TAHOE REGIONAL PLANNING AGENCY

Mail
PO Box 5310
Stateline, NV 89449-5310

Location
128 Market Street
Stateline, NV 89449

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

STAFF REPORT

Date: February 8, 2023

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Cohen Trust Land Capability Challenge
3195 Edgewater Drive, Placer County, California
APN: 093-072-001, TRPA File No: LCAP2023-0352

Proposed Action:
Hearings Officer review and approve the proposed Land Capability Challenge.

Staff Recommendation:
Staff recommends the TRPA Hearings Officer approve the land capability challenge on the subject parcel. The challenge would change the land capability of Class 5 (but verified as Class 3) to Class 6 (100% of parcel). This change is itemized on the table on Page 3 and depicted on a map included in Attachment C.

Background:
The subject 0.26-acre parcel is shown as Class 5 on Tahoe Regional Planning Agency (TRPA) Land Capability Overlay Maps (aka Bailey land Capability maps). The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974} identifies this parcel as Jabu coarse sandy loam (JeB), 0 to 5 percent slopes. Jabu soils formed from mixed alluvium over a fine-textured lakebed deposit, which is considered a restricting (perching) layer. The 2006 soil survey update indicates this parcel is likely Kingsbeach stony sandy loam, 2 to 15 percent slopes (map unit 7161). The Kingsbeach soil type consists of andesite colluvium over lacustrine deposits. It is a stony sandy loam to loam in the upper part. The subsoils have sufficient clay accumulation to qualify as an argillic horizon. Underlying substratum typically consists of a dense clay loam layer formed from ancient lake deposits. The vicinity of the parcel has a geomorphic mapping of / E-2 for Depositional lands: Outwash, till, and lake deposits (low hazard lands).

TRPA land capability map shows the entire parcel as Class 5; however, the subject parcel received a land capability verification (LCV) of Class 3 on November 27, 2023 (included in Placer County site assessment). The LCV found the property to have slopes 5 to 15%, which correlates to Jabu coarse sandy loam (JeD). A TRPA land capability challenge (LCAP2023-0352) was filed by the property owner and their Basin Strategies Planning & Consulting on December 07, 2023. On December 13, 2023, TRPA Contractor Terra Science, Inc. (Phil Scoles, soil scientist) conducted a site visit to document site conditions and describe the soil profile for a single backhoe-dug pit

located in the south-center part of the parcel. While there was snow present on portions of the property, the field investigation utilized a large snow-free portion of the south lawn. The road frontage along Edgewater Drive has artificially steep slopes with rock revetments. The soil pit was dug south of the residence – a large lawn area that appears only superficially disturbed (for lawn installation) and representative of the parcel. The TRPA contractor examined the soil profile for soil texture, ped structures; soil horizon depths; root distribution; depth to bedrock, and conducted a walking tour of the remaining portion of the property. The TRPA contractor correlated the field findings and incorporated such detail into this staff report.

Findings:
The subject parcel consists of a south sloping hillside formed from andesite and colluvial materials deposited atop ancient shoreline deposit of cobbles, stones and boulders. Bedrock occurs below the ancient shoreline deposit. The land surface has natural 9 to 14% slopes (dips to south), which is consistent with the Placer County LCV slopes of 5 to 15%. The parcel has a narrow band of artificially steepened land adjacent to Edgewater Drive. For land capability matters, TRPA utilizes the historic (natural) slopes, which were determined to be 9%. The parcel contains a two-story house positioned in the north-center and landscaping on south and east sides of the residence. The majority of the landscaping consists of lawn with ornamental shrubs and trees. Surface stones and boulders are generally absent. Large boulders observed in the soil pit are not connected to bedrock. Where present, native vegetation consists of Jeffrey pine, white fir, incense cedar, greenleaf manzanita, sagebrush, and white thorn.

This land capability challenge utilized a single, backhoe-dug test pit, located about 15 feet south of the residence (deck), 40 feet west of the east property line, and 35 feet north of the south property line. The parent material is a volcanic debris flow (colluvium) that that has been reworked by ancient wave action (when lake water levels were impounded and significantly higher than current high water line). Observed soil textures are gravelly sandy loam to loamy fine sand in the upper part, and very cobbly-bouldery fine sand in the lower part. The soil lacks significant soil formation (no cambic horizon). That is, the soil structure in the upper part is associated with organic matter accumulation, while the lower part consists of single grain (sand) and wave-washed rocks. Fine and medium roots extending to a depth of 45 inches, and fine roots continue to 60 inches. The observed soil is somewhat excessively drained and has a hydrologic soil group rating of HSG-A. No indication of seasonal ground water or other root restriction within the soil profile.

The observed soils are unlike the mapped Jabu series (which has a dense, subsurface layer that perches seasonal water). It is also unlike the rocky Tallac series that has a silica-cemented layer in the subsoil. It is also dissimilar to the Jorge-Tahoma soils due to the lack of in-situ soil formation. The Jorge-Tahoma soils have angular rocks due to colluvial movement (gravity influence movement). Instead, the original parent material (lahar and associated colluvium) reflects modification by ancient wave action. In prehistoric times, Lake Tahoe was impounded by glacial ice dams and/or volcanic flows that raised water levels significantly and created shorelines. Thus, the subsoil rocks are smooth and rounded by centuries of wave water movement. The observed soil is an unnamed inclusion, rather than any of the series described in the 1974 Soil Survey of the Lake Tahoe Basin. In accordance with Table 4 of Land-Capability

Classification of the Lake Tahoe Basin, California-Nevada (R.G. Bailey, 1974), the land capability rating for the observed soil is Class 6 for slopes 0 to 16% (unnamed, XXX). The table below summarizes the soil types, slope classes, as well as changes in land capability concluded by this land capability challenge.

Land Capability District	Slope Class (Range)	2023 Placer Land Capability Verif. Area (sq. ft.)	2023 Land Cap. Challenge Area (sq. ft.)	Net Change Total Area (sq. ft.)
Class 3 (Jabu, JeD)	5 to 15%	11,389	0	-11,389
Class 6 (XXX)	0 to 16%	0	11,389	+11,389
Total Parcel Area		**11,389**	**11,389**	

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 and TRPA land capability map
B. Site photographs (December 13, 2023)
C. January 2024 land capability challenge recommendation map
D. TRPA Contractor's soil descriptions (1 test pit)

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel No. (APN):	093-072-001
TRPA File No. / Submittal Date:	LCAP2023-0357 / December 07, 2023
Owner or Applicant:	Cohen Trust, owner; Post Office Box 51130, Pacific Grove, CA 93950; Basin Strategies Planning & Consulting (Karin Hoida, Representative); 1046 Lucerne Way, Incline Village, NV 89451.
Site Address:	3195 Edgewater Drive, Tahoe City (Dollar Point); Placer County, CA.; T. 16N, R. 17E, SW/ 4 of SE1/4 of Sec. 33.

Environmental Setting	
Bailey Soil Mapping Unit / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	Jabu coarse sandy loam, 0 to 5% slopes (JeB, HSG-D). Verified as Jabu, 5 to 15% slopes (JeD, HSG-D). E-2 Depositional lands: Outwash, till, and lake deposits (low hazard lands as per 1974 Bailey Land Capability Report)
Landform and Soil Parent Material	Colluvium over stony-bouldery ancient shoreline.
Slopes and Aspect	9 to 14% slopes (southwest aspect), excludes artificially steepened road slopes.
Elevation and Datum	6282 to 6297 feet (Lake Tahoe datum); Webb Land Surveying topo. survey (May 03, 2023)
Rock Outcrops and Surface Configuration	No outcrops,<1% surface stones and boulders. Subsurface boulders are not connected to bedrock.
SEZ Mapping / NRCS Hydric Soil	None. Roadside along south and east property lines lack SEZ vegetation.
Vegetation	Jeffrey pine, white fir, incense cedar, ornamental trees, ornamental shrubs, plus lawn and forbs.
Ground Cover Condition	Good (vegetation 80 to 90%, duff 10 to 20%)
Site Features	Residence, asphalt driveway, decks, rock steps, and landscaping.

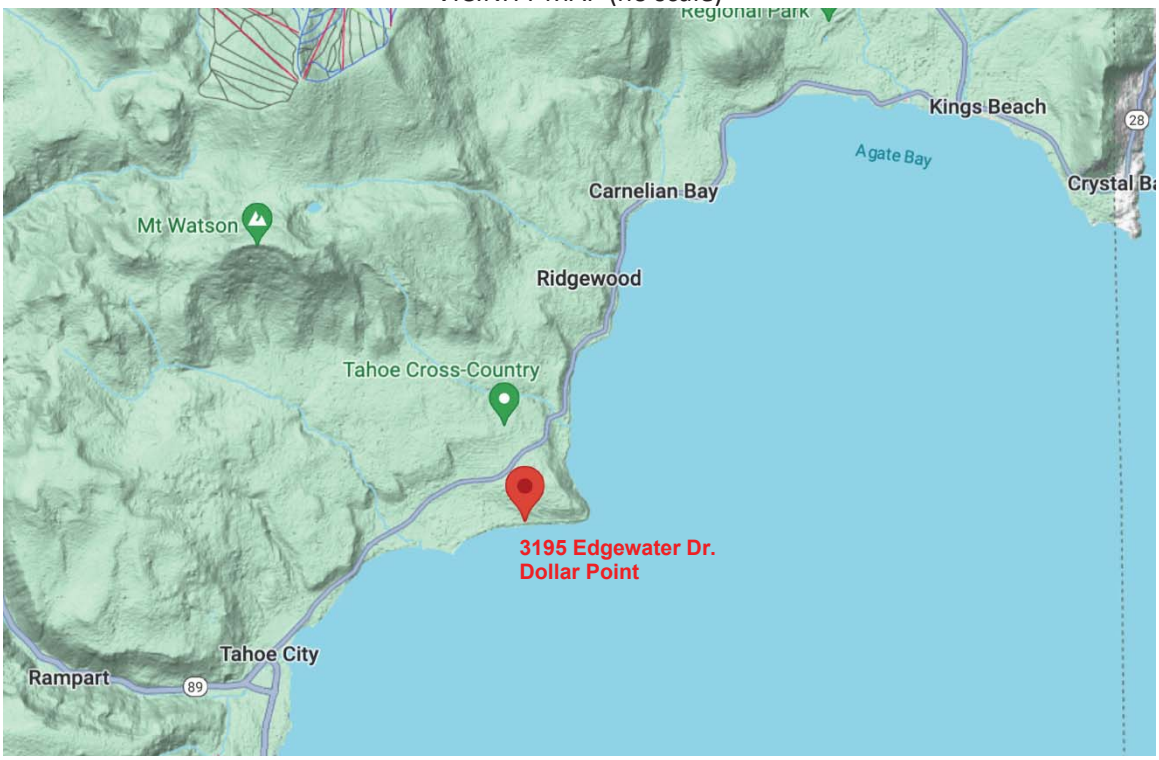
Field Investigation and Procedures	
TRPA Contractor and Address	Phil Scoles, Terra Science, Inc. (soil scientist) Post Office Box 2100; Portland, OR 97208-2100
Consultant Field Date	December 13, 2023. One soil pit dug to 60 inches. Soils are similar to nearby land capability challenges approved for this vicinity.
Areas Not Examined	Residence, driveway, deck and rock landscaping.

TRPA Findings	
2006 Soil Survey Map Unit[1]	Kingsbeach stony sandy loam (Fine-loamy, isotic, frigid Ultic Palexeralfs), 2 to 15 percent slopes (map unit 7161). Class 6, HSG-B.
Contractor Soil Mapping Determination and Rationale	The soil is deeper than the mapped Jabu series and unlike the rocky Tallac series. The upper soil layers contain colluvial materials (eroded from higher ground), while the lower layers are wave-influence andesitic parent materials. This soil exhibits less soil formation than the Jorge-Tahoma complex, as well as it contains wave-washed gravel, stones and boulders. It is somewhat excessively drained (HSG-A). As such, this soil is an unnamed inclusion (designated as XXX). See staff report and TRPA contractor's profile description.
Slope Determination	9 to 14%. Land immediately adjacent to Edgewater Drive is artificially steepened by original street construction (circa 1970s). See land capability map based upon May 03, 2023 Webb Land Surveying topographic map.
TRPA Conclusion(s)	Soil does not match 1974 soil survey (Jabu coarse sandy loam, 0 to 5% slopes, JeB) or Placer County verified Jabu coarse sandy loam, 5 to 15% slopes (JeD). It is an unnamed soil consisting of colluvium atop an ancient, rocky shoreline. The land capability rating for the unnamed soil (XXX) is Class 6 for 0 to 16% slopes.
Applicable Area	Entire site (see map, Attachment C, January, 2024).

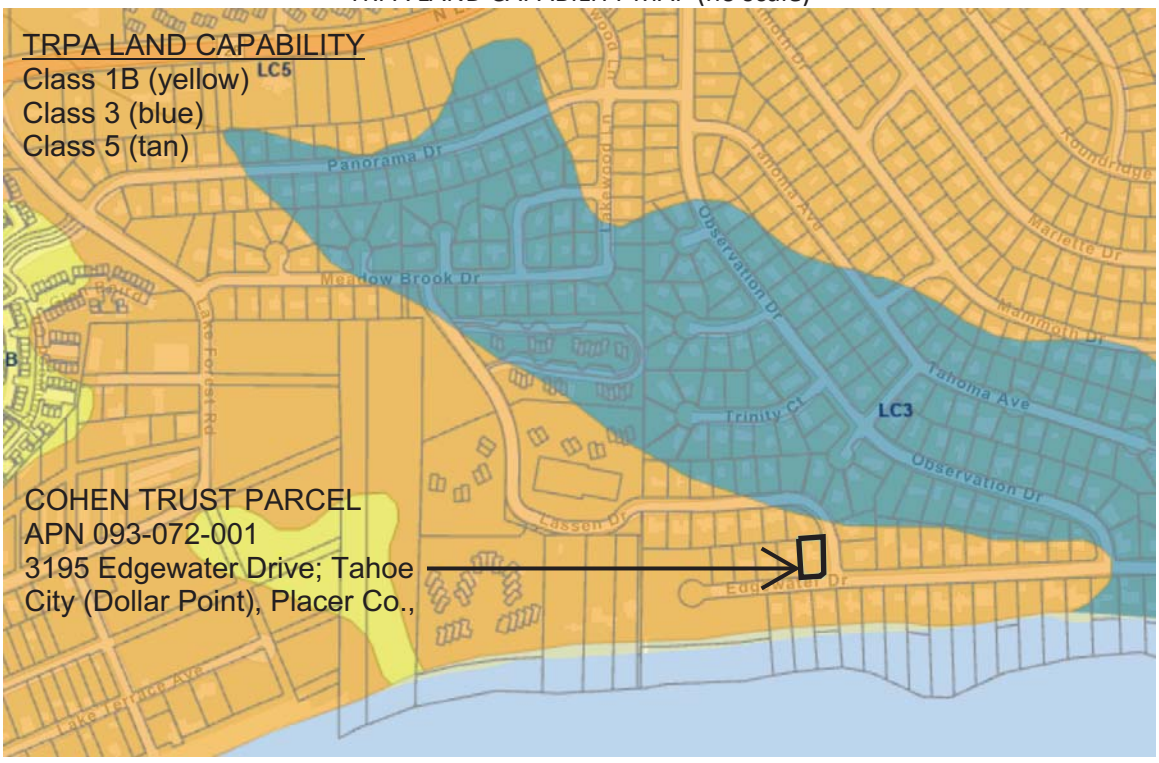
[1] TRPA currently relies upon the Soil Survey of Tahoe Basin, California-Nevada (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon. The 2006 soil survey update has not yet been formally adopted by TRPA for use with land capability matters.

Attachment A
Vicinity Map and TRPA Land Capability Map

VICINITY MAP (no scale)



TRPA LAND CAPABILITY MAP (no scale)



Attachment B
Site Photographs (December 13, 2023)

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3195 Edgewater Drive, Tahoe City (Dollar Pt.), Cal. (Cohen Trust Parcel; APN: 093-072-001)

Photo 1 – View south-center of property where mini-excavator is positioning to dig the soil pit. The land surface drops off abruptly (lower right), because it was over-steepened from street construction (circa 1970s). Vegetation consists of Jeffrey pine, white fir, ornamental trees and shrubs, plus lawn.

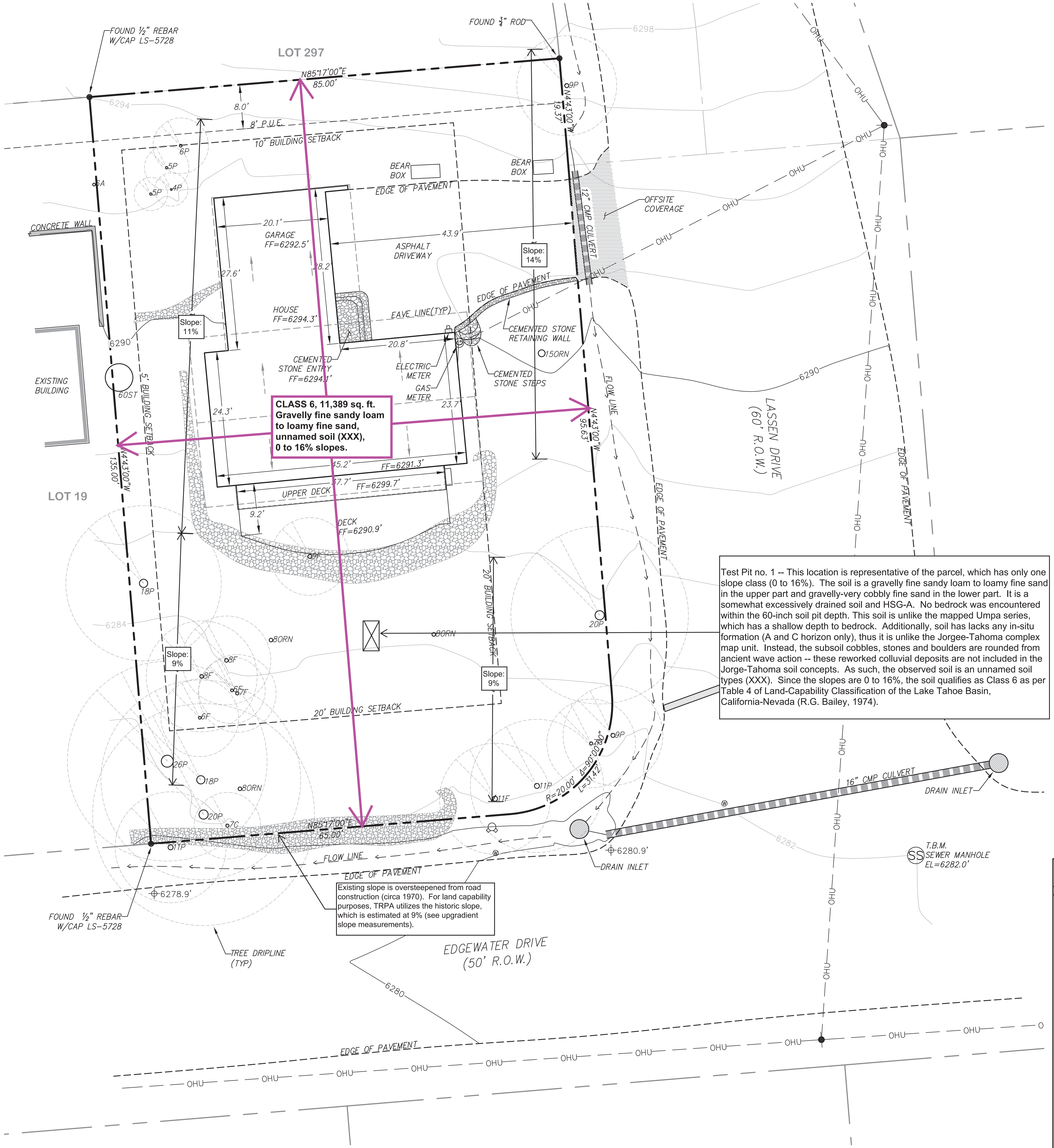
Photo 2 – View west to northwest from southeast property corner (Lassen Drive situated behind photographer). The foreground shows the roadside ditch, which is partially vegetated, but lacking any SEZ species. While there is an artificially steepened slope along Edgewater Drive (beyond left side of photo); however, TRPA evaluates historic slope condition for land capability purposes.

Photo 3 – View to southeast at southeast edge of parcel. The yard along Edgewater Drive (upper background) and Lassen Drive (left side of photo) is mostly landscaped with lawn, plus ornamental shrubs and trees. Along with the deep but rocky soils, the property has 9 to 14% slopes. As such the land capability for this parcel qualifies as Class 6.

Photo 4 – View to northwest at south portion of parcel where Test Pit no. 1 was excavated by backhoe. The pit was located about 35 feet north of Edgewater Drive and 40 feet east of the west property line. Slopes are 9% in this vicinity. Side cast material for the test pit shows the rounded stones and boulders that increase with depth (no root restriction nor evidence of seasonal water table).

	
Photo 5 – Close-up view of Test Pit no. 1 showing gravelly-sandy surface layer with many fine and medium roots. Fine roots extend into lower part of profile (60 in. depth). The rockiness of the soil becomes stony and bouldery at 25 inches and increases with depth. These coarse fragments are rounded and smooth, which indicates such area was an ancient shoreline of Lake Tahoe. This soil is unlike the mapped Umpa series, and unlike the Jorge-Tahoma soil types due to the wave-influenced substratum. This is an unnamed inclusion (XXX). For slopes 0 to 16%, this soil rates as Class 6, as per Table 4 of the Bailey land capability system.	Photo 6 – View west side of residence (reddish brown building at right), where the natural surface appears slightly modified by house construction (circa 1970s) and installation of perimeter BMPs (surface stones in center foreground). For land capability purposes, the natural slopes are relied upon. The slope on this edge of the parcel is 11%. Such slope qualifies this portion of the property as Class 6 for slopes 0 to 16%.

Attachment C
January 2024 Land Capability Challenge Recommendation Map

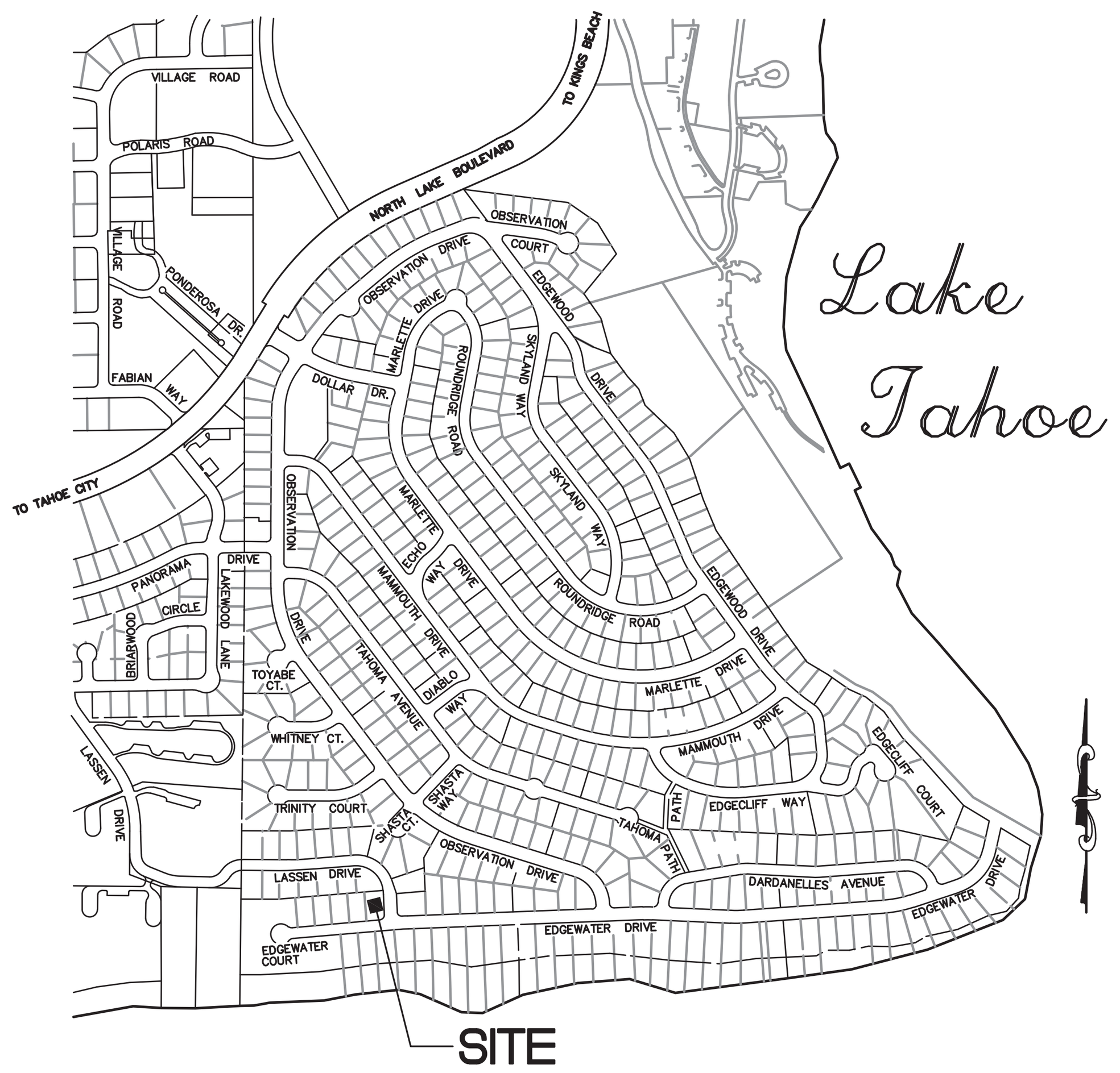


TRPA Land Capability Challenge for LCAP2023-0352; APN 093-072-001
3195 Edgewater Drive
Tahoe City (Dollar Point), Placer County, Cal.

Field Investigation: December 13, 2023
Data Analysis: January 31, 2024
Conducted By: P.Scoles (Soil Scientist)

GRAPHIC SCALE
1 INCH = 10 FEET

VICINITY MAP



NOTES

1. THE BOUNDARY SHOWN HEREON IS FROM A FIELD SURVEY COMPILED FROM DOLLAR POINT UNIT NO. 1 SUBDIVISION, SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS WHICH AN ACCURATE & CURRENT TITLE SEARCH MAY DISCLOSE.
2. NO INVESTIGATION CONCERNING ENVIRONMENTAL & SUBSURFACE CONDITIONS, OR THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES WHICH MAY AFFECT THE USE OR DEVELOPMENT OF THIS PROPERTY WAS MADE AS A PART OF THIS SURVEY.
3. NO INVESTIGATION CONCERNING THE LOCATION OF OR EXISTENCE OF UTILITY SERVICE LINES TO THIS PROPERTY WAS MADE AS A PART OF THIS SURVEY.
4. ALL UTILITY LOCATIONS SHOULD BE FIELD VERIFIED PRIOR TO ANY DESIGN OR CONSTRUCTION.
5. DATE OF FIELD WORK APRIL 28, 2023.
6. THE TOPOGRAPHY SHOWN HEREON MEETS THE STANDARDS OF THE AMERICAN CONGRESS OF SURVEYING & MAPPING WITH 90% OF THE CONTOURS TO BE WITHIN PLUS OR MINUS ONE HALF OF A CONTOUR INTERVAL.
7. VERTICAL DATUM IS FROM GOOGLE EARTH, WGS-84.
8. T.B.M.=(SEWER MANHOLE AT THE INTERSECTION OF EDGEWATER DRIVE & LASSEN DRIVE), ELEV=6282.0'
9. BUILDING SETBACKS SHOULD BE VERIFIED PRIOR TO ANY DESIGN.
10. LAND CAPABILITY CLASSIFICATION IS FROM THE TAHOE LAND GUIDE, DATED SEPTEMBER 1981 & MUST BE VERIFIED BY THE T.R.P.A.

LEGEND

500	10' CONTOUR
	2' CONTOUR
	PROPERTY LINE
	RETAINING WALL
	FLOWLINE
OHU	OVERHEAD UTILITIES
SS	SANITARY SEWER MANHOLE
W	WATER VALVE
	SANITARY SEWER CLEANOUT
	MONUMENT
100.00 ASSUMED	CONTROL/TRAVERSE POINT
	TEMPORARY BENCH MARK
#P	TREE TRUNK, DIAM., PINE
#F	TREE TRUNK, DIAM., FIR
#A	TREE TRUNK, DIAM., ASPEN
#C	TREE TRUNK, DIAM., CEDAR
#SN	TREE TRUNK, DIAM., SNAG
#ST	TREE TRUNK, DIAM., STUMP
#ORN	TREE TRUNK, DIAM., ORNAMENTAL
ELEV	SPOT ELEVATION
P.U.E.	PUBLIC UTILITY EASEMENT
M.P.E.	MULTI-PURPOSE EASEMENT

EXISTING COVERAGE

LAND CLASSIFICATIONS

CLASS PER TRPA	LOT AREA	11,389 SF	X	XX%	=	SQ.FT.
TOTALS:	093-072-001	XX SF		ALLOWED		SQ.FT.

LAND COVERAGE PER CLASSIFICATION

CLASS PER TRPA	
HOUSE	1,645 SF
ASPHALT DRIVEWAY	993 SF
FRONT DECK/STAIR	484 SF
CEMENTED STONE ENTRY	52 SF
CEMENTED STONE STAIRS	13 SF
TOTAL	3,187 SQ.FT.
TOTAL EXISTING COVERAGE	3,187 SQ.FT.
ALLOWED	– XXXXX SQ.FT.
OVERCOVERAGE/REMAINDER	XXXXXX SQ.FT.
OFFSITE LAND COVERAGE	
OFFSITE ASPHALT DRIVEWAY	169 SF

PRELIMINARY

PROJECT INFORMATION

OWNER: JULIA COHEN & JOE HABER, FOR; THE COHEN TRUST
PO BOX 91130
PACIFIC GROVE, CA. 93950

PROJECT ADDRESS: 3195 EDGEWATER DRIVE
TAHOE CITY, CA

APN: 093-072-001

RECORD INFORMATION: LOT 18, DOLLAR POINT UNIT NO. 1 SUBDIVISION
BOOK F OF MAPS AT PAGE 73, O.R.P.C

		CHECKED BY	REVISION	DATE	DESCRIPTION	BY
DATABASE BY:	MW					
DB CHECKED BY:	MW					
DESIGN BY:	MW					
DRAFTED BY:	ebaiv					
DRAWING NAME:	362800–to1.dwg					
DIRECTORY:	JOBS					
COPYRIGHT 2023 ©						

COHEN TRUST, PROPERTY
3195 EDGEWATER DRIVE
BOUNDARY & TOPO. SURVEY
PLACER COUNTY — CALIFORNIA

DATA DATE 4/28/2023
PLOT DATE 5/3/2023
SCALE
HORIZONTAL 1"=10'
VERTICAL 2' CONTOURS

WLS
WEBB LAND SURVEYING, INC.
LAND SURVEYING SERVICES
PLANNING
3190 Fabian Way, Unit C
Tahoe City, CA 96145
P.O. Box 1222
Carnelian Bay, CA 96140
(530) 581-2599
FAX (530) 581-3231
matt@webblandsurveying.com

SHEET NUMBER: 1 of 1
FILE NUMBER: 3628.00

Attachment D
TRPA Contractor's Soil Descriptions (1 test pit)

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3195 Edgewater Drive (Cohen Trust Parcel; APN: 093-072-001);
Tahoe City (Dollar Point), Placer County, Calif. – Test Pit 1 (TP-1)

Photo A – View of soil profile showing bottom depth of 60 inches. Fine root penetration to bottom. No indication of seasonal water table.

Photo B – View southeast at Test Pit 1, located 25 feet south of residence (deck), 40 feet west of east property line and 35 feet north of south property line. Pit location is representative of parcel and has a 9% slope. The soil layers are composed of mixed colluvium over ancient beach deposit. Profile has 5 to 20% rounded stones and boulders (lower right corner).

Layer	Depth (In.)	Color (moist)	Soil Properties / Features
Oi	0 to 1	Very dark brown	Lawn thatch; abrupt boundary.
A1	1 to 11	Very dark brown (10YR 2/2)	FINE SANDY LOAM, weak, fine granular structure, 5 to 10% gravels, 5% cobbles and stones, soft, very friable; slightly-plastic, slightly sticky, no redox features, many fine and common medium roots; many fine interstitial pores, clear boundary.
AC	11 to 25	Very dark brown (7.5YR 2.5/2)	Gravelly-Cobbly LOAMY FINE SAND, weak, fine subangular blocky structure, 15% gravels, 20% cobbles, 5% stones, no clay films; loose, very friable; slightly-plastic, slightly-sticky, no redox features, many fine and medium roots, few coarse roots; many medium interstitial pores, clear boundary,
2C	25 to 45	Very dark brown (7.5YR 2.5/3)	Gravelly-Very cobbly-stony FINE SAND, single grain; 20% gravels, 50% cobbles, 20% stones; no clay films, slightly hard, friable; non-plastic, non-sticky, no redox features, few fine and few medium roots; many medium interstitial pores; abrupt boundary.
3C	45 to 60	Very dark brown (10YR 2/2)	Very cobbly-stony FINE SAND, single grain; 15% gravels, 60% cobbles, 10% stones; slightly hard, friable; non-plastic, non-sticky, no redox features, few fine roots; many medium interstitial pores.

Soil does not match 1974 soil survey (Umpa very stony sandy loam, 15 to 30% slopes, UmE). Soil characteristics also do not resemble the geographically associated Jorge-Tahoma very stony, sandy loam, which has an argillic horizon (clay accumulation). Soil conditions also lack silica-cemented layer (Tallac series). Substratum contains rounded stones, cobbles, and gravels from ancient shoreline. This unnamed soil designated (XXX) is somewhat excessively drained (HSG-A). In accordance with Land-Capability Classification of the Lake Tahoe Basin (Bailey, 1974), XXX soils with slopes 0 to 16% qualify as Class 6.