

D. The Geologic Hazard Plan and Report will be reviewed by the City Planning Department in conjunction with the normal review of the land development proposal. The City's review shall determine whether the findings, conclusions and recommendations of the Geologic Hazard Plan and Report have been incorporated into the design of the MDP, Subdivision Plat, Drainage Plan, Grading Plan and street construction documents, or other required document. If the review by the City determines that the study submitted is incomplete or fails to comply with the standards and requirements set forth in this **Section**, staff may require new or supplemental information. In cases where significant geologic hazards are identified, appropriate mitigation measures shall be required in conjunction with the approval of the project, if approval is recommended. Said mitigation measures may include, but not be limited to:

1. Changes to the proposed land use configuration
2. Modification of land use types
3. Modification of lot boundaries or building envelopes
4. Special foundation designs and over-excavation
5. Geotechnical engineering solutions
6. Limitations on irrigated landscapes
7. Special drainage designs

E. City staff, Planning Commission or City Council may, at their discretion, have the geologic hazard plan and report independently reviewed by the Colorado Geological Survey (CGS) or by an independent professional geologist or qualified geotechnical consultant. This separate review shall supplement the City's review and will be considered by the City in making a final determination on the land development proposal. The cost of having an independent review and analysis of geologic hazard reports shall be borne by the developer.

18.72.150 Environmental and Fiscal Impact Report Requirements.

Shall comply with the requirements of **Section 16.06.030K** of the Manitou Springs Subdivision Regulations, as amended, and as defined in Chapter 18.60.

18.72.160 Parks, Trails and Open Space Report.

The applicant should review the City's Parks, Trails and Open Space Master Plans, requirements or documents and submit information showing the consistencies and inconsistencies of the proposed MDP with each.

18.76 HLDR DEVELOPMENT PLAN

18.76.010 HLDR Individual Lot Development Plan

An individual lot development plan conforming to the requirements below shall be administratively approved prior to the issuance of any building permit.

18.76.020 Required Information

A development plan, minimum size 24" x 36", drawn to a scale of 1" = 40' and showing contours at intervals of 2', shall contain the following:

1. The location, height, and dimensions of each existing and proposed structure in the development area and the uses to be contained therein.
2. The proper building setbacks and building area with reference to property line, highways, or street rights-of-way.
3. The location and surfaces of all parking areas and the exact number of parking spaces.
4. The location of natural watercourses and other natural and historic features.
5. The location of proposed landscaping. The use of xeric plantings is encouraged. The area of high water plantings and turf grasses is limited to not more than the square footage of the proposed/existing house.
6. The location of all permanent accesses from publicly dedicated streets, roads, or highways.
7. The location of all roadways, walkways, bridges, fire hydrants, culverts, drainage easements existing or contemplated, and green belts.
8. The stages, if appropriate, in which the project will be developed.
9. A vicinity map to locate the development in relation to the community.
10. Location of all proposed uses, structures, and other natural or manmade features and relationship of uses, structures, and features to internal and
11. A Grading and Erosion Control Plan containing plans for the control of erosion in accordance with the following principals:
 - i) Fitting the development plans to topography and vegetative cover.
 - ii) Reducing the area and duration of exposed soil.
 - iii) Removing and saving topsoil prior to any grading or excavating and replacement for revegetation.
 - iv) Retaining and protecting natural vegetation wherever possible.
 - v) Covering disturbed soils with mulch, topsoil, and vegetation.
 - vi) Retarding runoff, erosion and sediment in runoff water through the use of sedimentation ponds and other best management practices.

Final approval for occupancy by the Building Official and Zoning Officer shall not be granted unless the Grading and Erosion Control Plan has been satisfactorily completed. In addition a stop order, a cease and desist order, or such other remedy as may be deemed appropriate by the City, may be utilized during construction to assure compliance with the Grading and Erosion Control Plan.

12. Proof that water to be discharged from the property will not exceed historic flows previously occurring in the undeveloped condition.

13. A soils and geohazards report, prepared by a professional engineer or geologist, addressing the following (required only if the average slope of the lot or the slope at the actual building site exceed 17%):

i) General compatibility of natural features with proposed land use:

- a. Topography.
- b. Lateral stability of earth materials.
- c. Problems of flood inundation, erosion, and deposition.
- d. Problems caused by features or conditions in adjacent properties.
- e. Other general problems.

ii) Proposed Cuts:

- a. Prediction of what materials and structural features will be encountered.
- b. Prediction of stability based on geological factors.
- c. Problems of excavation (e.g. unusually hard or massive rock, excessive flow of groundwater).
- d. Recommendations for reorientation or repositioning of cuts, reduction of cut slopes, development of compound cut slopes, special stripping above daylight handling of seepage water, setbacks for structures above cuts, etc.

iii) Proposed Masses of Fill:

- a. General evaluation of planning with respect to canyon-filling and side hill masses to fill.
- b. Comment on suitability of existing natural materials for fill.
- c. Recommendations for positioning of fill masses, provision for underdrainage, buttressing, special protection against erosion.

iv) Recommendations for Subsurface Testing and Exploration:

- a. Cuts and test holes needed for additional geological information.
- b. Program of subsurface exploration and testing, based upon geological considerations that are most likely to provide data needed by the soils engineer.

v) Special Recommendations:

- a. Areas to be left as natural ground.
- b. Removal or buttressing of existing slide masses.
- c. Flood protection.
- d. Problems of groundwater circulation.
- e. Position of structures, with respect to active faults.