

CHAPTER SEVEN

SPECIAL REGULATIONS

7.2 ENVIRONMENTAL/SENSITIVE LANDS REGULATIONS

A. **Purpose.**

Environmental and sensitive lands (ESL) regulations shall apply to identified hazard areas and/or lands, which have or may have specific environmental conditions. The intent of this regulation is to:

1. Guide development and land use within these areas;
2. Protect the public from avoidable financial expenditures for hazard control projects, hazard relief measures and damages to public utilities, streets and bridges;
3. Protect people and property and minimize damage from possible hazards; and
4. Provide a mechanism by which people owning/purchasing land can gain information about the land and whether the land is suitable for development.

B. **Applicability.**

The provisions of Chapter Seven, in addition to any other applicable regulation, shall apply to a planned development outline development plan, preliminary subdivision plat or simple subdivision for environmental and sensitive lands. Chapter Seven shall not apply to the following:

1. Development of a single family home on any lot or parcel in existence as of the effective date of this Code;
2. State, county or City highway personnel engaged in constructing or effecting repair of bridges and/or roads;
3. Colorado Division of Wildlife and/or US Fish and Wildlife Service engaged in habitat improvement; and
4. Railroad personnel engaged in constructing or effecting repair of bridges and track.

C. **General Requirements.**

1. The Director shall administer this Code making any necessary interpretations of maps and other documents or information necessary or required, to determine among other things the boundaries of geologic and wildfire hazard areas.
2. Any development application involving a property with a known or suspected geologic hazard shall be submitted by the Director for review by the Colorado Geological Survey.
3. Any development application involving a property with a known or suspected wildfire hazard shall be submitted by the Director for review by the State Forestry Service.
4. Protection from or against hazard or loss by the application of this regulation is not guaranteed. The analysis and recommendations are based on engineering and scientific studies, which are reasonably believed to be accurate and complete. A review consistent with this regulation does not

guarantee, either expressly or impliedly that areas outside of established hazard boundaries or uses permitted within hazard boundaries will be free from damage or that people will be free from death or injury caused by known or unknown hazards. Application of this regulation to any development shall not create any liability on the part of or create a cause of action against, the City or any officer or employee thereof.

D. **Wildfire Standards.**

1. **Defensible Space.** Any new residential development on or adjacent to land that is predominantly woods, brush or grasslands, shall be developed to minimize the potential for the buildings to be ignited by wild fire and for a building fire to ignite surrounding woods, brush or grasslands. In addition to all other applicable regulations woods, brush or grassland development shall be developed with the area surrounding each dwelling unit modified and managed using a two-area system as follows:

a. Area 1. Area 1 shall consist of a thirty foot (30') area immediately surrounding the dwelling unit, not to extend beyond the property line. No dead trees or other dead vegetation may remain in Area 1 at the time of initial sale or initial construction, whichever is first. Area 1 shall be further subdivided into two (2) segments:

(1) Segment A shall consist of the five feet (5') immediately surrounding all sides of the dwelling unit. All vegetation shall be removed from this area at the time of initial sale or construction, whichever is first. No new vegetation shall be planted in Segment A if the structure is sided with combustible materials such as wood or logs. If noncombustible siding is used, however, low-growing shrubs may remain or be installed. In no case shall shrubs be planted so as to be continuous with grass. No propane tanks may be installed in Segment A and no firewood or other combustible materials may be stored there.

(2) Segment B shall consist of the twenty-five feet (25') immediately beyond Segment A. At the time of initial sale or initial construction, whichever occurs first, all installed trees within Area 1 shall be located, and all existing vegetation shall be thinned, as follows to break up the horizontal and vertical continuity of fuels:

(A) Spacing between clumps of brush or trees, as measured between the crown of each clump, shall be no closer than two (2) times the height of the taller clump. The maximum width of any clump of brush or trees shall be no greater than two (2) times the height of the clump. Thinned material shall be removed from the site.

(B) All branches of trees or brush shall be pruned to a minimum height of ten feet (10') above the ground or

one-half (½) the total height of the tree or bush, whichever is less. Pruned material shall be removed from the site.

(C) Propane tanks and firewood may be located in Segment B, but in no case shall such tanks be located within twenty feet (20') of the primary structure. Propane tanks shall be located on gravel pads and shall not be located immediately adjacent to grass-covered areas.

b. Area 2. Area 2 shall consist of the area immediately beyond Area 1 and extending to seventy-five feet (75') from the principal structure, not to extend beyond the property line. Trees shall be initially thinned in this area to maintain a minimum of five feet (5') between tree crowns at maturity. All dead trees must be removed from Area 2 prior to initial sale or initial construction, and subsequent dead trees shall be removed annually, except that two (2) dead trees per acre may remain to serve as wildlife habitat.

2. **Maintenance.** Persons owning, leasing or otherwise maintaining new dwelling units covered by provisions of this Code are responsible for proper maintenance of the defensible space. Maintenance of the defensible space shall include modifying or removing flammable vegetation and keeping leaves, needles and other dead vegetative material from accumulating on roofs of structures.

E. **Wildlife Habitat Protection.**

1. Prior to development of a moderate, high or very high potential for impact category parcel, as shown on the 1999 Wildlife Composite Map for the urban area or an amended map approved by the City, the Developer shall consult with the Colorado Division of Wildlife to substantiate the basis for the potential impact and to address various, specific measures to avoid, minimize, or mitigate negative impacts to wildlife and/or habitat.

2. New structures shall not be located within 100 feet (100') of the floodways of the Colorado or Gunnison Rivers or as recommended by the Colorado Division of Wildlife. Roads, trails, recreation access sites, bridges, fences, irrigation and water diversion facilities, erosion and flood control devices, underground utilities, and similarly necessary structures may be located within this setback, if necessary. The installation of these structures shall comply with all other applicable federal, state, and local regulations.

F. **Nighttime Light Pollution.** All outside light sources shall conform to the standards set forth below.

1. Floodlights shall not be used to light all or any portion of any building façade between the hours of 10:00 PM and 6:00 AM.

2. No outdoor lights shall be mounted more than thirty-five feet (35') above the ground unless as a part of an approved outdoor recreational facility.

3. All outdoor lights mounted on poles, buildings or trees that are lit between

the hours of 10:00 PM and 6:00 AM shall use full cutoff light fixtures.

4. All lights used for illumination of signs, parking areas, security or for any other purpose shall be arranged so as to confine direct light beams to the lighted property and away from adjacent residential properties and out of the direct vision of motorists passing on adjacent street(s).

G. Hillside Development.

1. Hillside development standards are applicable to hillside development and excavation of hillside(s) so that:
 - a. Soil and slope instability and erosion is minimized;
 - b. The adverse effects of grading, cut and fill operations are minimized;
 - c. The character of the City's hillsides are preserved; and
 - d. The public's interest is protected.
2. The provisions hereof are designed to accomplish the following:
 - a. Prohibit development or uses which would likely result in a hazardous situation due to slope instability, rock falls, or storm water runoff and excessive soil erosion;
 - b. Minimize the threat and consequent damages resulting from hillside area fires by establishing fire protection measures and adequate emergency vehicle access;
 - c. Preserve natural features, wildlife habitats, natural vegetation, trees and other natural plant formations;
 - d. Provide for safe vehicular circulation and access to recreation areas, natural drainage channels, paths and trails;
 - e. Encourage the location, design and development of building sites in a manner that will provide for greater aesthetic appeal, blend with the slopes and hillside terrain, minimize the scarring and erosion effects of cutting, filling and grading of hillsides and prohibit development of ridge lines as defined; and
 - f. Encourage preservation of open space by encouraging clustering or other design techniques to preserve natural terrain, views and vistas.
3. **Hillside Development Standards.** In furtherance of the purposes set forth, any hillside development shall comply with Table 7.2.A and 7.2.B. Any portion of a development having a slope greater than thirty percent (30%) with an elevation change of twenty feet (20') or greater shall not be included in calculation of the area of such parcel for the purposes of determining conformity with the minimum lot parcel size and density requirements below.

**Table 7.2.A
Single Family, Planned and Cluster Subdivision Development**

| Average Slope of Development Area | Minimum Lot Size ¹ | Minimum Lot Width |
|--|--|--|
| 0% - 10% | See Existing Zone | See Existing Zone |
| 10.01% - 20% | 10,000 sq. ft. | At least 100 ft. at front setback line |
| 20.01% - 30% | 15,000 sq. ft. | At least 200 ft. at front setback line |
| 30.01% + | Development Not Permitted ² | Development Not Permitted ² |

¹ Minimum lot size as finally approved.

² Development on slopes of greater than thirty percent (30%) is not permitted unless, after review and recommendation by the Planning Commission and approval by the City Council, it is determined that:

- Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and storm water runoff consistent with the purpose of this Section; and
- The Developer has taken reasonable steps to minimize the amount of hillside cuts and also has taken measures to mitigate the aesthetic impact of cuts through Landscaping or other steps.

Note: Maximum Setback for Single-Family Dwelling Structures – 150' from Public or Private Street

**Table 7.2.B
Multiple Dwelling Units**

| Average Slope of Development Area | Minimum Lot Width | Maximum Density |
|---|--|--|
| 0% - 10% | See Existing Zone | See Existing Zone |
| 10.01% - 20% | 100 feet | Maximum density of underlying zone x 0.80 unless clustered |
| 20.01% - 30% | 100 feet | Maximum density of underlying zone x 0.60 unless clustered |
| 30.01% + | Development Not Permitted ¹ | Development Not Permitted ¹ |
| ¹ Development on slopes of greater than thirty (30%) is not permitted unless, after review and recommendation by the Planning Commission and approval by the City Council, it is determined that: <ul style="list-style-type: none"> • Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and storm water runoff consistent with the purpose of this Section; and • The Developer has taken reasonable steps to minimize the amount of hillside cuts and also has taken measures to mitigate the aesthetic impact of cuts through Landscaping or other steps. | | |

4. Unless otherwise approved by Planning Commission, for property with slopes in excess of twenty percent (20%), Development may, as determined by the Director, be clustered on the portion(s) of the site with slopes less than twenty percent (20%). Clustering may be achieved by concentrating the number of units or by concentrating the amount of square footage allowed for the entire site on that portion of the property with less than twenty percent (20%) slope. See also Section 6.7.D.5 Cluster Developments.
5. **Determination of Slope and Slope Areas.** Slope shall be determined on a parcel by parcel basis if the slope is not generally uniform. The Director may allow some incursion hillside disturbance between slopes. Such incursions shall not exceed twenty feet (20') unless, upon recommendation of the Planning Commission, the City Council finds that a greater incursion is consistent with the purposes of this Section. All property with a slope greater than thirty percent (30%) shall be excluded from the calculation of development area for purposes of determining hillside disturbance and density/intensity limitations. Natural slope delineation for the purposes of this Section shall be determined as follows:
 - a. Contour intervals, maps and calculations required to determine the natural slope shall be prepared by the applicant and shall be submitted with the development application.
 - b. Contour maps shall be prepared and certified by a licensed professional engineer or licensed surveyor showing contours at intervals no greater than two feet (2') (the Contour Map).

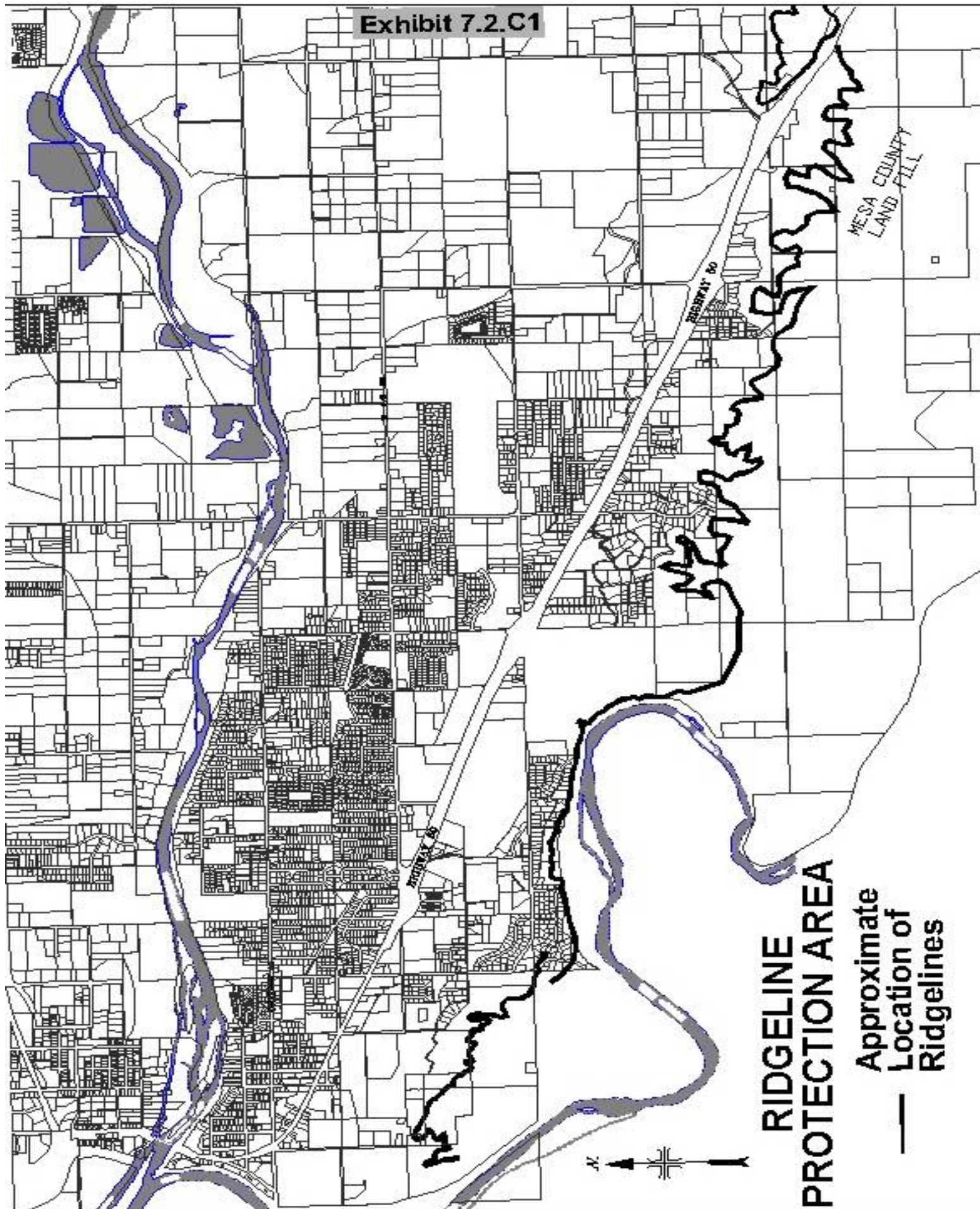
- c. A qualified professional shall prepare all reports, documents, maps, reports and calculations. The basis of the information used/analyzed shall be conspicuously disclosed thereon. Each report shall include a current statement of the professionals' certifications, credentials and qualifications to prepare the report.
 - d. The Director may require that the applicant perform a field survey(s) to verify the accuracy of the contour lines shown on the contour map.
 - e. The contour map shall identify profile lines, which shall be used for performing the field survey. Profile lines shall be perpendicular to contour lines and in no case occur at intervals greater than 150 feet (150') apart or seventy-five feet (75') from a property line.
6. **Determination of Slope Areas/Density Calculation.** Using the field survey, slopes shall be calculated in horizontal intervals no greater than forty feet (40'). Points identified as slopes, as listed above, shall be located on the contour map and connected by a continuous line. The area bounded by the lines and intersecting property lines shall be used for determining dwelling unit density.
7. **Street Design.** The TEDS Manual shall apply to all hillside development except that:
- a. Streets, roads, driveways and other vehicular routes shall not traverse property having a slope greater than thirty percent (30%) unless, after review by the Planning Commission and approval by the City Council, it is determined that:
 - (1) Appropriate engineering measures will be taken to minimize the impact of cuts, fills, erosion and storm water runoff consistent with the purposes of this Section; and
 - (2) The Developer has taken reasonable steps to minimize the amount of hillside cuts and taken measures to mitigate the aesthetic impact of cuts through the use of landscaping and other mitigation measures acceptable to the Director.
 - b. Existing vegetation, where streets are to be located, shall be preserved to the greatest extent possible. As much as possible street alignment should follow the natural terrain.
 - c. Upon the favorable recommendation of the Director sidewalk construction may be waived by the Planning Commission when the Planning Commission finds that sidewalk construction would result in excessive grading and/or cut/fill of slopes.
 - d. Vertical or drive-over, curb and gutter, as determined by the Director, shall be installed along all public streets.
8. **Joint Development Applications.** Multiple owners of hillside property, whether or not such property is contiguous, may file a joint development application for all such property or the City Council may direct the Director to file such an application on behalf of the City.
9. For all purposes of this Chapter, such property shall be treated as a single development parcel.

10. Development permitted on such property, pursuant to this Chapter, may be clustered on any one (1) or more of the parcels under such joint application subject to the requirements and limitations of this Chapter. The provisions of this Section shall not allow variance in the use requirements of the underlying and existing zoning category for the receiving parcel and may not result in a violation of the purposes of these regulations.

H. **Ridgeline Development.**

The City recognizes the value of its visual resources and amenities. The purpose of the ridgeline development standards is to preserve the character of the identified ridgelines and to minimize soil and slope instability and erosion. **Ridgeline Development Standards** include the following:

1. For all lots platted within the mapped ridgeline protection area shown on Exhibits 7.2.C1, C2 and C3, buildings, fences and walls shall be setback a minimum of 200 feet (200') from the ridgeline.
2. This setback shall not apply if the applicant produces adequate visual representation that a proposed new structure will not be visible on the skyline as viewed from the centerline of the mapped roads or that mitigation will be provided. Mitigation techniques might include:
 - a. Earth tone colors to blend with the surrounding area;
 - b. The use of non-reflective materials;
 - c. Native vegetation to screen and soften the visual impact of the structure; and/or
 - d. A reduction of building height or the “stepping” of the building height; or
 - e. Other means that minimizes the appearance from the road corridor.
3. In no case shall the setback be less than thirty feet (30') from the Ridgeline. This regulation shall not apply to existing structures or lots platted prior to the effective date of this Code or to fences constructed primarily of wire.
4. The required setback shall be measured to the building envelope, to be established at the time of platting.
5. Line of sight shall be measured from the centerline of the road most parallel to the ridgeline at the point most perpendicular to the center of the lot.
6. Ridgeline shall be determined on a site-specific basis and shall be that point at which the line of sight is tangent with the slope profile.



**RIDGE LINE
PROTECTION AREA**

Approximate
Location of
Ridgelines

MESA COUNTY
LAND FILL

Highway 60

Highway 60

Newman



Exhibit 7.2.C2

RIDGELINE PROTECTION AREA

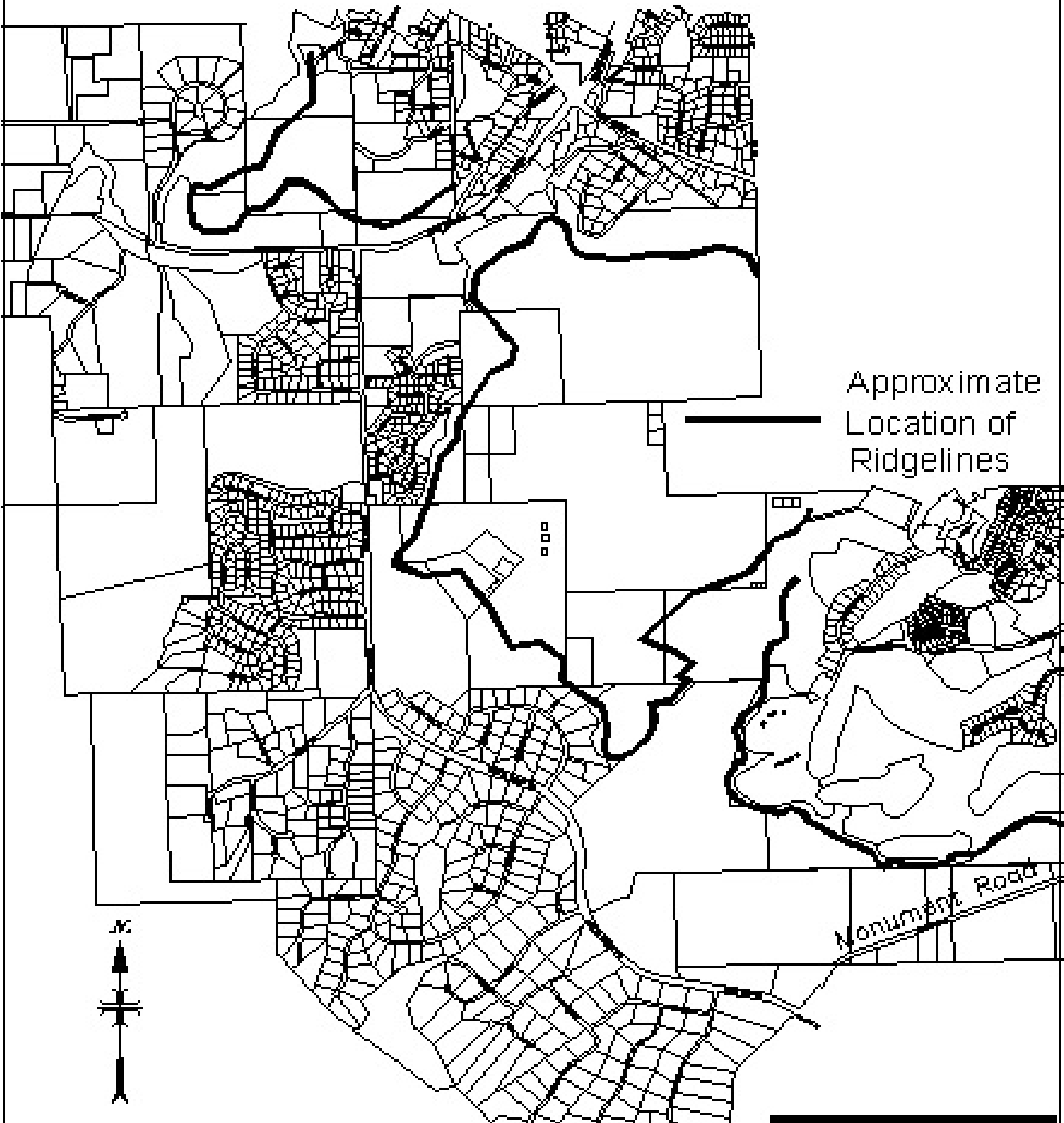
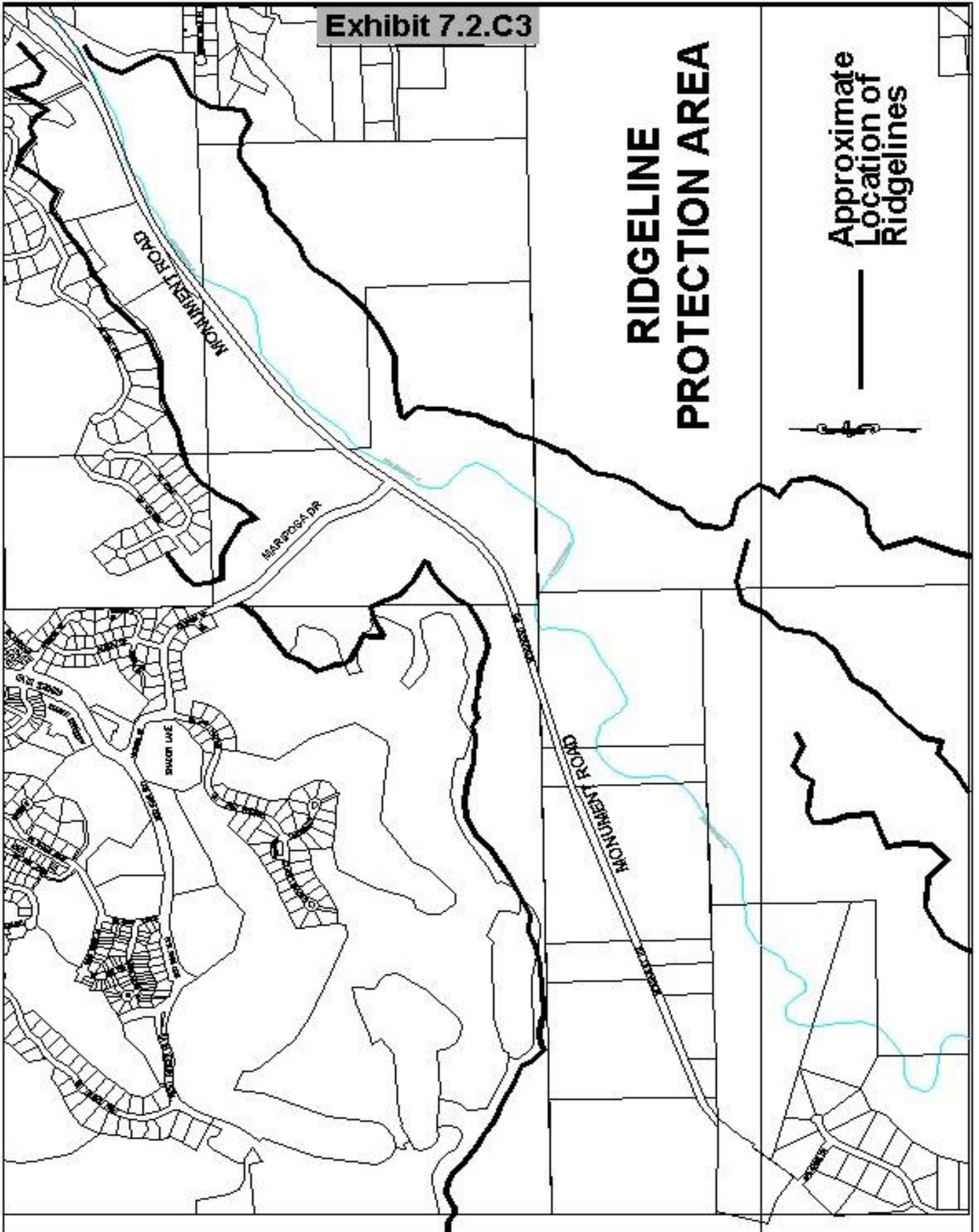


Exhibit 7.2.C3

RIDGELINE PROTECTION AREA

Approximate
Location of
Ridgelines



I. Natural Resources.

Natural resources, especially mineral resources, shall be protected. In the event that development is proposed in an area of known mineral deposits, the applicant shall provide an estimate of the economic value of the on-site mineral resources. This estimate shall be prepared by a registered engineer and submitted prior to approval of development. The City Council shall make an evaluation of the value of both the resource and the cost of extraction prior to development of the property. The City Council may delay development approval until extraction has been accomplished or protection provided within the design of the development.

J. Geologic Hazard Maps.

1. The Colorado Geological Survey (CGS) has identified geologic hazard areas. The CGS maps, together with explanatory text, references and supporting and supplemental studies, results and findings delineating the boundaries of geologic hazard areas are incorporated into this Code by reference.
2. The CGS maps approximate the boundaries of hazard areas. The maps shall primarily provide notice to the Director, Planning Commission, City Council and the applicant, that geologic hazards may exist and if so require consideration prior to and if approved, during development. Precise boundaries and determination of hazard(s) require on-site evaluation by qualified professionals. The Director may require a detailed engineering analysis, study and/or report if a hazard is known or reasonably believed to exist. The engineering analysis, study and/or report, if required, may as determined by the Director, be required to include a map of the extent of the hazard, a definition of its degree severity, a determination of the frequency of occurrence/reoccurrence, an evaluation of the compatibility of the proposed land use and consideration of the means and methods of hazard mitigation.
3. Hazard mitigation is not intended to categorically preempt development but development may occur only if mitigation is appropriate and proportionate to the severity and frequency of the hazard.
4. Mitigation techniques, which may be acceptable, are:
 - a. Avoidance of the hazard area;
 - b. Retaining walls, fill, rock bolting, pilings;
 - c. Diversion, channeling, damming, barriers;
 - d. Excavation of unstable areas, bridging of weak zones, proper distribution of loading;
 - e. Improvement of surface and subsurface drainage.
5. Mitigation plans shall be prepared and stamped by a Colorado registered, professional engineer.

K. Environmental Audit.

A Phase I environmental audit shall be required for any property dedicated or deeded to the City. The City may require additional investigation.