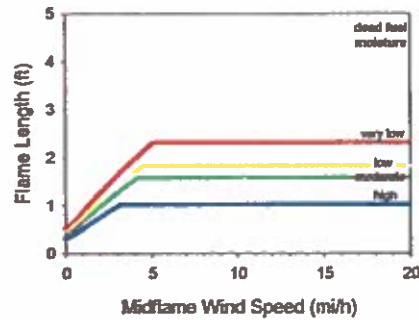
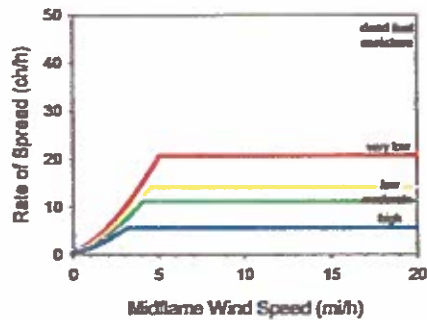
GR1 (101)

Short, Sparse Dry Climate Grass (Dynamic)



Description: The primary carrier of fire in GR1 is sparse grass, though small amounts of fine dead fuel may be present. The grass in GR1 is generally short, either naturally or by grazing, and may be sparse or discontinuous. The moisture of extinction of GR1 is indicative of a dry climate fuelbed, but GR1 may also be applied in high-extinction moisture fuelbeds because in both cases predicted spread rate and flame length are low compared to other GR models.

Fine fuel load (t/ac)	0.40
Characteristic SAV (ft-1)	2054
Packing ratio (dimensionless)	0.00143
Extinction moisture content (percent)	15



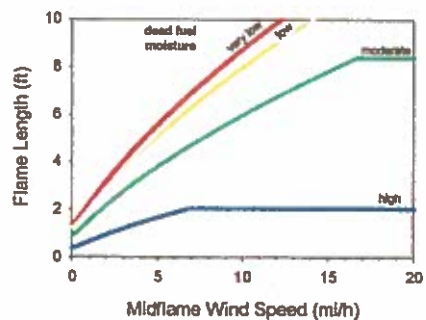
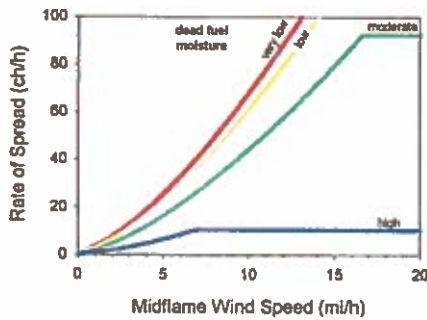
GS2 (122)

Moderate Load, Dry Climate Grass-Shrub (Dynamic)



Description: The primary carrier of fire in GS2 is grass and shrubs combined. Shrubs are 1 to 3 feet high, grass load is moderate. Spread rate is high; flame length moderate. Moisture of extinction is low.

Fine fuel load (t/ac)	2.1
Characteristic SAV (ft-1)	1827
Packing ratio (dimensionless)	0.00249
Extinction moisture content (percent)	15

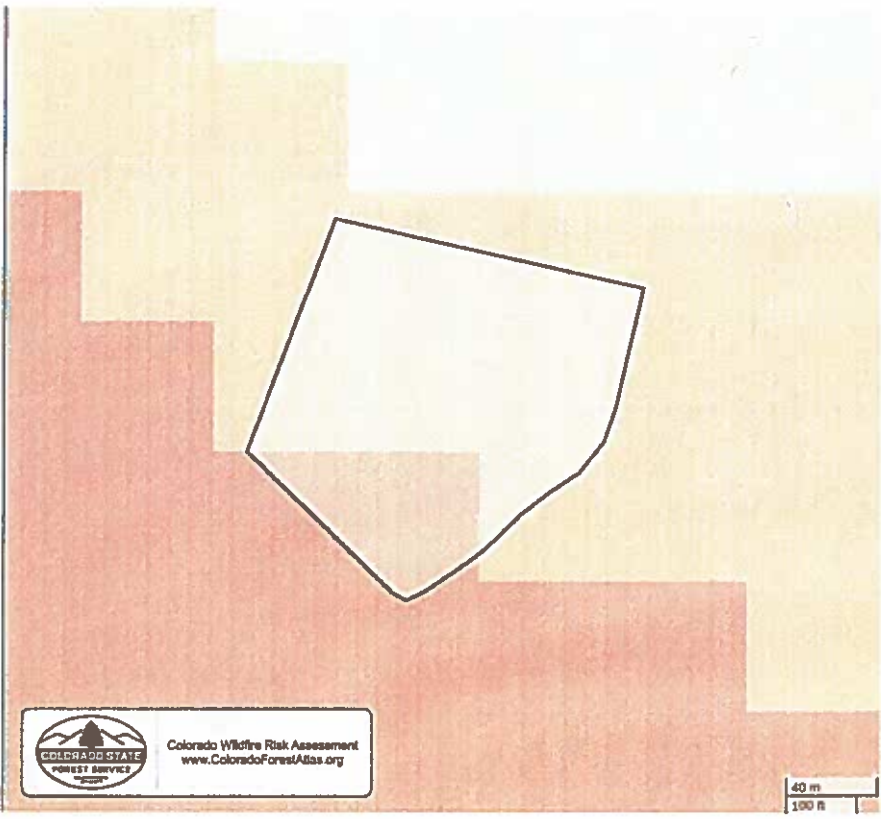


Appendix C

Supplemental Maps

**Burn Probability Risk Map
Fire Intensity Scale Map**

Note: Wildfire maps are obtained through the Colorado Wildfire Assessment Portal and subsequent assessment report.

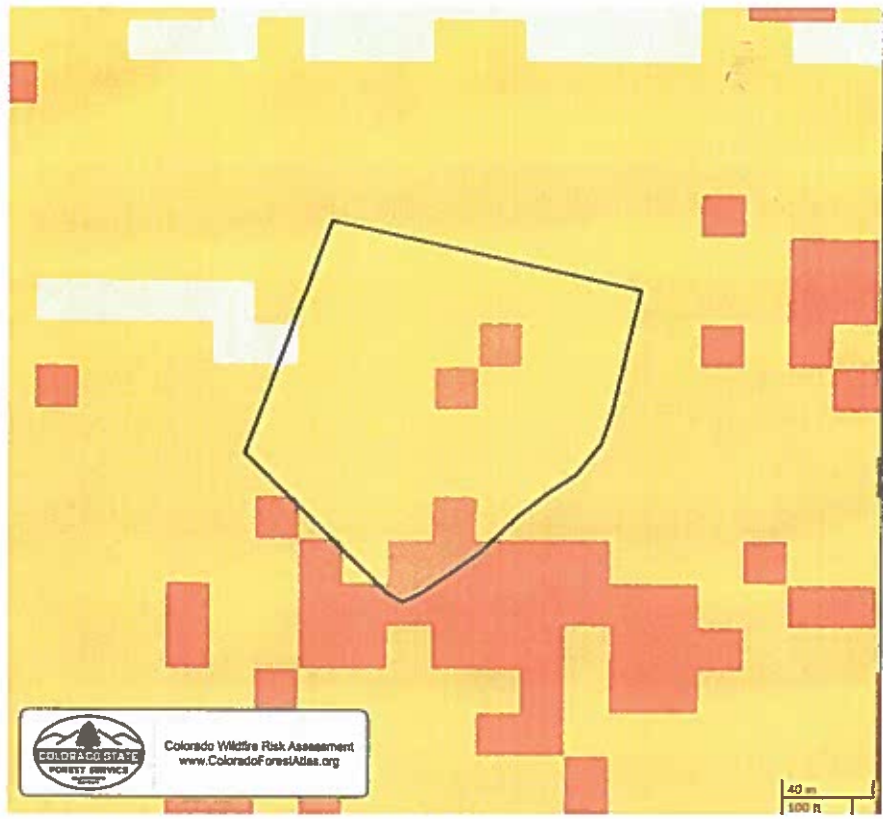


Leather Chaps Prelim
Burn Probability

- Lowest
- Low
- Moderate
- High
- Highest


 Colorado Wildfire Risk Assessment
www.ColoradoForestAtlas.org

40 m
100 ft



- Leather Chaps Prelim
Fire Intensity Scale
- Lowest Intensity
 - Low Intensity
 - Moderate Intensity
 - High Intensity