

Impacts Caused by Excessive Clearing of Vegetation on Sloped Areas

Impact Analysis: The application includes grading and filling of most of the property, including the steepest areas consisting of slopes greater than 35% within the south and western portions of the site. In fact, a significant portion of the site is greater than 25% slope and much of that area directly abuts properties in Rugosa Ridge subdivision. The slopes then continue onto Rugosa Ridge properties. No vegetation would be retained on the steeper portions of the property.

Excessive clearing of the site will cause potential erosion and sedimentation during construction of the preliminary subdivision. This development will require a substantial amount of sitework that will leave the site exposed to rainfall for many months. Due to the scope and duration of the project, this work likely cannot be completed during one dry season and will likely extend into the wet season, increasing the risk of runoff and damage to the adjacent properties.

Long-term impacts will include additional stormwater runoff as a result removal of the on-site vegetation. Impacts will occur within Smuggler's Gulch Creek, as well as on adjacent properties.

The clearing/grading requirements in MMC Chapter 15.16.050.C require preservation of existing native vegetation, with the amount vegetation preserved based on the steepness of the property. Table 1 provides standards for vegetation preservation as follows:

1. *All clearing of vegetation shall conform to the specifications of this table, except as noted elsewhere in this subsection:*

Table 1: Clearing Matrix		
Grade of Site or Slope (%)	Maximum Native Vegetation/Groundcover Removal (%)	Minimum Required Significant Tree Retention (%)
> 35% 2b		See notes.
> 25%—≤ 35%	45%	55%
> 15%—≤ 25%	60%	40%
≤ 15%	75%	25%

Impacts of the proposed clearing/grading plan will be a direct result of the project's failure to comply with the slope and vegetation retention requirements in MMC 15.16.050.C. The City has incorrectly applied this section as follows:

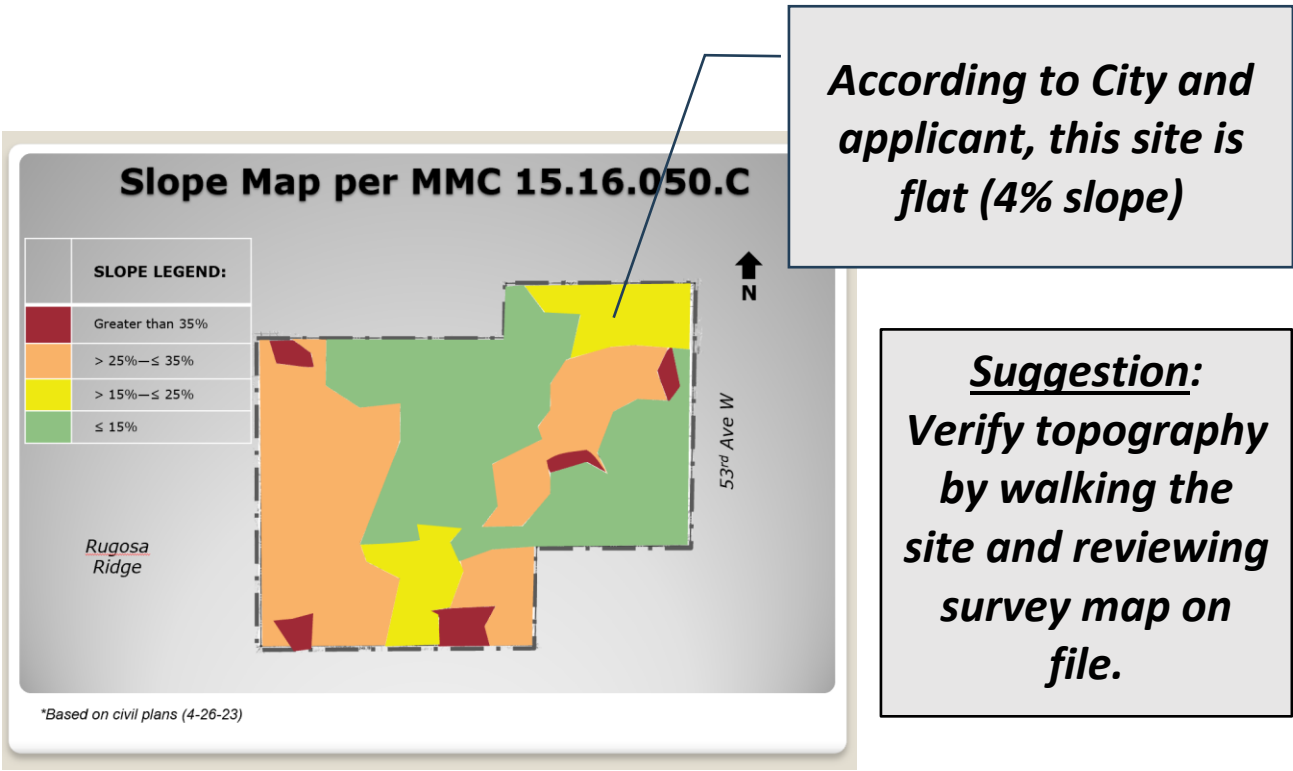
The City only considers the ***average slope of the entire property*** to determine what areas may be cleared and how many trees to retain (*Wirt email 2-2-2023 – attached*). There is no basis in the code for this interpretation. Nowhere does it say the average slope shall be used in determining clearing/grading requirements. The City's interpretation does not differentiate areas of greater slopes from flatter areas and allows the applicant to grade and fill the steepest and most sensitive portions of the site, while retaining a few trees in the small, flatter portion near 53rd Ave and away from adjacent developed property. Through its interpretation, the City would allow on-site clearing and grading to impact adjacent properties, including sedimentation, erosion, land use impacts and changes in site hydrology. It would defeat the purpose of Table 1 because it does not acknowledge that a significant portion of the site is greater than 15% slope.

The City's interpretation of 15.16.050.C creates a loophole in the protective requirements of the code that will set a precedent by allowing ***all*** development containing slopes greater than 15% to avoid meeting the requirements of Table 1. Taken to the extreme, the City's logic would imply that a mountainous or hilly area would be exempt from regulation because the slope on one side negates the slope on the other, causing the average slope to be zero. The net effect of this flawed logic will be to reduce the amount of native vegetation on sloped areas citywide, while increasing stormwater runoff, sedimentation, and creating risk to adjacent properties.

The chart in the email from Brian Wirt (below) shows the Applicant's method of calculating the slope of the property for the purpose of determining how many trees must be retained under 15.16.050.C. This calculation is incorrect. It does not address the requirements in Table 1. It reduces the complex topography of the property down to a single number: "**4% Average Grade.**" The resulting calculation of the number of trees that must be retained is incorrect since the slopes are not broken down by category of steepness as required by code. In the applicant's calculations, there is no mention of the maximum amount of native vegetation removed, also required by Table 1.

To meet the standards in Table 1 – Clearing Matrix, the application on file should have included a map showing a breakdown of on-site slopes according to steepness. Such a

map can be prepared easily using Autocad or other common engineering software. See the slope map below, which shows the site to be anything but flat...



Slope Map Showing Approximate Breakdown of Slopes by Percentage

To meet the requirements of Table 1, the application should have also included a matrix for determining how many trees must be preserved and maximum allowable vegetation removal. This is how the slope and tree retention calculations should have been completed (see table below):

Slopes, Proposed Tree Retention and Vegetation Removal Per MMC 15.16.050.C – Table 1

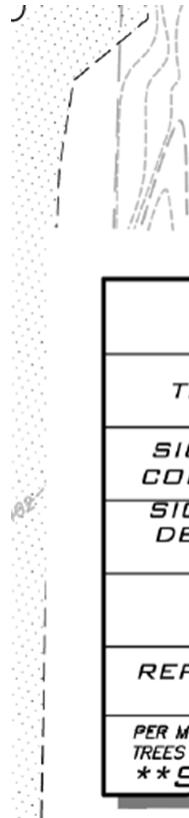
Slope Category	Site Area	Required # of Trees Preserved	Proposed Trees Preserved	Proposed Maximum Native Vegetation/Groundcover Removal (acres)
Greater than 35%	___ acres	___ trees	___ trees	---- (___ acres)
> 25%—≤ 35%	___ acres	___ trees	___ trees	45% (___ acres)
> 15%—≤ 25%	___ acres	___ trees	___ trees	60% (___ acres)
≤ 15%	___ acres	___ trees	___ trees	75%
TOTALS				

Slope Calculation, Tree Preservation and Native Vegetation Removal as required by MMC
15.16.050.C – Table 1

Conclusion: *The City's use of the 4% average slope of the property is a mischaracterization of on-site conditions and renders the tree and native vegetation preservation standards meaningless by treating the entire site as essentially flat. It circumvents the plain intent of the code. Nowhere in this section does it state that the average slope shall be used in setting the clearing and grading limits. The purpose and intent of this section is to protect steeper sloped areas and abutting properties from exactly the type of intensive development proposed in this application. This intent is stated in 15.16.010.C.6. **"...to promote practices consistent with the city's natural topographic, vegetational, and hydrologic features..."** The clearing and tree retention requirements implement this standard and have been misapplied by the City, resulting in significant alteration of the site's topography, vegetation and hydrology.*

From: Brian Wirt <bwirt@mukilteowa.gov>
Sent: Thursday, February 2, 2023 8:27 AM
To: david.d.tyler@comcast.net
Cc: Andrew Galuska
Subject: RE: Harbor Grove

David,
Great question! The slope requirements in MMC 15.16.050 refer to the average slope of the entire property. The applicant has submitted a tree retention plan (TR-01). I have clipped the summary and attached.



AVERAGE SLOPE CALCULATION

ELEVATION AT NORTHEAST CORNER = 400
ELEVATION AT SOUTHWEST CORNER = 382
DISTANCE BETWEEN TWO POINTS = 492'
AVERAGE SLOPE = $18/492 = 4\%$ AVERAGE GRADE

SUMMARY OF ON-SITE TREE RETENTION

TREE TYPE	TOTAL	RETAINED	REMOVAL	MIN % SIG TREES REQUIRED PER $\leq 15\%$ SLOPE
SIGNIFICANT CONIFER (8"+)	101	27	74	SEE BELOW
SIGNIFICANT DECIDUOUS (12"+)	12	0	12	SEE BELOW
TOTALS	113	27	86	(25% OF 113) = 29
REPLACEMENT TREES	29 REQUIRED	27 RETAINED	2 TREE CREDITS SHORT	(3 * 2) = 6 REPLACEMENT TREES REQUIRED
PER MUKILTEO CITY CODE 15.16.050 TREE RETENTION AND NATIVE VEGETATION RETENTION TABLE. REQUIRED TREES THAT ARE TO BE REMOVED TO BE REPLACED AT A RATE OF 3:1. **SEE LS-01 FOR REPLACEMENT TREES				

Best,
Brian

From: Andrew Galuska <agaluska@mukilteowa.gov>
Sent: Thursday, February 2, 2023 8:08 AM
To: Brian Wirt <bwirt@mukilteowa.gov>
Subject: FW: Harbor Grove

Brian,

Can you give me a quick response to Mr. Tyler's question on 15.16.050? I can respond to him but just want to make sure I am telling him right.

Andy Galuska

Community Development Director



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From: David Tyler <david.d.tyler@comcast.net>

Sent: Wednesday, February 1, 2023 3:40 PM

To: Andrew Galuska <agaluska@mukilteowa.gov>

Cc: Sarah Kress <skress@mukilteowa.gov>

Subject: RE: Harbor Grove

[WARNING: THIS MESSAGE HAS COME FROM A SENDER OUTSIDE THE CITY OF MUKILTEO NETWORK,]
Andy,

Thanks for your earlier reply. It seems that any wall or fence within the rear setback should be treated the same since the purpose of a setback requirement is to allow natural light and air on adjacent properties. This is particularly the case in a large lot single-family context--not so much in tighter urban areas. I would appreciate some additional perspective on the city's thinking—particularly since your application of the code would prohibit me from putting a 7-foot fence or wall along my property line, while allowing the applicant to place 20 feet of retaining wall along the same property line. And since the walls are hundreds of feet in length, this is not much different from putting a very large building within the setback, which would be impossible in a SF zone. This doesn't make sense--and it creates impacts.

Another provision in the code, [15.16.050 Requirements](#), limits the amount of vegetation removal on the site depending on the slope (Table 1 – Clearing Matrix). The slope of the property does trigger these requirements. How would the project meet this section? And did the applicant provide a slope report consistent with this section?

Regards,
David Tyler