

ATTACHMENT F – STAFF ANALYSIS OF CRITICAL SLOPES

STAFF PERSON: Mariah Gleason
BOARD OF SUPERVISORS: May 6, 2020

Review of the request by Engineering staff:

The critical slope waiver request has been reviewed. The applicant provided field-certified topographic data, which is more accurate than County GIS data. The engineering analysis of the request follows.

Description of critical slope area and proposed disturbance:

The critical slopes proposed to be impacted were created during the construction of US 250 and Hunters Way. The land cover is currently managed turf. The applicant proposes critical slope impacts for a drive lane around the proposed new retail building and to avoid the need for retaining walls.

Areas	Acres	
Total site	1.46 acres (63,612 sf)	
Critical slopes	14,485 sf	22.8% of total site
Critical slopes disturbed	2,488 sf	3.9% of total site

Exemptions to critical slopes waivers for driveways, roads and utilities without reasonable alternative locations: The proposed disturbance is not exempt as defined in Section 4.2.6.

Compliance with County Code § 18-4.2:

County Code § 18-4.2 identifies several possible effects of critical slope disturbance:

“large-scale movement of soil and rock”

The existing slope is stabilized with turf. Proper slope grading, control of drainage, Erosion and Sediment Control (ESC) measures, and vegetative stabilization will minimize movement of soil.

“excessive stormwater runoff”

Because the proposed land cover (turf) is the same as the existing land cover, no additional post-development runoff is expected.

“siltation of natural and man-made bodies of water”

This project will require Virginia Stormwater Management Program (VSMP) permitting and bonding. Inspections and bonding by the County will ensure siltation control during construction. Permanent stabilization and maintenance will ensure long term stability.

“loss of aesthetic resource”

This area is visible from Route 250 but is currently managed turf. The area will remain managed turf.

“a greater travel distance of septic effluent”

The proposed buildings would connect to a private sewer septic system more than 350 feet from the proposed disturbance. Also, fill (adding of earth) is proposed on the critical slopes (as opposed to cutting into the slope), which would reduce potential septic effluent discharges.

Based on the review above, no engineering concerns would prohibit the disturbance of the critical slopes as proposed.

Review of the request by Planning staff:

Under County Code § 18-4.2.5(a)(3), a modification or waiver may be granted if the modification or waiver would not be detrimental:

to the public health, safety or welfare,

Staff finds that the waiver would not be detrimental to the public health, safety or welfare, based upon the engineering and planning findings provided herein.

to the orderly development of the area, or to adjacent properties;

Critical slopes on the property are man-made and were established during the development of US 250 and Hunters Way. Due to the origin of the critical slopes, the limited size of the disturbance areas, and their location, staff finds that the requested waiver would not be detrimental to the orderly development of the area or adjacent properties.

would not be contrary to sound engineering practices;

Staff finds that based on Engineering staff's findings provided herein, the waiver would not be contrary to sound engineering practices.

and at least one of the following:

- a. **Strict application of the requirements of County Code § 18-4.2 would not forward the purposes of this chapter or otherwise serve the public health, safety or welfare;**
Staff finds that the strict application of the requirements of County Code § 18-4.2, in this particular case, would not forward the purposes of the chapter for protecting and conserving steep hillsides or discouraging development on critical slopes. Existing critical slopes on the property were created in the late 1980s to allow development and were designed to protect public health, safety, and/or welfare. Disturbance of these critical slope areas, in the manner proposed by the applicant, would not serve to increase the amount of disturbance that has already been allowed to occur here.
- b. **Alternatives proposed by the developer or subdivider would satisfy the intent and purposes of County Code § 18-4.2 to at least an equivalent degree;**
Staff is not able to make this finding, as alternative designs could likely result in the use of retaining walls, which would negatively impact the scenic quality of the Entrance Corridor on which this property fronts.
- c. **Due to the property's unusual size, topography, shape, location or other unusual conditions, excluding the proprietary interest of the developer or subdivider, prohibiting the disturbance of critical slopes would effectively prohibit or unreasonably restrict the use of the property or would result in significant degradation of the property or adjacent properties; or**
Staff is unable to make these findings, as the site is currently being utilized for commercial/retail uses (automotive repair shop).
- d. **Granting the modification or waiver would serve a public purpose of greater import than would be served by strict application of the regulations sought to be modified or waived.**
As mentioned previously, staff finds that granting the applicant's request to disturb steep slopes in the identified areas would likely avoid the development's use of retaining walls, and thus preserve a more natural aesthetic of the Entrance Corridor in this rural area.

In addition, based on the findings of Engineering staff, staff finds that the proposed fill activities in the critical slope areas would reduce potential septic effluent discharges.

Summary: Based on Engineering and Planning's review above, no concerns would cause staff to object to the approval of the critical slope disturbance request.

RECOMMENDATION:

Staff recommends approval of the applicant's request to disturb 2,488 square feet of critical slopes as requested with the following condition:

1. The area of land disturbance on critical slopes may not exceed 2,488 square feet as described in the request entitled "Major Site Plan Amendment (SDP201800040 An Amendment to SDP201600012) Critical Slopes Waiver Request" and as shown on the plan exhibit entitled "Critical Slope Waiver Exhibit," both of which were prepared by Shimp Engineering and are dated October 22, 2019.