TAHOE REGIONAL PLANNING AGENCY

Mail
PO Box 5310
Stateline, NV 89449-5310

Location
128 Market Street
Stateline, NV 89449

Contact
Phone: 775-588-4547
Fax: 775-588-4527
www.trpa.gov

STAFF REPORT

Date: July 15, 2021

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Balas Land Capability Challenge, 457 Eagle Drive, Washoe County, NV, Assessor's Parcel Number (APN) 131-224-02, TRPA File Number LCAP2020-0495

Staff Recommendation:
Staff recommends the TRPA Hearings Officer approve this land capability challenge, which would change the land capability from Class 3 (UmE, Umpa very stony sandy loam, 15-30% slopes) to Class 4 (XXX, 16 to 30% slopes).

Required Motions:
In order to approve the proposed land capability challenge, the Hearings Officer must make the following motions, based on the staff report:

1) A motion to approve the required findings, including a finding of no significant effect; and

2) A motion to approve the proposed land capability challenge.

Staff recommends that the Hearings Officer take the following actions, based on this staff report.

Background:
The subject 0.478-acre parcel is shown as Class 1a on TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps, Attachment A). The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974) identifies nearly the entire parcel as Umpa, very stony sandy loam, 30 to 50% slopes (UmF). The Umpa soil shows evidence of soil formation (such as clay accumulation and cambic soil colors), but it is fundamentally a shallow soil (20 to 40 inches deep). The vicinity of this parcel has a geomorphic mapping of D-2 for Streamcut volcanic flowlands-headlands (moderate hazard lands).

A TRPA land capability verification was conducted on August 08, 1997, which found the parcel as Umpa very stony sandy loam, (UmE, 15 to 30% slopes). UmE qualifies as a Class 3 soil. The 1997 LCV did not find any Stream Environment Zone (SEZ) within the property. A detailed soil investigation was conducted for this land capability challenge on November 10, 2020 by Sid Davis (Davis2 Consulting Earth Scientists).

Mr. Davis examined the site and prepared a land capability analysis (December 10, 2020, Attachment D) on behalf of the property owners Peter Balas and Land Use Planner, Gary R. Taylor. A land capability challenge (LCAP2020-0445) was filed with TRPA on December 21, 2020.

Findings:

One soil pit was hand excavated to 60 inches. The pit was excavated northwest of the existing residence, about 85 feet southwest of Eagle Drive and 25 feet south of the north property line. See Attachment B for site photographs. The soil at this location is a deep, gravelly soil derived from andesite and granitic colluvium. The soil has gravelly sandy loam textures in the upper 55 inches, then gravelly, loamy sand below that depth. The topsoil layer is about 24 inches thick and the subsoil about 31 inches thick. The subsoil has thin clay films, which indicates long-term stability (non-structural) to allow such films to form over thousands of years. Within the soil pit, there was no evidence of a seasonal high-water table or weakly cemented silica horizon. Accordingly, the soil is well drained with moderately permeability. The dominant trees and shrubs are Jeffrey pine, incense cedar, Greenleaf manzanita, huckleberry oak, whitethorn, and prostrate ceanothus.

Soil on the subject parcel does not resemble any of the named series in the 1974 soil survey and therefore it is an unnamed soil (XXX) that is considerably deeper than the Umpa soil type. The Umpa soil also formed only from andesite; however, it is a shallow soil (20 to 40 inches deep). The observed soil has a minor amount of clay accumulation in the subsoil (i.e. cambic horizon), but it is significantly less gravelly/cobbly/stony than the Jorge and Tahoma soils (also found in this vicinity). This deep, unnamed soil lacks a root-restricting layer (claypan, silica-cemented layer, etc.), so it is considered Hydrologic Soil Group B (HSG-B). From Page 20, Table 4 of Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (Bailey, 1974), this unnamed XXX soil with 16 to 30% slopes qualifies as Class 4 (20% allowable land coverage). The subject parcel has only one slope class, so this conclusion applies to the entire parcel (see Attachment C). Slopes associated with the street fill (immediately below Eagle Drive) and minor landscape terraces (west of residence) are not historic conditions, whereas this land capability analysis relies upon pre-disturbance soil conditions. The table below summarizes the changes in land capability as concluded by this land capability challenge.

Land Capability District	**Area (sq. ft.) 1997 TRPA LCV**(1)	**Area (sq. ft.) LCAP 2020-0445**	**Net Change (sq. ft.)**
Class 3 (UmD, 15 to 30% slopes)	20,132		-20,132
Class 4 (XXX, 16 to 30% slopes)	0	20,822	+20,822
Total Parcel Area	**20,132**(2)	**20,822**	**+690**

(1) The LCV changed the SCS-mapped soil type of Umpa, 30 to 50% (UmF) to Umpa, 15 to 30% (UmE).

(2) The August 1997 LCV utilized an older site map, which indicated 690 sf. less than current topography map (prepared by Welsh-Hagen Associates, August 2020).

Contact Information:

This memorandum was jointly prepared by TRPA contractor Phil Scoles (Terra Science, Inc.) and TRPA Senior Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll, at 775-589-5247 or jroll@trpa.gov.

Attachments:

A. Vicinity map, TRPA Land Capability Map, and August 1997 LCV
B. Site Photographs
C. Site Plan
D. Applicant's Soil Consultant Land Capability Soil Report (1 soil pit)

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel Numbers: (APN)	131-224-02; T. 16N, R. 18E, Sec. 14 (NW ¼ of NW ¼). 20,822 sf. (0.478-acre).
TRPA File No. / Submittal Date:	LCAP2020-0445 / December 21, 2020
Owner or Applicant:	Peter Balas; 930 Tahoe Boulevard, no. 802-59; Incline Village, NV 89451
Address:	457 Eagle Drive, Incline Village, Washoe County, NV

Environmental Setting	
Bailey Soil Mapping Unit[1] / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	UmF (Umpa very stony sandy loam, 30 to 50% slopes) / HSG C / D-2 Streamcut volcanic flowlands-Headlands (moderate hazard). The 1997 LCV changed soil designation to UmE (Umpa very stony sandy loam), 15 to 30% slopes) / HSG C. The moderate hazard lands designation was unchanged by LCV.
Soil Parent Material	Colluvium over ancient andesite debris flow.
Slopes and Aspect	23 to 29% for entire parcel. Slopes dip to southwest.
Elevation and Datum	6680 ft. (southeast prop. corner) to 6639 ft. (northwest prop. corner); from Welsh-Hagen Associates (August 2020, Lake Tahoe datum).
Rock Outcrops and Surface Configuration	Backslope with few surface stones and boulders. No outcrops apparent.
SEZ and Hydrology Source	None present.
Vegetation	Jeffrey pine, incense cedar, pine saplings, greenleaf manzanita, huckleberry oak, whitethorn, prostrate ceanothus, plus grasses and forbs.
Ground Cover Condition	Good (vegetative cover 35% and duff 65%)
Site Features	Residence, driveway (bridge), decks, and vacant land.

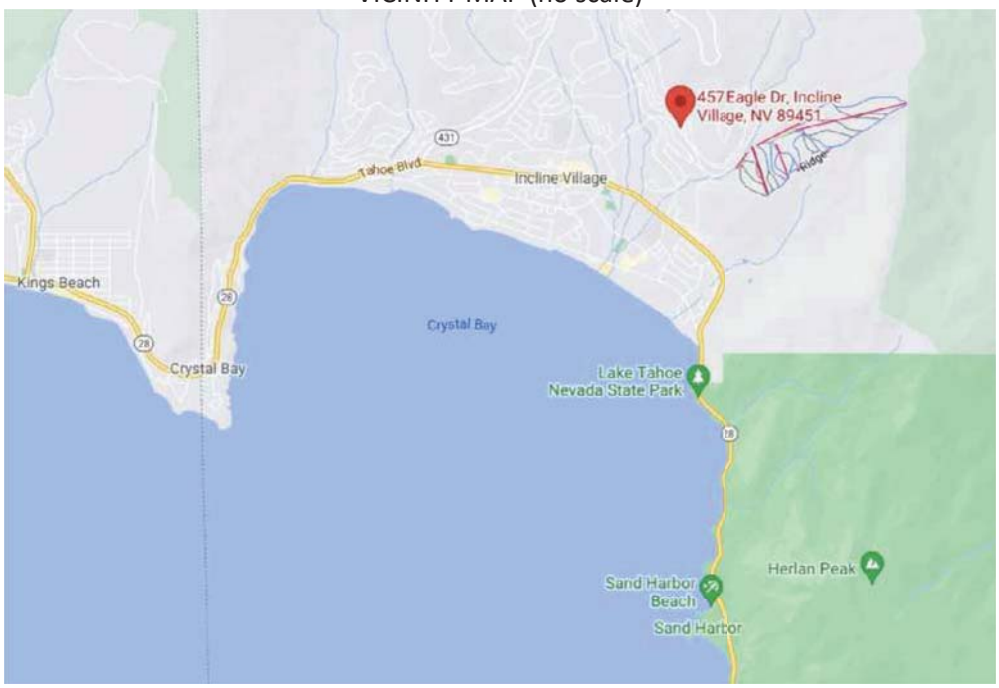
[1] TRPA currently relies upon the Soil Survey of Tahoe Basin, California-Nevada (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon.

Field Investigation and Procedures	
Consultant and Address	Sid Davis, Davis2 Consulting Earth Scientists Post Office Box 734, Georgetown, CA 95634 (530) 559-1405; davis2@sbcglobal.net
TRPA Contractor Field Date	April 23, 2021 (soil consultant work conducted on November 10, 2020).
SEZ Mapping / NRCS Hydric Soil	None present.
Number of Soil Pits or Auger Holes and Description Depth	One backhoe-dug pit excavated 60 inches. See Davis2 Consulting Earth Scientists land capability report for soil profile descriptions.
Additional or Repetitive TRPA Sample Locations	None – Soil consultant's soil pit was open for inspection, so no additional sampling needed.
Areas Not Examined	Residence, driveway (bridge), decks, and BMPs.

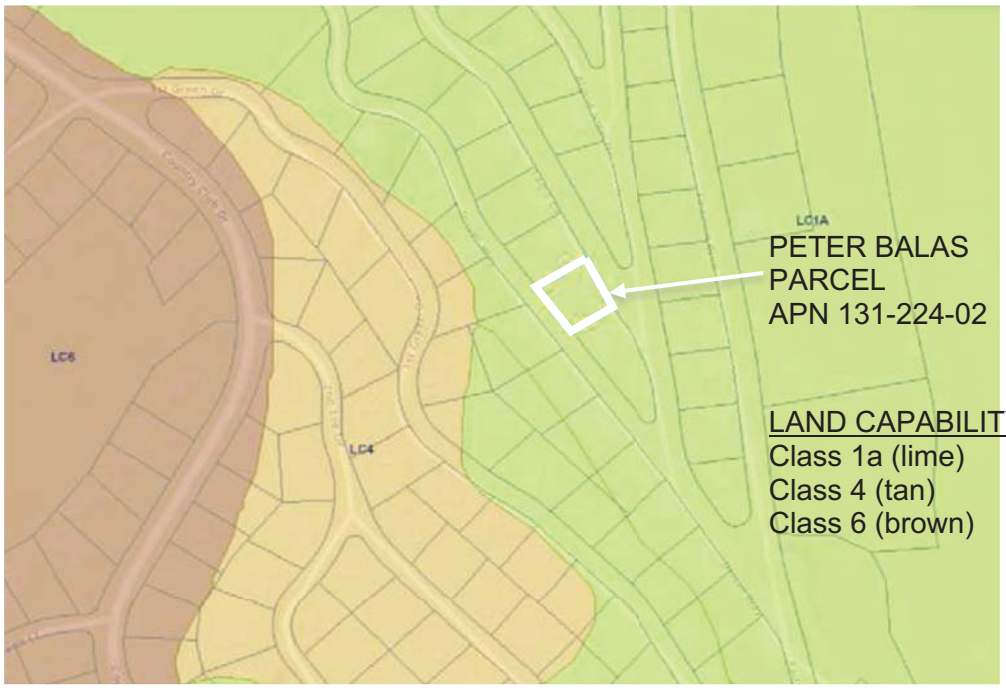
TRPA Findings	
2006 Soil Survey Map Unit	Jorge very cobbly fine sandy loam, 15 to 30% slopes (map unit 7152), Class 4, HSG-B.
Consultant Soil Mapping Determination and Rationale	The observed soil does not match the mapped UmE soil or other soils described in the 1974 soil survey (hence unnamed, XXX). It is deep, well drained, and has gravelly sandy loam (HSG-B) in the upper 55 inches of the profile. The soil is deeper than the Umpa series, and less rocky and less clayey than the Jorge and Tahoma series, respectively. No evidence of perched water table or other restricting layer. Rooting depth is deeper than 60-inch pit depth.
Slope Determination	23% for majority of parcel, with slopes up to 25 to 29% in the northwest and southeast corners, respectively. Minor landscaping terraces (20%) and street fill slopes (35 to 58%) are exempt.
TRPA Conclusion(s)	XXX Soil, HSG-B, Class 4 for 16 to 30% slopes (20% base allowable cover). Created fill slope below Eagle Drive was historically 16 to 30% slopes, hence also Class 4.
Applicable Area	Entire site (see map, Attachment C, June 2021)

Attachment A
Vicinity map, TRPA Land Capability Map, and August 1997 LCV

VICINITY MAP (no scale)



TRPA LAND CAPABILITY MAP



TAHOE REGIONAL PLANNING AGENCY

WA/PL/CSLT

MOU

REQUEST FOR VERIFICATION OF LAND CAPABILITY

PLEASE PRINT

APN 131-224-02 County WASHOE

Owner Name BERNARD D. & SUSAN W. MORGAN Phone # (909) 784-1659

Results to be Mailed to:

Name BERNARD D. MORGAN

Address 6216 APPIAN WAY
RIVERSIDE, CA 92506

Location of Property (physical address or directions)

457 EAGLE DRIVE INCLINE VILLAGE, NV 89451

**********TRPA USE ONLY**********

Date Received 8.4.97 Fee $ _____ Receipt # _____

Mapped Land Capability	Mapped Soil Map Unit
1. 12	1. UmF
2. 1b	2. SEZ
3.	3.
4.	4.

H-3

****

RESULTS

Date 8/8/97 By _____

Verified as Mapped Y/N N

Verified Land Capability Class	Verified Soil Map Unit	Observed Slope
a. 3	UmE	19-24%
b.		
c.		
d.		

Verification of Stream Environment Zone Y/N N

Extent or Amount of SEZ on Parcel —

Comments _____

AUG 11 199

AGENDA ITEM NO. V. A

Attachment B
Site Photographs

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PETER BALAS PARCEL, 457 EAGLE DR., INCLINE VILLAGE, NEV. PHOTOGRAPHS (APN 131-224-02)

Photo 1 – View south (left) to southwest (right) from northeast property corner. Eagle Drive located just beyond left edge of photo. Natural slopes within the parcel range from 23 to 29%, but the road embankment (left edge) has 35 to 58% slopes. See Photo 7 for related comment.

Photo 2 – View south (left) to southwest (right) from north-center part of parcel. Land below (west) of residence has subtle landscaping terraces that are partly vegetated with native shrubs; also has ground cover of pine needles and twigs. The parcel is mapped as Umpa very stony sandy loam (UmF), 30 to 50% slopes (Class 1A). This soil is derived from andesitic debris flow (deeper than 60 in. on this property). The observed deep soils provide greater land capability (including infiltration) and better growing conditions than the mapped UmF soil.

Photo 3 – View southwest (left) to west (right) along south side of residence. The upper elevation of the parcel is 6680 ft., while the lower elevation is 6639 ft. Slope aspect is mostly southwest. Driver Way located along west property line (upper center of photo). Eagle Drive located in opposite direction of photo.

Photo 4 – View northeast (left) to east (right) along north side of residence. The soil pit (between plywood sheets) was dug in this vicinity, since it shows the least degree of past disturbance. The north portion of the parcel is mostly forested and supports Jeffrey pine, incense cedar, greenleaf manzanita, huckleberry oak, whitethorn, and prostrate ceanothus. Soil profile described by Sid Davis (Nov. 2020).

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Photo 5 – Soil profile in soil pit located northwest of the residence. The topsoil layer is 24 inches thick and composed of eroded soil from hillside above (colluvium). The subsoil below is 30 inches thick and has thin clay films that qualify those layers as argillic (slightly lower permeability) Profile lacks root-restricting layer (such as a high water table or brittle layer), so this unnamed soil (XXX) qualifies as Class 4, as per Table 4 of the Bailey land capability report.

Photo 6 – View of downslope (toward Driver Way to southwest) from southwest part of subject parcel. This vicinity has fewer mature trees and more shrub understory (due to greater solar exposure). Jeffrey pine saplings, along with greenleaf manzanita, and prostrate ceanothus are the dominant plants in the south and center of lot. Slope in this vicinity is 23% (hence, Class 4).

Photo 7 – View north at steep embankment between residence and Eagle Drive. The steep, fill slope was created by original road construction and now has ground cover as scattered shrubs and pine needles/twigs. For land capability purposes, TRPA acknowledges the historic slope, which is estimated as 23 to 29% (steeper toward south prop. line.). Class 4 has a slope range of 16 to 30%.

Attachment C
Site Plan

Land Capability Challenge for
LCAP2020-0495; APN 131-224-03
457 Eagle Drive, Incline Village;
Washoe County, Nev.

Field Investigation: April 23, 2021
Data Analysis: June 28, 2021
Conducted By: P.Scoles (Soil Scientist)

ADJACENT PROPERTY LINE FROM RECORD INFORMATION DOES NOT REPRESENT A BOUNDARY SURVEY

PROPERTY LINE FROM RECORD INFORMATION DOES NOT REPRESENT A BOUNDARY SURVEY

(N61°00'12"E 151.34')

8' SIDE YARD SETBACK

ADJACENT PROPERTY LINE FROM RECORD INFORMATION DOES NOT REPRESENT A BOUNDARY SURVEY

FOUND IRON PIPE NO CAP

Slope: 25%

Slope: 28%

Slope: 23%

Slope: 23%

Slope: 23%

Slope: 29.5%

Road Fill Slope: 58%

Road Fill Slope: 36%

BEAR BOX

RAISED WOOD DECK 3:1 HEIGHT REDUCTION

RAISED WOOD DECK 3:1 HEIGHT REDUCTION

RAISED WOOD DECK 3:1 HEIGHT REDUCTION

Soil Pit for Land Capability Challenge

For land capability challenges, TRPA relies upon historical contours estimated at 23 to 29% slope.

WOOD BRIDGE

GARAGE FFE:7358.0±

RESIDENCE FFE: 7388.5±

ELEC GM

WOOD DECK

WOOD STAIRS

EAGLE DRIVE 60.0' RIGHT-OF-WAY

(S26°59'48"E 144.00')

457 EAGLE DRIVE
APN: 131-224-02
LOT AREA: 20,822 S.F.
(0.478 ACRES)

Unnamed Soil (XXX), Class 4, 20,844 sf.

20' FRONT YARD SETBACK

20' REAR YARD SETBACK

8' SIDE YARD SETBACK

(N38°05'30"W 145.83')

(S61°00'12"W 128.28')

PROPERTY LINE FROM RECORD INFORMATION DOES NOT REPRESENT A BOUNDARY SURVEY

DRIVER WAY 50.0' RIGHT-OF-WAY

WOOD RETAINING WALL

OBERT C, ELIAS QUAL PERSONAL TRUST et al
451 EAGLE DRIVE
APN: 131-224-01

ADJACENT PROPERTY LINE FROM RECORD INFORMATION DOES NOT REPRESENT A BOUNDARY SURVEY

WM

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
24"x 36" SHEET – SCALE: 1" = 10 FEET

LEGEND:

- EXISTING BUILDING
- EXISTING DECKS & STAIRS
- EXISTING ASPHALT & CONCRETE

SURVEY NOTES:
1. BASIS OF BEARINGS ARE ASSUMED, TAKEN FROM THE SUBDIVISION MAP FOR COUNTRY CLUB OF INCLINE, TRACT MAP #971b, BEING A PORTION OF THE NW 1/4 OF THE NW 1/4, SECTION 14, T.16 N., R.18 E., M.D.M., OFFICIAL RECORDS OF WASHOE COUNTY, NEVADA.
2. VERTICAL DATUM IS ASSUMED, TAKEN FROM USGS INFORMATION (NAVD 88).
3. TOPOGRAPHY IS SHOWN AT A 1 FOOT CONTOUR INTERVAL.

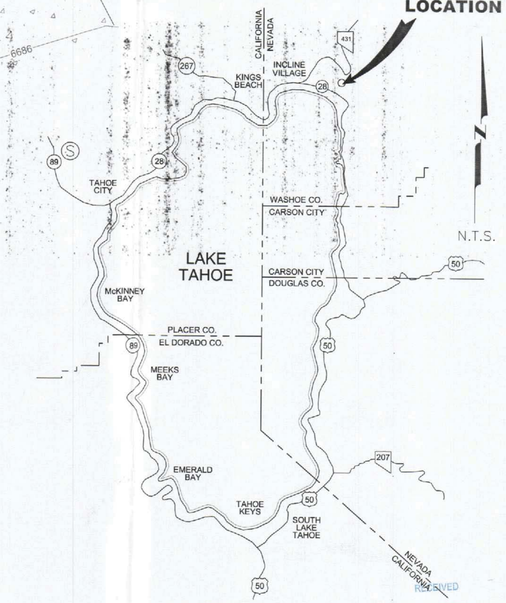
ZONING AND SETBACK NOTES:
1. PROPERTY IS ZONED MDS (MEDIUM, DENSITY SUBURBAN), MINIMUM LOT AREA OF 12,000 SF WITH SETBACKS OF 20 FT FRONT & REAR, 8 FT SIDES.
2. INTERIOR LOTS, SECTION 110.406.30(B), FRONT YARD SETBACK REQUIREMENT SHALL BE 15 FEET WHERE THE SLOPE OF THE FRONT HALF OF THE LOT IS GREATER THAN 2 FOOT RISE/FALL ABOVE OR BELOW THE ESTABLISHED STREET GRADE FOR EVERY 10 FEET OF HORIZONTAL DISTANCE.

TRPA BMP CERTIFICATION:
THE SUBJECT PARCEL OBTAINED TRPA BMP CERTIFICATION ON 9/9/2019; CERTIFICATION #18640.

COVERAGE CALCULATIONS:
LOT AREA = 0.478 ACRES (20,822 SF)

EXISTING COVERAGE CALCULATIONS	AREA:
BUILDING	1,371 SF
WOOD BRIDGE DRIVEWAY (W/ 3:1 REDUCTION)	303 SF
DECKS & STAIRS (W/ 3:1 REDUCTION)	83 SF
TOTAL:	1,757 SF

PROPERTY LOCATION



N.T.S.

LAKE TAHOE AREA MAP
NOT TO SCALE

RECEIVED
DEC 10 2020
TAHOE REGIONAL PLANNING AGENCY

457 EAGLE DRIVE
APN: 131-224-02
WASHOE COUNTY INCLINE VILLAGE NEVADA

PETER C. BALAS
930 TAHOE BLVD STE 802 PMB 59
INCLINE VILLAGE NV 89451

WELSH HAGEN ASSOCIATES
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www.welshhagen.com

Revisions:

TRPA SUBMITTAL

STAMP:

Sheet Title:

AS-BUILT TOPOGRAPHIC SURVEY

Project:	457 EAGLE
Drawn By:	BAMF
Checked By:	DLH
Sheet Size:	24"x36"
Scale:	AS NOTED
Date:	AUGUST 2020

Sheet Number: 1 OF 1

131-224-02 // LCAP2020-0495 // 12/21/2020
PETER C BALAS
930 TAHOE BLVD STE 802 PMB 59
457 EAGLE DR, Washoe County
078 - Land Capability Challenge

AGENDA ITEM NO. V. A

Attachment D
Applicant's Soil Consultant Land Capability Soil Report (1 soil pit)

DAVIS²
CONSULTING EARTH SCIENTISTS
P.0. Box 734 · Georgetown, CA 95634 · Tel. (530) 559-1405; davis2consulting@sbcglobal.net

Land Capability Challenge
457 Eagle Drive
Incline Village< Washoe County, Nevada
(APN 131-224-02)

December 9, 2020

INTRODUCTION

A soil investigation was conducted on the parcel on November 10, 2020. The objective of the study was to identify soils and other features and relate them to Land Capability, which is administered by the Tahoe Regional Planning Agency (TRPA) for the purpose impervious coverage regulation, by Chapter 30 of the Code of Ordinances.

The parcel supports an existing single-family residential dwelling on 0.478 acres of land, located at 457 Eagle Drive, Incline Village, Washoe County, Nevada. This work is advanced at the request of Mr. Peter Balas.

Soil information contained in this report is for the strict use of land capability and it should not be used for building foundation design, slope stability, hazard waste assessment or seismic analyses.

ENVIRONMENTAL SETTING

The site is located at 457 Eagle Drive, Incline Village, Nevada. Vegetation consists of Jeffrey Pine, huckleberry oak, Incense cedar and manzanita. Slopes range between 20 and 29 percent on a southwest aspect. There are no stream environment zones (SEZ) influencing this parcel.

Soils are shown on TRPA map sheet H-3 as UmF (Umpa very stony sandy loam, 30 to 50 percent slopes). Geology (Mathews, 1968) is characterized as Tv^{A} (Andesite). Bailey's (1974) geomorphic analysis shows the parcel within D_2 (Headlands).

METHODOLOGY

The parcel was surveyed as well as areas nearby. A site considered representative of the landform was chosen and an excavation was placed to open and examine the soil profile in detail. Standards of the National Cooperative Soil Survey were used to describe and interpret soil physical properties. Information gathered at the site was compared to the *Soil Survey of the Lake Tahoe Basin, California-Nevada* (Rogers et al, 1974) and to the *Land-Capability Classification of the Lake Tahoe Basin, California-Nevada* (Bailey, 1974) for proper placement in the appropriate land capability class. A detailed topographic base map supplied by X was available in the field for ground control and slope analysis. Information pertaining to land capability districts is shown on the base map.

FINDINGS

Soils are found to be very deep and well drained, members of Soil Hydrologic Group B. They can be characterized having dark grayish brown gravelly sandy loam topsoil approximately 24 inches thick over gravelly dark yellowish brown sandy loam subsoil to a depth of 55 inches above very gravelly loamy sand parent materials to 60 plus inches depth. This soil classifies as Fine-loamy, mixed frigid, Ultic Haploxeralfs.

These soils are different than those shown on the TRPA map sheet because they are deep and well drained, whereas the Umpa series in moderately deep and skeletal. Soils found also are matrix supported consisting of granitic alluvium, as opposed to Umpa, which derives from volcanic residuum. There are mainly andesitic stones on the surface, suggesting the surface may have been influenced by upslope colluvium of volcanic slough, or raked by a ground moraine. Granite parent materials are in the vicinity to the east. Soils described are unnamed in the Soil Survey of the Lake Tahoe Basin, California-Nevada (Rogers, 1974). They are similar to Tahoma series, however they are coarse in texture in the subsoil. They differ from the Inville series, which is skeletal (greater than 35 percent coarse fragments in the 10-to-40 inch control section). This soil is "XXX" for the purpose of placing it in a land capability class.

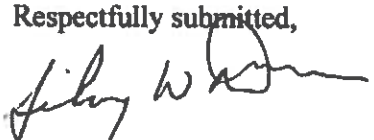
Slopes measure between 20 and 29 percent across the parcel. In conjunction with Soil Hydrologic Group B, according to Bailey's (1974) *Table 4 – Basis for capability of Lake Tahoe basin lands*, this site places in Class 4.

CONCLUSIONS AND RECOMMENDATIONS

Soils found are unnamed (XXX) and place in Land Capability Class 4. The entire site with the exception of the road fill slope along Eagle Drive ranges between 20 and 29 percent slope. Allowable coverage should be 20 percent across the parcel.

Please refer to the following soil profile description(s) that support the findings and the attached map showing the spatial distribution of the appropriate land capability class(s) on the parcel.

Respectfully submitted,



Sidney W. Davis,
CPSS /SC No. 1031

Representative Soil Profile Description:

Oi 0 to 2 inches, conifer needles and duff.

A1 2 to 7 inches, light brownish gray (10YR 5/2) gravelly sandy loam, very dark grayish brown (10YR 3/2), moist; moderate fine granular structure; soft, loose, nonsticky and nonplastic; many fine and medium roots; many very fine and fine interstitial pores; gradual smooth boundary.

A2 7 to 24 inches, brown (10YR 5/3) gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, loose, nonsticky and nonplastic; many fine, medium and coarse roots; many very fine and fine interstitial pores; gradual wavy boundary.

Bt1 24 to 42 inches, light brown (7.5YR 6/4) gravelly sandy loam, dark brown (7.5YR 4/4), moist; moderate medium subangular blocky structure; hard, friable, nonsticky and nonplastic; common medium and few coarse roots; common thin clay films bridging sand grains; gradual irregular boundary.

Bt2 42 to 55 inches, light brown (7.5 YR 6/4) variegated dark brown (7.5YR 4/4) gravelly sandy loam, dark brown 7.5YR 4/4, moist; moderate medium subangular blocky structure; hard, friable, nonsticky and nonplastic; few fine, medium and coarse roots; few thin clay films as bridges; gradual irregular boundary.

2C 55 to 60 inches, pale brown (10YR 6/3) very gravelly loamy sand, dark yellowish brown (10YR 3/4), moist; massive; hard, friable, nonsticky and nonplastic.

Notes: Andesitic stones in granitic matrix. Clay bridges in a weak argillic subhorizon. Hydrologic Soil Group B. Similar to Tahoma series, not as well developed. Granite mapped to the east a short distance.

Soil Series: Unnamed (XXX)
Soil Classification: Fine-loamy, mixed, frigid, Ultic Haploxeralfs
Soil Drainage Class: Well drained
Hydrologic Soil Group: B

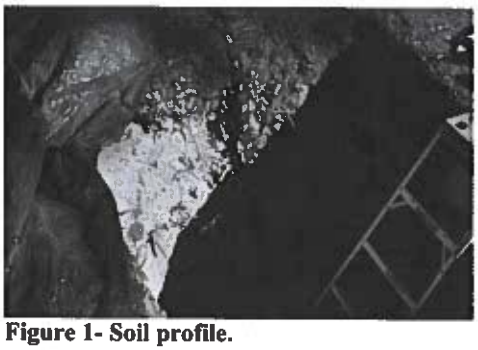


Figure 1- Soil profile.

Figure 2 - Landscape.