

## Application Requirements for Alteration of Geologic Hazard Areas



## Part 1: Application Instructions

#### INSTRUCTIONS

An appointment must be scheduled to submit your application to the Development Services Center. Please call 425.556.2494 to schedule your appointment. Please see the linked **E-Track Portal webpage** (www.redmond.gov/e-track) for more information about user registration and electronic submittal.

#### **APPLICABILITY**

An Alteration of Geologic Hazard Areas is an exception for streets and utilities identified in an

adopted plan as of October 1, 1997, such as the Comprehensive Plan, Capital Facility Plan, Transportation Improvement Plan, or Utility Facility Plan, from strict adherence to RZC 21.64, Critical Areas Regulations, as the chapter relates to Landslide Hazard Areas.

#### SPECIAL NOTES

The submittal requirements below may change periodically. These submittal requirements are dated **January 2013**.

#### I. ELECTRONIC PLAN REVIEW SUBMITTAL STANDARDS

Electronic plans that do not meet the requirements below will fail and will result in the application being deemed incomplete and will not be reviewed until complete.

#### A. File Naming Standards:

**Bolded** items noted in Section III, V, and associated Cover Sheets indicate the naming convention in which the particular submittal must be named. For example, the General Application (Section III) must be named **General Application** and Cover Sheet & Site Plan (Cover Sheet A) must be named **Cover Sheet & Site Plan**.

#### B. Plan Sheet Standards:

All plans must be drawn to scale, as specifically identified in the checklist, and each sheet shall state the scale.

#### C. Acceptable File Types

All application materials shall be submitted in an electronic form (i.e. Flash Drive or CD). If submitting a CD, the CD should be permanently marked with Project Name and submission date.

Plans: Plans must be submitted in a PDF format.

Documents: Calculations, reports and other supporting documents (non-drawing files) must be uploaded as a PDF.

D. <u>Plan Orientation:</u> All plans must be uploaded in "Landscape" format in the horizontal position.

#### II. Professional

All components of the application shall be prepared by the appropriate professional(s) licensed in the State of Washington. A license stamp or registration number, whichever is

applicable, as well as the signature, shall be provided on the face of the application materials.

#### III. GENERAL

e applicant shall check each of the following	sprinklers.		
ms below to confirm that they are included in e application submittal package:	K. Public Notice Site Plan showing following information on the site plan suita	the ble	
A. Completed <b>General Application Form</b> and <b>Project Contact Form</b> .	for public notice:		
B. Application Fees	- Show proposed project		
C. Greenhouse Gas Emissions Worksheet	- North Arrow		
D. If SEPA Determination is required, please	<ul> <li>Street numbers and/or names adjactory</li> </ul>	ent	
see the SEPA Application checklist for submittal requirements.	- Project Name		
E. <b>Critical Areas Report</b> , if applicable, shall be prepared (see RZC Appendix 1: Critical Areas	<ul> <li>Identify the boundaries of any criti areas</li> </ul>	ca	
Reporting Requirements).	☐ L Public Notice Tree Preservation		
	showing the following information on the top preservation plan suitable for public notice		
must address how the proposed application will meet decision criteria (see Section IV).	- Show proposed project	1011001	
G. <b>Stormwater Report</b> prepared by a registered Civil engineer including:	<ul> <li>Highlight, in the shade of green, trees of the site designated to remain (trees the</li> </ul>		
1. Map of off-site areas draining on-site.	are NOT being removed)		
2. Preliminary stormwater calculations of 6	- North Arrow		
months, 2 year, 10 year, 25 year and 100 year storm peak flow rates for:	<ul> <li>Street numbers and/or names adjact to the project boundary</li> </ul>	ent	
- Pre Development (wooded or	- Project Name		
meadow site)	- Show an "X" over each tree proposed	d to	
<ul> <li>Post Development (proposal)</li> </ul>	be removed		
<ol><li>Approximate sizing of Stormwater Quality and Quantity Control systems.</li></ol>	<ul> <li>Include a key stating that the represents trees proposed to be remove</li> </ul>		
H. <b>ALTA Survey</b> may be required by the Technical Committee in certain circumstances.	<ul> <li>M. Geotechnical Report identifying the risk damage from proposal, both off site and on some The evaluation must include an analysis</li> </ul>	ite. of	
I. <b>Mitigation Plan</b> , if required, shall be prepared in accordance with RZC Appendix 1: Critical Areas Reporting Requirements.	whether the proposal will increase the risk occurrence of the potential geologic haza and must identify measure to eliminate reduce risk.	ard,	
J. Irrigation Plan, if required, showing proposed locations and size of irrigation backflow preventers, water meters, and			

#### IV. ALTERATION OF GEOLOGIC HAZARD AREAS DECISION CRITERIA

Pursuant to the Redmond Zoning Code, Alteration of Geologic Hazard Areas applications must demonstrate the following:

- A. There must be no reasonable alternative to locating in a Landslide Hazard Area. Alternative locations which would avoid impact to the Landslide Hazard Area must be shown to be economically or functionally infeasible.
- B. A geotechnical evaluation must be conducted to identify the risks of damage from the proposal, both on-site and off-site, and to identify measures to eliminate or

- reduce risks. The proposal must not increase the risk of occurrence of the potential geologic hazard.
- C. Impacts shall be minimized by limiting the magnitude of the proposed construction to the extent possible, any impacts must be eliminated or mitigated by repairing, rehabilitating, restoring, replacing, or providing substitute resources consistent with the mitigation and performance standards set forth in RZC 21.64.010.L and 21.64.010.M.

#### V. FORMAT

For multi-sheet applications, the engineering site plan, architectural site plan and landscape plan shall all use the same base maps unless prior arrangements have been made. Additionally, a sheet index must be provided on the face of all plan sets.

A. Provide plans labeled "Cover Sheet & Site

**Plan"** (which includes all information on Cover Sheet A, attached).

B. Provide landscape and tree preservation plans labeled "Landscape Plan" and "Tree Preservation Plan" (which includes all information on cover Sheet B, attached).

### Part 2: Cover Sheet A (Plan Requirements)

#### INSTRUCTIONS

All plans must be submitted in a **searchable PDF format (non-scanned)**. The plans shall be drawn to an **engineering scale of 1" = 20' or larger** are required.

All components of the application shall be prepared by the appropriate professional(s) licensed in the State of Washington. A license stamp or registration number, whichever is applicable, as well as the signature, shall be provided on the face of application materials.

Please check each item below and write the applicable page # to confirm the item is included on the cover sheet & site plan.

For the subject property and surrounding properties within fifty (50) feet of the subject property unless otherwise noted, including adjacent rights-of-way, the following information shall be shown. These items shall be prepared by a registered Civil engineer in accordance with **City of Redmond Design Standards**, using 1990 City of Redmond datum for vertical and horizontal control.

COVER	Спест	O CITE	DI ANI
L.OVER	<b>NHFFI</b>	ひつロト	$PI\Delta NI$

SECTION COMPLETE? □

GE	NER	AL INFORMATION
	a.	Legal description and parcel number(s) of the subject property. Page #
	b.	Proposed UBC Construction type. Page #
	C.	Site size: gross and net (square feet and acres). Page #
	d.	Dwelling units allowed and proposed (residential). Page #
	e.	Gross floor area allowed and proposed (non-residential). Page #
	f.	Open Space/landscaping required and provided. Page #
	g.	Impervious surface allowed and proposed. Page #
	h.	Parking required, and provided. Page #
	i.	Building height allowed and proposed. Page #
On	I AN	ID OFF-SITE CONDITIONS (EXISTING AND PROPOSED)
	a.	Existing and proposed property lines and lots. Page #
	b.	Existing topography at 2-foot contours based upon an actual field survey. Larger contour intervals may be allowed on steep sites. Spot elevation of existing and proposed conditions may be shown for flat sites with no more than 5 feet of total elevation change.
	C.	Proposed topography including heights of proposed retaining structures and rockeries
	d.	Existing and/or proposed easements. Page #
	e.	Existing and/or proposed public or common use areas. Page #
	f.	Fences and other development features. Page #
	g.	Distances between existing and proposed structures on and off the subject property. Page $\#$
	h.	Existing streams, wetlands, ponds and other surface water features and associated buffers, and flood prone areas. Page $\#$
	i.	If the project is located within a floodplain, you must provide the Base Flood Elevation.

O۱	ISITE	TRAFFIC CIRCULATION (INCLUDING CONSIDERATION FOR THE FOLLOWING)
	a.	Backing zones (away from heavy use areas). Page #
	b.	Stacking/queuing of vehicles. Page #
	C.	Drop off zones. Page #
	d.	Parking areas, including stall delineation and dimensions. Page #
	e.	Truck/delivery areas with dimensions and turning radii. Page #
	f.	Parking layout (designed by a registered engineer for parking lots exceeding 200 spaces). Page $\#$
PE	DEST	RIAN/TRANSIT/BIKE ACCESS
	a.	Sidewalk locations. Page #
	b.	Bike rack locations. Page #
	C.	Pedestrian circulation within parking lot. Page #
	d.	Connections to adjacent properties. Page #
	e.	Public Safety features. Page #
	f.	Connection from parking to building entrances. Page #
	g.	All existing and proposed driveways, intersections and land channelization within 150 of the subject property.
	h.	Existing and proposed roadway improvements, including sidewalk, curb and gutter, tapers and street lights within 150 feet of the subject property.
Exi	ISTIN	ig and Proposed Utilities
	a.	Location and size of water facilities, including water meters and side sewers (Design Standards available at the Permit Center). Page $\#$
	b.	Location and size of sanitary sewer facilities (Design Standards available at the Permit Center). Page $\#$
	C.	Location and size of storm sewer facilities. Page #
	d.	Power, power poles, gas, telephone and cable. Page #
	e.	Fire hydrants. Page #
	f.	Vaults. Page #
	g.	boxes. Page #
	h.	underground duct runs. Page #
Exi	ISTIN	IG AND PROPOSED FIRE INFORMATION
	a.	Fire Department access and turnaround.
	b.	Fire hydrants.
Exi	ISTIN	ig and Proposed Grading
	a.	Profiles of existing or proposed road grades in excess of 10 percent. Page #
	b.	Show existing and proposed contour lines at 2-foot intervals. Page #
	C.	Designate steep slope areas (40% or steeper and 10-ft. vertical relief or more). Page #
	d.	Designate areas with greater than 8 feet of cut and/or fill, adjustment from the Technical Committee required. Page $\#$
	e.	Designate retaining walls and rockeries over 8 feet, adjustment from the Technical Committee required. Page #

## Part 3: Cover Sheet B (Landscape & Tree Preservation Plans)

All plans must be submitted in a **searchable PDF format (non-scanned)**. The plans shall be drawn to an **engineering scale of 1" = 20' or larger** are required.

All components of the application shall be prepared by the appropriate professional(s) licensed in the State of Washington. A license stamp or registration number, whichever is applicable, as well as the signature, shall be provided on the face of application materials.

Please check each item below and write the applicable page # to confirm the item is included on the site plan.

I. LANDSCAPE PLAN  SECTION COMPLETE?						
Conceptual Drawing (indicating the following in accordance with RZC Chapter 21.32, Landscaping)						
□ a. Existing vegetation to be retained. Page #						
☐ b. General location of proposed trees, shrubs and ground cover. Page #						
□ c. A plant schedule providing the scientific name, common name, size and spacing of each plant as well as specie alternatives for trees, shrub masses and ground cover. Page #						
☐ d. Vegetation for blank screening. Alternatives to blank wall screening/relief could include:						
☐ i. Material Differentiation						
☐ ii. Texture Pattern						
□ iii. Color Variation. Page #						
☐ e. Parking/vehicle use area screening. Page #						
$\square$ f. Proposed location and species of replacement trees required. Replacement trees shall be designated as such on the plan and be distinguished from other landscape trees. Page #						
LOCATION, SQUARE FOOTAGE, PERCENTAGE, AND DIMENSIONS OF APPLICABLE LANDSCAPE AREAS						
□ a. Interior parking lot landscaping with computation of vehicle use areas. Page #						
□ b. Linkage system landscaping - Downtown zone only. Page #						
□ c. Perimeter landscaping and parking lot perimeter landscaping. Page #						
☐ d. Foundation planting. Page #						
☐ e. Minimum required and proposed site landscaping (percentage). Page #						
II. Tree Preservation Plan  Section Complete?						

- Preliminary Tree Preservation Plan, labeled "Tree Preservation Plan" showing the surveyed location and drip line of all trees four (6) inches or greater in diameter at breast height (4½' above grade) within the site and for fifty (50) feet outside of the site. Individual trees shall be identified by size and species. Page #\_\_\_\_
- Where stands of more than twenty-five (25) trees will not be disturbed, the applicant must depict the size and species name of each significant tree, with the drip line of the stand together with a note indicating the total number of significant trees within the stand. Page #
- Each tree shown must be designated as removed, retained (**no** construction within 5 feet of the drip line), or impacted (trees proposed to remain, but have construction within the drip line or 5

- foot drip line setback (only retained trees may be counted toward the 35% tree retention requirement). Page #\_\_\_\_
- The five-foot drip-line setback shall also be shown for all trees proposed to be retained and impacted. Page #\_\_\_\_
- A tree health assessment, labeled "Tree Health Assessment" prepared by a certified arborist shall be required for all trees on site that are 6 inches or greater in diameter. The tree health assessment shall also verify that all trees designated as retained are healthy trees.
- Completion of Tree Preservation Summary Table (Attached).

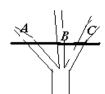
# Part 4: Guidelines for Demonstrating Conformance with Tree Protection Standards

**Contact**: For additional information regarding these guidelines, please contact the City of Redmond's Department of Planning and Community Development at 425.556.2494 or your assigned project planner.

**Description**: This handout is intended to both summarize tree protection requirements and to provide a sample format for demonstrating compliance with code.

**Regulations Summary**: The following table summarizes the regulations related to tree preservation in the City of Redmond. For more information, please refer to RZC Chapter 21.32 <u>Landscaping</u>.

**Measuring Trees (DBH)**: Single-Trunk Trees. Trees are measured according to their **D**iameter at **B**reast **H**eight, or "DBH". "DBH" is the diameter, measured straight across the tree trunk at 4.5' above grade.



Multi-Trunk Trees. Where trees have more than one trunk or stem at 4.5' and those stems come from the same "base", the DBH for each stem at 4.5' is measured. The DBH is then the <u>average</u> of the DBHs of each the stems at 4.5' above the ground.

Example: In the picture to the left, where the horizontal dark line is at 4.5' high, the DBH would be the <u>average</u> of the diameters of A, B, & C. So,  $DBH = (DBH_A + DBH_B + DBH_C)/3$ 

	Proposed Action and Brief Definition		
Type of Tree (DBH)	Removal  (The tree is cut down/removed from the site.)	Impacted (The tree is left standing, but ground disturbance is occurring within 5' of the tree's dripline.)	Retained  (The tree is left standing and ground disturbance is NOT occurring within 5' of the tree's dripline)
Landmark (> 30")	Prohibited, unless approved by an exception. A written exception request is required.  Mitigation required, i.e. replacement trees at a ratio of 3:1, if exception is approved.	Prohibited, unless approved by an exception. A written exception request is required. Preferred over Removal.	Required for all Landmark Trees, unless exception is granted.
Significant (6" - 30")	Regardless of the percentage of removed trees, mitigation, i.e. replacement trees at a ratio of 1:1, are required for each removed tree.	Encouraged over Removal.	35% of all Significant Trees Required.
Notes	No more than 65% of healthy Landmark + Significant Trees may be removed, unless approved by an exception. If approved, then mitigation is required, i.e. replacement trees, at a ratio of 3:1 if exception is approved.  Tree Replacement Performance Bond required for each replacement tree. 3 year maintenance bond required after performance.	3-year Tree Replacement Performance Bond required for each replacement tree. The bond is used if an impacted tree dies and the applicant does not replace it.	5-year Tree Preservation Bond is required for each Retained Tree. The bond is used if an impacted tree dies and the applicant does not replace it.

**Arborist Report**: An Arborist Report shall document (1) the trees on site and (2) any off site trees that will be impacted by clearing or other improvements within 5 feet of its drip line. At a minimum, the arborist's report shall:

- Describe the site in narrative and provide an aerial or site plan documenting the locations of tree stands.
- Describe the methodology, which must be considered the best of available science, that was used to rate each and every tree. Describe how trees were tagged in the field.
- Document through a table the following for each tree of 6" or greater in dbh: Tree Number, Species, DBH, Health, Comment on Health, and Proposed Action. The Tree Number is that number that is affixed to the tree in the field and is used to identify it on a surveyed map.
- Provide a surveyed map locating each tree, numbering each tree with its identification number, illustrating each tree's dripline, and illustrating 5' from each tree's dripline. Symbols shall be used and described in a legend to distinguish the following groups: Unhealthy Trees to be Removed, Significant Trees to be Removed, Landmark Trees to be Removed, Significant Trees to be Retained, and Landmark Trees to be Retained.
- Recommend actions for impacted trees and general management, as appropriate.
- Provide a map illustrating the locations of replacement trees.
- Provide an exception request for any proposed action that would not comply with the tree protection standards, such as: removing a healthy landmark tree or having a retained tree count below the required 35%.

Summarizing Compliance with Code: The following table provides you with the format that is required for summarizing a proposal's conformance with the City's tree protection regulations. The table must appear in the Arborist Report and on the Tree Preservation Plan, both of which are part of the application. Please include the total number of trees that are 6" or greater and the number of unhealthy trees in the report.

Proposed Action and Brief Definition				
Tree Type	Removal	Impacted	Retained	Total
Landmark (>30" dbh)	Number of removed landmark	Number of impacted landmark	Number of retained landmark	Total Landmark Trees
	% of Removed Landmark Trees of All Trees	% of Impacted Landmark Trees of All Trees	% of Retained Landmark Trees of All Trees	% Landmark Trees of All Trees
Significant (6" - 30")	Number of removed significant	Number of Impacted significant	Number of Retained significant	Total Significant Trees
	% significant removed of all significant trees	% Impacted of all significant	% Retained of all significant	% Significant Trees of All Trees
Totals	Number of Landmark + Significant Removed	Number of Landmark + Significant Impacted	Number of Landmark + Significant Retained	Total Number of ALL Trees
	% of removed of all Trees	% of Impacted of all Trees	% of Retained of all trees	
Replacement Trees	# of Replacement Trees	N/A	N/A	# of Replacement Trees