PJC & Associates, Inc.
Consulting Engineers & Geologists

March 7, 2024 Job No. 11565.02

Koko Nor Corporation
Attention: Anthony Hsu
Ahsu@Maxvillelakewines.com
c/o: HD Vine LLC.
Attention: Coda Rainsford
Coda@HDVine.com

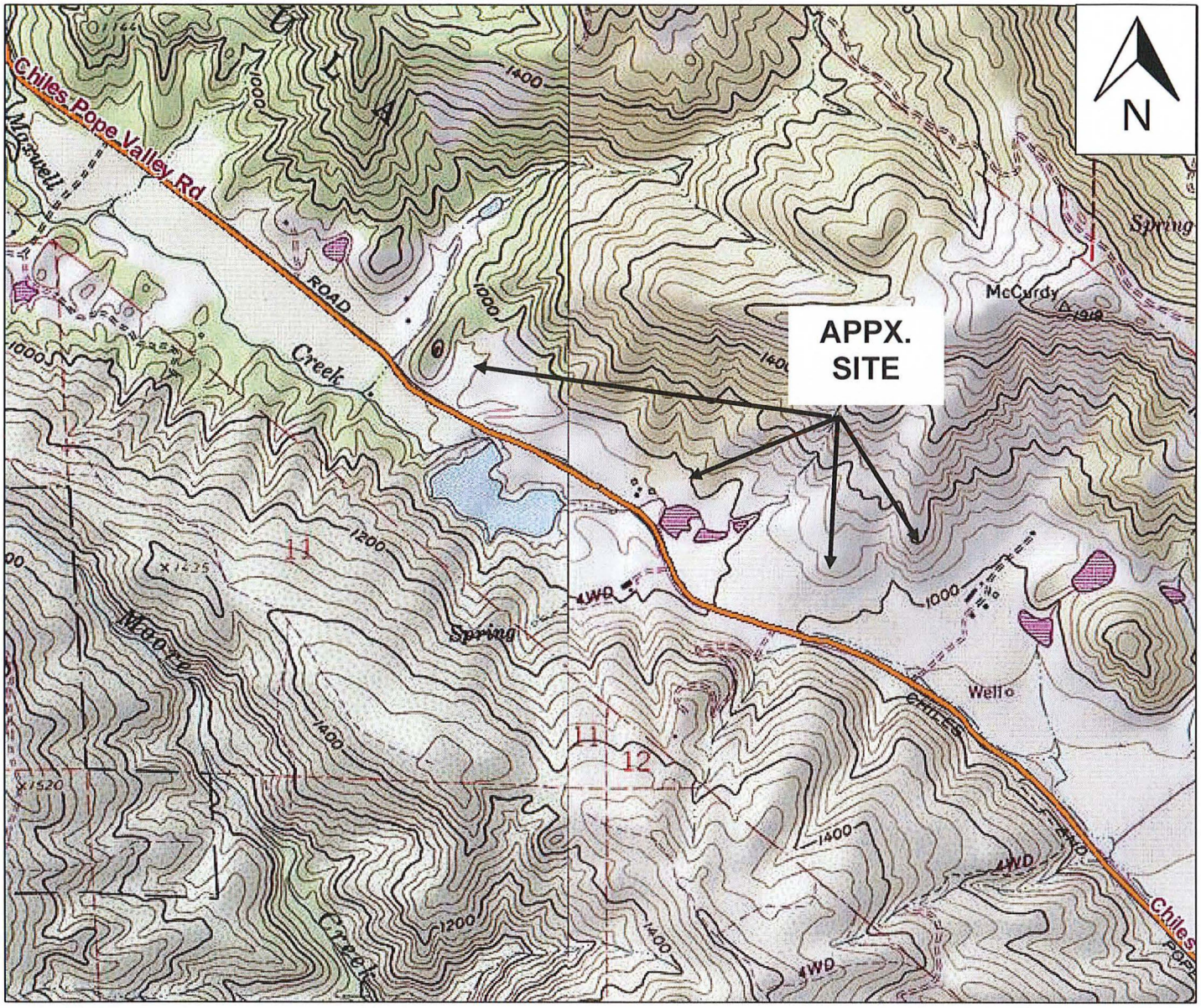
Subject: Stability Report
Proposed Vineyard Development
Maxville Winery
4105 Chiles Pope Valley Road
St. Helena, California

Dear Anthony:

PJC & Associates, Inc. (PJC) is pleased to submit this report which presents the results of our site stability evaluation for the proposed vineyard for the Maxville Winery located at 4105 Chiles Pope Valley Road in St. Helena, California. The approximate location of the project site is shown on the Site Location Map, Plate 1. According to field GPS measurements, the approximate location of the project site corresponds to the approximate latitudinal and longitudinal coordinates of 38.565663° north and -122.357931° west. Our services were completed in accordance with our agreement for geological services dated November 30, 2023, and your authorization to proceed with the work dated December 3, 2023. The purpose of our work was to perform a geologic reconnaissance of the proposed vineyard blocks, review the project plans and applicable geologic references, and assess if adverse slope conditions are present that could impact the stability of the project site.

1. PROJECT DESCRIPTION

Based on our review of a site plan prepared by HD Vine LLC., dated February 5, 2024, it is our understanding that the proposed project will consist of planting a vineyard at the property. The project area covers approximately 68.3 acres of gross vineyard blocks and 54.1 acres net vineyards. The project extends across gently to moderately steep hillside terrain and will include tree removal. The vineyard is expected to be broken up into approximately 16 blocks. The project site is bordered by areas with potential slope instability. It is our understanding that the Napa County planning department is concerned with the presence of a mapped landslide within and near the development area. The scope of our work on the project consisted of performing a qualitative slope stability analysis to provide an opinion on the stability of the project site.



SCALE: 1:24,000

REFERENCE: USGS CHILES VALLEY, CALIFORNIA 7.5 MINUTE QUADRANGLE, REVISED 1993.

PJC & Associates, Inc. *Consulting Engineers & Geologists*	**SITE LOCATION MAP** PROPOSED VINEYARD DEVELOPMENT 4105 CHILES POPE VALLEY ROAD SAINT HELENA, CALIFORNIA	PLATE **1**
	Proj. No: 11565.02 Date: 2/2024 App'd by: PJC	

2. SITE CONDITIONS

The proposed vineyard blocks are located in the lower foothills of the southern flank of Mount McCurdy, near the northeastern margin of Chiles Valley. At the time of our field exploration, the proposed vineyard blocks were situated in open meadows covered in perennial grasses with surrounding oak and fir trees, with occasional large boulders on the surface of the site. A vacant barn and residence exist within Block G, with a nearby man-made reservoir. Evidence of an old but since removed homestead exists in Block I.

We observed large-scale gently rolling hummocks throughout the proposed vineyard blocks, mainly at the western margin of the project site. The slopes coalesced into a fan shaped feature that covers most of Block I. Estimated average slope gradients at the proposed vineyard vary from approximately 5 to 50 percent. The hillside gradients steepen at the uphill northeastern margin of the project site. Several deeply dissected drainage swales descending from the north bisect and separate the proposed vineyard blocks.

3. GEOLOGIC LITERATURE REVIEW

a. Regional Geology. The site is located in the northern California Coast Ranges Geomorphic Province. This province consists of a belt of northwest trending mountain ranges and valleys extending from the Pacific Ocean eastward to the Great Valley physiographic province. The northwest trend reflects the predominant orientation of topographic and geologic features created in response to northwest oriented faulting and folding during the past 100 million years.

b. Local Geology. According to published geologic maps prepared by the California Geologic Survey (CGS), the project site is located within the Great Valley sequence (KJgvl). This unit is described to consist of early Cretaceous and late Jurassic sandstone and shale. A regional geologic map is presented on Plate 9. According to reconnaissance photointerpretation map of landslides, a landslide complex extends along the south-southwest facing slopes at the eastern margin of the project site. A landslide map is presented on Plate 10. A discussion of our observations during our geologic reconnaissance and subsurface exploration is provided in the following section.

c. Faulting. Geologic structures in the region are primarily controlled by northwest trending faults. The site is not located in any Alquist-Priolo Earthquake Fault Studies Zone. According to the USGS Earthquake Hazards Program National Seismic Hazard Maps, the three closest known active faults to the site are the Hunting Creek-

Berryessa, West Napa, and Green Valley Faults. Hunting Creek-Berry is located 4.3 miles to the east, the West Napa is located 10.7 miles to the southwest, and the Green Valley fault is located 15.9 miles southeast of the site. The maximum earthquake event expected to occur is attributed to the Hunting Creek-Berryessa fault, which is estimated to be 7.1 (moment magnitude).

4. GEOLOGIC RECONNAISSANCE

On December 14, 2023, a certified engineering geologist with PJC visited the project site to perform a geologic reconnaissance and a qualitative stability evaluation of the proposed vineyard. During our reconnaissance, we observed geomorphic features suggesting the presence of active landslides at or near some of the proposed vineyard blocks. The large gently rolling hummocks across the site appear to be geomorphic features suggesting the presence of a global ancient landslide deposit underlying the project site. The subdued surface topography and lack of any fresh crowns, scraps, or debris suggest that the global landslide is an ancient feature and is presumed dormant. We also excavated six exploratory test pits (TP-1 through TP-6) to confirm our interpretation of the surface features. Our subsurface findings are presented on Plates 3 through 8. During our reconnaissance we did identify notable active landslide features within and near blocks D2, G, H, I, J. K, and L. The active landslides generally consist of slope failures mainly within the steep banks of nearby drainage features in conjunction with poor drainage and springs. Based on our study of the active landslides, the landslide are considered unstable. Therefore, we recommend the proposed vineyard blocks be set back away from the active landslides. No evidence of obvious active landslide features were observed in blocks A, B, C1, C2, C3, D1, D3, E, or F.

5. CONCLUSIONS

Based on our field observations, we judge that the proposed vineyard blocks as shown on the plans by HD Vine LLC dated February 5, 2024 appear to be suitable for planting from a geologic standpoint, given that our recommendations are followed during grading and vineyard development. We judge that there is a low possibility that the planned vineyard project might trigger slope movements or local shallow instabilities, during and following vineyard planting.

Based on our site reconnaissance and our review of the published geologic literature areas of the project site are underlain by a global ancient landslide deposits. However, based on our evaluation, the global landslides appear to be dormant. We do not anticipate that the proposed vineyard would have any detrimental impact on global slope stability. However, we have identified active landslide features within and near some of the proposed blocks. As a safety precaution we recommend that

the proposed blocks be set-back at least 25 feet away from those features. The 25 foot set-back is considered a no-touch zone. We also have identified areas requiring subdrains to enhance slope stability. During the design process PJC has consulted directly with HD Vine LLC, to incorporate the active landslide set-backs and recommended subdrain locations into the plans dated February 5, 2024. The locations of the active landslide features are shown on the plans in yellow, and the recommended subdrain locations are shown in the plans as dashed blue lines. PJC can provide field consultations on the exact locations, depths, and construction specifications of the recommended subdrains. PJC should also provide a field review following tree removal to determine if unseen active landslides are encountered.

During our reconnaissance and subsurface exploration, we identified an active landslide in the middle of Block K. Our subsurface exploration identified that the landslide is underlain by emplace sandstone bedrock at a depth of approximately seven feet below the ground surface. We judge that this particular landslide can be repaired as a compacted earth buttress. A keyway, benching, and subdrains will be required for the repair. The owner should be aware that we anticipate the landslide repair in Block K will be a costly project. A civil engineer should prepare plans based on the recommendations provided in the subsequent sections of this report. A grading permit will also be required for the repair work.

6. EARTHWORK AND GRADING

The following provides landslide repair recommendations for the feature observed in the middle of Block K.

a. Stripping. Soils containing roots, tree stumps and organic matter must be stripped from the area. The stripping should extend a minimum of five feet from the edge of all fill slopes. The stripped material should be stockpiled for later distribution on the fill areas. The thickness of required stripping is expected to be generally on the order of two to six inches.

b. Excavation / Removal of Weak Soils. Where fills are to be constructed, the existing fill and weak soils should be removed until bedrock is exposed. The depth of the existing fill and weak soils is considered to be on the order of seven feet below the ground surface but should be determined by PJC in the field during construction.

c. Keyways and Benches. The soil mantle and any weak materials should be removed and benches cut horizontally into competent sandstone bedrock in conjunction with fill placement. The maximum height of benches should be reviewed in the field by the geotechnical engineer. A keyway will be required at the toe of fill

embankments, and consultation should be provided by the geotechnical engineer to determine where these keys should be constructed. The keyways should be a minimum of 10 feet in width and extend at least three feet into bedrock as measured on the downhill side. We anticipate the keyway will be approximately 10 feet deep.

A subdrain should be installed at the rear heal of the keyways. Subdrains should consist of a one inch basal layer of drain rock (Caltrans Class 2 Permeable Material), upon which a perforated heavy-walled plastic pipe is set. The pipe should be at least four inches in diameter and should consist of SDR 35 or equivalent. The pipe should be covered by a two foot wide (minimum) chimney of Caltrans Class 2 Permeable Material that extends up the rear wall of the keyway excavation. Clean-out risers should be provided for each of the keyway subdrains. The perforated pipe should outlet into a solid line that discharges onto an approved erosion resistant area downslope from the fill slope. Additional subdrains could be required on the benches depending on conditions encountered in the field during grading and earthwork. The geotechnical engineer in the field during grading and earthwork should determine the actual location and keyway depth, subdrains, and height/widths of the benches. A fill slope/ keyway diagram is presented on Plate 1A.

d. Cut Slopes. We recommend that cut slopes be constructed at an inclination no steeper than 2H:1V. Potentially unstable subsurface conditions such as adverse bedding, joint planes, zones of weakness or exposed seepage could be encountered during grading and may require either flatter slopes than specified above or other treatment. Trenched interceptor subdrains may be needed at the top of cut slopes. It is recommended that an representative of PJC observe the cut slopes and provide final recommendations for the control of adverse conditions if encountered during grading operations. During the rainy season, the cut slopes should be treated as needed in order to minimize the probability of slumping and erosion.

e. Fill Slopes. It is recommended that fill slopes be constructed at an inclination no steeper than 2H:1V. To minimize the probability of slumping and/or erosion of fill slopes, the face of the slopes should be properly treated. The slopes should be constructed at least two feet (horizontally) beyond the planned final face plane, using proper compaction equipment, and compacted to not less than 90 percent relative compaction throughout; the slope face should then be trimmed back to the final face plane. This operation should expose properly compacted material on the finished face of the slope.

f. Fill Placement & Compaction. In general the on-site excavated materials may be used as fill. Boulders and man-made debris should be removed. Excavated material to be used for the construction of site fills should not contain organic material, have a low to non-expansive potential, should have no rock or similar irreducible material with a maximum dimension greater than eight inches, and should be approved by the geotechnical engineer before use. All fills should be placed in lifts no greater than eight inches in loose thickness. It is recommended that any import fill to be used on site be of a low to non-expansive nature and should meet the following criteria:

Plasticity Index	less than 12
Liquid Limit	less than 35
Percent Soil Passing #200 Sieve	between 15% and 40%
Maximum Aggregate Size	4 inches

A representative of PJC should observe all site preparation and fill placement. It is important that during the stripping, grading and scarification processes, a representative of our firm be present to observe whether any undesirable material is encountered in the construction area.

Generally, grading is most economically performed during the summer months when on site soils are usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in the on-site soils. Special and relatively expensive construction procedures should be anticipated if grading must be completed during the winter and early spring.

7. DRAINAGE

a. General. It is probable that seepage will develop in the porous soils and bedrock fractures during and following prolonged rainfall. Whenever water seepage is observed, the condition must be evaluated by the geotechnical engineer prior to covering with fill materials to assess whether a drainage blanket or subdrain is required.

b. Surface Drainage. Drainage control design should include provisions for positive surface gradients so that surface runoff is not permitted to pond, particularly above slopes or adjacent to the active landslide features. If the drainage facilities discharge onto the natural ground, adequate means should be provided to control erosion and to create sheet flow.

c. Subsurface Drainage. Keyway and benching subdrain design specifications are provided in the grading and earthwork section of this report.

d. Erosion Control. The discharge of channelized water flow will increase the potential for erosion and slope instability. Riprap or other means are recommended to dissipate energy and to create sheet flow. Slopes should be adequately planted or provided with erosion blankets or approved equivalent to retard erosion.

8. LIMITATIONS

This report has been prepared for the exclusive use of Koko Nor Corporation. Our services consist of professional opinions and conclusions developed in accordance with generally accepted geologic principles and practices. We provide no other warranty, either expressed or implied. Our conclusions are based on the information provided to us regarding the proposed project, the results of our field reconnaissance, and professional judgment.

We trust that this is the information you require at this time. If you have any questions concerning the content of this report, please call.

Sincerely,

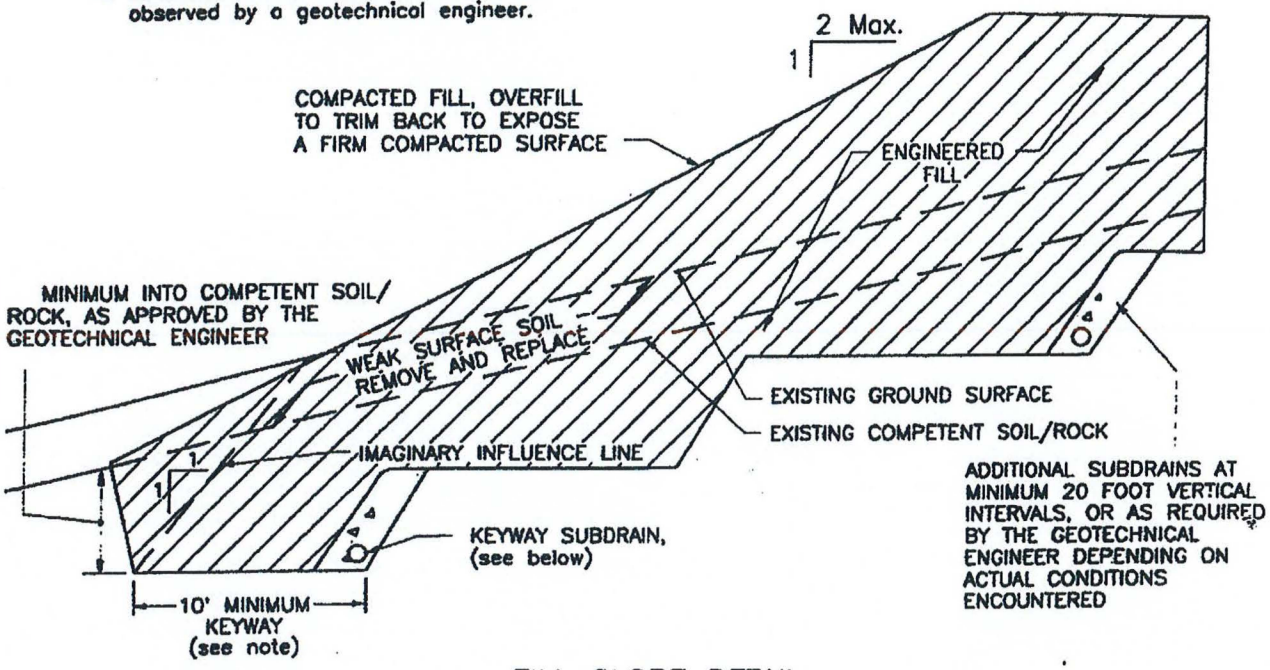
PJC & ASSOCIATES, INC.

Stephen M. Schurke
Certified Engineering Geologist
CEG 2647, California

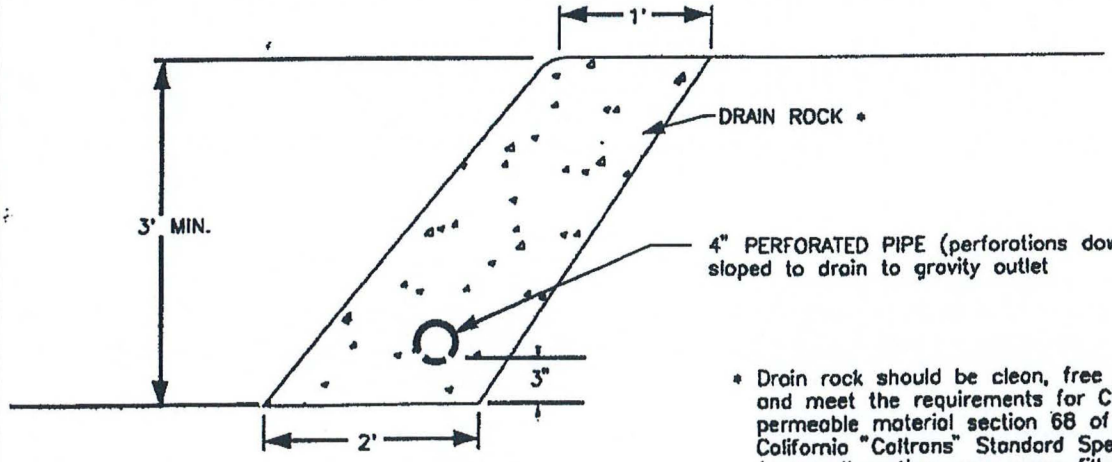


SMS

Notes: 1. Keyway excavation and subdrain installation should be observed by the Geotechnical Engineer.
2. Where existing slope exceeds 6:1 excovate series of benches in competent soil/rock.
3. All subdrains should have cleanouts at a minimum of 400 foot intervals and at upslope end.
4. Installation of all subdrains should be observed by a geotechnical engineer.



FILL SLOPE DETAIL
not to scale



SUBDRAIN DETAIL
not to scale

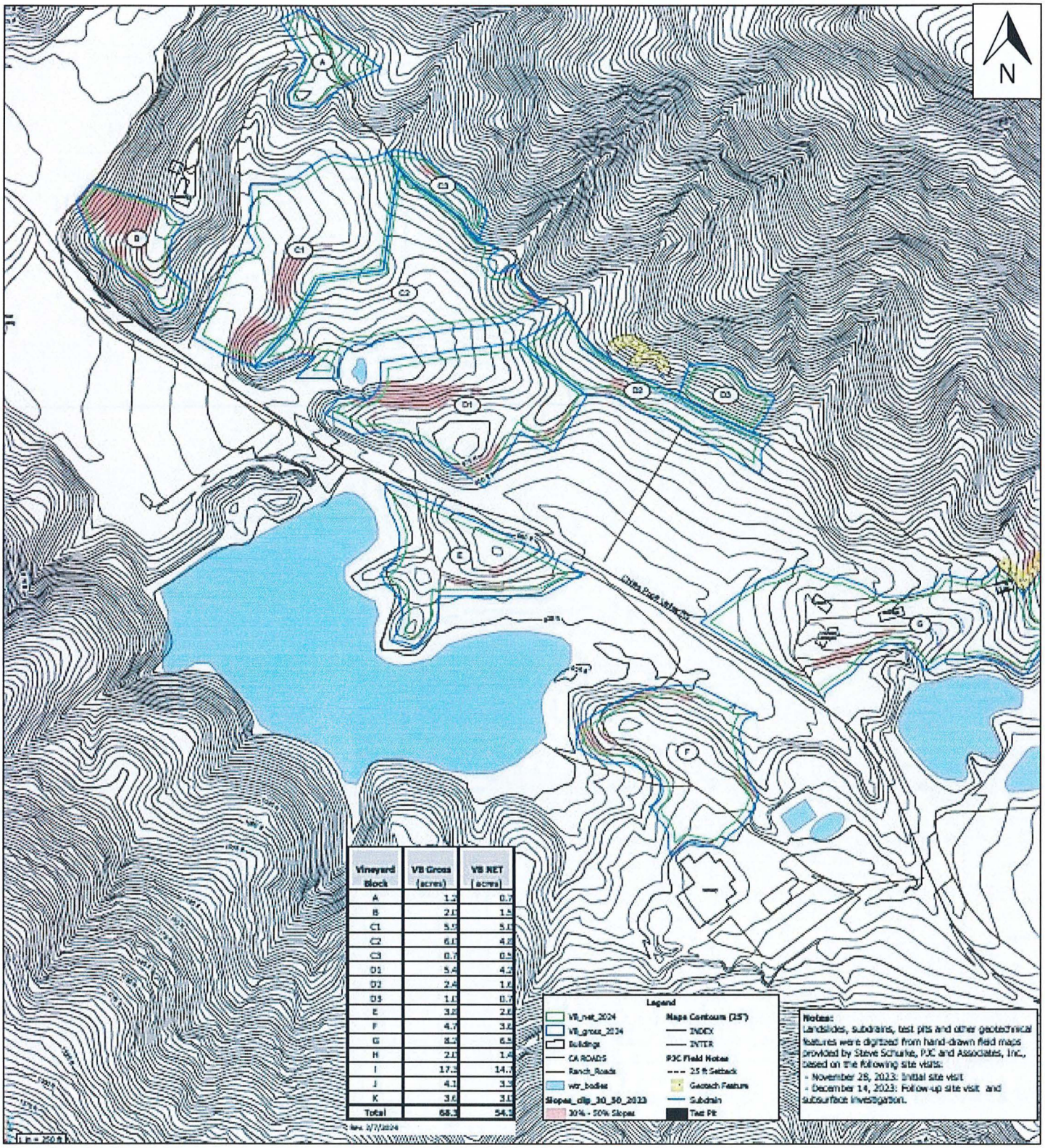
* Drain rock should be clean, free draining and meet the requirements for Class 2 permeable material section 68 of State of California "Caltrans" Standard Specifications. As an alternative, non-woven filter fabric (Mirafi 140N or equivalent) wrapped around 3/4" - 1-1/2" drain rock may be used, depending on actual conditions encountered.

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KEYWAY & FILL SLOPE DETAIL
PROPOSED VINEYARD DEVELOPMENT
4105 CHILES POPE VALLEY ROAD
SAINT HELENA, CALIFORNIA

PLATE
1A

Proj. No: 11565.02 Date: 2/2024 App'd by: PJC



NO SCALE

EXPLANATION

TEST PIT LOCATION AND DESIGNATION

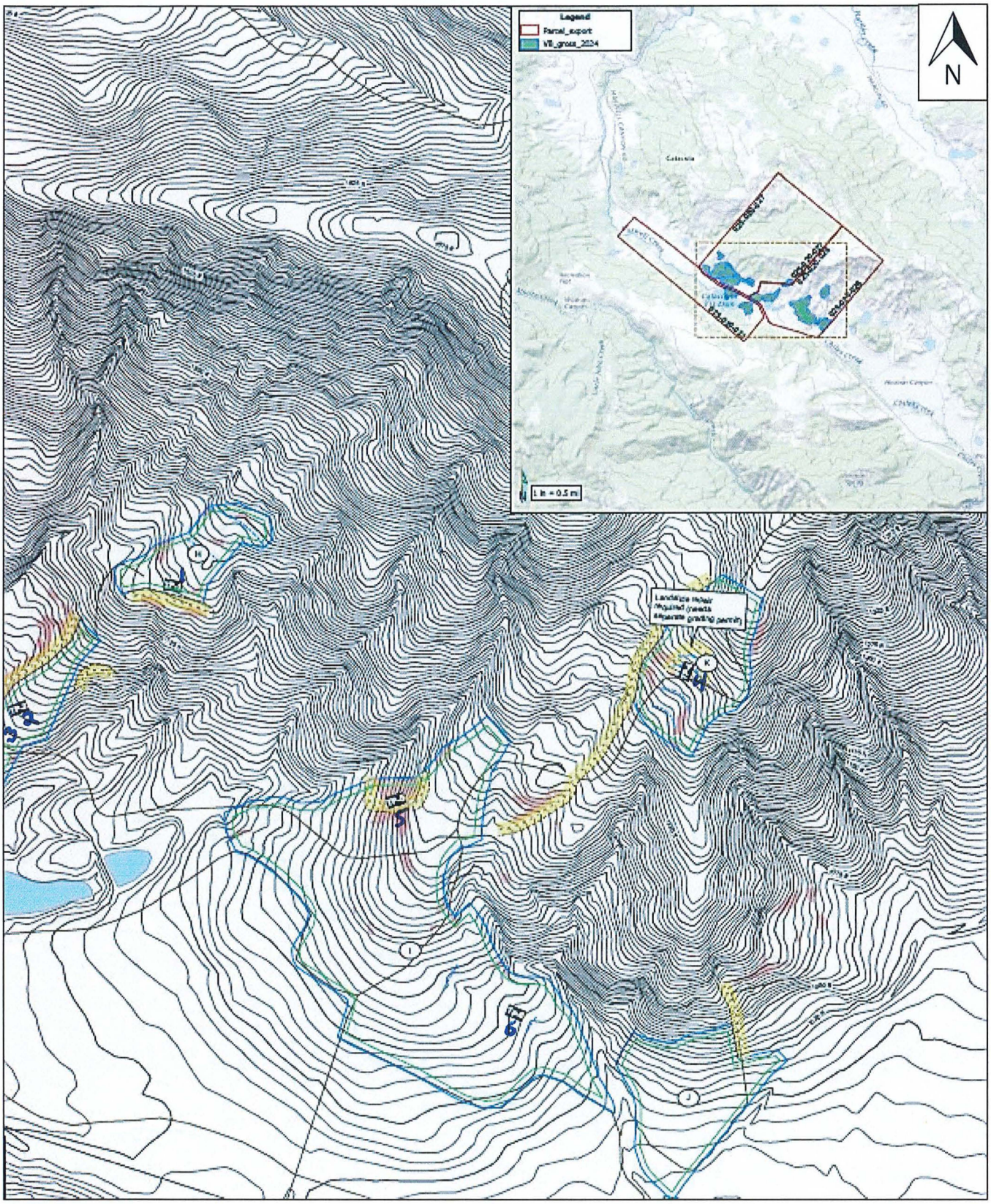
REFERENCE: SITE PLAN TITLED "MAXVILLE-VB UPDATE", PREPARED BY HDVINE LLC, DATED 2/5/24.

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TEST PIT LOCATION MAP
PROPOSED VINEYARD DEVELOPMENT
4105 CHILES POPE VALLEY ROAD
SAINT HELENA, CALIFORNIA

PLATE
2A

Proj. No: 11565.02 Date: 2/2024 App'd by: PJC



EXPLANATION

NO SCALE

TEST PIT LOCATION AND DESIGNATION

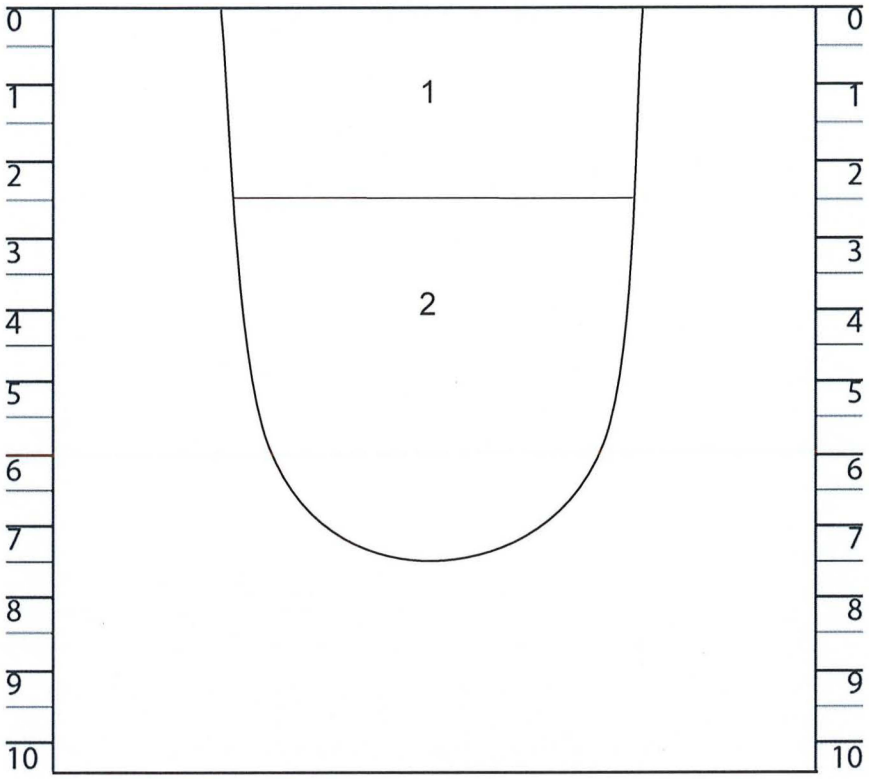
REFERENCE: SITE PLAN TITLED "MAXVILLE-VB UPDATE", PREPARED BY HDVINE LLC, DATED 2/5/24.

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TEST PIT LOCATION MAP
PROPOSED VINEYARD DEVELOPMENT
4105 CHILES POPE VALLEY ROAD
SAINT HELENA, CALIFORNIA

PLATE
2B

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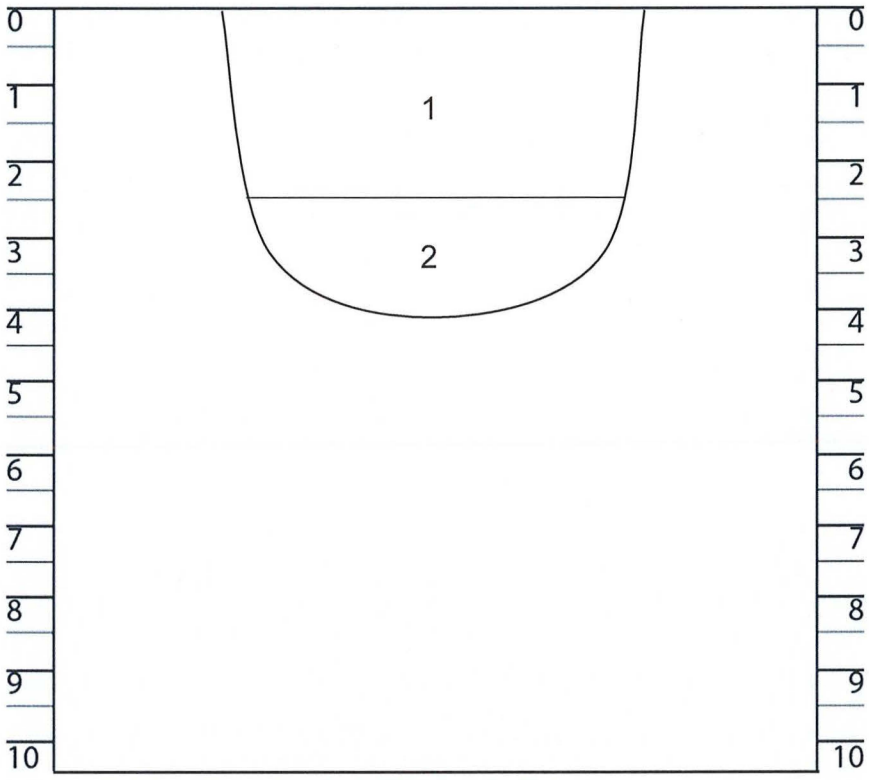
TERMINATED AT 7.5 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

LITHOLOGY

1) 0.0' – 3.0'; SANDY CLAY (CL); dark brown, moist, medium stiff, medium plasticity, organic rich, porous (COLLUVIUM).

2) 3.0' – 7.5'; GRAVELLY CLAY (CL); orangish brown, moist, hard, medium plasticity (LANDSLIDE DEPOSIT).



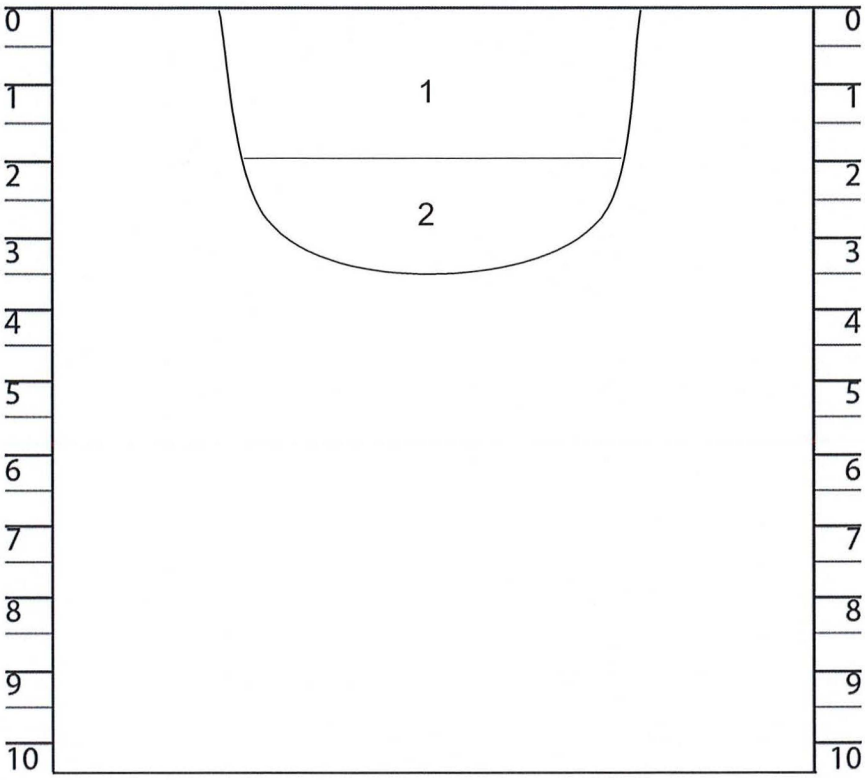
TERMINATED AT 4.0 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

LITHOLOGY

1) 0.0' – 2.5'; SANDY CLAY (CL); moderate brown, moist, medium stiff, medium plasticity, with gravel (COLLUVIUM).

2) 2.5' – 4.0'; CLAYEY GRAVEL (GC); grayish brown, moist, very dense, hard, strong (LANDSLIDE DEPOSIT).



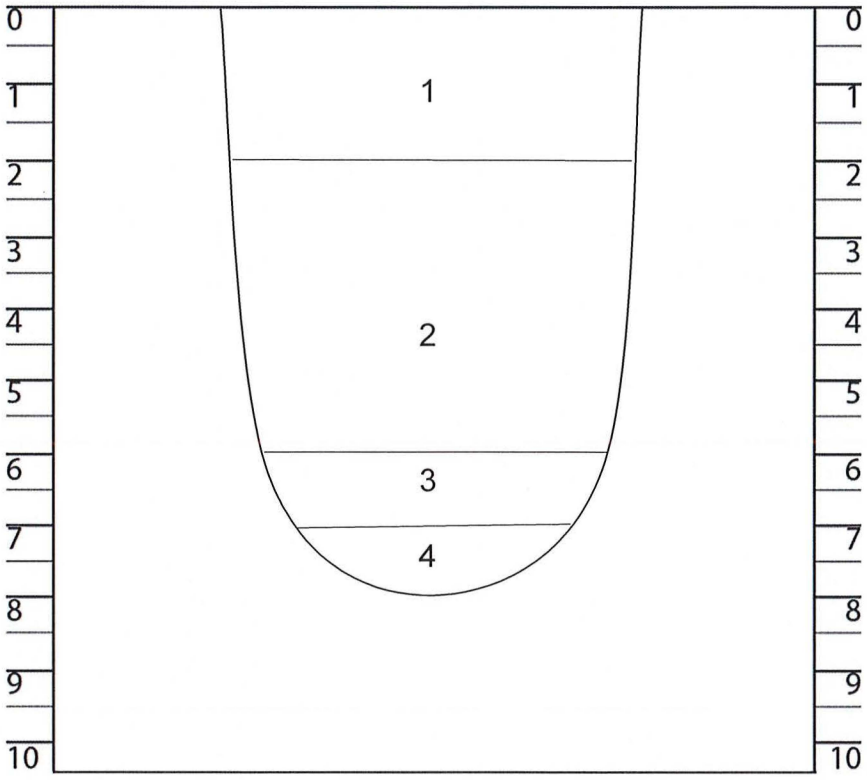
NEAR REFUSAL AT 3.5 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

LITHOLOGY

1) 0.0' – 2.0'; SANDY CLAY (CL); moderate brown, moist, stiff, medium plasticity, few pores (COLLUVIUM).

2) 2.0' – 3.5'; SHALE (KJgvl); brownish gray, slightly hard, moderately strong, highly weathered, fractured (BEDROCK).



NEAR REFUSAL AT 8.0 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

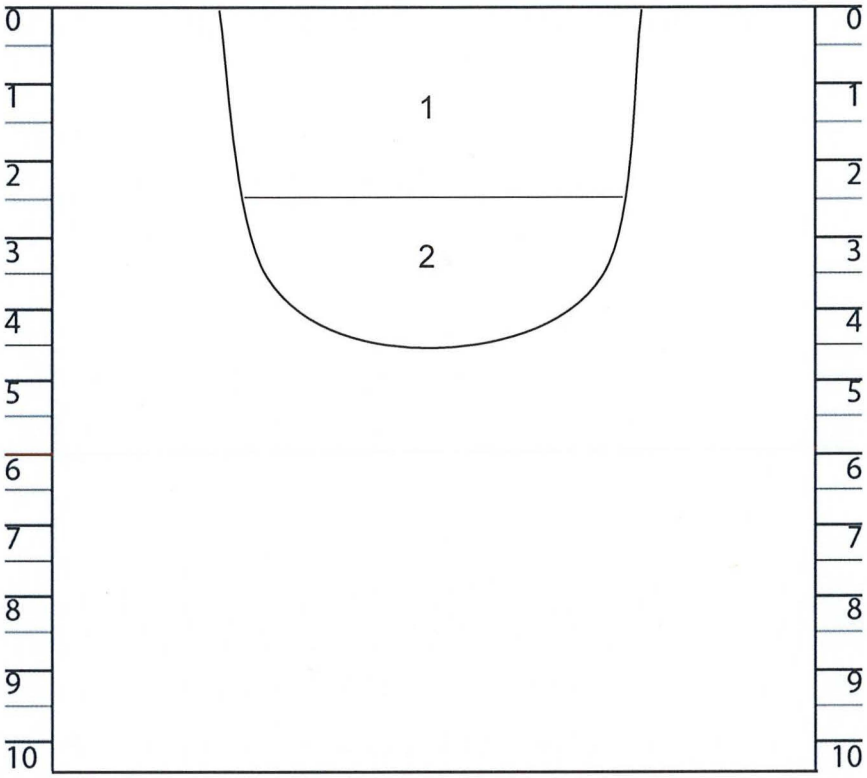
LITHOLOGY

1) 0.0' – 3.0'; SANDY CLAY (CL); moderate brown, moist, medium stiff, medium plasticity, porous (COLLUVIUM).

2) 3.0' – 7.5'; SANDY CLAY (CL); moderate brown, moist, very stiff, medium plasticity (LANDSLIDE DEPOSIT).

3) 6.0' – 7.0'; SANDY CLAY (CH); grayish brown, very moist, stiff, high plasticity (LANDSLIDE DEPOSIT)

4) 7.0' – 8.0'; SANDSTONE (KJgvl); grayish brown, moderately hard, moderately strong, highly weathered (BEDROCK).



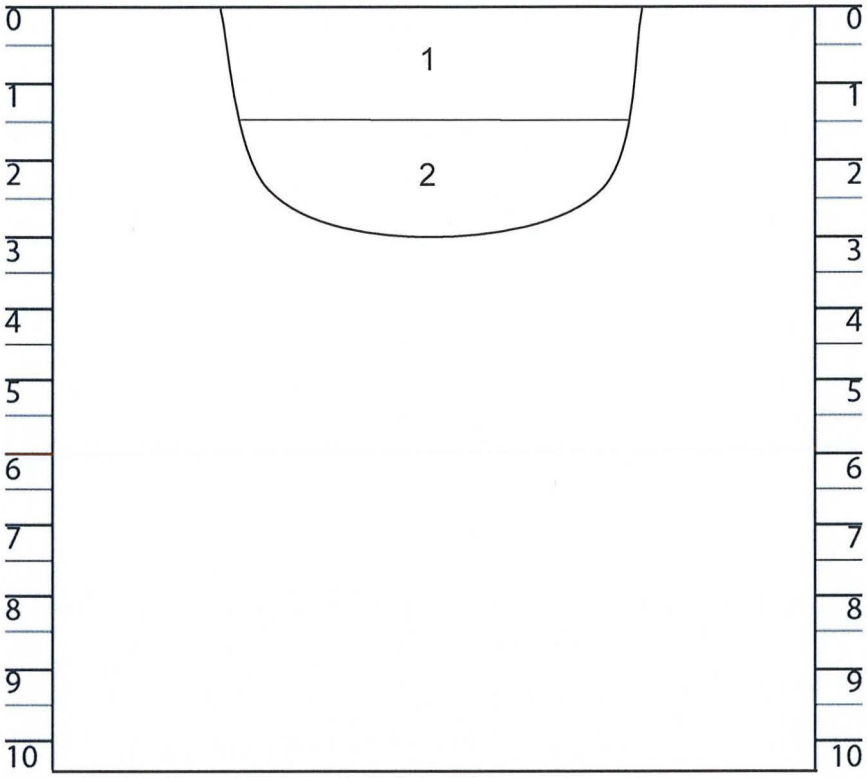
NEAR REFUSAL AT 4.5 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

LITHOLOGY

1) 0.0' – 2.5'; GRAVELLY CLAY (CL); moderate brown, moist, medium stiff, medium plasticity, with fine to coarse grained subangular gravel (COLLUVIUM).

2) 2.5' – 4.5'; CLAYEY GRAVEL (GC); moderate brown, moist, dense, fine to coarse grained subangular gravel (LANDSLIDE DEPOSIT).



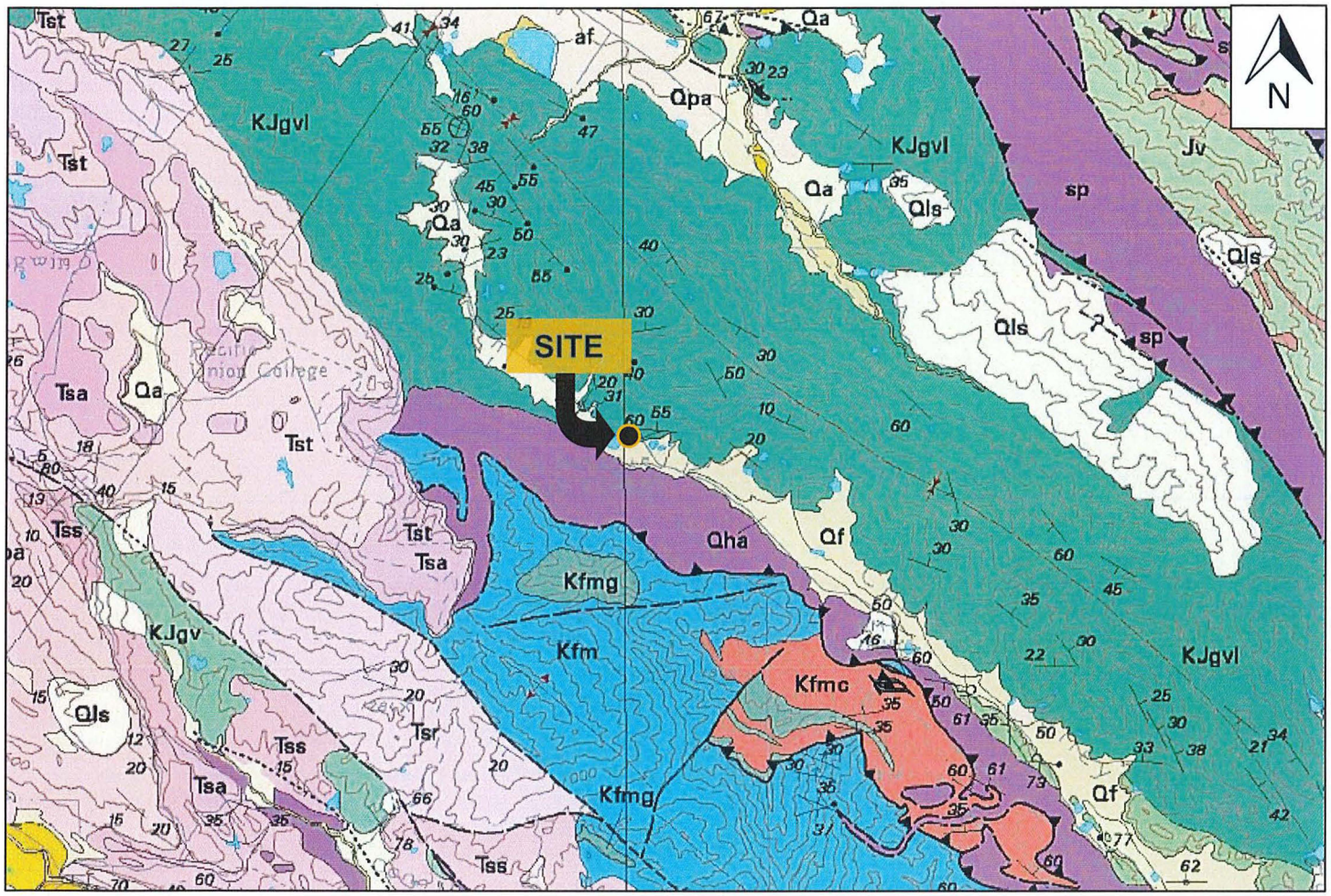
TERMINATED AT 3.0 FEET

NO GROUNDWATER OR SEEPAGE ENCOUNTERED

LITHOLOGY

1) 0.0' – 1.5'; SANDY CLAY (CL); dark brown, moist, medium stiff, medium plasticity, (COLLUVIUM).

2) 1.5' – 3.0'; SANDY CLAY (CL); moderate brown, moist, hard, high plasticity, partially cemented (LANDSLIDE DEPOSIT).



NO SCALE

EXPLANATION

Qf	**Alluvial fan deposits (Holocene and late Pleistocene)**
KJgvl	**Sandstone and shale (Early Cretaceous and Late Jurassic)**

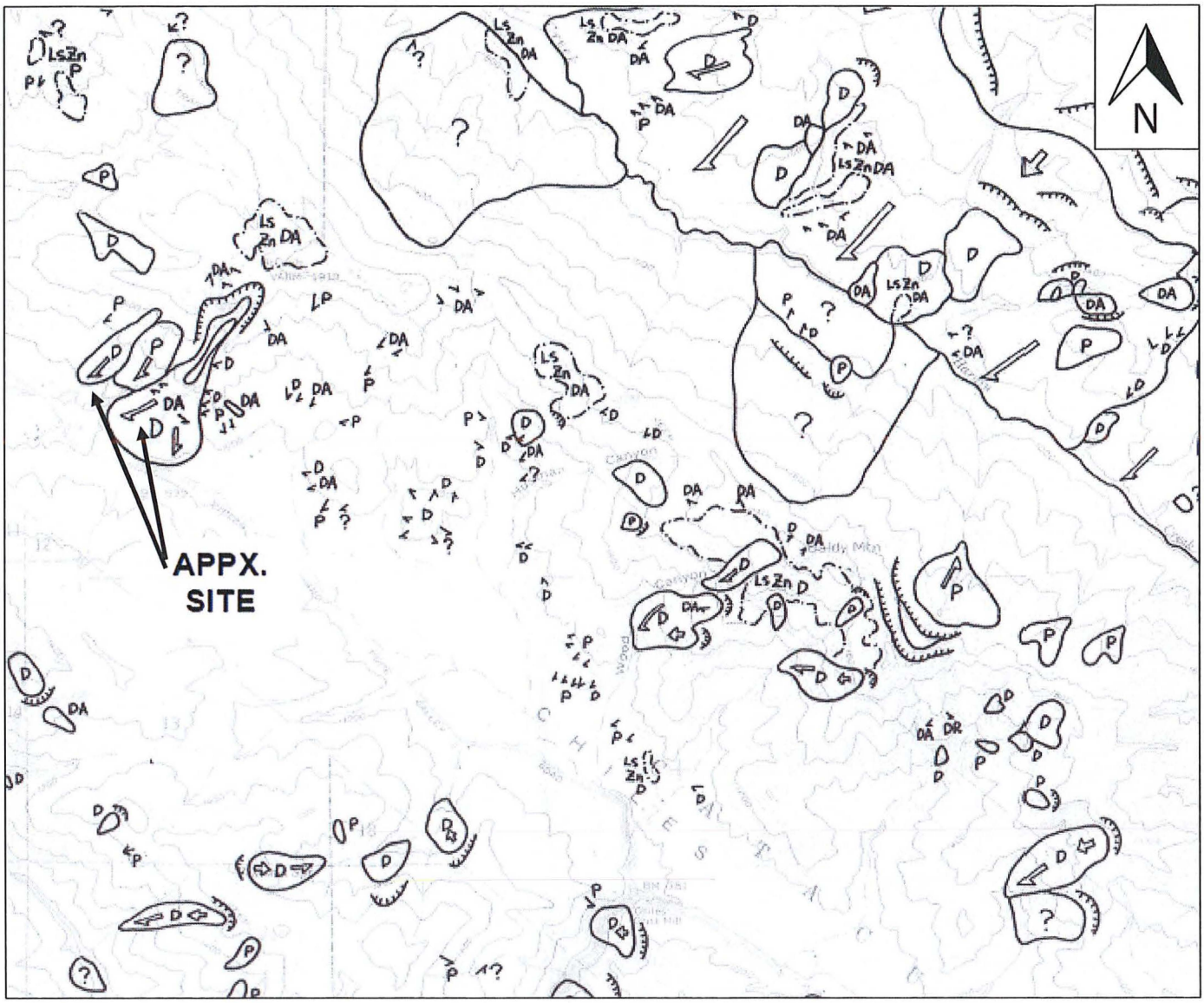
REFERENCE: Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties, California. Compiled by R.W. Graymer, E.E. Braab, D.L. Jones, J. Barnes, R.S. Nicholson,and R.E. Stamski. 2007.

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REGIONAL GEOLOGIC MAP
PROPOSED VINEYARD DEVELOPMENT
4105 CHILES POPE VALLEY ROAD
SAINT HELENA, CALIFORNIA

PLATE **9**

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EXPLANATION

Landslides; arrows show general direction of movement (areas of lowest relative slope stability), question marks indicate possible landslides., D=Definite Landslide Deposit, P=Probable Landslide.

REFERENCE: RECONAISSANCE PHOTOINTERPRETATION MAP OF LANDSLIDES IN 24 SELECTED 7.5 – MINUTE QUADRANGLES IN LAKE, NAPA, SOLANO, AND SONOMA COUNTIES, CALIFORNIA, PLATE 13. PREPARED BY M. J. DWYER, N. NOGUCHI, AND J. O'ROURKE. DATED 1976.

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LANDSLIDE MAP
PROPOSED VINEYARD DEVELOPMENT
4105 CHILES POPE VALLEY ROAD
SAINT HELENA, CALIFORNIA

PLATE
10

Proj. No: 11565.02 Date: 2/2024 App'd by: PJC

MAJOR DIVISIONS					TYPICAL NAMES
COARSE GRAINED SOILS More than half is larger than #200 sieve	GRAVELS more than half coarse fraction is larger than no. 4 sieve size	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP		POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND MIXTURES
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND MIXTURES
	SANDS more than half coarse fraction is smaller than no. 4 sieve size	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS
			SP		POORLY GRADED SANDS, GRAVEL-SAND MIXTURES
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS More than half is smaller than #200 sieve	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		INORGANIC SILTS, SILTY OR CLAYEY FINE SANDS, VERY FINE SANDS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS OR LEAN CLAYS
			OL		ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS

KEY TO TEST DATA

LL — Liquid Limit (in %)
PL — Plastic Limit (in %)
G — Specific Gravity
SA — Sieve Analysis
Consol — Consolidation

■ "Undisturbed" Sample
⊠ Bulk or Disturbed Sample
□ No Sample Recovery

	Shear Strength, psf	Confining Pressure, psf	
*Tx	320	(2600)	Unconsolidated Undrained Triaxial
Tx CU	320	(2600)	Consolidated Undrained Triaxial
DS	2750	(2000)	Consolidated Drained Direct Shear
FVS	470		Field Vane Shear
*UC	2000		Unconfined Compression
LVS	700		Laboratory Vane Shear

Notes: (1) All strength tests on 2.8" or 2.4" diameter sample unless otherwise indicated
(2) * Indicates 1.4" diameter sample

ROCK TYPES

 Conglomerate

 Shale

 Metamorphic Rocks
Hydrothermally Altered Rocks

 Sandstone

 Sheared Shale Melange

 Igneous Rocks

 Meta-Sandstone

 Chert

Bedding Thickness		Joint, Fracture or Shear Spacing	
Massive	Greater than 6 feet	Very Widely Spaced	Greater than 6 feet
Thickly Bedded	2 to 6 feet	Widely Spaced	2 to 6 feet
Medium Bedded	8 to 24 inches	Moderately Widely Spaced	8 to 24 inches
Thinly Bedded	2-1/2 to 8 inches	Closely Spaced	2-1/2 inches
Very Thinly Bedded	3/4 to 2-1/2 inches	Very Closely Spaced	3/4 to 2-1/2 inches
Closely Laminated	1/4 to 3/4 inches	Extremely Closely Spaced	Less than 3/4 Inch
Very Closely Laminated	Less than 1/4 inch		

HARDNESS

Soft - Pliable, can be dug by hand

Slightly Hard - Can be gouged deeply or carved with a pocket knife

Moderately Hard - Can be readily scratched by a knife Blade; Scratch leaves heavy trace of dust and is readily visible after the powder has been blown away

Hard - Can be scratched with difficulty; scratch produced little powder and is faintly visible

Very Hard - cannot be scratched with pocket knife, leaves metallic streak

STRENGTH

Plastic- Capable of being molded by hand

Friable - Crumbles by rubbing with fingers

Weak - an unfractured specimen of such material will crumble under light hammer blows

Moderately Strong - Specimen will withstand a few heavy hammer blows before breaking

Strong - Specimen will withstand a few heaving ringing hammer blows and usually yields large fragments

Very Strong - Rock will resist heavy ringing hammer blows and will yield with difficulty only dust and small flying fragments

DEGREE OF WEATHERING

Highly Weathered - Abundant fractures coated with oxides, carbonates, sulphates, mud, etc., through discoloration, rock disintegration, mineral decomposition

Moderately Weathered - Some fracture coating, moderate or localized discoloration, little to no effect on cementation, slight mineral decomposition

Slightly Weathered - A few stained fractures, slight discoloration, little to no effect on cementation, no mineral decomposition

Fresh - Unaffected by weathering agents, no appreciable charge with depth

APPENDIX
REFERENCES

1. USGS Chiles Valley, California Quadrangle 7.5-Minute Topographic Map, dated 1973.

2. Project Plans titled, "Maxville – VB Update," Map 1 of 1, prepared by HD Vine LLC, dated February 5, 2024

3. Geologic Map and Map Database of Eastern Sonoma and Western Napa Counties, California. Compiled by R.W. Graymer, E.E. Braab, D.L. Jones, J. Barnes, R.S. Nicholson, and R.E. Stamski. 2007.

4. USGS Reconaissance Photointerpretation Map of Landslides in 24 selected 7.5 – minute quadrangles in Lake, Napa, Solano, and Sonoma counties, California, plate 13. prepared by M.J. Dwyer, N. Noguchi, and J. O'Rourke. Dated 1976.

5. USGS Earthquake Hazards Program National Seismic Hazard Maps