

STAFF REPORT

Date: February 10, 2022

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Castro Land Capability Challenge; 960 Sky Way, Placer County, CA; APN 083-254-005; TRPA File Number LCAP2021-0275

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Staff Recommendation:

Staff recommends the TRPA Hearings Officer approve the land capability challenge on the subject parcel. The challenge changes Class 3 - 12,248-sq. ft. (95 percent of parcel) and Class 1a - 593 sq. ft. (5 percent of parcel) to Class 4 - 9,336 sq. ft. (73 percent of parcel), Class 6 - 3,040 sq. ft. (23 percent of parcel) and Class 1a - 482 sq. ft. (4 percent of parcel).

Required Motion:

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

- 1) 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 parcel is shown as Class 5 on TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps). The *Soil Survey of Tahoe Basin Area, California-Nevada* (Rogers, 1974) places the subject parcel in the TdD- Tallac stony coarse sandy loam, 5 to 15 percent slopes (Class 5). A land capability verification determined the entire parcel to be primarily TeE- Tallac stony coarse sandy loam, 15 to 30 percent slopes (Class 3) and a small portion of 1b- SEZ. The updated *Soil Survey of Tahoe Basin Area, California and Nevada* (NRCS, 2007) maps this parcel as map unit 7181- Paige medial sandy loam, 5 to 15 percent slopes and 7182- Paige medial sandy loam, 15 to 30 percent slopes. This parcel has a geomorphic mapping of E1 for Depositional lands; moraine land undifferentiated (Moderate hazard lands). The Tallac soils have a gravelly coarse sandy loam surface texture. Subsurface textures are gravelly coarse sandy loam and very cobbly sandy loam. They are skeletal soils (greater than 35% rock fragments in the particle control section) and do not have argillic soil development. A weakly silica-cemented duripan occurs at depths of 40 to 70 inches.

This land capability challenge was filed by Abigail Edwards of Kaufman Edwards Planning on September 2, 2021. TRPA consultant, Marchel Munnecke visited the site on October 14, 2021. Ms. Munnecke described one pit.

Findings:

One soil pit was excavated by backhoe to 77 inches. The pit was located approximately 25 feet southwest of the southern corner of the residence. The soil is characterized by a sandy loam surface texture, with gravelly coarse sandy loam and very gravelly coarse sandy loam subsurface textures. This soil formed in colluvium over glacial deposits. This soil has greater than 35 percent rock fragments in the particle control section. Soils in this area were mapped as Andisols (soils that have a significant content of volcanic glass) in the 2007 Soil Survey of the Lake Tahoe Basin Area. If this soil has andic properties (requires laboratory analysis) the taxonomy is Medial-skeletal, mixed, frigid Typic Vitrixerands. If the soil lacks andic properties, then the taxonomy would be Loamy-skeletal, mixed, frigid Typic Dystroxerepts. This soil is very deep, well drained, and is a member of Soil Hydrologic Group B. The vegetation is a white fir forest with a few Jeffrey pine trees. The understory has scattered shrubs such as creeping snowberry, serviceberry, huckleberry oak, mountain whitethorn, Sierra current, woolly mule-ears, needle grass, and a Scouler's willow. There is a small ephemeral stream along the eastern side of the parcel. Vegetation along the stream is composed of thimbleberry, fireweed, and bracken fern. In some areas, there is no change in vegetation, with upland vegetation adjacent to the channel (see Appendix C).

This soil is similar to the Tallac soil as mapped in the *Soil Survey of Tahoe Basin Area, California-Nevada* (Rogers, 1974), but it lacks the silica cemented layer at depth. This soil differs from the Inville and Jabu soils because it lacks argillic soil development. This soil differs from the Elmira and Gefo soils because it has greater than 35 percent rocks in the particle control section and has finer soil textures. Therefore, this soil is dissimilar to any soils mapped in the 1974 Soil Survey of the Tahoe Basin and is an unnamed soil (XXX).

This soil has some similarities to the Paige soil mapped on this parcel in the 2007 Soil Survey, but it lacks the dense, root restrictive till layer. In the Paige soil, the densic layer slows water permeability, as evident by redoximorphic features which begin at 48 inches and continues to the surface of the dense till layer at 62 inches. This soil does have till material beginning at 72 inches, but it is not root restrictive.

Table 4 in the *Land-Capability Classification of the Lake Tahoe Basin, California and Nevada* is utilized to classify unnamed soils. Based on Table 4 this parcel is Class 4- XXX 16-30 percent slopes and Class 6- XXX 9 to 16 percent slopes.

The ephemeral stream on the east side of the parcel occurs in a natural swale but is seasonally dry with limited riparian vegetation. This area is mapped as 1b-SEZ based on evidence of surface flow.

The table below summarizes the changes in land capability as concluded by this land capability challenge.

Land Capability District	Area (sq. ft.)	Area (sq. ft.)
	2020 Placer Co. LCV	2022 LCC
Class 3 (TeE, 15 to 30% slopes)	12,248	0
Class 1b (SEZ)	593	482
Class 4 (XXX, 16 to 30 % slopes)	0	9,336
Class 6 (XXX, 0 to 16 % slopes)	0	3,040
<b>Total Parcel Area</b>	<b>12,858</b>	<b>12,858</b>

This staff report was jointly prepared by TRPA consultant, Marchel Munnecke (Pyramid Botanical Consultants) and TRPA Senior Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll, 775-589-5247, or email at [jroll@trpa.gov](mailto:jroll@trpa.gov).

#### BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
<b>Assessor's Parcel Numbers: (APN)</b>	083-254-005
<b>TRPA File No. / Submittal Date:</b>	LCAP2021-0275 / 9/2/2021
<b>Owner or Applicant:</b>	Abigail Edwards
<b>Address:</b>	PO Box 1253, Carnelian Bay, CA 96140

Environmental Setting	
<b>Bailey Soil Mapping Unit<sup>1</sup> / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit</b>	TdD- Tallac stony coarse sandy loam, 5 to 15 percent slopes /HSG B/ E1- Depositional lands; moraine land undifferentiated (Moderate hazard lands). Class 5
<b>Soil Parent Material</b>	Colluvium over glacial deposits, primarily from volcanic parent material.
<b>Slopes and Aspect</b>	12 to 27 percent; sloping east and southeast
<b>Elevation and Datum</b>	6,802 to 6,828 Site topo, Arnett and Associates, 2020
<b>Rock Outcrops and Surface Configuration</b>	This parcel is sloped from the west corner to a broad swale with lower slopes on east side. There are no rock outcrops on the parcel or in the immediate vicinity
<b>Stream Environment Zone</b>	There is an ephemeral stream in center of the swale on the eastern portion of the parcel. This stream supports marginal riparian vegetation but has evidence of seasonal surface flow. Vegetation along the stream is composed of thimbleberry, fireweed, and bracken fern. In some areas, there is no change in

<sup>1</sup> 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.

	vegetation, with upland vegetation adjacent to the channel (see Attachment C).
<b>Vegetation</b>	The vegetation is a white fir forest with a few Jeffrey pine trees. The understory has scattered shrubs such as creeping snowberry, serviceberry, huckleberry oak, mountain whitethorn, Sierra current, woolly mule-ears, needle grass and a Scouler's willow.
<b>Ground Cover Condition</b>	Good (vegetation 75%, duff/mulch 85% cover)
<b>Site Features</b>	Residence, several decks, parking deck, and A/C driveway.

<b>Field Investigation and Procedures</b>	
<b>Consultant and Address</b>	Marchel Munnecke PO Box 1015 Twin Bridges, CA 95735
<b>TRPA Staff Field Dates</b>	October 14, 2021
<b>SEZ Mapping / NRCS Hydric Soil</b>	The SEZ area, a confined ephemeral stream, was defined by signs of active flow and channel morphology. The setback is 10 feet from the terrace.
<b>Number of Soil Pits or Auger Holes and Description Depth</b>	1 pit excavated to 77 inches.
<b>Additional or Repetitive TRPA Sample Locations</b>	NA
<b>Representative Soil Profile Descriptions</b>	See attached soil description. Attachment B.
<b>Areas Not Examined</b>	Residence, several decks, parking deck, and A/C driveway.

<b>TRPA Findings</b>	
<b>2006 Soil Survey Map Unit</b>	7181- Paige medial sandy loam, 5 to 15 percent slopes and 7182- Paige medial sandy loam, 15 to 30 percent slopes. Based on the 1974 soil survey, this soil would be Class 5 and Class 3 soils due to the dense till at a depth of 62 inches.
<b>Consultant Soil Mapping Determination and Rationale</b>	Based on soil characteristics and slope classes, this parcel is mapped as Class 4- XXX, 16-30 percent slopes, Class 6- XXX, 9 to 16 percent slopes, and Class 1b -SEZ.  This soil is similar to the Tallac soil as mapped in the <i>Soil Survey of Tahoe Basin Area, California-Nevada</i> (Rogers, 1974), but it lacks the silica cemented layer at depth. This soil differs from the Inville and Jabu soils

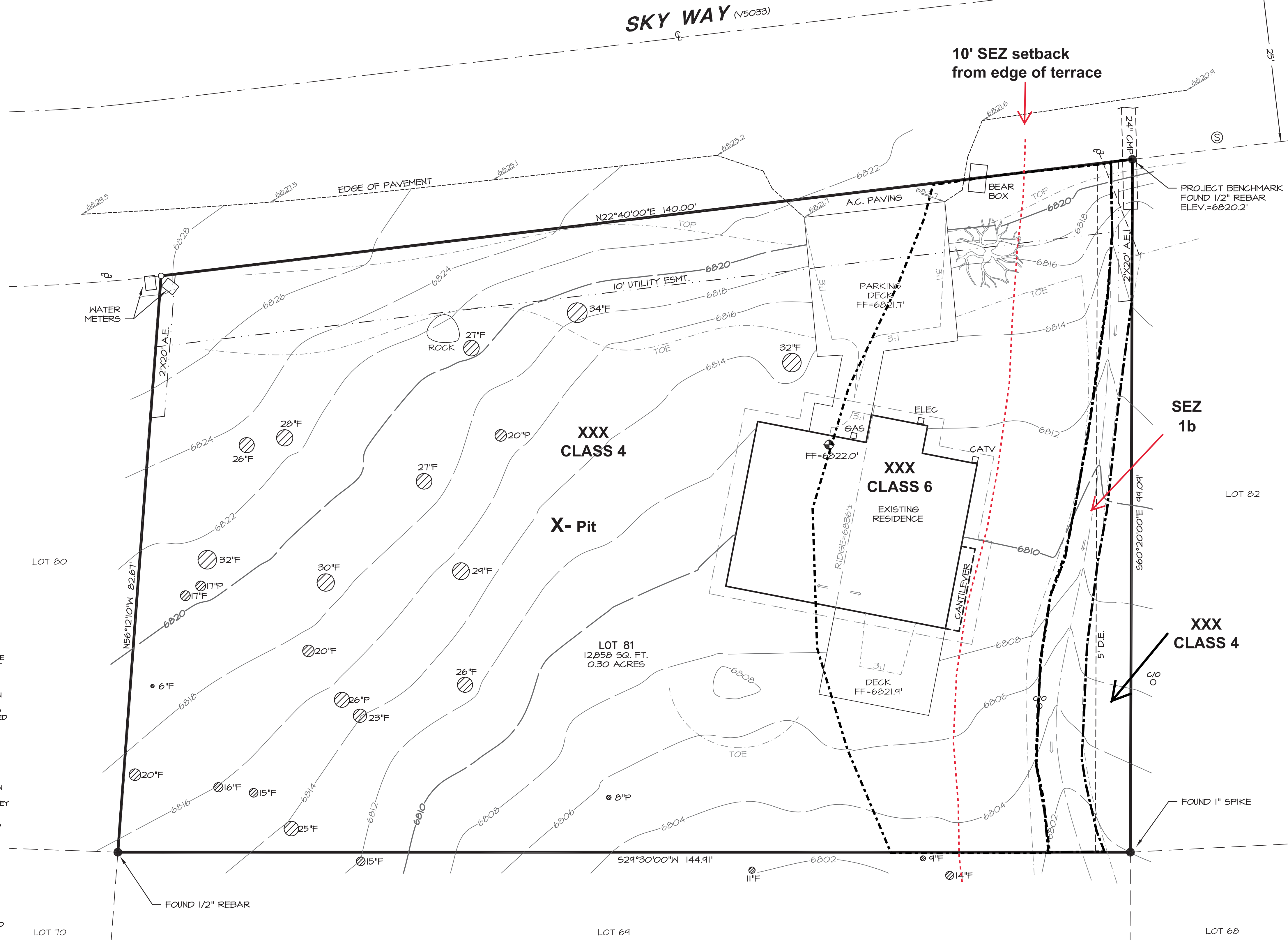
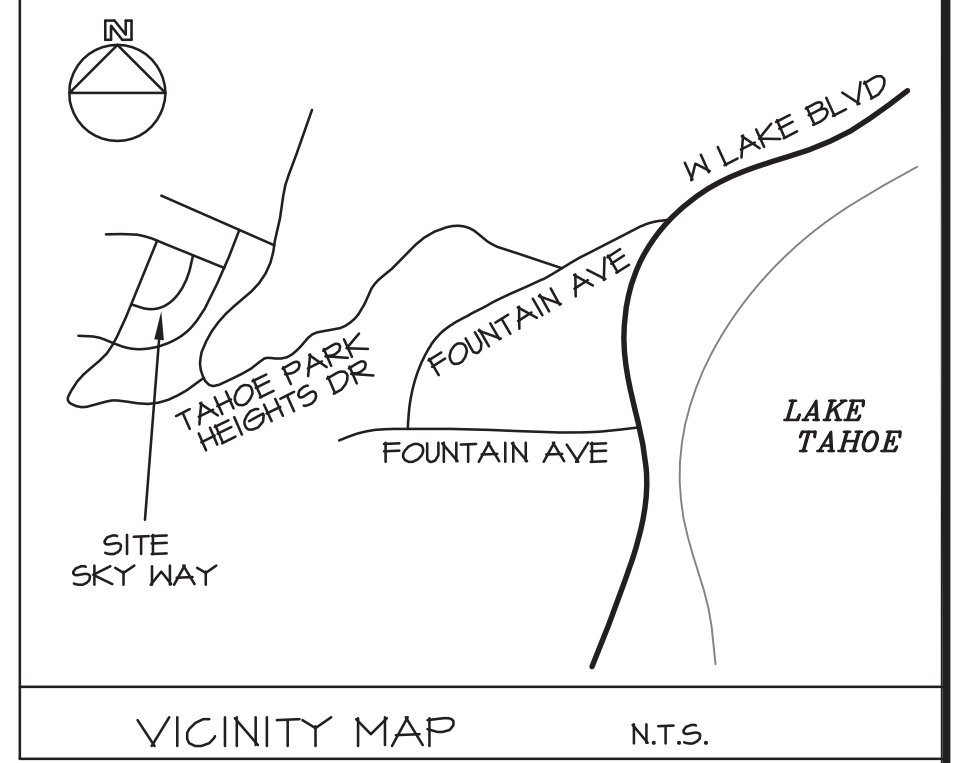
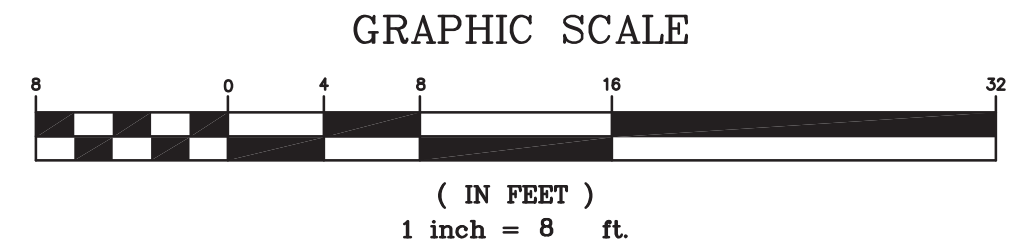
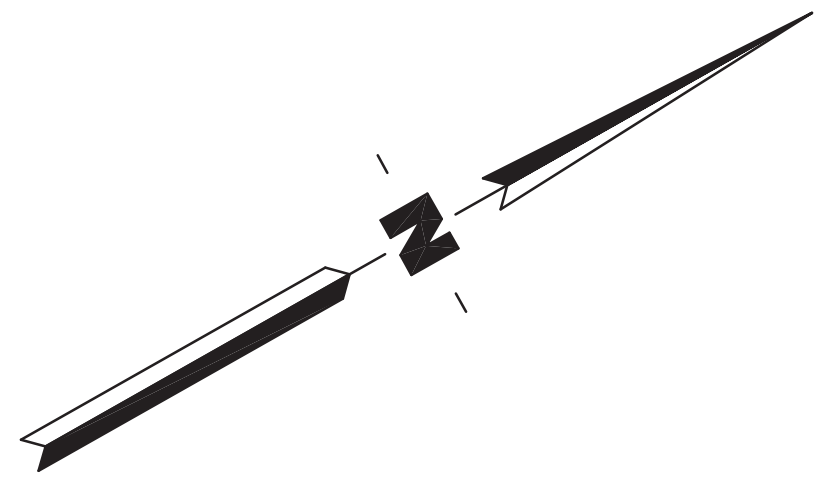
	<p>because it lacks argillic soil development. This soil differs from the Elmira and Gefo soils because it has greater than 35 percent rocks in the particle control section and has finer soil textures. Therefore, this soil is dissimilar to any soils mapped in the 1974 Soil Survey of the Tahoe Basin, and is an unnamed soil (XXX)</p> <p>Table 4 in the <i>Land-Capability Classification of the Lake Tahoe Basin, California and Nevada</i> is utilized to classify unnamed soils. Based on Table 4 this parcel is Class 4- XXX, 16-30 percent slopes and Class 6- XXX, 9 to 16 percent slopes.</p> <p>A small, confined, ephemeral stream channel is present on the east side of the parcel. This channel is in a natural swale but has a seasonally dry channel with limited riparian vegetation. This area is mapped as 1b-SEZ based on evidence of surface flow.</p>
<b>Slope Determination</b>	12 to 27 percent slopes.
<b>TRPA Conclusion(s)</b>	TRPA concurs with consultants' determination and rationale above.
<b>Applicable Area</b>	See Attachment A.

Attachments:

- A. Site topo with land capability delineations
- B. Soil description
- C. Site photographs

Attachment A

Site topo with land capability delineations



**NOTES:**

- BEFORE DRAWING PLANS, PROPERTY OWNERS AND THEIR REPRESENTATIVES SHOULD REVIEW THIS MAP FOR CONSISTENCY WITH ASSESSOR AND AGENCY RECORDS. DESIGNER TO CHECK FOR ZONING, SETBACKS, ASSOCIATION DESIGN AND GOVERNING REQUIREMENTS, OPEN SPACE REQUIREMENTS, HEIGHT RESTRICTIONS, ETC. AN INVESTIGATIVE VISIT TO THE SITE BY THE DESIGNER AND/OR A SITE ASSESSMENT TO DETERMINE LEGALLY EXISTING COVERAGE AND LAND CAPABILITY THRESHOLDS, AND TO VERIFY TOPOGRAPHY SHOULD BE CONDUCTED PRIOR TO RELIANCE ON THIS PLAN. LAND COVERAGES SHOWN DO NOT REFLECT ANY LAND COVERAGE CREDITS THAT MAY BE APPLICABLE BY TRPA FOR PERVIOUS DECKING, PAVEMENT, CONCRETE, ETC. ANY OBSERVED DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE SURVEYOR PRIOR TO PROCEEDING WITH DESIGN/APPLICATION OR PERMITTING OF A PROJECT.
- TREES SMALLER THAN 8" IN DIAMETER HAVE NOT BEEN SHOWN.
- THE VERTICAL DATUM OF THIS SURVEY IS BASED ON GOOGLE EARTH (NAD83/EGM16). THE CONTOUR INTERVAL IS 2 FEET. THE ACCURACY OF THIS SURVEY IS ONE-HALF CONTOUR INTERVAL.
- FIELD WORK FOR THIS SURVEY WAS ACCOMPLISHED ON 10/14/20.
- ALL EASEMENTS OF RECORD PER THE SUBDIVISION TRACT MAP HAVE BEEN SHOWN. NO INVESTIGATION HAS BEEN MADE FOR EASEMENTS OF RECORD, ENCUMBRANCES, COVENANTS AND CONDITIONS OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS WHICH A CURRENT TITLE SEARCH MAY DISCLOSE, OTHER THAN THOSE SHOWN HEREON.
- THIS MAP INDICATES THE LOCATION OF SURFACE UTILITIES DISCOVERED DURING THE COURSE OF THIS SURVEY. UTILITY COMPANIES SHOULD BE CONSULTED FOR LOCATION OF UNDERGROUND FACILITIES OR OTHER UTILITIES NOT SHOWN HEREON.
- THE BOUNDARY LINES AND PROPERTY CORNERS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE TAKEN FROM RECORD DATA. A BOUNDARY SURVEY TO RE-MONUMENT MISSING PROPERTY CORNERS SHOULD BE DONE PRIOR TO RELIANCE ON THIS PLAN FOR CONSTRUCTION.
- THE EXISTING BUILDING FOOTPRINT SHOWN IS INTENDED TO BE USED FOR LAND COVERAGE PURPOSES ONLY. SAID FOOTPRINT IS REPRESENTATIVE OF THE EXTERIOR STRUCTURE. DESIGNER AND CONTRACTOR TO VERIFY AS-BUILT INFORMATION AND ACCOUNT FOR VARIANCES DUE TO SIDING, TRIM, AND OTHER BUILDING ELEMENTS.

**LEGEND**

- FOUND MONUMENT AS NOTED
- NOTHING FOUND OR SET
- SPOT ELEVATION
- ⊙ SEWER MANHOLE
- ⊕ POWER POLE
- CLEAN OUT
- ⊕ FIRE HYDRANT
- UTILITY AS NOTED
- A.E. ANCHOR EASEMENT
- D.E. DRAINAGE EASEMENT
- ⊙ 12" P TREE, DIAMETER & TYPE  
P=PINE, F=FIR, C=CEDAR
- ⊕ WILLOW TREE

**COVERAGE CALCULATIONS**

LOT AREA = 12,958 S.F. (0.30 AC.)

**EXISTING LAND COVERAGE**

RESIDENCE	800 S.F.
PAVED DRIVEWAY	64 S.F.
ENTRANCE	NOT A PART
AREA	100 S.F. (10%)

\* CALCULATED WITH 3:1 HEIGHT REDUCTION

**OFFSITE COVERAGE**

PAVED DRIVEWAY	241 S.F.
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THIS DRAWING WAS PREPARED EXCLUSIVELY FOR STEVEN & KIMBERLY CASTRO, ORLANDO ENTERPRISES TAHOE INC. AND THEIR ARCHITECT/ENGINEER AND ACCURATELY REPRESENTS TO THE BEST OF OUR KNOWLEDGE, THE MATTERS CONTAINED HEREIN AS OF THE DATE STATED HEREON. THIS DRAWING MAY NOT BE RELIED UPON BY ANY OTHER PERSON OR ENTITY FOR ANY PURPOSE WHATSOEVER. THIS MAP IS VALID FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ISSUE. SUBSEQUENT USE OF THE MAP WILL REQUIRE A FIELD SITE VISIT AND MAPPING UPDATES.

KENNETH R. ARNETT  
PROFESSIONAL LAND SURVEYOR  
PLS 5891



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Ken Arnett, PLS  
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author of this  
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Date: 2020-12-17  
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REVISIONS	BY

**IMPERVIOUS COVERAGE SURVEY**  
LOT 81 TALMONT ESTATES UNIT NO. 1  
APN 083-254-005 PLACER COUNTY CALIFORNIA  
ADDRESS: 960 SKY WAY, TAHOE CITY, CA

ARNETT & ASSOCIATES, INC.  
LAND SURVEYORS & PLANNERS  
150 COUNTRY CLUB DR. NO. 15, INCLINE VILLAGE, NEVADA 89441  
NORTH TAHOE (775) 831-8858  
SOUTH TAHOE (530) 843-3068  
TRUCKEE (530) 587-0822

DATE	12/17/20
SCALE	1" = 8'
DRAWN	JDT
JOB	00-08-33
FILE	TOP.DWG
SHEET	1

OF 1 SHEETS

Attachment B

Soil description



**Steven J. and Kimberly D. Castro Land Capability Challenge**  
**February 17, 2022, Hearing Officer Meeting**

960 Sky Way,  
Tahoe City, Placer County, CA 96145.  
APN 083-254-005, LCAP2021-0275.

**Soil Profile Descriptions**

**Marchel Munnecke**

**Field Date: 10-8-2021**



**Pit 083-254-005:**

**Soil Classification:** Medial-skeletal, mixed, Typic Vitrixerands (Some assumptions, made due to lack of lab analysis, based on soils mapped in this area in 2007 Soil Survey of the Tahoe Basin Area, California and Nevada.)

**Soil Series:** XXX, Capability Class 4 and Class 6 based on slopes.

**Drainage Class:** Well Drained

**Hydrologic Group:** B

**Parent Material:** Colluvium from volcanic parent material over till deposits.

**Slope:** 19 %    **Aspect:** East

## **Description:**

- A1 0 to 3 inches; sandy loam, dark brown (10YR 3/3), very dark brown (10YR 2/2) moist; moderate medium granular structure; soft, very friable, nonsticky and nonplastic; many very fine to fine roots; many very fine to fine irregular pores; 5 percent gravels; gradual wavy boundary.
- A2 3 to 7 inches; gravelly coarse sandy loam, dark yellowish brown (10YR 4/4), dark brown (10YR 3/3) moist; moderate coarse granular structure; soft, very friable, nonsticky and nonplastic; many very fine to fine and common medium roots; many very fine to fine irregular pores and many fine to medium tubular pores; 15 percent gravel and 5 percent cobbles; gradual wavy boundary.
- AB 7 to 12 inches; gravelly coarse sandy loam, yellowish brown (10YR 5/4), dark brown (7.5YR 3/3) moist; moderate medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine to fine and few medium to coarse roots; many very fine and fine irregular and tubular pores; 15 percent gravel, 15 percent cobbles; gradual wavy boundary.
- Bw1 12 to 17 inches; very gravelly coarse sandy loam, yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/6) moist; moderate medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine to medium roots; many very fine and fine irregular pores; 20 percent gravel, 15 percent cobbles; gradual wavy boundary.
- Bw2 17 to 50 inches; very gravelly coarse sandy loam, yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine to fine and common medium roots; many very fine and fine irregular pores; 40 percent gravel, 5 percent cobbles; gradual wavy boundary.
- Bw3 50 to 56 inches; very gravelly coarse sandy loam, yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium roots; many very fine and fine irregular pores; 35 percent gravel, 2 percent cobbles; gradual wavy boundary.
- Bw4 56 to 72 inches; very gravelly coarse sandy loam, yellowish brown (10YR 6/3), brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium roots; many very fine and fine irregular and tubular pores; 35 percent gravel, 1 percent cobbles; gradual wavy boundary.

C 72-77+ inches; coarse sandy loam, variegated very pale brown (10YR 7/3) and yellow (10YR 7/6), dark yellowish brown (10YR 4/4), rubbed, moist; massive; moderately hard, firm, slightly sticky and slightly plastic; few fine and medium roots; common very fine and fine irregular pores; 10 percent gravel; gradual wavy boundary.

A2 horizon has low bulk density. C horizon is not root restrictive, but is till material.

Attachment C

Site photographs

**PHOTOGRAPHS (Addendum to APN 083-254-005 February 22, 2022 Staff Summary)**



Photo 1 – a. Pit. Photo 1- b. View looking across parcel to the east.



Photo 2 – a. View from east to west across the parcel. The ephemeral channel is visible in foreground, and Class 6 area is around house and downslope (left of photo).



Photo 3 – a. SEZ below road by culver outlet. Photo 3- b. SEZ on lower parcel.



Photo 4 – a. View from driveway and Sky Way to south.

*imagine. plan. achieve.*



Image 3 – Google Earth image of area.

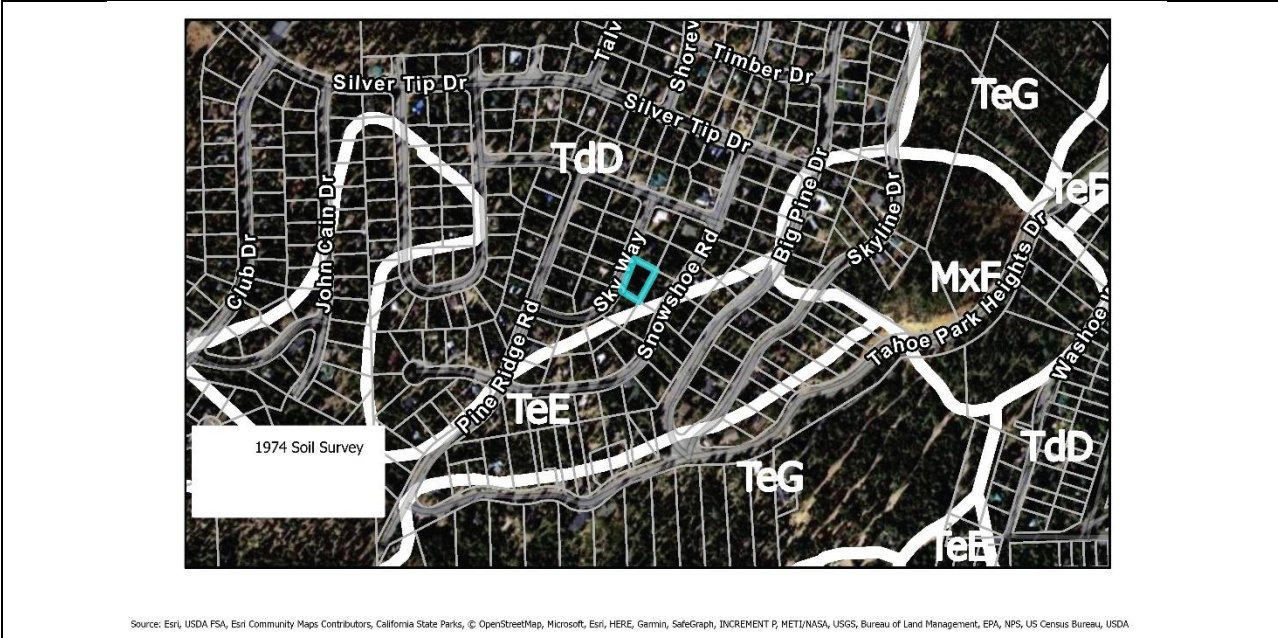


Image 5– 1974 Soil Mapping with parcel 083-254-005 shown in blue.