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: September 19, 2024

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Haisley Family Trust Land Capability Challenge; 422 Agate Road, Placer County, California; APN: 116-060-046; TRPA File #: LCAP2024-0166

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. This challenge changes the land capability from Class 1C (Sm, Stony Colluvial Land and JhC, Jabu stony sandy loam) to Class 5 (Unnamed soil, XXX-1, 9 to 16% slopes) and Class 6 (Unnamed soil, XXX-2, 0 to 16% slopes). This change is itemized on the table on Page 2 and depicted on a map included in Attachment C.

Background:
The subject parcel is shown as Class 1C and Class 5 on TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps). The Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974) places the entire subject parcel within Stony Colluvial Land (Sm) soil type for the northeast part and Jabu stony sandy loam, moderately fine subsoil variant, 2 to 9% slopes (JhC) for the center and west parts. The Sm soil type is mostly of volcanic cobbles, stone, boulders and bedrock. The soil between rock fragments is typically sandy loam and may or may not show much evidence of soil formation. The JhC soil type is a combination of colluvial deposition atop ancient lake deposits. The vicinity of this parcel has a geomorphic mapping of D-1 for Streamcut volcanic flow lands – Toe slope lands (low hazard lands). Several nearby approved land capability challenges determined high capability soils (instead of Sm soils), namely APN 116-060-48 (90 ft. northeast, Class 6), APN 115-030-009 (275 ft. northeast, Class 5), and APN 116-030-001 (410 ft., northeast, Class 6).

A Placer County site assessment (which includes a land capability verification) was completed on September 2, 2016, which identified this parcel having the Class 3 soil type (presumably Sm, same as mapped by the 1974 soil survey). A land capability challenge (LCAP2022-0166) was filed with TRPA on July 23, 2024. A detailed soil investigation was conducted for this land capability challenge on August 1, 2024 by TRPA soils consultant Phil Scoles (Terra Science, Inc.).

Findings:
TRPA's soil consultant described one backhoe pit in the southeast corner of the parcel. Such location was the least disturbed area, while areas in the north, center and west parts were recently disturbed for house expansion and landscaping. This test pit is representative of these disturbed areas, which have a natural slope of 10 to 12%. The adjacent hillside to the north has slopes of 15 to 16% -- it also has a noticeable increase of surface stones and boulders. The upper part of the soil profile consists of grayish brown, gravelly-cobbly loam to a depth of 37 inches. This upper layer is colluvium that sits atop a buried lacustrine deposit. This underlying layer has silty clay loam textures and significantly less gravel and cobbles; however, the interface of these parent materials lacks redoximorphic features. Such absence infers a lack of a perched water table. Root penetration into the underlying lacustrine material further supports an absence of extended seasonal wetness. This is considered a deep, well-drained soil with Hydrologic Soil Group C characteristics. While this soil closely resembles the mapped Jabu stony sandy loam soil (JhC, also HSG C), it has a steeper slope than the mapping unit (10 to 16%, instead of 0 to 9%). The 1974 soil survey lacks similar Jabu soils with slopes over 9%, so this profile is considered an unnamed soil (designated XXX-1). In accordance with the TRPA Land Capability Classification system, this unnamed soil having greater than 9 to 16 percent slopes with moderate runoff potential (HSG C) qualifies as Class 5 (25 percent allowable land coverage).

The northeast portion of the parcel has an increased amount of surface stones and boulders, and 15 to 16% slopes (instead of 10 to 12% slope for majority of parcel). Due to disturbance during residential construction and recent new landscaping, it was not practical to dig another soil pit. Instead, a neighboring land capability challenge and a construction photograph (Appendix D) were utilized to reasonably infer soil conditions for the northeast corner. Such photo shows andesitic bedrock occurring 40 to 50 inches below the surface. This topsoil is a mixture of colluvium and residuum (soils formed directly from bedrock). While most of the roots occur above the bedrock, medium and coarse roots explore fractures in the bedrock and penetrate to about 60 inches deep. The soil is similar to the Umpa soil series; however, it is significantly deeper (>40 inches of soil above bedrock). Thus, this soil does not match any soils identified in the 1974 soil survey. Instead, the soils are considered an unnamed soils (XXX-2) that lacks a root-restricting layer in the upper part of the soil (hence, Hydrologic Soil Group B). While there are stones and boulders visible at the surface, onsite and neighboring excavations found they are not extensions of the deeper andesitic bedrock. The presence of this unnamed soil is consistent with other land capability challenges conducted in the same Sm map unit (Carnelian and Agate Bay neighborhoods). In accordance with the TRPA Land Capability Classification system, the unnamed soils (XXX-2, HSG B) having 0 to 16 percent slopes with low runoff potential qualify as Class 6 (30 percent land coverage). The table below summarizes the changes in land capability as concluded by this land capability challenge.

Land Capability District	**Area (sq. ft.) 2016 Placer Land Capability Verification***	**Area (sq. ft.) 2024 Land Cap. Challenge**	**Net Change (sq. ft.)**
Class 1C (Sm, all slopes)	14,513	0	-14,513
Class 5, HSG C	0	9,072	+9,072

(XXX-1, >9 to 16% slopes)			
Class 6, HSG-B (XXX-2, 0 to 16% slopes)	0	5,441	+5,441
Total Parcel Area	**14,513**	**14,513**	**0**

* From September 2, 2016, Placer County Site Assessment, and July 19, 2021 (Samuel Pitnick Architects site plan with topographic contours).

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 (jroll@trpa.gov). To submit a written public comment, email publiccomment@trpa.gov with the appropriate agenda item in the subject line. Written comments received by 4 p.m. the day before a scheduled public meeting will be distributed and posted to the TRPA website before the meeting begins. TRPA does not guarantee written comments received after 4 p.m. the day before a meeting will be distributed and posted in time for the meeting.

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel Numbers: (APN)	116-060-046
TRPA File No. / Submittal Date:	LCAP2024-0166 / June 20, 2022
Owner or Applicant:	Haisley Family Trust (Ross and Lendy Haisley); 3498 Fisher Place; Carmel, CA 93923
Address:	422 Agate Road, Agate Bay, Placer County, CA

Environmental Setting	
Bailey Soil Mapping Unit[1] / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	JhC (Jabu stony sandy loam, 2 to 9% slopes, Class 5, HSG C) and Sm (Stony colluvial land, Class 1C, HSG B) / D-1 Streamcut volcanic flowlands – Toe slope lands (low hazard lands).
Soil Parent Material	Colluvium over lacustrine deposit; Colluvium over volcanic bedrock (NE corner only)
Slopes and Aspect	10 to 16 percent (historical grades, recently landscaped, sloping to south by southwest.
Elevation and Datum	150 to 162 ft. elev. (arbitrary datum from Samuel Pitnick Architects site plan with topographic contours)
Rock Outcrops and Surface Configuration	No outcrops, but 25 to 35% surface stones/boulders along east edge of parcel. Landscaping boulders along portions of parcel perimeter.
SEZ and Hydrology Source	None present
Vegetation	White fir, Jeffrey pine, incense cedar, snowbrush chinquapin (offsite), creeping snowberry, bitterbrush, whitethorn, greenleaf manzanita, and forbs.
Ground Cover Condition	Good (vegetation 25-35%, duff/rocks 65-75% cover)
Site Features	Residence, decks, driveway, and lawn/landscaping.

Field Investigation and Procedures	
Consultant and Address	Phil Scoles (TRPA subcontractor) Post Office Box 2100; Portland, OR 97208-2100
Consultant Field Date	August 01, 2024
SEZ Mapping / NRCS Hydric Soil	None present
Number of Soil Pits or Auger Holes and Description Depth	1 backhoe pits dug to 60 in. for center and west parts; other documentation to infer soil for northeast area.
Areas Not Examined	Residence, decks and driveway.

[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.

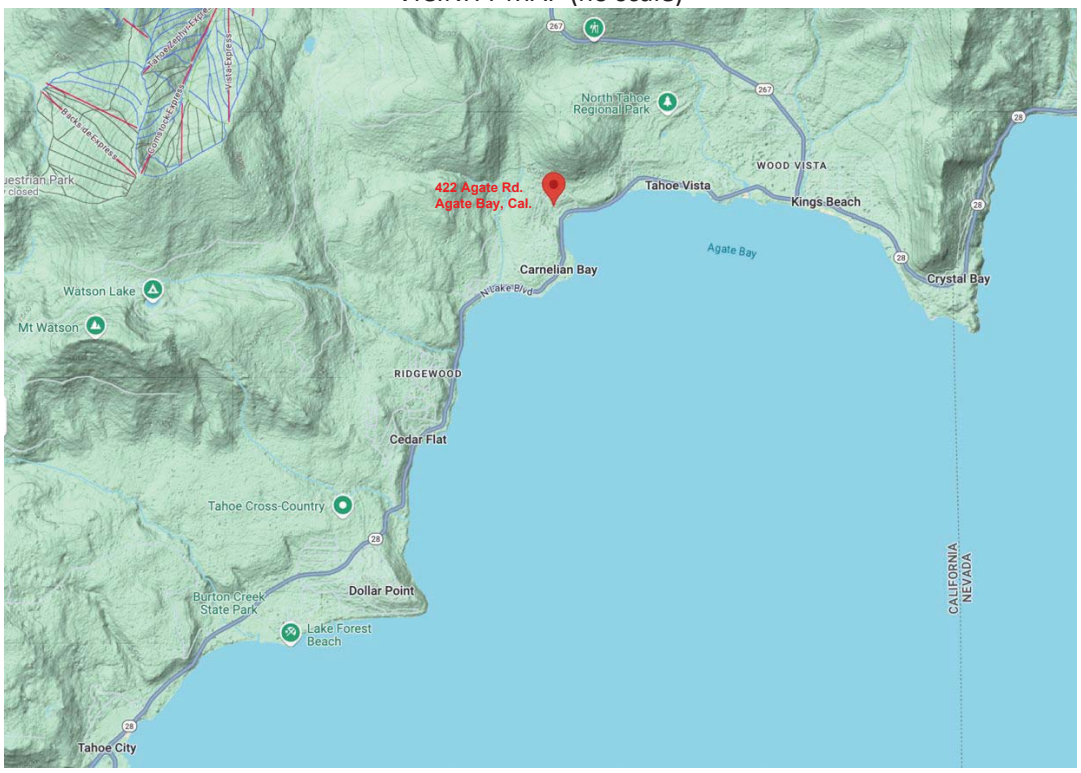
TRPA Findings	
2006 Soil Survey Map Unit	Jorge very cobbly loam, 2 to 15% slopes, extremely stony (Mapping unit 7154, Class 6, HSG-B) and Kingsbeach stony sandy loam, 2 to 15% slopes (Mapping unit 7161, Class 6, HSG-C)
Consultant Soil Mapping Determination and Rationale	The center and west portion of parcel is a colluvial soil atop an ancient lake deposit. It is a steeper version of the Jabu soil, so it is an unnamed soil (XXX-1). Due to silty clay loam subsurface layers, is has moderate runoff potential (HSG C) and qualifies as Class 5 for >9 to 16% slopes. The northeast part of parcel has deep soil (>40 in. thick) atop andesitic bedrock. It is a deeper version of the Umpa soil, hence it is an unnamed soil (XXX-2) with low runoff potential (HSG B). The soil does not match the 1974 soil survey mapping due to steeper conditions for the Jabu soil and deeper conditions for the Stony colluvial land. The soil is dissimilar to the Jorge-Tahoma soil, which lacks bedrock in upper 60 in.
Slope Determination	10 to 16% (slopes to south by southwest)
TRPA Conclusion(s)	Unnamed soil (XXX-1), HSG C, Class 5 (moderate runoff potential) and Unnamed soil (XXX-1), HSG B, Class 6 (low runoff potential).
Applicable Area	See map (Attachment B, August 2024)

Attachments:

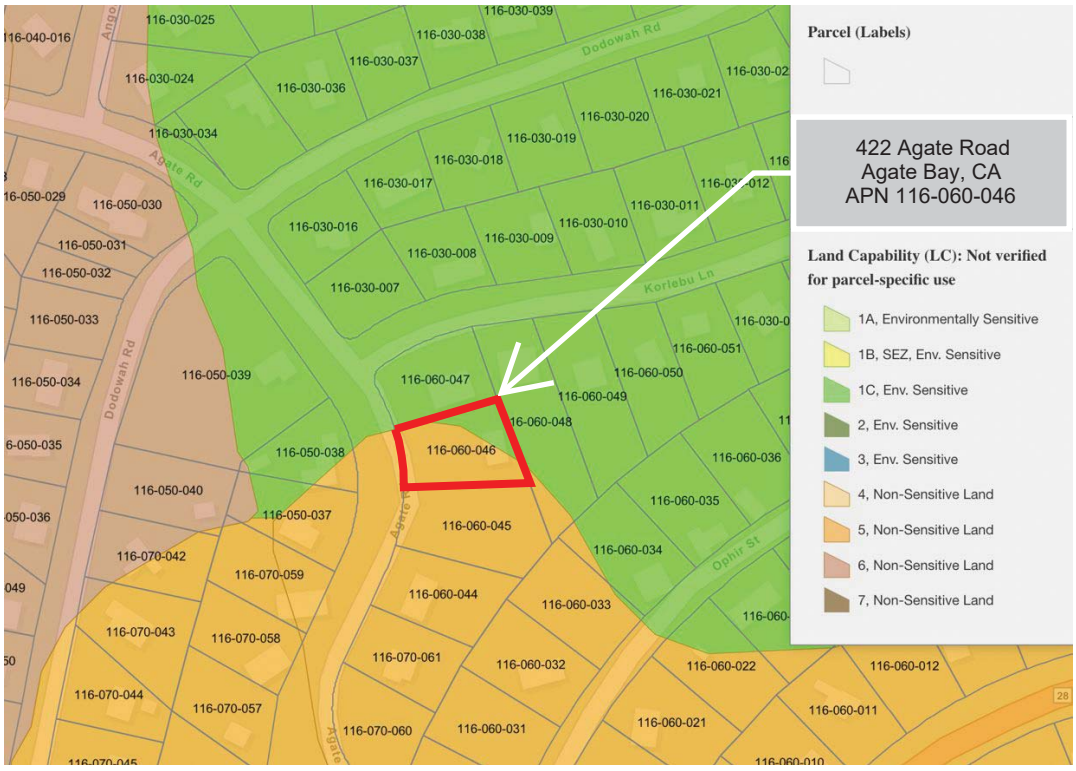
A. Vicinity map and TRPA land capability map
B. Site Photographs (August 01, 2024)
C. Existing conditions map showing topography and land capability challenge recommendation map
D. Soil Profile Descriptions

Attachment A
Vicinity map and TRPA land capability map

VICINITY MAP (no scale)



TRPA LAND CAPABILITY MAP



Attachment B
Site Photographs (August 01, 2024)

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422 Agate Road, Agate Bay, Cal. (Haisley Family Trust Parcel; APN: 116-060-046)

Photo 1 – View to east and south from northwest corner of property. The west portion of the property has a 12% slope to the southwest (historical condition, not landscaped condition). This vicinity has surface stones and boulders, since the upper soil layer is colluvial material. Rocks in foreground are placed.

Photo 2 – View to east and northeast from southwest corner of parcel. As apparent by the rock grouping along the south property line and small rock embankments, the center and west portion of the property is landscaped. A less disturbed area was utilized for the soil description.

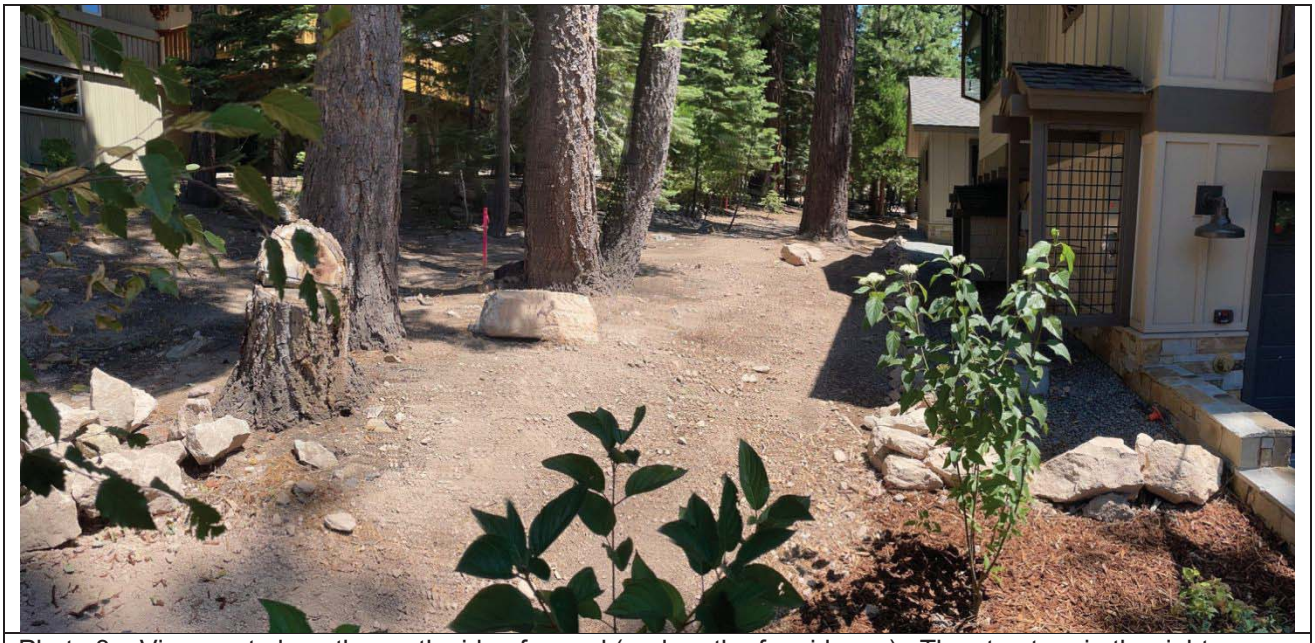


Photo 3 – View east along the north side of parcel (and north of residence). The structure in the right foreground is an addition to the original residence. A photograph of this vicinity (Appendix D) shows a soil exposure with bedrock at 40 to 50 inches below the surface. This is a deep, well drained soil.

Photo 4 – View to south from northeast part of parcel. The cobbly-stony soil surface in the left side of photo is typical of natural conditions in upper part of the parcel. While mapped at Stony colluvial land (Sm) in the 1974 soil survey, an neighboring land capability challenge found deep, well drained soil (Class 6).

Photo 5 – View west south edge of property. Prior to landscaping, the native plant community consisted of white fir, Jeffrey pine, incense cedar, chinquapin, snowbrush, whitethorn, greenleaf manzanita, creeping snowberry, grasses and forbs.

Photo 6 – View to northwest (upslope) from southeast corner of parcel. This vicinity is the least disturbed area; hence, best location for an excavation to evaluate soil conditions. Soil pit dug to 60 inches. Sidecast stones and boulders occur in upper 37 inches of profile.

Photo 7 – View of Test Pit no. 1, located in the southeast portion of APN 116-060-046. This vicinity has a 10 to 12% slope, while hillslope immediately north has 15 to 16% slope. The natural condition has 25 to 35% surface stones, and 25 to 35% duff cover (fir needles, twigs, etc.).

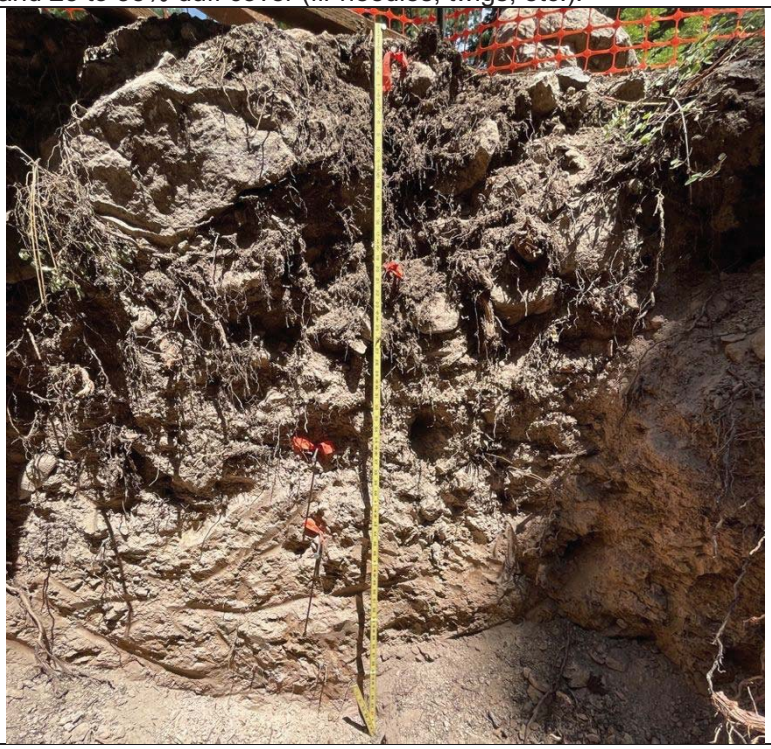
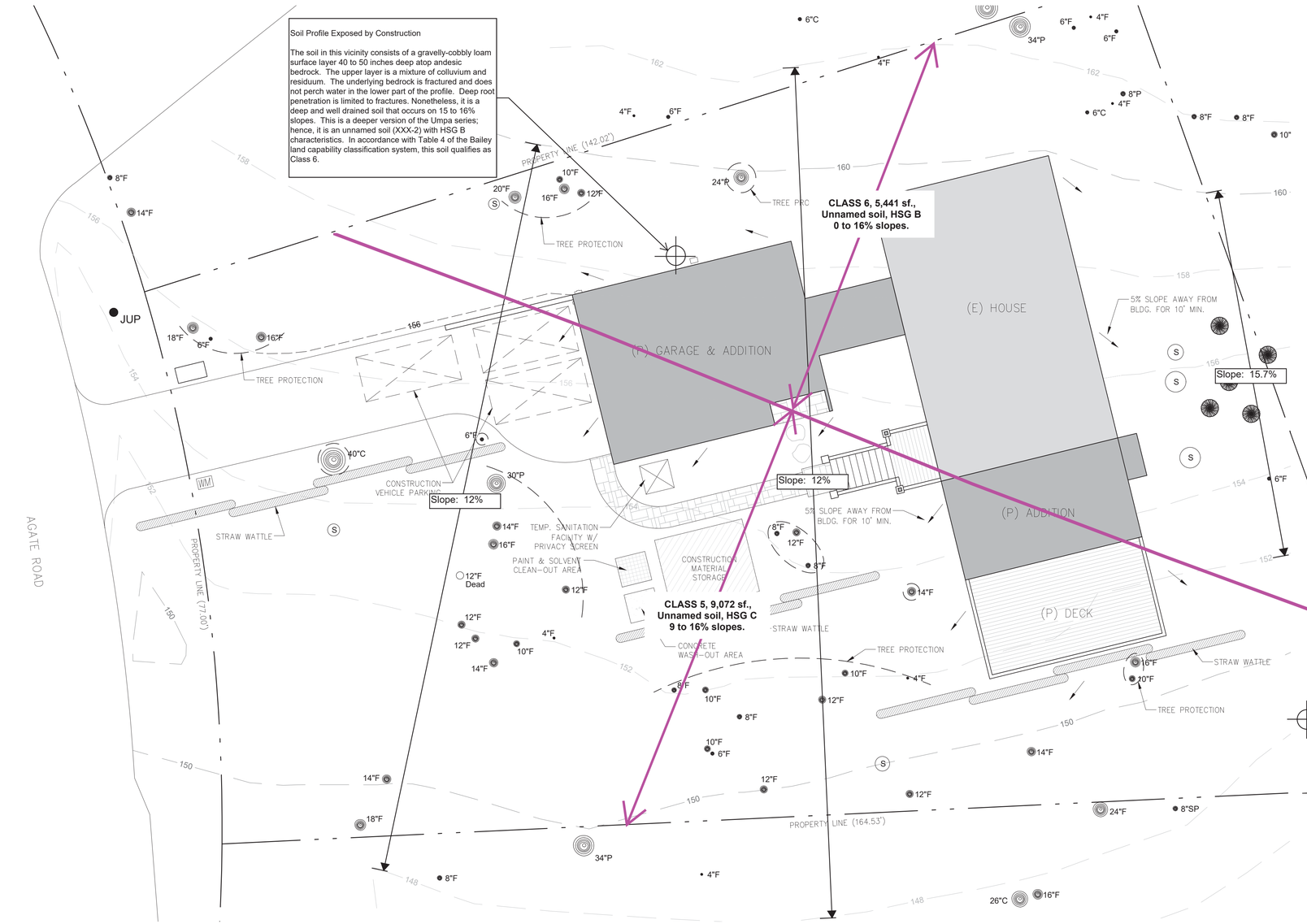


Photo 8 – Close-up view of soil profile (Class 5). Upper 37 inches consists gravelly-cobbly loam colluvium. The underlying layer is an ancient lake deposit having little or no cobbles and stones. The silty clay loam texture of this lake deposit is consistent with HSG C rating. Fine to medium root penetration at 60 inches.

Attachment C
Existing conditions map showing topography and land capability challenge recommendation map

Use of these plans and specifications shall be restricted to the original site for which they were prepared and publication thereof is expressly limited to such use. Reproduction or publication by any method, in whole or in part, is prohibited. Title to the plans and specifications remains with the architect without prejudice. Visual contact with these plans and specifications shall constitute prima facie evidence of the acceptance of these restrictions.



1 CONSTRUCTION MANAGEMENT & EROSION CONTROL PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. TREE PROTECTION SHALL BE IN PLACE PRIOR TO ANY PERMITS BEING ISSUED.
2. CULTURAL, ARCHAEOLOGICAL, HISTORICAL, OR PALEONTOLOGICAL RESOURCES NOTIFICATION: "STOP WORK WITHIN 50 METERS (165 FEET) OF UNCOVERED RESOURCE AND CONTACT PLACER COUNTY AND A QUALIFIED ARCHAEOLOGIST IMMEDIATELY IF CULTURAL, ARCHAEOLOGICAL, HISTORICAL, OR PALEONTOLOGICAL RESOURCES ARE UNCOVERED".

CONSTRUCTION MANAGEMENT NOTES

1. DURATION OF CONSTRUCTION IS APPROX. 8-12 MONTHS STARTING FROM THE DATE PERMITS ARE ISSUED.
2. WORK SHALL BE PERFORMED BETWEEN THE HOURS OF 8 AM AND 5 PM. WORK PERFORMED BEFORE 8AM SHALL BE NON-CONSTRUCTION ACTIVITY (QUIET HOUR)
3. THE NUMBER OF WORKERS WILL VARY THROUGH OUT THE CONSTRUCTION. WORKERS ONSITE WILL RANGE FROM 2 TO 12.
4. EROSION CONTROL PROTECTION TO BE INSTALLED PER THE PERMITTED PLANS.
5. STERILE STRAW WATTLES SHALL BE PLACED BEFORE AND DURING RAIN STORM EVENTS TO CONTAIN STORM WATER AND EROSION DURING CONSTRUCTION.
6. ALL ON AND OFF-ROAD DIESEL EQUIPMENT SHALL NOT IDLE FOR MORE THAN 5 MINUTES.
7. SUBSTITUTE GASOLINE-POWERED IN PLACE OF DIESEL-POWERED EQUIPMENT, WHERE FEASIBLE.
8. USE ALTERNATIVELY FUELED CONSTRUCTION EQUIPMENT ON-SITE WHERE FEASIBLE, SUCH AS COMPRESSED NATURAL GAS (CNG), LIQUEFIED NATURAL GAS (LNG), PROPANE OR BIODIESEL.
9. CONSTRUCTION TRUCK TRIPS WILL BE SCHEDULED DURING NON-PEAK HOURS TO REDUCE PEAK HOUR EMISSIONS.
10. DUST CONTROL MEASURES WILL BE IMPLEMENTED INCLUDING THE USE WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. WATERING FREQUENCY SHALL BE INCREASED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NON-POTABLE) WILL BE USED WHENEVER POSSIBLE.
11. ALL TRUCKS HAULING DIRT, SAND, SOIL, OR OTHER LOOSE MATERIALS ARE TO BE COVERED OR SHOULD MAINTAIN AT LEAST TWO FEET OF FREEBOARD (MINIMUM VERTICAL DISTANCE BETWEEN TOP OF LOAD AND TOP OF TRAILER) IN ACCORDANCE WITH CVC SECTION 23114.
12. THE PROPOSED AMOUNT OF GRADING PER DAY WILL BE SIGNIFICANTLY LESS THAN THE POTENTIAL THRESHOLD FOR SIGNIFICANT IMPACTS OF 2.2 ACRES/DAY.CEQA TABLE 5-2.
13. TRUCK STAGING - ALL TRUCK STAGING REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE STAGED ON PRIVATE PROPERTY.

CONSTRUCTION MANAGEMENT LEGEND:

- CONSTRUCTION MATERIAL STORAGE
- PAINT & SOLVENT CLEAN-OUT AREA
- CONCRETE CONTAINMENT WASHOUT
- STRAW WATTLE
- TREE PROTECTION
- SILT FENCING

TRPA Land Capability Challenge for
LCAP2024-0166; APN 116-060-046
422 Agate Road
Agate Bay, Placer County, Calif.

Field Investigation: **Aug. 01, 2024**
Data Analysis: **Aug. 29, 2024**
Conducted By: **P.Scoles (Soil Scientist)**

HAISLEY CABIN REMODEL
422 AGATE ROAD
CARNELIAN BAY, CA
96140

LICENSED ARCHITECT
SAMUEL B. PITNICK
C - 34362
REN: 05/31/23
STATE OF CALIFORNIA

SAMUEL PITNICK ARCHITECTS
P.O. BOX 22412, CARMEL, CA 93922
PHONE: (831) 241-1885
EMAIL: SAMUELPITNICK@GMAIL.COM

REVISIONS	DATE

ARCHITECTURAL

CONSTRUCTION MANAGEMENT PLAN

Scale: SEE DWG.
Drawn By: SBP
Job: -

G1.2

07/19/2021

AGENDA ITEM NO. V. A.

Attachment D
Soil Profile Descriptions

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Mail
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422 Agate Road (Haisley Family Trust Parcel; APN: 116-060-046);
Agate Bay, Placer County, Cal. – Test Pit 1 (TP-1)

View of soil profile showing bottom depth of 60 inches.	Soil Properties / Features		
	Layer	**Depth (In.)**	**Matrix color, Texture, Structure, Roots, Pores, etc.**
	Oi	0 to 2	Partially decomposed fir and pine needles and twigs; abrupt smooth boundary. 30 to 40% surface stones.
	A	2 to 19	Grayish brown (10YR 5/2) gravelly-cobbly loam, very dark brown (7.5YR 2.5/2) moist; weak, fine granular structure; loose, very friable, slightly sticky & slightly plastic; many very fine to fine roots, few medium roots; many, fine interstitial pores; no clay films; 20% gravel, 15% cobbles, 5% stones/boulders; abrupt smooth boundary.
	Bt	19 to 37	Light brownish gray (10YR 6/2) very gravelly-cobbly clay loam, dark brown (7.5YR 3/3) moist; weak, fine granular structure; loose, very friable, slightly sticky & slightly plastic; many fine roots, common medium and coarse roots; many, fine interstitial pores; no clay films; 30% gravel, 20% cobbles, 2% stones/boulders; clear, wavy boundary.
	2C1d	37 to 46	Pinkish gray (7.5YR 6/2) gravelly silty clay loam, brown (7/5YR 4/3) moist; moderate, medium subangular blocky structure; slightly densic; moderately hard, firm, moderately sticky & moderately plastic; few very fine and fine roots, few medium and coarse roots; many, fine interstitial pores, few fine tubular pores and clay films; 15% gravel, 2% cobbles, no stones/boulders; clear, wavy boundary.
	2C2d	46 to 60	Pinkish gray (7.5YR 6/2) silty clay loam, brown (7.5YR 4/4) moist; strong, massive structure; slightly densic; 1% relict 5YR 3/4 redox soft masses; hard, very firm, moderately sticky and moderately plastic; few very fine to fine roots, few medium roots; many fine interstitial pores, few fine tubular pores and clay films; 10 percent gravel, 1 percent cobbles, no stones/boulders. Roots penetration to 60 inches. No bedrock observed.
Below the Oi horizon, topsoil is about 17 in. thick and has gravelly-cobbly loam texture. The subsoil has gravelly & cobbly clay loam that extends to 37 in. depth. Buried lacustrine deposit (lacking rockiness) starting at 37 inches and extending to 60+ inches. 1 to 3% relict redox concentrations in buried lacustrine material. Soil does not match 1974 soil survey (Stony Colluvial Land, Sm), but it is a steeper version of the Jabu, stony sandy loam soil (JhC). In accordance with the Land-Capability Classification of the Lake Tahoe Basin (Bailey, 1974), this unnamed soil (XXX-1, HSG C) qualifies as Class 5.			NOTES: No indication of seasonal high water within profile. Buried lacustrine material lacks redox features immediately above, so 2C layers are not hydrologic restricting layers, but only few coarse root penetration. Redox features in lacustrine material considered relict due to non-restricting condition. Surrounding vegetation: Pinus jeffreyii (25%), Abies concolor (35%), Calocedrus decurrens (5%), Symphoricarpos mollis (15%), Purshia tridentata (10%0, Chrysolepis sempervirens (5%), Ceanothus velutinus (5%), Arctostaphylos patula (5%), and Ceanothus cordulatus (5%). Duff cover is 35 to 45%. This is typical upland forest (non-SEZ plant community).

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422 Agate Road (Haisley Family Trust Parcel; APN: 116-060-046);
Agate Bay, Placer County, Cal. – House Expansion Construction (2023)

Residence construction exposed 4+ feet of soil along north property line. Soil has similar grayish brown to pinkish brown in upper part as observed at TP-1. At lower right edge of photo, fractured bedrock is exposed – this is similar to the Umpa soil series, but occurs deeper than 40 inches. Root penetration below ~45 inches is limited to fractures within the bedrock. This soil condition is consistent with an unnamed soil (XXX-2, HSG B) that is a deeper version of the Umpa series. In accordance with the Land-Capability Classification of the Lake Tahoe Basin (Bailey, 1974), this XXX-2 soil qualifies as Class 6 for slopes 0 to 16%.