RESOLUTION NO. 2506 - 2010

(This resolution amends, supersedes and replaces Resolutions 500-1974, 545-1974, 591-1975, 791-1979, 1331-1990 and 2279-2006)

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF PORTOLA VALLEY APPROVING AND ADOPTING "GEOLOGIC MAP" AND "GROUND MOVEMENT POTENTIAL MAP" AND ESTABLISHING LAND USE POLICIES FOR LANDS SHOWN ON SAID MAPS

WHEREAS, the Town Council on May 8, 1974, adopted Resolution No. 500-1974, A Resolution of the Town of Portola Valley Approving and Adopting the "Geologic Map" and the "Movement Potential of Ground Map", and Establishing Land Use Policies for Lands Shown on Said Maps; and

WHEREAS, the Town Council has determined that it is necessary to control or prevent development on geologically hazardous areas in order to protect the health, safety and welfare of Town residents; and

WHEREAS, said Resolution 500-1974 was heretofore amended by Resolutions 545-1974, 591-1975, 791-1979 1331-1990, and 2279-2006; and

WHEREAS, it has been found that combining these resolutions into a single resolution will facilitate application; and

WHEREAS, it has been determined that additional guidance is required with respect to Repairs, Alterations, and Reconstruction of existing structures in areas of Unstable Ground; and

WHEREAS, the Town finds that in existing neighborhoods, the Town needs to allow some modifications to existing legal structures in order to reduce risks to health and safety in those neighborhoods; and

WHEREAS, the Town has updated the "Geologic Map" and updated and relabeled the "Ground Movement Potential of Undisturbed Ground Map" as the "Ground Movement Potential Map," both dated May 2010.

NOW THEREFORE, The Town Council of the Town of Portola Valley does hereby **RESOLVE** as follows:

1. This Resolution does amend, supersede and replace Resolutions 500-1974, 545-1974, 591-1975, 791-1979, 1331-1990, and 2279-2006.

2. The Town makes the following findings and adopts the following:

I. BACKGROUND

The Town Council of the Town of Portola Valley remains committed to the importance of utilizing geologic information in decisions made by the Town. The Town Council is aware of the existence of major areas of active and recent landslides in the community as well as the presence of the San Andreas Fault System, a fault system considered active and potentially dangerous. Events within the history of the Town have demonstrated that landslides and the San Andreas Fault System can and have destroyed structures including buildings, roads and other improvements both within the Town and nearby areas. Such failures pose a threat to persons and property. In order to protect the Town, residents, buildings and infrastructure from damage from these geologic hazards, the Town Council finds it in the public interest to not allow new development on Unstable Ground. Therefore, in order to protect the public interest and further the goals of the Safety Element of the General Plan of the Town, the Town Council finds it appropriate and necessary to adopt this Resolution.

Geologic maps have been prepared by the Town based on the study of aerial photographs, field investigations, and other available geologic studies. These maps portray geologic conditions with considerable accuracy. Given this level of data, the Town Council finds it appropriate to adopt these maps as policy, and to have them serve as guidelines for administering the affairs of the Town and to modify them from time to time as better information becomes available. It is the Town Council's intention that these maps and related land use policies be employed as guides in all Town decisions to which they are relevant and shall be adhered to unless modifications to the geologic maps or Deviations are permitted as provided for herein.

II. PURPOSE

The purpose of this Resolution is to protect the public interest by seeking to avoid the many adverse impacts that can result from the failure of structures and infrastructure on Unstable Ground. Following are some of the adverse impacts the Town Council seeks to avoid:

1. Injury or death to occupants of a structure.

2. Failures of electrical and gas facilities in a structure resulting in fires that can endanger occupants as well as surrounding properties.

3. Damage to public and private infrastructure, including water lines, sewer lines, gas lines and communication lines resulting in costs to responsible agencies.

4. Demands on fire, police, medical and other emergency personnel thus incurring costs to the public.

5. Physical damage to natural drainage courses and storm drains resulting in adverse impacts on surrounding properties.

6. Physical impact on adjoining properties by encroachment of landslide material and structures.

7. A negative impact on property values and an adverse impact on the reputation of the Town, both of which are contrary to the public interest.

8. Concurrent damage to structures in the event of an earthquake thereby causing an overload on emergency service capabilities.

9. Failure of roads resulting in damage to abutting properties and impeding the passage of emergency vehicles for fire, police, and medical personnel.

10. Failure of water tanks that can result in the sudden release of water causing damage to properties below as well as reducing or eliminating the availability of water for emergency use.

11. Abandonment of properties damaged by earth movement and the attendant negative impacts associated with abandoned properties including without limitation: lowered property values, increased fire hazard, and an attractive nuisance.

III. OBJECTIVES

1. To help prevent decisions that might unduly jeopardize persons or private or public property as a result of geologic hazards.

2. To establish a set of geologic maps that will serve as a consistent basis for reviewing applications before the Town and various other Town actions.

3. To establish policies for land uses to be permitted in different geologic settings.

4. To allow and encourage the improvement of the overall safety of existing structures.

5. To ensure that development projects are consistent with the goals and provisions of the General Plan, such as contained in the Safety Element and Sections 1010 and 2103 that call for minimizing development on unstable land, exposure of people and improvements to physical hazards such as earthquakes and 'landslides, grading, and disturbance to natural surroundings, vegetation and scenic vistas.

IV. DEFINITIONS

The following definitions are established for the purposes of this Resolution:

Alteration and Repair. Alterations and Repairs occur when construction costs do not exceed 50% of the Appraised Value of a building.

Appraised Value. Appraised Value is the market value of a structure secured by the applicant and reviewed and accepted by Staff. If damage has occurred, the Appraised Value shall be the estimated market value of the building immediately prior to being damaged. Staff may waive the appraisal if Staff believes information submitted is sufficient for making a determination.

Deviation. A Deviation is an approval of a project in a category shown on Table 1 as "N," "No (not permitted)". Deviations are limited to legally existing structures on legally existing parcels.

Engineered Design. An Engineered Design requires a thorough geotechnical investigation and appropriate soil, foundation and structural measures to provide a safe, stable foundation and development. An Engineered Design shall result in a safety factor of a minimum of 1.5 under static conditions for all geotechnical aspects of the Engineered Design.

Ground Movement. Earth movement including without limitation all types of landsliding. Ground Movement expressly does not include house settlement unrelated to landsliding or earth shaking from seismic activity that does not cause earth displacement.

Reconstruction. Reconstruction occurs when construction costs exceed 50% of the appraised value of a building.

Staff. Staff includes, but is not limited to: Town Geologist, Town Engineer, Building Inspector and Town Planner.

Unstable Ground. Unstable Ground as referred to in this Resolution is earth that has a potential for Ground Movement.

V. APPLICABILITY

This Resolution shall be used in all decisions of the Town Staff, Committees, Commissions and the Town Council where geologic considerations are relevant. It shall, in particular, be employed in applications required under the following regulations:

1. Zoning Ordinance
2. Subdivision Ordinance
3. Site Development Ordinance
4. Building Code

VI. GEOLOGIC MAPS

The adoption, maintenance and modification of geologic maps shall be as set forth below:

Adoption

The following maps are adopted as the official geologic maps of the Town of Portola Valley and may be revised from time to time to reflect modifications approved by the Planning Commission:

1. "Geologic Map," 1"=500', 9/18/73; revised 11/26/75, Town Council Resolution 591- 1975; subsequent revisions approved in accordance with the provisions of this Resolution and filed with the Planning Commission.

2. " Movement Potential of Undisturbed Ground' 1"=500', 9/18/73; revised 11/26/75, Town Council Resolution 591-1975; subsequent revisions approved in accordance with the provisions of this Resolution and filed with the Planning Commission.

Maintenance of Maps and Records

1. The Town Geologist shall be responsible for maintaining complete background and action information on all modifications to the maps.

2. The Town Geologist shall be responsible for seeing that all changes approved by the Planning Commission are posted to the maps within 30 days after approval of such changes.

Modification of Maps

It is recognized that these maps are based on a certain level of geologic information and that further study may permit their improvement; therefore, the following procedures are available for modification of the maps:

1. In the course of reviewing any application wherein this Resolution is used as a guide in reviewing the geology, the Planning Commission may, after recommendation from the Town Geologist, modify the map(s) if it determines, based upon evidence before it, that such modification(s) is warranted.

2. In instances where no application is involved, a land owner or his authorized representative may file a request for modification with the Planning Commission Secretary and the Planning Commission may, after recommendation from the Town Geologist, modify the map(s) if it determines, based upon evidence before it, that such modification is warranted.

3. The Town Geologist may at any time submit a written recommendation to the Planning Commission for modification of the maps and the Planning Commission may modify the maps if it determines, based on evidence before it, that such modification is warranted.

4. When an applicant requests a modification of the maps, the request shall include a geologic review of the site by a geologist employed by the applicant at the applicant's expense and such review shall include evaluation as to why the geologist believes the request is appropriate and consistent with Town geologic policies. The Town Geologist may waive the need for such review if data are already available to support the request. The Town Geologist shall review the request and submit recommendations to the Town Planner. The Town Planner shall review the request and submit a written report to the Planning Commission with recommendations.

5. A request for a proposed modification shall be considered by the Planning Commission at a noticed public meeting. Notices shall be sent to property owners within 300 feet of the subject property at least 10 days prior to the public meeting. Approval of a map modification shall be by Resolution of the Planning Commission.

6. When a modification is approved, a written report shall be prepared by the Town Planner indicating the nature of the change, reasons therefore, and such report shall be filed along with the report of the Town Geologist and Resolution with the Planning Commission. A copy of the report shall be placed in the parcel file for the affected property.

<u>Effect of Engineered Designs and Engineering Solutions on the Geologic Maps</u>

When an Engineered Design or an engineering solution as provided for on Table 1 is approved, the Geologic Map and Ground Movement Potential Map shall not be changed since the maps are defined as reflecting undisturbed ground.

VII. LAND USE POLICIES - MOVEMENT POTENTIAL MAP

The land use policies shown on Table 1 shall be adhered to. These policies have been established on the premise that, in future actions, the Town wants to avoid to the maximum extent possible failures of ground due to earth movement that would endanger persons or public or private property. Where land uses that are under consideration by an approving authority are not listed on Table 1, the approving authority shall use the policies in Table 1 as a guide insofar as is possible. Land stability categories on Table 1 are based on undisturbed ground.

When acting on applications for development that are in categories marked "Y", the approving authority shall consider a report from the Town Geologist prior to taking action unless the Town Geologist determines that a report is not required.

When acting on applications for development in categories marked "Y*" or "N*", the approving authority shall consider a written report from the Town Geologist prior to taking action. The approving authority may refer an application in categories marked "Y*" to the Planning Commission for action. Applications for development in categories marked "N*" shall be referred to the Planning Commission for action.

Development in categories marked "N" is not permitted, except for projects pertaining to legally existing structures on legally existing parcels. Such projects shall be processed in accordance with the provisions for land use policies as set forth in Sections IX - XIV of this Resolution.

TABLE 1

Stability	Map Symbol			Buildings			Utilities	Water Tanks
		Public	Private	¼ Ac	1 Ac	3 Ac		
Most	Sbr	Y	Y	Y	Y	Y	Y	Y
	Sun	Y	Y	Y	Y	Y	Y	Y
	Sex	Y*	Y	Y*	Y	Y	Y	Y*
	Sls	Y*	Y*	N*	Y*	Y*	Y*	N*
	Ps	Y*	Y*	N*	Y*	Y*	Y*	N*
	Pmw	N*	N*	N*	N*	N*	N*	N*
	Ms	N*	N*	N	N	N	N	N
	Pd	N	N	N	N	N	N	N
	Md	N	N	N	N	N	N	N
	Pdf	N	N*	N	N	N	N	N
Least	Pf	Y*	Y*	(Sec. 18.58.030 of Zoning Ord.)			N*	N*

Map symbols are shown on the map, "Movement Potential of Undisturbed Ground." Acreage figures for houses are for the individual parcel area for each house.

Legend:		
	Y	Yes (permitted)
	Y*	The land use would normally be expected to be permitted, provided the geologic data and/or engineering solutions are favorable; however, there will be instances where the use will not be appropriate.
	N	No (not permitted)
	N*	The land use would normally be expected to not be permitted; however, there may be circumstances where geologic data, engineering solutions, and an assessment of on-site and off-site impacts acceptable to the Planning Commission will permit the use.
	S	Stable
	P	Potential movement
	M	Moving
	br	Bedrock within three feet of the surface
	d	Deep landsliding, 10 or more (feet in depth
	df	Debris flow
	ex	Expansive shale interbedded with sandstone
	f	Primary ground rupture and displacement along active faults.
	ls	Ancient landslide debris
	mw	Mass wasting on steep slopes, rockfalls and slumping
	s	Shallow landsliding or slumping, less than 10 feet in depth
	un	Unconsolidated material on gentle slopes

VIII. LAND USE POLICIES - EARTHQUAKE FAULTS

Construction of new buildings, modification of existing buildings and replacement of damaged buildings in earthquake fault setbacks are addressed in the Zoning Ordinance in Section 18.58.030, Special building setback lines along earthquake faults, Section 18.46.050, Repair, reconstruction or replacement of involuntarily damaged buildings in earthquake fault setbacks, and Section 18.46.051, Repair, alteration and remodeling of buildings in earthquake fault setbacks.

IX. LAND USE POLICIES - GENERAL PROVISIONS FOR ALL DEVIATIONS

Deviations from the land use policies of Table 1 shall be considered in deliberations on the associated applications or other Town actions and may be approved, conditionally approved or denied by the approving authority. Deviations will be allowed only for legally existing structures on legally existing parcels. It is anticipated that Deviations will only be approved when it is clearly demonstrated to the approving authority that such Deviations will not unduly

jeopardize human safety, public property or private property, and will be consistent with the provisions of the General Plan, including those requiring that development be guided to reduce the exposure of people and improvements to physical hazards such as earthquakes and landslides.

Nothing in this Resolution shall be interpreted as authorizing anything in contradiction to any other Town policy or regulation, including, without limitation, all Town ordinances, building codes, and all zoning ordinance restrictions including but not limited to floor area requirements.

X. LAND USE POLICIES - DEVIATIONS FOR BUILDINGS EMPLOYING AN ENGINEERED DESIGN

Deviations from Table 1 may be approved by the Planning Commission for Engineered Designs for legally existing buildings on legally existing parcels or the replacement of legally existing buildings whether or not the building has been damaged by land movement. When an Engineered Design is approved for a building, the building can be permitted by the Planning Commission to achieve the floor area allowed under Chapter 18.48 of the Zoning Ordinance. Each building will be evaluated on a case-by-case basis and can be limited by the "Criteria for Approval of Deviations" and other applicable regulations. Deviations will not be allowed that involve the conversion of a non-dwelling to dwelling unit, as dwelling unit is defined in the zoning ordinance.

While Engineered Designs can involve various viable engineered means that result in a stable foundation, the preferred solution is the extension of piers into stable and sufficient bedrock. Grading solutions whereby compacted fill is placed on top of bedrock are discouraged due to the potential for alteration of natural terrain and removal of vegetation.

Since Engineered Designs can require significant grading and access by drilling equipment, excavation equipment and trucks, they can cause substantial environmental damage unless they are carefully controlled. Accordingly, each request wherein an Engineered Design is proposed shall be reviewed with respect to the "Criteria for Approval of Deviations" and with particular attention to the minimization of impact on native terrain, vegetation and neighboring properties.

Approval: Planning Commission

XI. LAND USE POLICIES - DEVIATIONS FOR BUILDINGS NOT EMPLOYING AN ENGINEERED DESIGN

Deviations from Table 1 may only be allowed for legally existing buildings on legally existing parcels. This provision allows for Repairs, Alterations, Reconstructions, and Additions that will improve the overall safety of existing

buildings. Deviations will not be allowed that involve the conversion of a non-dwelling to a dwelling unit, as dwelling unit is defined in the zoning ordinance.

Deviations are listed below in two sections. Section A. concerns buildings on Unstable Ground that have not been damaged by Ground Movement. Section B. concerns buildings on Unstable Ground that have been damaged by Ground Movement. All Deviation requests must be evaluated against the "Criteria for Approval of Deviations."

If an applicant under categories A. or B. below, desires to modify the footprint, floor area or height of a building beyond that necessary to improve the foundation and structural stability, the application shall be referred to the Planning Commission with a Staff recommendation. The Planning Commission can allow increases in floor area of up to 25% of an original building that exists or that existed prior to being damaged or demolished and related changes in design. Once a permit is issued for a building, subsequent modification(s) may not in total exceed the 25% limitation. The limitations on buildings do not prevent changes in architectural details.

A. Buildings on Unstable Ground that Have Not Been Damaged by Land Movement.

1. Buildings may be Altered or Repaired under the following provisions:

Limitation: Building footprint, weight, floor area and height may not be modified other than as necessary to improve the foundation and increase the structural safety of the building. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. Improvements to structural stability and foundation are required commensurate with the slope of the alteration or repair.

Approval: Staff

2. Buildings may be Reconstructed if involuntarily damaged by causes other than Ground Movement under the following provisions:

Limitation: Building footprint, weight, floor area and height may not be modified other than as necessary to improve the foundation and increase the structural safety of the building. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. Improvements to structural stability and foundation are required. Consideration shall be given to relocation of the building to a more geologically stable area on the parcel if feasible.

Approval: Staff

3. Buildings may be Reconstructed voluntarily by the owner under the following provisions:

Limitation: Building footprint, weight, floor area and height may not be modified other than as necessary to improve the foundation and increase the structural safety of the building. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. Improvements to structural stability and foundation are required. Consideration shall be given to relocation of the building to a more geologically stable area on the parcel if feasible.

Approval: Staff

4. Additions on stable ground to buildings on Unstable Ground may be permitted under the following provisions:

Limitation: Existing building footprint, weight, floor area and heights may not be modified other than as necessary to improve the foundation and increase the structural safety of, the building or as approved by the Planning Commission. The foundation for the addition must be an Engineered Design. Particular attention shall be given to the method of attachment of the addition to the existing building. Improvements to the existing building's structural stability and foundation are required in order to help minimize the potential for structural failure. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. (Total floor area of the existing building and Addition shall not exceed that allowed by Chapter 18.48 of the Zoning Ordinance.)

Approval: Planning Commission

B. <u>Buildings on Unstable Ground that have been Damaged by Ground Movement.</u>

1. Buildings may be Repaired or Altered under the following provisions:

Limitation: Building footprint, weight, floor area and height may not be modified other than as necessary to improve the foundation and increase the structural safety of the building or as approved by the Planning Commission. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. Improvements to structural stability and foundation are required commensurate with the scope of the repair or alteration.

Approval: Planning Commission

2. Buildings may be Reconstructed under the following provisions:

Limitation: It is envisioned that this type of Deviation request will be extremely rare. Building footprint, weight, floor area and height may not be modified other than as necessary to improve the foundation and increase the structural safety of the building or as approved by the Planning Commission. There shall be no significant adverse change in grading or drainage on the site and there shall be no significant adverse impacts on or offsite. Improvements to structural stability and foundation are required and the engineered building must be the safest possible for the site. In all cases, when feasible, the building shall be founded on stable bedrock in whole or in part. In addition, it must be demonstrated that the building is sufficiently structurally braced to minimize the potential of building damage in the event of future Ground Movement and that in the event of future Ground Movement there is no significant risk to occupants or increased risk of damage to surrounding properties. The request will be given additional scrutiny pursuant to the "Criteria for Approval of Deviations."

Approval: Planning Commission

XII. LAND USE POLICIES - DEVIATIONS FOR ROADS, UTILITIES AND WATER

The approving authority relative to roads, utilities, water tanks, similar infrastructure and other structures, such as retaining walls, shall follow the provisions of Table 1 as part of the normal review and approval process. The approving authority, may, however, grant Deviations from the table if it deems such Deviations would not adversely affect the existing site and stability of the structure. Proposed Deviations shall be evaluated against the applicable criteria listed under "Criteria for Approval of Deviations" as well as other criteria employed by the approving authority.

Whenever a Deviation is being considered by the Town with respect to roads, utilities, water tanks and similar infrastructure, the approving authority shall request and consider a report from the Town Geologist in addition to reports from other Town Staff.

XIII. CRITERIA FOR APPROVAL OF DEVIATIONS

The approving authority shall evaluate all applications for Deviations against the following criteria. The degree of compliance with the criteria shall be commensurate with the scope of the project as determined by the approving authority. Findings must be made with respect to each criterion for all Deviations.

1. Use of state-of-the-art structural/geotechnical standards taking into account the underlying geology.

2. Limitation and control of the final project and construction process, including grading and the use of excavation equipment, drilling equipment and trucks, so as to minimize impacts on the natural characteristics of the site.

3. Control of drainage to minimize on site and offsite adverse impacts.

4. Demonstration that the improvements do not interfere with existing, or proposed, septic tanks and drainfields and that the septic system complies with applicable public health standards.

5. Relocation of a structure to a more stable area on the property if feasible when undertaking Reconstruction of a building and associated infrastructure.

6. Stabilization of actively moving ground when deemed necessary and feasible.

7. Improvement of the overall safety of a structure and site over the safety of the structure and site that existed prior to making improvements. Improvements shall address problems related to the geologic stability of the site, but can address other factors, for example, improvements in fire safety.

8. Avoidance of imposing a risk to adjoining properties.

9. Reasonable demonstration that the structure is a legally existing structure.

XIV. DEVIATION REQUEST - APPLICATION AND PROCESSING

1. A request for a Deviation shall describe the exact nature of the Deviation on a form provided by the Town.

2. The request shall indicate how and to what extent the project conforms to each of the items listed under the "Criteria for Approval of Deviations." It is anticipated that all applications will include a report by an engineering geologist on behalf of the applicant unless the Town Geologist indicates to Staff that such information is not needed.

3. Each Deviation application shall be noticed to property owners within 300 feet of the subject property at least 10 days prior to any action being taken by the approving authority.

4. A record of the Deviation shall be prepared by the Town Planner, filed with the Planning Commission and placed in the parcel file for the property involved.

XV. APPEALS

Applicants or interested parties can appeal Staff decisions to the Planning Commission and Planning Commission decisions to the Town Council.

XVI. EFFECT OF RESOLUTION

This Resolution amends, supersedes and replaces Resolutions 500-1974, 545-1975, 591- 1975, 791-1979, 1331-1990, and 2279 – 2009.

PASSED AND ADOPTED this 22 day of September, 2010.

By: _____
Mayor

ATTEST:

_____
Town Clerk