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.org

STAFF REPORT

Date: July 12, 2018

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Thomas McConnon Land Capability Challenge, 255 St. Michaels Court, Placer County, California; Assessor's Parcel No: 085-350-015; TRPA File No: LCAP 2018-0144

Proposed Action: TRPA Hearing's Officer review and approval of the proposed Land Capability Challenge.

Staff Recommendation: Staff recommends the TRPA Hearings Officer approve the land capability challenge changing the land capability classes as follows: Decrease Class 1b (436 sf.); replace Class 3 with Class 4 (11,682 sf.); and replace Class 5 with Class 6 (19,599) sf.). These changes are itemized on the table on Page 3 and depicted on a map included in Attachment B.

Background: The parcel being challenged is currently mapped having Class 3 and Class 5 soils, and secondarily Class 1b soil (as per 1991 HOA Subdivision Plan). The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974) identifies the Class 3 soils as Tallac very stony coarse sandy loam, 15 to 30% slopes (TeE), and the Class 5 soils as Tallac gravelly coarse sandy loam, seeped, 5 to 9% slopes (TcC). Both soil types are derived from glacial outwash and other alluvial materials (granitic and volcanic mineralogy). The vicinity of the project has a geomorphic mapping of E-2 for Outwash, till and lake deposits (low hazard lands lands).

A 1991 subdivision map, prepared by Hale-Tippin Consultants, identified the site having Class 3 and Class 5 on the uplands, and Class 1b in the low elevations at the north edge of the property (Attachment B). A land capability challenge (LCAP2018-0144) was filed with TRPA on May 16, 2018. The subject parcel has a surveyed size of 32,371 sf. A detailed soil investigation was conducted for this land capability challenge by Denny Churchill, Consulting Soil Scientist, on May 9, 2018. On June 19, 2018, the TRPA contractor (Phil Scoles, Terra Science, Inc.) examined the same two soil pits described by the applicant's soil consultant. Mr. Scoles reviewed the soil descriptions prepared by the applicant's soil consultant and engaged in interactive dialogue as part of the technical review. There was consensus on the proposed soil mapping of Class 4 and 6 soils, plus SEZ gravelly alluvial soil near the north edge of the parcel. Mr. Churchill prepared his technical report and mapping on May 25, 2018, and finalized the report and map with minor revisions on June 20, 2018.

Findings: The subject parcel is part of a larger landform (outwash deposit and morraine) that slopes to the north by northwest. The deposit has mixed rock materials and slopes 11 to 30% slopes. A house with attached garage, driveway, and landscaping comprise the upper (south) portion of the parcel. Pathways, patio, lawn and landscaping compose the south-center and remainder of the parcel is forested upland and SEZ. There are small, rock retaining walls around portions of the residence. At the time of the TRPA contractor site visit, the residence was undergoing a remodel.

The north and lowest portion of the parcel contains a small, intermittent drainage that slopes west to east. It is an ancestral channel of Blackwood Creek, fed by seasonal high water table and snow melt water. This drainage feature, including the riparian fringe, qualifies as Stream Environment Zone (SEZ) on the basis of primary (key) plant community. In particular, it is dominated by quaking aspen, willow and red-twig dogwood (Type 9 Broadleaf-Low elevations plant community). At the time of Mr. Scoles' site visit, surface flow had ceased, but there was evidence of winter-early spring flow in the lowest parts of the SEZ. The gravelly alluvial soil type was previously identified in 1991, as part of a subdivision plan. No soil sampling was conducted since the SEZ was easily defined by primary (key) plant community, evidence of seasonal flowing water, and topographic change from upland to SEZ. As an SEZ feature, it qualifies as Class 1b. NOTE: This feature was too small to be mapped by the 1974 Soil Survey, but it was previously identified on TRPA-created SEZ maps. The soil consultant refined the SEZ boundaries to reflect the obvious changes in topography and plant community.

This land capability challenge utilized two backhoe soil pits – one in the center of the parcel and another in the north-center to represent the unnamed soil that composes the majority of the parcel. Both soil pit locations were relatively undisturbed (albeit past tree removal and forest fuels reduction). In contrast, the south (upper) part of the property contains the house, garage, driveway, pathways and small retaining walls – such disturbances made soil sampling in that vicinity without merit. The natural slopes for the south part of the property are evident on the adjacent parcel to the west, which has less disturbance.

For the upper backhoe pit (labeled 5/9/18-1 by Mr. Scoles), representative conditions are somewhat excessively drained soils with soil hydrologic group A (HSG-A) for the entire profile (no silica-cemented layer as required for the Tallac series). Further, Mr. Scoles found the unnamed (XXX) soils more soil development (cambic horizon) and deeper root penetration than the 1974 mapped Tallac series. This soil also contains fewer gravels, cobbles and stones typically associated with the Tallac series. In comparison to the Elmira and Gefo soil series, this unnamed soil is more gravelly and has evidence of in-situ iron translocation (cambic horizon). The Elmira and Gefo series lack these characteristics. Lastly, the unnamed soil differs from the Jorge and Tahoma soils, which sometimes are derived only by volcanic parent materials.

The soils at the second, lower backhoe pit (labeled 5/9/18-2) were very similar to the first soil profile, but located at the bottom of the hillside. As expected, the topsoil layer ("A" horizon) was thicker, due to upgradient soil that eroded and settled out at the bottom of the hillside. And the underlying subsoil ("Bw" horizon) was also thicker, for similar reasons. Otherwise, the soil has similar amounts of gravels and stones, as well as texture, root penetration, and lack of silica-cemented layer in the low part of the profile. As such, the onsite soils do not match known soil series described in the 1974 Soil Survey of the Lake Tahoe Basin (hence they are considered unnamed, XXX soils). The land capability classes for the XXX soils were determined from Page 20, Table 4 of Land-Capability Classification of the Lake Tahoe Basin, California-Nevada (Bailey, 1974). The table on the following page summarizes the changes in land capability and allowable land coverage as concluded by this land capability challenge.

Land Capability District	**Slope Class (Range)**	**1995 TRPA Determination Area (sq. ft.)**	**2018 LCC Area (sq. ft.)**	**Net Change Total Area (sq. ft.)**
Class 1b (SEZ)	0 to 5%	1,526(1)	1,090	-436
Class 3 (TcE)	15 to 30%	15,455	0	-15,455
Class 4 (XXX)	16 to 30%	0	11,682	+11,682
Class 5 (TcB)	5 to 9%	15,390	0	-15,390
Class 6 (XXX)	0 to 16%	0	19,599	+19,599
Total Parcel Area		**32,371**	**32,371**	**0**

(1) The Class 1b consists of an intermittent drainage, dominated by quaking aspen, red-twig dogwood and willow (qualifies as SEZ). Land capability challenge did not sample SEZ soils, since it met primary (key) vegetation indicator.

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 (jroll@trpa.org).

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel No. (APN):	085-350-015
TRPA File No. / Submittal Date:	LCAP2018-0144 / May 16, 2018
Owner or Applicant:	Thomas McConnon; 2526 Broadway Street; San Francisco, CA 94115
Site Address:	255 St. Michaels Court, Homewood, CA 95141; T. 18N, R. 16E, SE1/ 4 of Sec. 25.

Environmental Setting	
Bailey Soil Mapping Unit / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	Tallac gravelly coarse sandy loam, seeped, 5 to 9% slopes (TcC, HSG-C) and Tallac very stony coarse sandy loam, 15 to 30% slopes (TeE, HSG-B) / E-2 Outwash, till and lake deposits (low hazard lands as per 1974 Bailey Land Capability Report)
Landform and Soil Parent Material	Glacial outwash deposit capped with recent colluvium (mixed mineralogy)
Slopes and Aspect	11 to 30% slopes / slopes to north by northwest.
Elevation and Datum	6254 (at SEZ) to 6304 feet (from Webb Land Surveying, Sept. 18, 2017)
Rock Outcrops and Surface Configuration	No rock outcrops or surface boulders.
SEZ and Hydrology Source	Yes. SEZ dominated by aspen, willow, currant and grasses/forbs. Center of SEZ situated 2- to 3-foot below adjacent upland areas. SEZ sustained by seasonal high water and surface runoff. No soil sampling in SEZ, so Gravelly Alluvial soil assumed present within this small feature.
Vegetation	Upland only: White fir, Jeffrey pine, fir and pine saplings, snowbush, creambush, white thorn, trailing snowberry, currant, thimbleberry, lawn and ornamental shrubs and forbs.
Ground Cover Condition	Good (vegetation 70 to 80%, duff 20 to 30%)
Site Features	Residence, garage. pathways, deck, patio, rock retaining walls, driveway and landscaping.

Field Investigation and Procedures	
Consultant and Address	Denny M. Churchill, Consulting Soil Scientist 145 Cottonwood Court, Quincy, CA 95971 (530) 283-1271; dennychurchill@sbcglobal.net
TRPA Contractor Field Dates	June 19, 2018 (soil consultant work conducted on May 09, 2018).
SEZ Mapping / NRCS Hydric Soil	Yes. Gravelly Alluvial soil (Gr-SEZ, Class 1b) identified for 1991 subdivision plan, near north edge of parcel.
Number of Soil Pits or Auger Holes and Description Depth	Two backhoe pits excavated 57 to 65 inches. No soil sampling of SEZ (due to primary veg. present).
Additional or Repetitive TRPA Sample Locations	Same backhoe soil pits (observed with soil consultant).
Areas Not Examined	Residence, garage, driveway, pathways, patio, deck, and small rock retaining walls.

TRPA Findings	
2006 Soil Survey Map Unit[1]	Paige medial sandy loam, 15 to 30% slopes (map unit 7182, Class 4, HSG-B) and Kneeridge gravelly sandy loam, very stony, 5 to 15% slopes (map unit 7174, Class 6, HSG-B).
Consultant Soil Mapping Determination and Rationale	Soils across the site do not match any soils described in the 1974 soil survey, hence they are unnamed (XXX). The soil in the center of the parcel is gravelly and has similar parent material as the Tallac series (mapped by 1974 soil survey), but they lack a subsurface restricting layer. These are deep, excessive drained, gravelly coarse sandy loam textures and have slopes 16 to 30% (hence, Class 4). Similar XXX soils flank the Class 4 soils, but have slopes 11 to 16% (hence, Class 6). Both Class 4 and 6 soils have HSG-A (loamy coarse sand textures). The SEZ feature in the north part of the parcel is Class 1b. It was mapped in 1991 as Gravelly Alluvial soil (unchanged for 2018).
Slope Determination	For uplands: 11 to 16% slopes and 16 to 30% slopes. Any slopes for SEZ area. See soil consultant map and topographic survey within Webb Land Surveying, Sept. 18, 2017, Attach. B).
TRPA Conclusion(s)	Class 1b (SEZ); Class 4 unnamed soil (XXX) for 16 to 30% slopes; Class 6 unnamed soil (XXX) for 11 to 16% slopes.
Applicable Area	Entire site (see map, Attachment B, May, 2018)

Attachments:

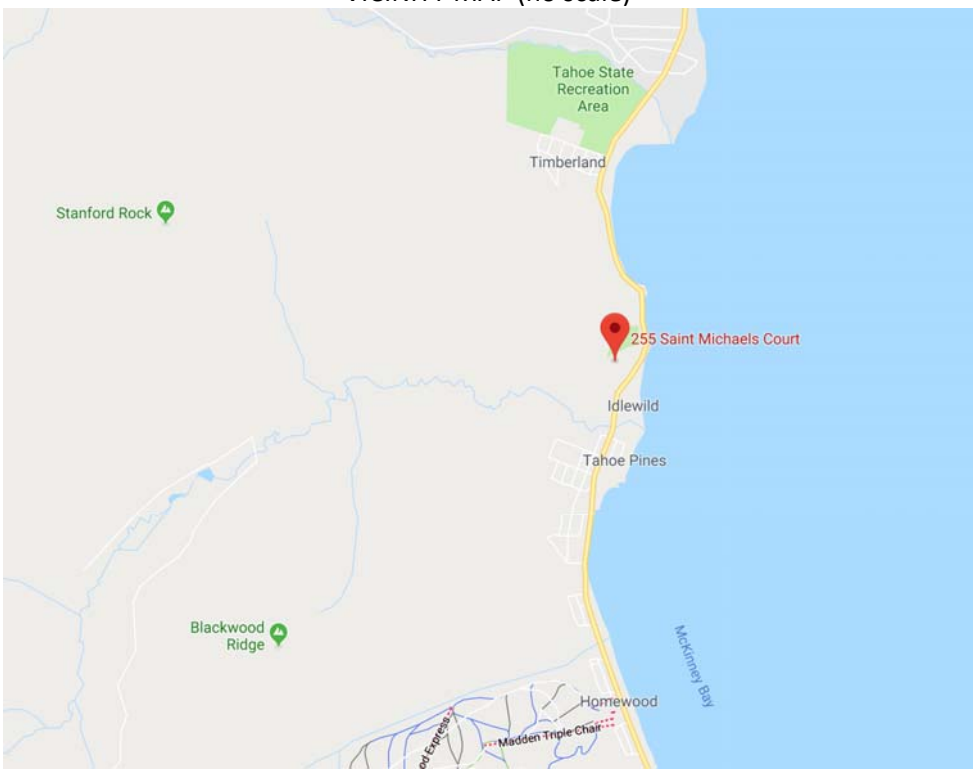
A. Vicinity map and TRPA land capability map
B. 1991 Hale-Tippin Consultants subdivision map and 2018 land capability challenge recommendation map
C. Applicant's soil consultant land capability soil report (2 soil pits)

[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 Maps

VICINITY MAP (no scale)



TRPA LAND CAPABILITY MAP

ATTACHMENT B

1991 Hale-Tippin Consultants Subdivision Map and 2018 Land Capability Challenge for LCAP2018-0144 (255 St. Michaels Court, Homewood, CA)

PROPOSED PUD CALCULATIONS

BASED ON ALLOWABLE

LOT 1 TOTAL LOT AREA = 22,567 SF
- 10,000 SF @ 10 % = 1,000 SF
- 10,423 SF @ 21% = 4,568 SF
- TOTAL ALLOWABLE = 4,699 SF — PUD ALLOWABLE 2,213 SF

EXISTING COVERAGE: HOUSE/PATIO 2,194 SF; PARKING/PATIO 2,299 SF; TOTAL 4,493 SF

LOT 2 TOTAL LOT AREA = 54,489 SF
- 6,000 SF @ 10 % = 600 SF
- 10,000 SF @ 20 % = 964 SF
- 8,766 SF @ 25? = 2,191 SF
- TOTAL ALLOWABLE = 3,811 SF — PUD ALLOWABLE 3,370 SF

EXISTING COVERAGE: HOUSE/PATIO 1,248 SF; SHED 238 SF; PATIO 1,239 SF; TOTAL 2,825 SF

LOT 3 TOTAL LOT AREA = 38,406 SF
- 7,426 SF @ 10 % = 743 SF
- 10,430 SF @ 20 % = 962 SF
- 13,800 SF @ 25% = 2,796 SF
- TOTAL ALLOWABLE = 3,498 SF — PUD ALLOWABLE 3,934 SF

EXISTING COVERAGE: HOUSE/DECK 884 SF; PATIO/WALKWAY 1,104 SF; PUMPHOUSE 82 SF; TOTAL 1,209 SF

LOT 4 TOTAL LOT AREA = 82,371 SF
- 1,324 SF @ 10 % = 13 SF
- 15,493 SF @ 5% = 722 SF
- 19,299 SF @ 20% = 3,848 SF
- TOTAL ALLOWABLE = 4,585 SF — PUD ALLOWABLE 3,172 SF

EXISTING COVERAGE: PUMPHOUSE 82 SF; TOTAL 82 SF

LOT 5 TOTAL LOT AREA = 31,777 SF
- 19,992 SF @ 20 % = 798 SF
- 12,784 SF @ 25% = 2,446 SF
- TOTAL ALLOWABLE = 3,146 SF — PUD ALLOWABLE 3,114 SF

LOT 6 TOTAL LOT AREA = 41,331 SF
- 16,979 SF @ 10 % = 169 SF
- 10,816 SF @ 20 % = 641 SF
- 13,536 SF @ 25% = 2,889 SF
- TOTAL ALLOWABLE = 3,697 SF — PUD ALLOWABLE 4,047 SF

EXISTING COVERAGE: POOL DECK 325 SF; TO REMOVE DECK -325 SF; TOTAL 0 SF

LOT 7 TOTAL LOT AREA = 14,986 SF
- 4,986 SF @ 10 % = 150 SF
- TOTAL ALLOWABLE = 150 SF — PUD ALLOWABLE 1,449 SF

COMMON AREA = 47,118 SF
- 28,324 SF @ 10 % = 283 SF
- 10,000 SF @ 20 % = 14 SF
- 10,824 SF @ 25% = 4,705 SF
- TOTAL ALLOWABLE = 5,002 SF — PUD ALLOWABLE 5,002 SF

EXISTING COVERAGE: TENNIS COURT 7,010 SF; PATIO & DECK 4,010 SF; TENNIS COURT 7,896 SF; NEW DRIVEWAY 2,530 SF; TOTAL 9,426 SF

TOTAL ALLOWABLE COVERAGE 29,844 SF
TOTAL EXISTING /PROPOSED COVERAGE OF COMMON AREA 9,450 SF
TOTAL COVERAGE AVAILABLE FOR BUILDING SITES 20,391 SF

TOTAL AREA P.U.D. 278,361 SF
AREA OF APN 85-350-01 40,118 SF

TOTAL AREA 278,479 SF
PUBLIC R.O.W. AREA 29,279 SF

NET PROJECT AREA 249,200 SF
COMMON AREA LOT 47,118 SF
NET AREA FOR PRORATION 278,380 SF
PRORATION FACTOR
COVERAGE AVAILABLE/PRORATION AREA) 0.097995

EXISTING PUD CALCULATIONS

BASED ON ALLOWABLE

LOT 1 TOTAL LOT AREA = 10,067 SF
- 10,067 SF @ 10 % = 100 SF
- TOTAL ALLOWABLE = 100 SF

LOT 2 TOTAL LOT AREA = 10,067 SF
- 10,067 SF @ 10 % = 100 SF
- TOTAL ALLOWABLE = 100 SF

LOT 3 TOTAL LOT AREA = 10,067 SF
- 10,067 SF @ 10 % = 100 SF
- TOTAL ALLOWABLE = 100 SF

LOT 4 TOTAL LOT AREA = 10,232 SF
- 8,953 SF @ 10 % = 90 SF
- 1,280 SF @ 5% = 63 SF
- TOTAL ALLOWABLE = 153 SF

LOT 5 TOTAL LOT AREA = 10,067 SF
- 1,596 SF @ 5% = 79 SF
- 8,730 SF @ 20% = 2,172 SF
- TOTAL ALLOWABLE = 2,250 SF

LOT 6 TOTAL LOT AREA = 10,227 SF
- 4,993 SF @ 10 % = 210 SF
- 5,414 SF @ 25% = 1,424 SF
- TOTAL ALLOWABLE = 1,634 SF

LOT 7 TOTAL LOT AREA = 10,227 SF
- 4,000 SF @ 10 % = 324 SF
- 6,226 SF @ 25% = 1,556 SF
- TOTAL ALLOWABLE = 1,780 SF

LOT 8 TOTAL LOT AREA = 30,979 SF
- 17,619 SF @ 10 % = 883 SF
- 10,360 SF @ 20% = 643 SF
- TOTAL ALLOWABLE = 4,963 SF — PUD ALLOWABLE 3,209 SF

EXISTING COVERAGE: HOUSE/PATIO 4,063 SF; PARKING/PATIO 4,590 SF; TOTAL 8,653 SF

COMMON AREA = 109,684 SF
- 39,378 SF @ 10 % = 303 SF
- 27,580 SF @ 20 % = 1,878 SF
- 41,741 SF @ 25% = 19,435 SF
- TOTAL ALLOWABLE = 12,617 SF — PUD ALLOWABLE 12,617 SF

EXISTING COVERAGE: TENNIS COURT 7,896 SF; PATIO & DECK 4,906 SF; NEW DRIVEWAYS 2,530 SF; TOTAL 13,736 SF

TOTAL ALLOWABLE COVERAGE 25,657 SF
TOTAL EXISTING /PROPOSED COVERAGE OF COMMON AREA 12,736 SF
TOTAL COVERAGE AVAILABLE FOR BUILDING SITES 9,957 SF

EXIST. PUD TOTAL AREA 278,361 SF
PUBLIC R.O.W. AREA 39,279 SF

NET PROJECT AREA 215,882 SF
COMMON AREA LOT 109,634 SF
NET AREA FOR PRORATION 103,428 SF
PRORATION FACTOR
COVERAGE AVAILABLE/PRORATION AREA) 9.094444

NOTES

1. APN: 85-350-11-11
2. TOTAL LOT AREA = 378,452 SF +8.392 ACRES

LOT 7 IS APN 85-350-10, LOT 6 IS APN 85-350-09, LOT 5 IS APN 85-350-08

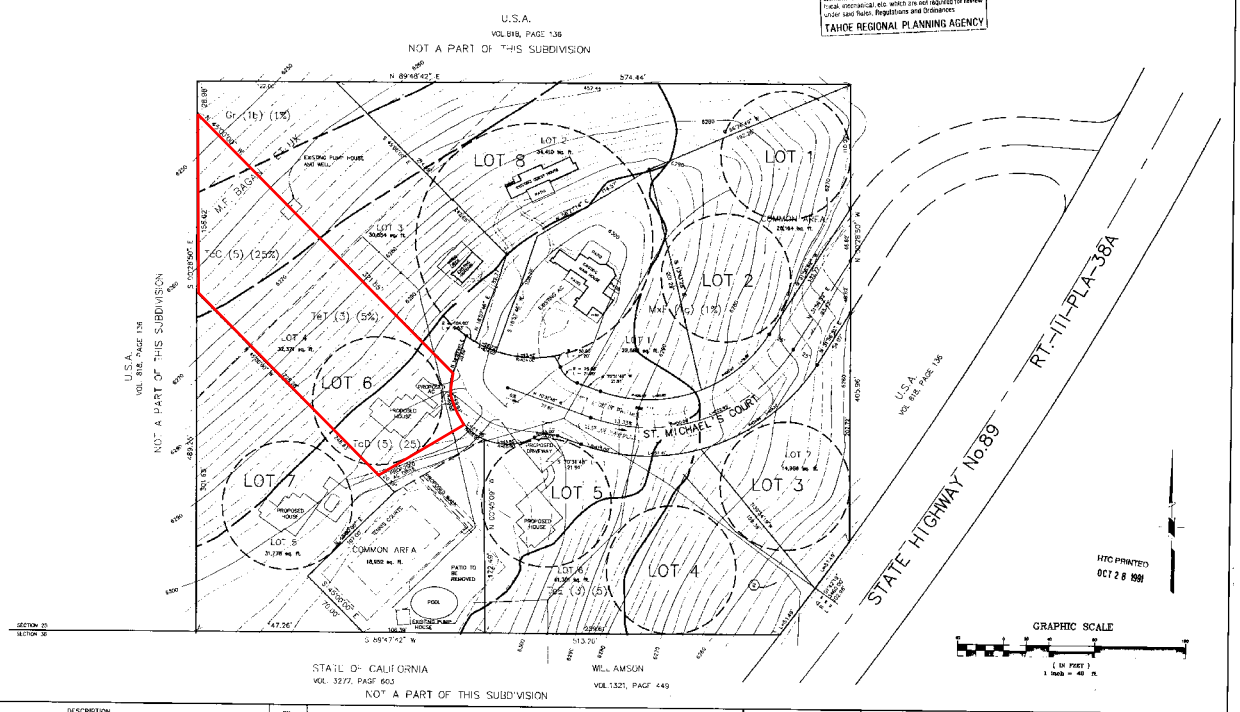
UTILITIES

WATER	TAHOE SWISS VILLAGE UTILITIES COMPANY
SEWER	COLLECTION BY TAHOE CITY PUBLIC UTILITY DISTRICT; TREATMENT BY TRUCKEE SANITATION AGENCY
SCHOOLS	TAHOE TRUCKEE JOINT SCHOOL DISTRICT
FIRE	TAHOE CITY FIRE PROTECTION DISTRICT
GAS	SOUTHWEST GAS COMPANY
ELECTRIC	SIERRA PACIFIC POWER COMPANY
TELEPHONE	PACIFIC TELEPHONE COMPANY
CABLE TV	WESTERN CABLE TV

OWNER
DAVID C. SARGENT
2853 VALLEJO
SAN FRANCISCO, CA. 94123

ENGINEER
HALE-TIPPIN CONSULTANTS
P.O. BOX 5393
TAHOE CITY, CA. 96145
(916) 581-1116

This plan has been reviewed and approved as required by TRPA Rules, Regulations and Ordinances only. TRPA has not checked and shall not be responsible for any facts or figures contained in these plans. All structural, electrical, mechanical, etc. work are not required for review under said Rules, Regulations and Ordinances.
TAHOE REGIONAL PLANNING AGENCY



DATABASE BY:	MVZ
DATABASE CHK BY:	MVZ
DESIGN BY:	DF
DESIGN CHK BY:	DH
DRAWING NAME:	275LOT.DWG
DIRECTORY:	C:\DRAWING\275
FLOPPY DISK #	2017

REVISION	DATE	DESCRIPTION	BY

ST. MICHAEL'S WOODS
ALLOWABLE LAND COVERAGE CALCULATIONS

DATA DATE
PLOT DATE OCT. 21, 1991
SCALE
HORIZONTAL 1" = 40'
VERTICAL 2' C.I.

HALE-TIPPIN CONSULTANTS

ENGINEERING + SURVEYING CONSTRUCTION MANAGEMENT PLANNING
3092 North Lake Boulevard
P.O. Box 5393
Tahoe City, CA. 96145
(916) 581-1116
FAX (916) 583-6818

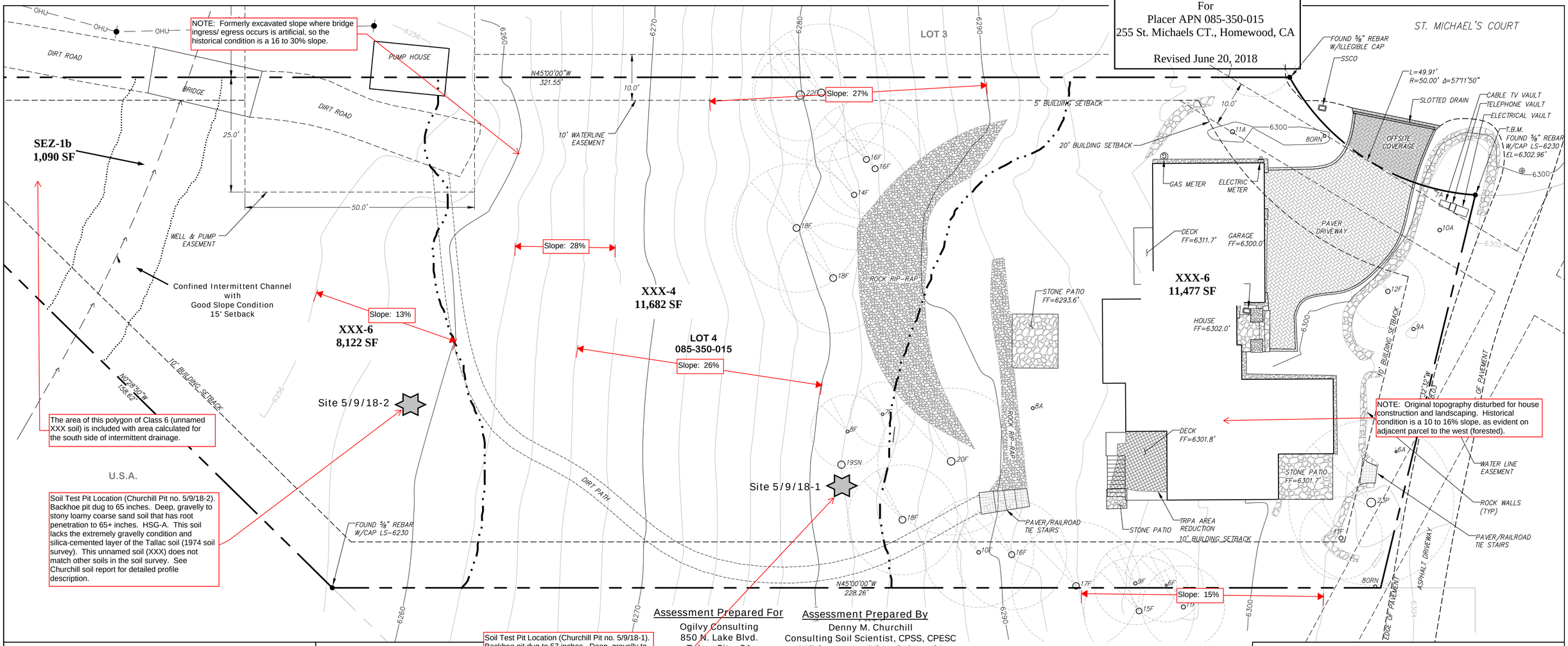
SHEET NO. 1
FILE NO. 275.01

AGENDA ITEM NO. V.B.

Figure 1

Land Capability Challenge
For
Placer APN 085-350-015
255 St. Michaels CT., Homewood, CA

Revised June 20, 2018



Assessment Prepared For

Ogilvy Consulting
850 N. Lake Blvd.
Tahoe City, CA

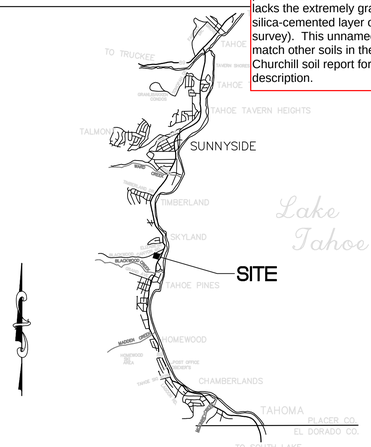
Assessment Prepared By

Denny M. Churchill
Consulting Soil Scientist, CPSS, CPESC
145 Cottonwood Crt., Quincy, CA

NOTES

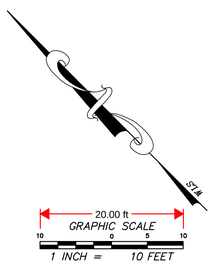
1. THE BOUNDARY SHOWN HEREON IS FROM A FIELD SURVEY COMPILED FROM ST. MICHAELS WOOD'S SUBDIVISION, SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS WHICH AN ACCURATE & CURRENT TITLE SEARCH 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 SEPTEMBER 18, 2017.
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.=(EAST PROPERTY CORNER, FOUND ⅝" REBAR WITH CAP LS-6230), ELEV=6302.96'
9. BUILDING SETBACKS SHOULD BE VERIFIED PRIOR TO ANY DESIGN.

VICINITY MAP



TRPA Land Capability Challenge
for APN 085-350-015; LCAP2018-0144
255 St. Michaels Court, Homewood,
Placer County, CA

Field Investigation: June 19, 2018
Data Analysis: July 05, 2018
Conducted By: P.Scoles
(Soil Scientist)



EXISTING COVERAGE

LAND CLASSIFICATIONS

CLASS PER TRPA	LOT AREA	32,371 SF
TOTALS:	085-350-015	3,172 SF ALLOWED PER SUBDIVISION MAP

LAND COVERAGE PER CLASSIFICATION

CLASS PER TRPA	
HOUSE	2,182 SF
PAVER DRIVEWAY	885 SF
ENTRY PATIO	62 SF
STONE PATIOS	255 SF
DECK/STAIRS INCL. TRPA REDUCTION	140 SF
TOTAL	3,524 SQ.FT.
TOTAL EXISTING COVERAGE	3,524 SQ.FT.
ALLOWED	- 3,172 SQ.FT.
OVERCOVERAGE	352 SQ.FT.

OFFSITE LAND COVERAGE

OFFSITE PAVER DRIVEWAY	196 SF

PRELIMINARY

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

PROJECT INFORMATION

OWNER:	THOMAS & LINDSAY McCONNON 2526 BROADWAY STREET SAN FRANCISCO, CA 94115
PROJECT ADDRESS:	255 SAINT MICHAEL'S COURT HOMEWOOD, CA
APN:	085-350-015
RECORD INFORMATION:	LOT 4, ST. MICHAELS WOOD'S SUBDIVISION BOOK R OF MAPS AT PAGE 97, 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:	208825to1.dwg					
DIRECTORY:	JOBS					
COPYRIGHT 2017 ©						

McCONNON PROPERTY
255 SAINT MICHAEL'S COURT
TOPOGRAPHIC SURVEY
PLACER COUNTY CALIFORNIA

DATA DATE 9/18/2017
PLOT DATE 9/22/2017
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 2088.25

AGENDA ITEM NO. V.B.

ATTACHMENT C

Applicant's Soil Consultant Land Capability Soil Report (May 25, 2018)

Land Capability Assessment
For
Placer Parcel APN 085-350-015

RECEIVED
JUN 01 2018
TAHOE REGIONAL
PLANNING AGENCY

May 25, 2018

INTRODUCTION

A soil investigation was conducted by Denny M. Churchill, Consulting Soil Scientist on Placer County Parcel APN 085-350-015 on May 9, 2018. 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 of impervious coverage regulation as defined in Chapter 30 of the Code of Ordinances.

The parcel supports a single-family dwelling in a mixed residential setting on approximately 0.709 acres (32,371 SF) of land located at 255 St. Michael's Court, Homewood, Placer County, CA. This work is advanced at the request of Mr. Wyatt Ogilvy, principal of Ogilvy Consulting, agents for Thomas and Lindsay McConnon.

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 or seismic analysis.

ENVIRONMENTAL SETTING

The parcel site is located at T18N R16E, SE/4 of section 25. Vegetation is representative of Type 17-Mixed conifer and consists of White fir, Jefferey pine, white thorn and huckleberry oak. Slopes range from 11 to 30 percent on a north east aspect. Soils are shown on the TRPA GIS Data Base (http://gis.trpa.org/datadownloader/) as TcC- Tallac gravelly coarse sandy loam, seeped, 5 to 9 percent slopes, and TeE-Tallac very stony coarse sandy loam, 15 to 30 percent slopes. An October, 1991 subdivision site plan by Hale-Tippin Consultants was approved by TRPA and listed three land capability districts as part of the site estimates for base coverage: TcC (5), TeT (3) and Gr (1b). TeT is not a recognized land capability district and was likely a typo on the map (should have been TeE-3). A proposed residential site plan, again by Hale-Tippin Consultants, was approved by TRPA in March, 1993. The land capability district unit TcC was incorrectly listed as representing both classes 3 and 5. TcC is class 5 for 25% coverage. Geology (Harwood and Fisher, 2002) is characterized as Qtio- Outwash deposits. Baileys' geomorphic analysis (1974) shows the parcel as E2-Outwash till and lake deposits (low hazard lands). There is a stream environment zone (SEZ) affecting this parcel in the form of a confined intermittent stream with good slope condition.

METHODOLOGY

The parcel was surveyed based on slope delineations and landscape position. Two sites considered representative of the landform were chosen and excavations were placed to open and examine the soil profiles 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 Webb Land Surveying, Inc. (September 18, 2017) was available in the field for ground control and slope analysis. Information pertaining to land capability districts is shown on Figure 1.

The following table summarizes the proposed changes to Land Capability Districts:

Land Capability District	Slope Class (Range)	1991 TRPA Approved HOA Subdivision Plan Area (sq. ft.)	2018 LCC Area (sq. ft.)	Net Change Total Area (sq. ft.)
Class 1b (SEZ)	-	1,526	1,090	-436
Class 3 (TeE)	15 to 30%	15,455	0	-15,455
Class 5 (TcC)	5 to 9 %	15,390	0	-15,390
Class 4 (XXX)	16 to 30%	0	11,682	11,682
Class 6 (XXX)	0 to 16%	0	19,599	19,599
Total Parcel Area		32,371	32,371	

FINDINGS

Referring to Figure 1, soils at site 5/9/18-1 are found to be deep, well to somewhat excessively drained and members of Soil Hydrologic Group A. They can be characterized as having brown or dark yellowish brown gravelly sandy loam top soil approximately 12 inches thick, over a dark yellowish brown or brown subsoil to a depth of 67 inches. These soils are dissimilar to Tallac gravelly coarse sandy loam, seeped, or Tallac very stony coarse sandy loam because they lack a weakly silica cemented hard pan at depth, as well as any indication that surface water infiltration is reduced. Tallac soils are also skeletal.

Soils at site 5/9/18-2 are found to be deep, well to somewhat excessively drained and members of Soil Hydrologic Group A. They can be characterized as having brown or yellowish brown gravelly sandy loam top soil approximately 20 inches thick, over a dark yellowish brown or brown subsoil to a depth of 67 inches. These soils are dissimilar to Tallac gravelly coarse sandy loam, seeped, or Tallac very stony coarse sandy loam because they lack a weakly silica cemented hard pan at depth, as well as any indication that surface water infiltration is reduced. Tallac soils are also skeletal.

CONCLUSIONS AND RECOMMENDATIONS

Soils found at site 5/9/18-1 are dissimilar to the Tallac very stony coarse sandy loam soils as mapped. They lack a silica cemented hard pan at depth, are not skeletal and are considered to be inclusions in the TeE soil map unit. They are unmapped in the published Lake Tahoe Soil Survey and would place in Land Capability Class 4.

Soils found at site 5/9/18-2 are dissimilar to the Tallac very stony coarse sandy loam soils as mapped. They lack a silica cemented hard pan at depth, are not skeletal, and have moderate to moderately rapid surface permeability. They are considered to be inclusions in the TcC soil map unit, are unmapped in the published Lake Tahoe Soil Survey and would place in Land Capability Class 6.

Please refer to the following soil profile descriptions that support the findings and the attached map showing the spatial distribution of the appropriate land capability classes on the parcel.

Respectfully submitted,

Denny M. Churchill
Certified Professional Soil Scientist No. 0755

Representative Soil Profile Descriptions

Site 5/9/18-1 Machine excavated pit to 67 inches.
Location: 39° 06' 43.40" N. Latitude; 120° 09' 39.54" W. Longitude (WG84 datum)
Elevation: 6282 feet (from Webb Land Surveying, Inc., 9/18/2017)
Landform: Lake outwash terrace (slopes to the north east).
Vegetation: White fir, Jeffery pine, white thorn and huckleberry oak.

Oi 0 to 1 inches, needles, leaves and thick mull (under conifer canopy).

A1 1 to 4 inches, brown (10YR 5/3) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, friable, nonsticky and nonplastic; common to many very fine to medium roots throughout; common fine interstitial pores; 15 percent subangular gravels and 5 percent stones; neutral (pH 7.0); gradual smooth boundary;

A2 4 to 12 inches, brown (10YR 5/3) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, friable, nonsticky and nonplastic; common to many very fine to medium roots throughout; common fine interstitial and tubular pores; 5 percent subangular gravels and 5 percent stones; neutral (pH 7.0); gradual smooth boundary.

Bw1 12 to 24 inches, brown (10YR 5/3) gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; strong medium granular structure; soft, friable, nonsticky and nonplastic; many fine to medium and few coarse roots; very few to few, faint sand coats; many fine interstitial and tubular pores; 15 percent subangular gravels and 10 percent subangular stones; neutral (pH 7.0); gradual smooth boundary.

Bw2 24 to 40 inches, brown (10YR 5/3) gravelly coarse sandy loam, dark yellowish brown (10YR 3/4) moist; moderate medium granular structure; soft, very friable, nonsticky and nonplastic; common fine to medium and few coarse roots; very few to few, faint sand coats; many fine interstitial and tubular pores; 15 percent subrounded gravels and 10 percent subangular stones; neutral (pH 7.0); gradual smooth boundary.

2C1 40 to 57 inches, yellowish brown (10YR 5/6) very gravelly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; moderate medium granular structure; slightly hard, friable, nonsticky and nonplastic; few to common fine and coarse roots; many fine interstitial and tubular pores; 35 percent subangular gravels and 10 percent subrounded stones; slightly acid (pH 6.5);clear smooth boundary.

3Cd 57+ inches; light yellowish brown (10YR 6/4) extremely gravelly loamy coarse sand, dark yellowish brown (10YR 3/4) moist; massive; hard, firm, nonsticky and nonplastic; 65 percent small subangular gravels; slightly acid (pH 6.5); abrupt boundary.

Root penetration ends at 57-60 inches. Samples from the Cd horizon slaked within one hour in water. This horizon is highly compacted outwash till and lake deposits that show no evidence of silica cementation. It more than likely represents an ancient lake terrace that has been subjected to decades of deposition and erosion. The present upper horizons are recent outwash and gravitational material. No physical features that would suggest static ground water intrusion were observed. Profile moist throughout when described.

Parent material: Colluvium over alluvium (glacial outwash)
Drainage class: Well to somewhat excessively drained. Moderately rapid permeability.
Slope: 26 percent sloping north 50 degrees east.
1974 soil series: Similar to Tallac but lacks the cemented pan to depth; not skeletal.
2006 soil series: Similar to Kneeridge (Medial, mixed, frigid, Humic Vitrixerands) but lacks the densic horizon at depth; Similar to Paige (Medial, mixed, frigid Humic Vitrixerands), not as cobbly but has the compacted glacial till Cd horizon.
Soil classification: Coarse-loamy, mixed, frigid, Typic Xerumbrepts
Hydrologic Soil Group: A (coarse-loamy textures, no subsurface water or restrictions above 40 inches)

Site 5/9/18-2 Machine excavated pit to 65 inches.
Location: 39^0 06' 43.61" N. Latitude; 120^0 09' 41.02" W. Longitude (WG84 datum)
Elevation: 6260 feet (from Webb Land Surveying, Inc., 9/18/2017)
Landform: Lake outwash terrace (slopes to the north east).
Vegetation: White fir, Jeffery pine, white thorn, huckleberry oak and forbs.

Oi 0 to 6 inches, needles, leaves, mull and wood chips (under conifer canopy).

A1 6 to 12 inches, yellowish brown (10YR 5/4) gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; moderate fine granular structure; soft, loose, nonsticky and nonplastic; common to many very fine to medium roots throughout; common fine interstitial pores; 15 percent subangular gravels and 5 percent stones; neutral (pH 7.0); clear smooth boundary;

A2 12 to 20 inches, brown (10YR 5/4) gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; moderate fine granular structure; soft, loose, nonsticky and nonplastic; common to many very fine to medium roots throughout; common fine interstitial and tubular pores; 25 percent subangular gravels and 5 percent stones; neutral (pH 7.0); gradual smooth boundary.

Bw1 20 to 36 inches, yellowish brown (10YR 5/4) gravelly coarse sandy loam, dark yellowish brown (10YR 3/4) moist; strong medium granular structure; soft, loose, nonsticky and nonplastic; many fine to medium and few coarse roots; many fine interstitial and tubular pores; 25 percent subangular gravels and 5 percent subangular stones; neutral (pH 7.0); gradual wavy boundary.

Bw2 36 to 44 inches, yellowish brown (10YR 5/4) cobbly coarse sandy loam, dark yellowish brown (10YR 3/4) moist; moderate medium granular structure; soft, very friable, nonsticky and nonplastic; common fine to medium and few coarse roots; very few to few, faint sand coats; many fine interstitial and tubular pores; 15 percent subrounded stones and 20 percent gravels; neutral (pH 7.0); gradual wavy boundary.

C1 44 to 65 inches, yellowish brown (10YR 5/4) very gravelly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; moderate medium granular structure; slightly hard, very friable, nonsticky and nonplastic; few to common fine and medium roots; many fine interstitial and tubular pores; 40 percent subangular gravels and 5 percent subrounded stones; slightly acid (pH 6.5); clear smooth boundary.

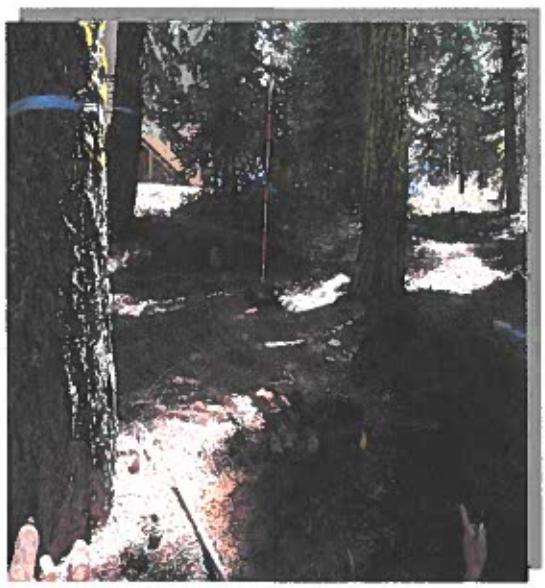
2Cd 65+ inches; light yellowish brown (10YR 6/4) extremely gravelly loamy coarse sand, dark yellowish brown (10YR 3/4) moist; massive; loose, friable, nonsticky and nonplastic; 65 percent small subangular gravels; slightly acid (pH 6.5); abrupt boundary.

Root penetration ends at 65 inches. Samples from the Cd horizon slaked within one hour in water. This horizon is highly compacted outwash till and lake deposits that show no evidence of silica cementation. It more than likely represents an ancient lake terrace that has been subjected to decades of deposition and erosion. The present upper horizons are recent outwash and gravitational material. No physical features that would suggest static ground water intrusion were observed even though this site is proximate to the SEZ. Profile moist throughout when described.

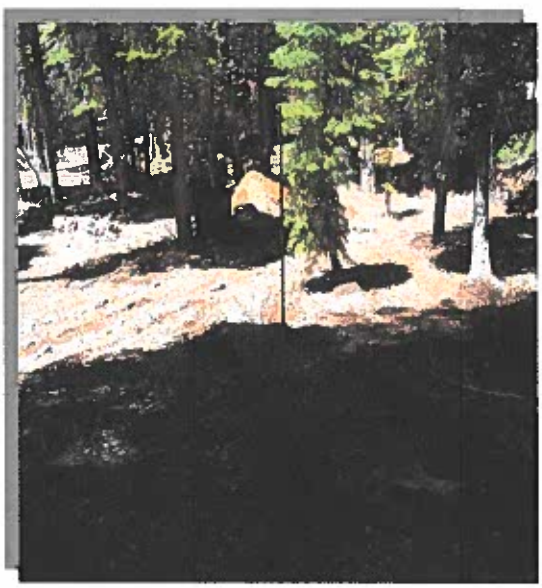
Parent material: Colluvium over alluvium (glacial outwash)
Drainage class: Well to somewhat excessively drained. Moderately rapid permeability.
Slope: 9 percent sloping north 40 degrees east.
1974 soil series: Similar to Tallac but lacks the cemented pan to depth; not skeletal.
2003 soil series: Similar to Kneeridge (Medial, mixed, frigid, Humic Vitrixerands) but lacks the densic horizon at depth; Similar to Paige (Medial, mixed, frigid Humic Vitrixerands), not as cobbly but has the compacted glacial till Cd horizon.
Soil classification: Coarse-loamy, mixed, frigid, Typic Xerumbrepts
Hydrologic Soil Group: A (coarse-loamy textures, no subsurface water or restrictions above 40 inches)

Photo Series

Site 5/9/18-1



Up Slope Towards The residence

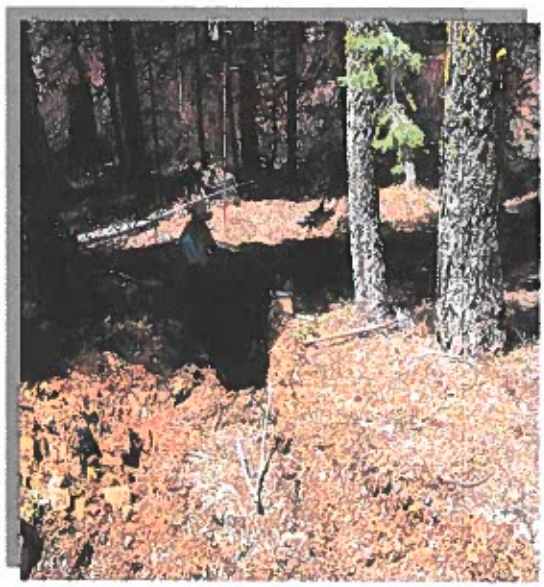


Down Slope Towards The SEZ

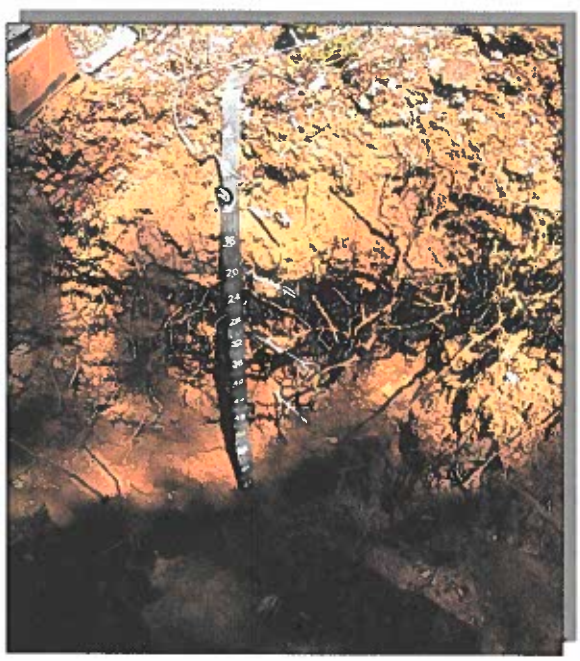
Representative Soil Profile

Site 5/19/18-2

Up Slope Towards The residence



Down Slope Towards SEZ



Representative Soil Profile