Exhibit F

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REPORT
to
MR. TERRY LATASA
930 HARRISON STREET
MONTEREY, CALIFORNIA
93940

GEOTECHNICAL REPORT
for the proposed
ADDITIONS, NEW GARAGE,
& RETAINING WALLS
OLEKSY RESIDENCE
363 CALLE DE LOS AGRINEMSORS
CARMEL VALLEY, CALIFORNIA
A. P. N. 189-532-010

by

GRICE ENGINEERING, INC.
561-A BRUNKEN AVENUE
SALINAS, CALIFORNIA
NOVEMBER 2017

GRICE ENGINEERING INC

ENGINEERING GEOTECHNICS SEPTIC HYDROLOGY
FOUNDATIONS SOILS EARTH STRUCTURES

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File No. 6882-17.10
November 07, 2017

Mr. Terry Latasa
930 Harrison Street
Monterey, California 93940

Project: Additions, New Garage, & Retaining Walls
Oleksy Residence
363 Calle De Los Agrinemsors
Carmel Valley, California
A. P. N. 189-532-010

Subject: Geotechnical Report

Dear Mr. Latasa;

Pursuant to your request, we have completed our geotechnical investigation and evaluation of the above named site. It is our opinion that this site is suitable for the proposed development, provided the recommendations made herein are followed.

In general, the near surface soils are loose and will need to be taken into account during design and construction of the additions to the residence. Recommendations are given relative to this and other characteristics within the report and especially under Special Recommendations.

The report contained herein is made with our best efforts to evaluate the site, determine the site's geotechnical conditions and provide recommendations for these conditions. We submit this report with the understanding that it is the responsibility of the owner, or his representative, to ensure incorporation of these recommendations into the final plans, and their subsequent implementation in the field.

In addition, we recommend that GRICE ENGINEERING, INC., be retained to review the project plans and provide the construction supervision and testing required to document compliance with these recommendations. Should any site condition not mentioned in this report be observed, this office should be notified so that additional recommendations can be made, if necessary.

This report and the recommendations herein are made expressly for the above referenced project and may not be utilized for any other site without written permission of GRICE ENGINEERING, INC.

Please feel free to call this office should you have any questions regarding this report.

Very truly yours,
GRICE ENGINEERING, INC.

Lawrence E. Grice, P.E.
R.C.E. 66857

NOTICE TO OWNER

Any earthwork and grading performed without direct engineering supervision and materials testing by Grice Engineering Inc., will not be certified as complete and in accordance with the requirements set forth herein.

Foundations placed without observation of bearing conditions will not be certified as being in accordance with the requirements set forth herein.

Inspection of Work

It is recommended that all site work be inspected and tested during performance by this firm to establish compliance with these recommendations.

NOTIFY:	GRICE ENGINEERING INC.	SALINAS	(831) 422-9619
	561-A Brunken Avenue	MONTEREY	(831) 375-1198
	Salinas, California 93901	FAX	(831) 422-1896

A minimum of 48 hours (2 working days) notification is required prior to commencement of work so that scheduling for testing and inspections can be made.

Please be advised that costs incurred during inspection and testing of all site work is separate and not considered part of the fees as charged by Grice Engineering, Inc. for the report contained herein.

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Introduction, Method and Scope of Investigation

The purpose of this report is to evaluate the geotechnical properties of the site relative to the construction of additions to a single family residence. From these findings recommendations are given for the design of the development and subsequent construction.

For this purpose, the site was investigated, and prior information concerning construction and subsurface exploration in this area was examined for soils and materials data. The investigation consisted of a detailed site evaluation, which included: a site inspection; a review of literature made available to GRICE ENGINEERING, INC., including Site Plans from Central Coast Surveyors; geotechnical drilling and soil sampling; materials evaluation; and analysis of the geotechnical properties of the site soils. This report concludes the results of the investigation and provides recommendations based on that work.

The findings and recommendations contained in this report are applicable only to the above named site and its proposed development, and may not be utilized for any other site or purpose without written permission of GRICE ENGINEERING, INC.

Site Description

The project site is located to the southeast of 363 Calle de los Agrimensors, approximately 0.39 miles north of its intersection with Hitchcock Canyon Road, in upper Carmel Valley, an un-incorporated area of western Monterey County, California. Please refer to the Vicinity and Location Maps and the Site Map in Appendix A for details.

The topography of the 1.04 acre site encompasses an area containing slight to moderate slopes to the southeast on a south - north facing hillside in Hitchcock Canyon at elevations of approximately 599 to 680 feet above mean sea level (msl). The majority of the site is covered with native grasses, modest landscaping, patios and hardscaping and a variety of trees.

Currently a single family residence is located on the central portion of the site with a gravel driveway providing access to the street on the southwestern property line. A smaller structure is located to the northwest of the residence.

As proposed, the residence is to be expanded, with a new detached garage to be placed to the southwest. As well, several retaining walls are to be constructed.

The addition and garage are to be of conventional wood construction with isolated and/or continuous spread footings. The garage is to have a slab-on-grade floor.

Field Investigation

Our field investigation consisted of a site inspection, along with drilling and sampling 2 exploratory bores to establish the subsurface soil profile, and obtain sufficient soil specimens to determine the soil characteristics. Drilling was accomplished by hand auger, with the spoil constantly examined, classified, and logged by field method in accordance with the Unified Soil Classification Chart[1] which is the basis of ASTM D2487-10. In the hand augured bores Penetration Resistance values were obtained through use of a dynamic cone penetrometer (ASTM Special Technical Publication #399). The blow count as measured in this method is Standard Penetration Resistance.

* *In-situ* refers to the in place state of soil. *In-situ* native soils are those which are in-place as deposited by nature and have not been disturbed by man's actions in the historic past.

Site Soil Profile

As found in the exploratory drilling, the site soils are generally consistent between each of the bores.

The natural topsoil is a silty clay of low-medium plasticity with few amounts of fine sands to fine gravels. These soils are typically loose and moist.

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[1] Adopted 1952 by Corps of Engineers and Bureau of Reclamation. ASTM D2487 was developed as based on the Uniform Soils Classification Chart and System. The methods are equivalent.

Below the topsoil is a silty clay stone. The stone is generally weathered at contact which decreases with depth. The rock is considered medium dense and is typically moist.

Complete soil characteristics and comments are reported on the boring logs at the depths observed. The logs are located in Appendix B.

Groundwater

No groundwater was encountered at this site to the maximum depth of exploration, approximately 5.5 feet below grade.

Seismic History

Although no fault traces are thought to directly cross the building site, Monterey County is traversed by a number of faults most of which are relatively minor hazards for the purposes of the site development. As such, this site will experience seismic activity of various magnitudes emanating from one or more of the numerous faults in the region.

Various maps presently exist, allowing observation on the site of distinctive geologic features. Some maps, such as that by Burkland and Associates (Reference No. 10) developed for Monterey County, are compilations from various sources detailing the locations of studied faults. Faults have inherit variances within their zones, and discoveries of new fault segments or entire faults is ongoing. There is also some difference in exact fault line location from source map to map, making precise location of said faults difficult. Therefore, relative to the information contained within this report, the following is considered to be as accurate as is currently possible from information made available to Grice Engineering Inc..

Regional Faults

Of most concern are active faults which have tectonic movement in the last 11,000 years and as such are called Holocene Faults and potentially active faults. The following are those nearest listed (Reference No. 12).

The most active is the San Andreas Rift System (Creeping Segment), located approximately 26.4 miles to the northeast. It has the greatest potential for seismic activity with estimated intensities of V-VI Mercalli in this location.

Other fault zones are the Monterey Bay-Tularcitos Fault Zone, the center of which is located approximately 0.17 miles to the northeast, the Rinconada Fault Zone, approximately 9.5 miles to the northeast, the San Gregorio-Palo Colorado (Sur) Fault Zone, approximately 11.6 miles to the southwest, and the Zayante-Vergeles Fault Zone, approximately 25.0 miles to the northeast. These zones are not as liable to rupture as the San Andreas and a seismic event at any of the above fault zones would likely produce earth movements of a lesser intensity at the site.

Local Faults

In addition to the fault zones as discussed above, the local faults are listed below as shown on the following maps, "Geologic Map of the Monterey Peninsula and Vicinity, Monterey, Salinas, Point Sur, and Jamesburg 15-Minute Quadrangles, Monterey County" (Reference No. 22), "Fault Activity Map of California: California Geological Survey Geologic Data Map" (Reference No. 32), and "Quaternary Fault and Fold Database for the United States" (Reference No. 46) including the USGS overlay on Google Earth.

TABLE OF LOCAL FAULTS

FAULT, PERPENDICULAR TO SITE	APPROXIMATE DISTANCE FROM SITE	DIRECTION	TIME OF LAST DISPLACEMENT ON FAULT (Ref. 32)
Tularcitos Fault, section, concealed, inferred	0.05 miles	northeast	Late Quaternary
Tularcitos Fault, section, concealed	0.20 miles	northeast	Late Quaternary
Tularcitos Fault, concealed	0.11 miles	northeast	Late Quaternary
Cachagua Fault, concealed, inferred	0.55 miles	southwest	Quaternary

Liquefaction

The site soils are considered not susceptible to liquefaction as they are unsaturated and a soft bedrock below approximately 2 feet.

Differential-Total Settlement - Static and Dynamic

The recommendations given in the Geotechnical Report are such that concerns of settlement are negligible. The total settlement is expected to be less than 1/4 inch and the expected differential settlement less than one half that.

Hydro-Collapse and Subsidence

As observed the near surface soils to an approximate depth of two feet are loose. These soils possess some capacity to settle under hydraulic loading. However this effect is not common in the area. The recommendations given in this report were established to reduce the potential of this occurring.

The area is not within a known Subsidence Zone.

Slope Stability

Inspection of the site indicates that no landslides are located above or below the building area and the area is generally not susceptible to slope failure.

Slope Stability and Erosion

The site evaluation method as delineated in "Special Publication 117A Guidelines for Evaluating and Mitigating Seismic Hazards in California" was reviewed as applicable to this site. The following summarizes the findings.

1. There are no existing landslides, active or inactive, present on, or adjacent to the project site. Generally the area is not susceptible to slope failure due to the shallow depth to bedrock.

2. There are no geologic formations, or other earth materials located on or adjacent to the site that is known to be susceptible to landslides. The building site is located on a southwestern slope varying in grade from 0% to 20%.

3. Slope areas do not show surface manifestations of the presence of sub-surface water. There are no potential pathways or sources of concentrated water infiltration on or upslope of the site. Drainage over the local terrain is unfocused with some managed drainage around existing structures. Inspection of areal photographs spanning from May 12, 1994 to November 2, 2016 indicates the terrain and presence of vegetation has been consistent during that period.

These characteristics in conjunction with the firm soils indicated a low potential for rapid solifluction or debris flow.

The area is generally fully developed. Future construction within the area will most likely be residential additions or replacement of existing structure. Further mass grading of land is unlikely. Future changes to land use (new septic, increase landscape, use of land) is unlikely. Any changes to drainage conditions will be minor. Only minor changes to drainage and landscaping are proposed for this project.

Seismic Strength Loss

The site soils are considered resistant to seismic strength loss and the resulting momentary liquefaction. The relatively short duration of earthquake loading will not provide a significant number of high amplitude stress cycles to alter the strain characteristics. Additionally the clay-silt fraction is not considered quick nor sensitive, as such it will not have the associated loss of strength.

Chemical Reactivity

The area is well developed with structures, generally found on Portland Cement products. Additionally these structures date back to the 1940's or earlier. Much of the concrete used in these structures has remained as cast. The area soils are not known for sulfate reaction with Portland cement products and as such chemical reactivity is not considered a problem in this area.

Expansive Soils

In general the site soils are silty clays of low-medium plasticity and soft bedrock comprised of fine sands, silts and clays. These soils are typical to the area. Expansivity has not been influential to the existing structure as no deformations attributable to expansive soils were observed. Additionally there are no known problems with expansive soils in the area.

Surface Rupture and Lateral Spreading

The project site is located 0.05 miles to the southwest of the Tularcitos Fault. The site inspection did not reveal any surface features indicating a fault rupture has occurred at the site. The existing structure, driveways and roads do not reveal any strains which would be attributable to subsurface lateral or vertical displacements resulting from fault slip. Therefore surface rupture from fault activity across the site is considered improbable.

The project site is underlain by relatively strong soils and soft bedrock. These materials are considered resistant to lateral spreading. As such surface rupture from lateral spreading is considered improbable.

Seismicity

It is recommended that all structures be designed and built in accordance with the requirements of the California Building Code's current edition. All buildings should be founded on undisturbed native soils and/or tested and accepted engineering fill to prevent resonance amplification between soils and the structure.

2016 California Building Code Geoseismic Classifications

The California Building Code, 2016 edition (Reference No. 13), provides for seismic design values. These values are to be utilized when evaluating structural elements. The soils profile determination is based on the penetration resistance data developed from advancement of exploratory bores. Using averaged penetration values per depth of soils type gives an overall site value of 30 blows/foot penetration resistance as per Equation 20.4-3, ASCE 7-10. The geoseismic character is as listed in the following table.

2015 I.B.C. - 2016 C.B.C. EARTHQUAKE LOADS: SECTION 1613				
LATITUDE	36.463077	SOIL PROFILE:	Stiff Soils	
LONGITUDE	-121.728272	SITE CLASS	D	
PERIOD	S	F	Sm	Sd
0.2 sec	Ss = 1.353	Fa = 1.0	Sms = 1.353	Sds = 0.902
1.0 sec	S1 = 0.496	Fv = 1.504	Sm1 = 0.746	Sd1 = 0.497
Seismic Design Category to be assigned by structural engineer or designer				

CONCLUSIONS OF INVESTIGATION

In general, the suitable, *in-situ**, native soils and certified engineered fill are acceptable for foundation purposes and display engineering properties adequate for the anticipated soil pressures, providing the recommendations in this report are followed.

Special Recommendations

The findings indicated the ascending and descending slopes adjacent to the proposed building additions are considered stable and free of excessive erosion or other negative geologic or geotechnical characteristics.

It is recommended that all loose and disturbed soils be processed as engineered fill for any portion of development to receive on-grade engineered structures, eg. interior floor slabs, pavement, etc.. The minimum depth of processing is to include the upper 2 feet of *in-situ** soils. The depth is to be increased, as necessary, to provide a minimum of one foot of engineered fill below all foundations and process all required soils.

Foundations are to embedded into the soft bedrock typically encountered two feet below native grade.

The area has been developed and as such underground utilities may be located within the area of proposed construction. In addition, buried objects or deeply disturbed soils may also be encountered. As such all care and practice is to be exercised to observe for and locate any such objects. Where these objects are to be removed or use discontinued, they are to be removed in their entirety and all disturbed soils are to be processed as engineered fill.

The base of all excavations and over-excavations are to be inspected by the Soils Engineer prior to further processing, steel or form placement.

Any further site activity, especially grading and foundation excavations, should be under the direction of a qualified Soils Engineer or their Representative.

Should the spectrum of development change, this office should be notified so that additional recommendations can be made, if necessary.

* Suitable, *in-situ*, native soils are those soils which are in-place as deposited by nature and have characteristics adequate for support of the intended load or application.

Foundations and Footings

Geotechnical evaluation indicates that square, round, and continuous spread footings are satisfactory types of support. The minimum embedment for shallow, spread foundations is 12 inches for single stories and 18 inches for two stories into suitable, *in-situ**, native soils or certified engineered fill. Embedment depths do not take into account the loose upper top soils, disturbed soils or any other unacceptable soils which exist at the site, e.g., any un-engineered fill, landscaping soils, etc.

VERTICAL SOIL PRESSURES[1]	
FOOTING TYPE	DEAD + LL, $kips/ft^2$
Spread & Isolated	3.5
LATERAL SOIL PRESSURES[1]	
TYPE	VALUE, lbs/ft^2
Active Earth Pressure	30 lbs/ft^3 (Equivalent Fluid Pressure)
Restrained Earth Pressure	50 lbs/ft^3 (Equivalent Fluid Pressure)
Seismic	2 $lbs/ft^3 x H^2$ applied at 0.6H
Friction at Base	0.35 × Dead Load
Passive Earth Pressure	325 $lbs/ft^3 \times H^2$ NOTE2
Uplift Friction	175 $lbs/ft^2 \times H$

Notes: LL = Live Load; DL = Dead Load; H = Vertical height of material retained.
One-third increase to be allowed for wind and seismic forces.
[1] For depths into acceptable native materials or engineered fill.
[2] Excludes near surface 0.5 feet of *in-situ* soils.

Pile and Pier foundation information is not provided as none are required or proposed. All foundation excavations are to be cleaned of debris and loose or otherwise unsuitable soils prior to placement of concrete.

* Suitable, *in-situ*, native soils are those soils which are in-place as deposited by nature and have characteristics adequate for support of the intended load or application.

Slabs-on-Grade

All slabs should be constructed over a prepared sub-grade placed on suitable *in-situ** native material or certified engineered fill. The site exploration observed that the existing surficial soils are loose to depths of approximately 2 feet. These soils should not be relied upon for support of slabs on grade or other surficial structures.

As such where any unsuitable soils remain after excavation to subgrade they are to be processed as engineered fill prior to further fill placement or construction of the on grade structure. At a minimum the upper 6 inches of subgrade below all surficial structures should be processed as engineered fill in areas of on grade structures.

The native topsoil is a silty clay of low-medium plasticity. This soil may change volume from variation in water content. Where new slabs are to be supported by these soils special consideration should be given to providing a properly prepared subgrade and pavement section. Further recommendations can be given during completion of the construction plans and during construction.

The sub-grade materials should be observed and accepted by a qualified Soils Engineer or their representative prior to placement of forms, reinforcing or concrete..

On-grade slabs should be placed over a moisture vapor barrier consisting of a waterproof membrane (Moist Stop, 10 mil Visqueen, or equal) with a 2 inch protective sand cover. The waterproof membrane should be placed over a capillarity break consisting of 4 inches of open graded rock; round and sub-round rock is recommended to prevent puncture of the membrane. Open graded crushed aggregate may be utilized, provided the vapor barrier is protected from puncture by a cushion of filter fabric (Mirafi 140N or equal) laid over the aggregate prior to placement of the membrane. Where such concerns are not warranted, alternative underlayment may be utilized at the owners discretion.

All care and practice required to prevent puncture of the membrane during placement and pouring of covering slabs should be utilized during construction. Unless otherwise required for structural purposes, all slabs should be reinforced with a minimum of No.4, Grade 40, deformed steel reinforcing bar, 24 inches o.c., each way, to prevent separation and displacement in cases of cracking.

* Suitable, *in-situ,* native soils are those soils which are in-place as deposited by nature and have characteristics acceptable for support of the intended load or application.

Specifications for Rock Under Floor Slabs

Definition: Graded gravel of crushed rock for use under floor slabs shall consist of a minimum thickness of mineral aggregate placed in accordance with these specifications and in conformance with the dimensions shown on the project plans. The minimum thickness is specified under the section Slabs-on-Grade above.

Material: The mineral aggregate for use under floor slabs shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination thereof. The aggregate shall be free from adobe, vegetable matter, loam, volcanic tuff, and other deleterious substances. It shall be of such quality that the absorption of water in a saturated dry condition does not exceed 3 percent of the oven dry weight of the sample.

Grading: The mineral aggregate shall be of such size that the percentage composition by dry weight as determined by the use of laboratory sieves, U.S. Standard, in compliance with ASTM C 136-06, Standard Method for Sieve Analysis of Fine and Coarse Aggregates, will conform to the following grading specification:

SIEVE SIZE	PERCENTAGE PASSING SIEVE
3/4 inch	100 %
No. 4	0 - 10 %
No. 200	0 - 2 %

Placing: Sub-grade upon which gravel or crushed rock is to be placed shall be prepared as outlined in the Recommended Grading Specifications. In addition, the Sub-grade shall be kept moist so that no drying cracks appear prior to pouring slabs. If cracks appear, Sub-grade shall be moistened until cracks close.

Slope Ratio and Drainage

Analysis of site soils indicate that cut and fill slope ratios of 2 horizontal to 1 vertical will be satisfactory provided they are landscaped with soil retaining ground covers and are protected against concentrated over slope drainage. Cut slopes exposing the cemented clasts, Monterey Shale or similar stable materials may be allowed to steeper gradients. These conditions should be reviewed on site.

Surface Drainage and Erosion Control

Design and construction of the project should fit the topographic and hydrologic features of the site. It is important to minimize unnecessary grading of or near steep slopes. Disturbing native vegetation and natural soil structure allows runoff velocity and transport of sediments to increase.

General surface drainage should be retained at low velocity by slope, sod or other energy reducing features sufficient to prevent erosion, with concentrated over-slope drainage carried in lined channels, flumes, pipe or other erosion-preventing installations.

Runoff flows should be directed into pipes or lined ditches and then onto an energy dissipater before discharging into streams or drainage ways. De-silting should be provided as necessary and may take form of stilling basins, gravel berms, forested/vegetated screens, etc.

All concentrated roof and area drainage should be conveyed and released to the lower portions of the site and preferably to the drainage south of the residence.

Storm runoff should never be directed to septic tank system leachfields and no collected or concentrated drainage should be allowed to discharge to adjacent steep slopes in an uncontrolled fashion.

A sub-surface dispersal system **MAY NOT** be used on this site.

During construction, never store cut and fill material where it may wash into streams or drainage ways. Keep all culverts and drainage facilities free of silt and debris. Keep emergency erosion control materials such as straw mulch, plastic sheeting, and sandbags on-site and install these at the end of each day as necessary.

Re-vegetate and protect exposed soils by October 15. Use appropriate grass/legume seed mixes and/or straw mulch for temporary cover. Plan permanent vegetation to include native and drought tolerant plants. Seeding and re-vegetation may require special soil preparation, fertilizing, irrigation, and mulching.

Subsurface Drains

Use of spun filter fabric is not recommended for use in construction subsurface drains as this type of fabric typically becomes clogged. Should filter fabric be necessary it is recommended that a woven fabric be used such as Mirafi Filterweave 300. Otherwise we would recommend omission of the fabric and placement of Caltrans Class 1, Type 'A" or "B" drain rock, and that any fabric only be placed near the top of the trench between the gravel and earth backfill or where the gravel extends to grade, 1 foot below finish grade.

CLASS 1		
SIEVE SIZES	**PERCENTAGE PASSING**	
	TYPE A	TYPE B
50.0-mm/2 inches	----	100
37.5-mm/1.5 inches	----	95-100
19.0-mm/0.75 inches	100	50-100
12.5-mm/0.5 inches	95-100	-----
9.5-mm/0.415 inches	70-100	15-55
4.75-mm/No. 4	0-55	0-25
2.36-mm/No. 8	0-10	0-5
75.0-µm/No.200	0-3	0-3

General Grading Recommendations

For those items not directly addressed, it is recommended that all earthwork be performed in accordance with the following.

General: This item shall consist of all clearing and grubbing; preparation of land to be filled; excavation and fill of the land; spreading, compaction and control of the fill; and all subsidiary work necessary to complete the graded area to conform with the lines, grades and slopes as shown on the approved plans.

The Contractor shall provide all equipment and labor necessary to complete the work as specified herein, as shown on the approved plans as stated in the project specifications.

Preparation: Site preparation will consist of clearing and grubbing any existing structures and deleterious materials from the site, and the earthwork required to shape the site to receive the intended improvements, in accordance with the recommended grading specifications and the recommendations as provided above.

All vegetable matter, irreducible material greater than 4 inches and other deleterious materials shall be removed from the areas in which grading is to be done. Such materials not suitable for reuse shall be disposed of as directed.

After the foundation for fill has been cleared, it shall be brought to the proper moisture content by adding water or aerating and compacting to a Relative Compaction of not less than 90% or as specified. The soils shall be tested to a depth sufficient to determine quality and shall be approved by the Soils Engineer for foundation purposes prior to placing engineered fill.

General Fill: General fill shall be placed only on approved surfaces, as engineered fill, and shall be compacted to 90% Relative Compaction. Native soils accepted for fill or existing aggregate fill may be used for fill purposes provided all aggregate larger than 6 inches are removed. The material for engineered fill shall be approved by the Soils Engineer before commencement of grading operations.

Each layer shall be compacted to a Relative Compaction of not less than 90% or as specified in the soils report and on the accepted plans. Compaction shall be continuous over the entire area of each layer.

The selected fill material shall be placed in layers which, when compacted, shall not exceed 6 inches in thickness. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to ensure uniformity of material in each layer. Fill shall be placed such that cross fall does not exceed 1 foot in 20 unless otherwise directed.

When fill material includes rock or concrete rubble, no irreducible material larger than 4 inches in greatest dimension will be allowed except under the direction of the Soils Engineer.

Imported Materials: Materials imported for fill purposes shall be classified as: SAND, group symbol SW, SP, SC or SM, as given in ASTM 2487-10, "The Classification of Soils For Engineering Purposes." In all cases the portion finer than the No. 200 sieve shall not contain any greatly expansive clays and shall be free from vegetable matter and other deleterious materials. The material for engineered fill shall be approved by the Soils Engineer before commencement of grading operations.

Structural Backfill: Trench, wall and structural backfill shall be placed only on approved surfaces, as engineered fill, and shall be compacted to 95% Relative Compaction. Materials imported for backfill purposes shall have a Sand Equivalent of no less than 30 and shall be classified as Clean Sands as designated in "The Classification of Soils For Engineering Purposes" (ASTM 2487-10).

Pavement Grades: All pavement grades shall be of uniform thickness, density and moisture prior to placement of the next grade. Flexure of each or all grades shall not exceed 0.25 inches in 5 feet under an axial load of 18.5 kip.

Aggregate Base Course: All aggregates used for specified base courses, shall be handled in a manner which prevents segregation and non-uniformity of gradation.

Compaction: All re-compacted soils and/or engineered fill should be placed at a minimum 90% Relative Compaction or at the value required for that portion of the work. All pavement sections should be compacted to a minimum of 95% Relative Compaction.

Field density testing shall be completed by the Soils Engineer on each compacted layer or as determined by the Soils Engineer. At least one test shall be made for each 500 cubic yards or fraction thereof, placed with a minimum of two tests per layer in isolated areas. Where a sheeps'-foot roller is used, the soil may be disturbed to a depth of several inches. Density tests shall be taken in compacted materials below the disturbed surface. When these tests indicate that the density of any layer of fill or portion thereof, is below the required density, that particular layer or portion shall be reworked until the required density has been obtained.

Moisture: During compaction moisture content of native soils should be that consistent with the moisture relative to 95% Relative Compaction and in no case should these materials be placed at less than 3 percent above the specific optimum moisture content for the soil in question. The engineer may elect to accept high moisture compacted soils provided the materials are at 95% Relative Wet Density at that moisture content.

The moisture content of the fill material shall be maintained in a suitable range to permit efficient compaction. The Soils Engineer may require adding moisture, aerating, or blending of wet and dry soils.

All earth moving and work operations shall be controlled to prevent water from running into and pooling in excavated areas. All such water shall be promptly removed and the site kept drained.

Tests: All materials placed should be tested in accordance with the Compaction Control Tests: "Density of Soil In-Place by Sand Cone Method" (ASTM D-1556-07), "Moisture-Density Relationship of Soils" (ASTM D-1557-09), and "Density of Soils In-Place by Nuclear Method" (ASTM D-6938-10).

The standard test used to define maximum densities of all compaction work shall be the A.S.T.M. D-1557-09, Moisture Density of Soils, using a 10-pound ram and 18-inch drop. All densities shall be expressed as a relative density in terms of the maximum density obtained in the laboratory by the foregoing standard procedure.

Deleterious Materials: Materials containing an excess of 5% (by weight) of vegetative or other deleterious matter may be utilized in areas of landscaping or other non-structural fills. Deleterious material includes all vegetative and non-mineral material, and all non-reducible stone, rubble and/or mineral matter of greater than 6 inches.

Over-Excavations: Over-excavations, when required, should include the foundation and pavement envelopes. Such excavations should extend beyond edge of development a minimum of 5 feet and to an imaginary line extending away and downward at a slope of 45 degrees from the edge of development. The process shall include the complete removal of the required soils and subsequent placement of engineered fill. After removal of the soils to the required depth, the base of the excavation shall be inspected and approved by the Soils Engineer or his representative prior to further soils processing or placement. Based on this inspection other recommendations may be made.

Existing Conditions: In developed areas underground utilities may be located within the area of proposed construction. In addition, buried objects or deeply disturbed soils may also be encountered. As such all care and practice is to be exercised to observe for and locate any such objects. Where these objects are to be removed or use discontinued, they are to be removed in their entirety and all disturbed soils are to be processed as engineered fill.

Key: All fills on slopes greater than 1 vertical to 6 horizontal shall be keyed into the adjacent soil. The toe of all slopes should be supported by a key cut a minimum of 3 feet into undisturbed soils to the inside of the fills toe. This key should be a minimum of 6 feet in width and slope at no less than 10% into the slope. In addition, as the fill advances up slope benches, 3 feet across, should be scarified into the fill/undisturbed soil interface.

Seasonal Limits: When the work is interrupted by rain, fill operations shall not be resumed until field tests by the Soils Engineer indicate that the moisture content and density of the fill is as previously specified and soils to be placed are in suitable condition

Unusual Conditions: In the event that any unusual conditions are encountered during grading operations which are not covered by the soil investigation or the specifications, the Soils Engineer shall be immediately notified such that additional recommendations may be made.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report are based on our understanding of the project as represented by the plans, and the assumption that the soil conditions do not deviate from those represented in this site soils investigation. Therefore, should any variations or undesirable conditions be encountered during construction, or if the actual project will differ from that planned at this time, GRICE ENGINEERING INC. should be notified and provided the opportunity to make addendum recommendations if required.

NOTIFY:	GRICE ENGINEERING INC.	SALINAS	(831) 422-9619
	561-A Brunken Avenue	MONTEREY	(831) 375-1198
	Salinas, California 93901	FAX	(831) 422-1896

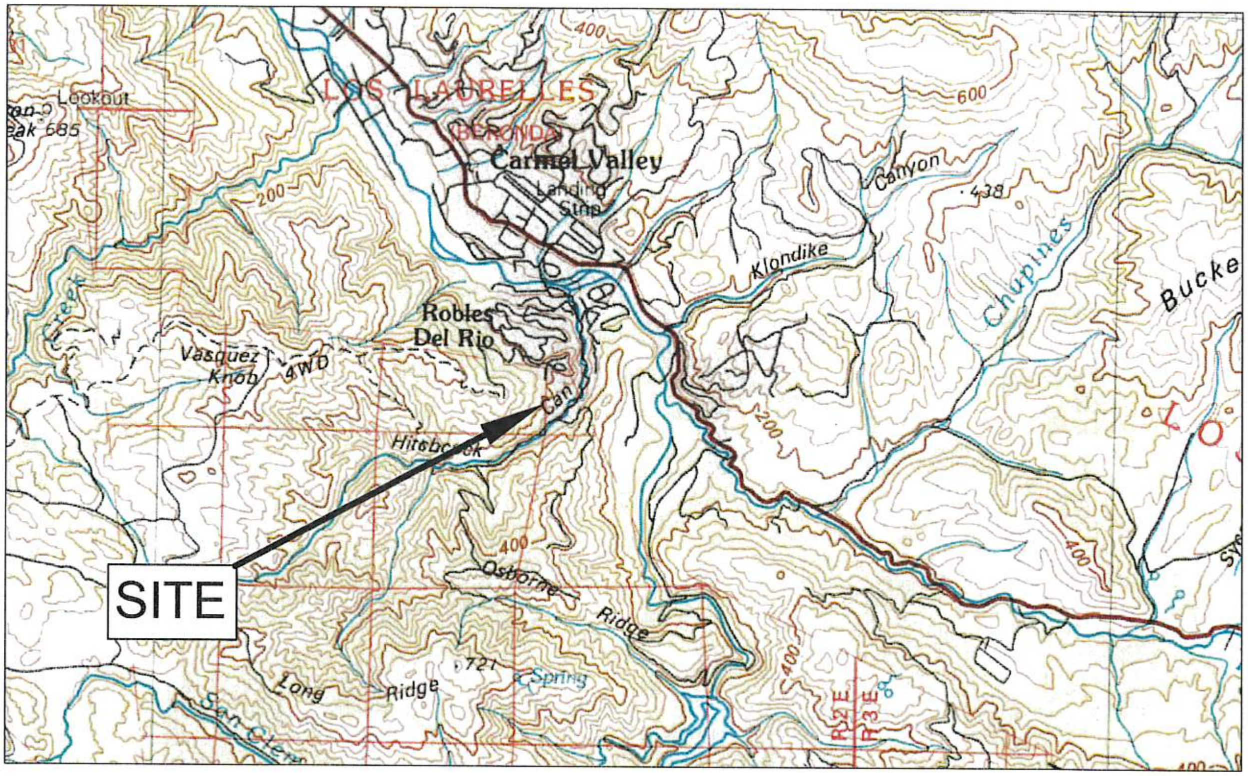
This report is issued with admonishment to the Owner and to his representative(s), that the information contained herein should be made available to the responsible project personnel including the architects, engineers, and contractors for the project. The recommendations contained herein should be incorporated into the plans, the specifications, and the final work.

It is requested that GRICE ENGINEERING INC. be retained to review the project grading and foundation plans to ensure compliance with these recommendations. Further, it is the position of GRICE ENGINEERING INC. that work performed without our knowledge and supervision, or the direction and supervision of a project responsible professional soils engineer renders this report invalid.

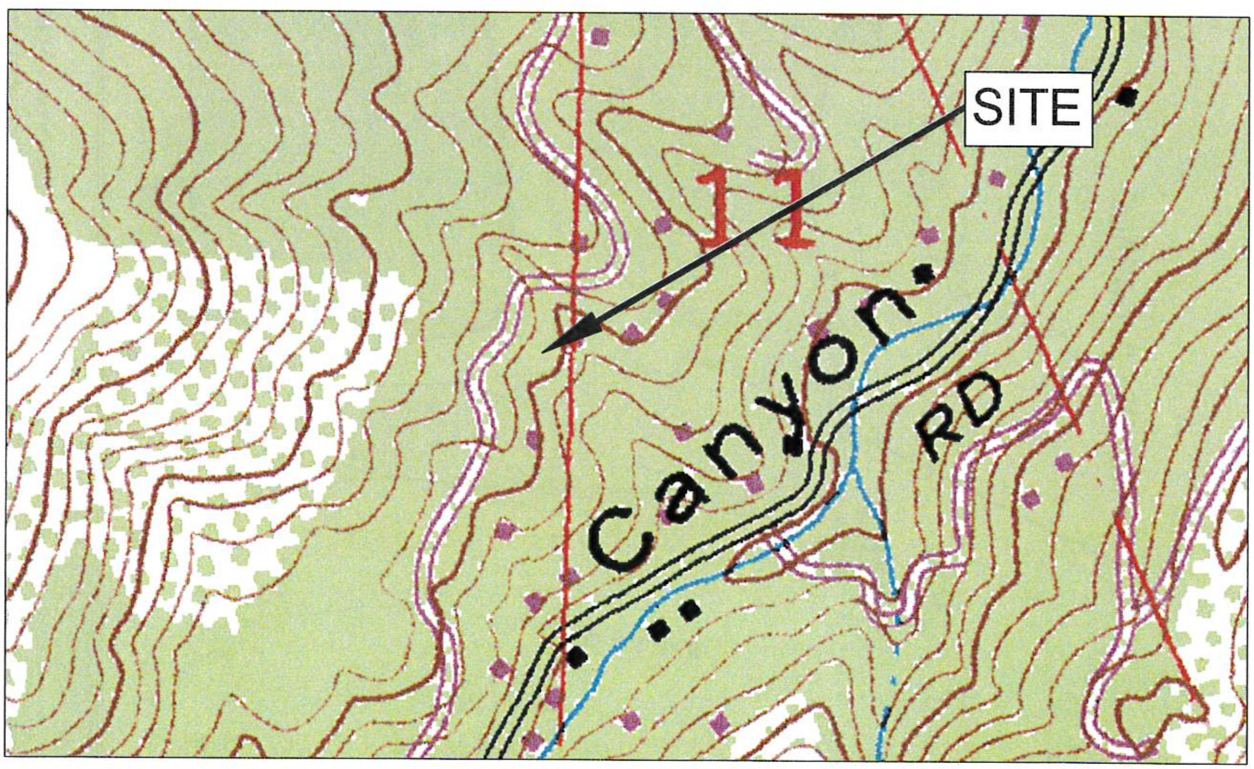
It is our opinion the findings of this report are **valid** as of the **present date**, **however**, changes in the **Codes and Requirements** can occur and change the recommendations given within this report concerning the property. In addition changes in the conditions of a property can occur with the passage of time, due either to natural processes or to the works of man and may effect this property. In addition, changes in **standards** may occur as a result of legislation, or the broadening of knowledge, and these changes may require re-evaluation of the conditions stated herein. Accordingly, the findings of this report may be invalidated wholly, or partially, by changes beyond our control. Therefore, this report is subject to review and should not be relied upon after a period of **three years**.

REVISED 01-07-2011

APPENDIX A



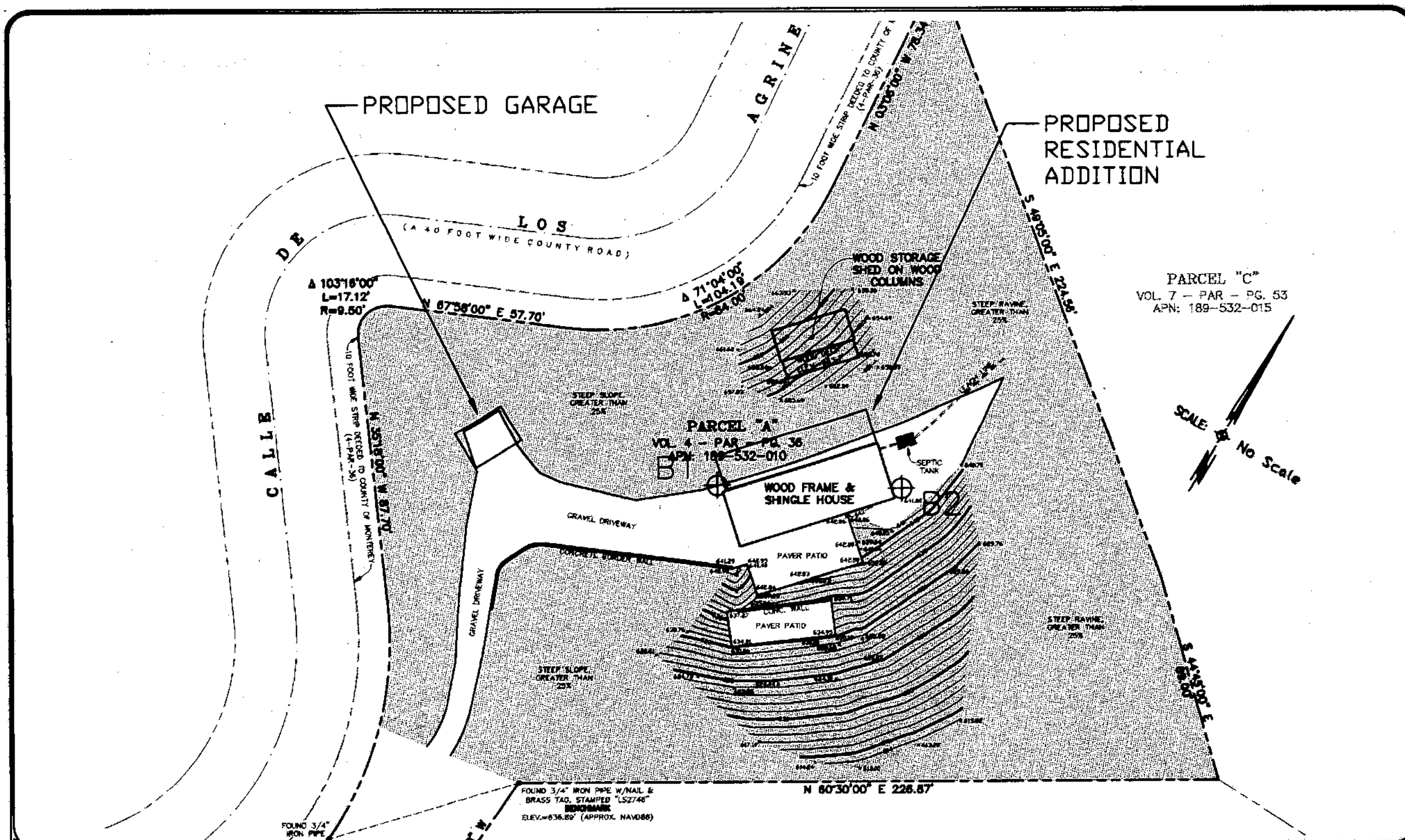
Vicinity Map



Location Map

GRICE ENGINEERING INC
561A Brunken Avenue
Salinas, California 93901
Salinas: (831) 422-9619
Monterey: (831) 375-1198 FAX: (831) 422-1896

Vicinity and Location Map
363 Calle De Los Agrinemsors
Carmel Valley, California File No. 6882-17.10



GRICE ENGINEERING INC

ENGINEERING • GEOTECHNICS • HYDROLOGY • SOILS • FOUNDATIONS • EARTH STRUCTURES

SITE PLAN

Oleksy Residence, 363 Calle De Los Agrinemsors, Carmel Valley, California A.P.N. 189-532-010

APPENDIX B

Oleksy Residence; 363 Calle de Los Agrinemsors, Carmel Valley, Ca.

Boring No. 1

October 24, 2017

Depth	Symbol	Sample	Field Blow Count per 6 Inch	Standard Pen. Per meter	Description	Auger Pen.	Density	Moisture	Unconfined	Cohesion	Shear
0.00	CL				(CUTTINGS) Dark grayish brown | SILTY CLAY; low-medium plasticity; friable | few: clasts; fine sand to fine gravel; weathered rock, soft and friable | slightly moist; loose.						
0.50											
1.00	SOFT ROCK CL				(CUTTINGS) Yellowish brown | SILT-CLAY STONE; low-medium plasticity; friable, deslocated rock | slightly moist; medium dense at contact, dense below 2 feet.						
1.50											
2.00		2.00	DCPT 26.00	26.00							
2.50					End of bore at 2.5 feet. No free water encountered. Bore backfilled with cuttings.						
3.00											
3.50											
4.00											
4.50											
5.00											
5.50											
6.00											
6.50											
7.00											
7.50											
8.00											
8.50											
9.00											
9.50											
10.00											

Oleksy Residence; 363 Calle de Los Agrinemsors, Carmel Valley, Ca.

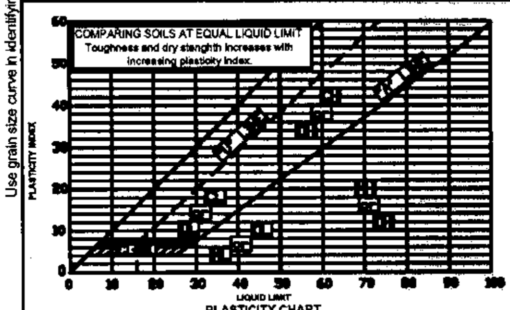
Boring No. 2

October 24, 2017

Depth	Symbol	Sample	Field Blow Count per 6 inch	Standard Pen. Burmister	Description	Auger Pen.	Density	Moisture	Unconfined	Cohesion	Shear
0.00	CL				(CUTTINGS) Dark grayish brown to yellowish brown | SILTY CLAY; low-medium plasticity; friable | few; clasts; fine sand to fine gravel; weathered rock, soft and friable | slightly moist to most at depth; loose-medium dense | FILL OF NATIVE SOILS PLACED DURING OG CONST..						
0.50											
1.00											
1.50											
2.00											
2.50											
3.00	CL				(CUTTINGS) Dark grayish brown | SILTY CLAY; low-medium plasticity; friable | few; clasts; fine sand to fine gravel; weathered rock, soft and friable | moist; loose increasing to medium stiff..						
3.50											
					Topsoil seems a bit thick, some of it is probably fill						
4.00					Medium stiff						
4.50											
	SOFT ROCK				(CUTTINGS) Yellowish brown | SILT-CLAY STONE; low-medium plasticity; friable, desiccated rock | damp decreasing to slightly moist; medium dense at contact, dense below.						
5.00											
		5.25	DCPT 32.00	32.00	Typical rock, open at contact, closing with depth,						
5.50											
					End of bore at 5.5 feet. No free water encountered. Bore backfilled with cuttings.						
6.00											
6.50											
7.00											
7.50											
8.00											
8.50											
9.00											
9.50											
10.00											

UNIFIED SOIL CLASSIFICATION & ASTM D2487: INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 3 inches and basing fractions on estimated weights)						GROUP SYMBOLS N.	TYPICAL NAMES	INFORMATION REQUIRED FOR DESCRIBING SOILS	LABORATORY CLASSIFICATION CRITERIA	
COARSE GRAINED SOILS (More than half of material is larger than No. 200 sieve size is) (The No. 200 sieve size is about the smallest particle visible to the naked eye)	GRAVELS (More than half of coarse fraction is larger than No. 4 sieve size) (For visual classifications, the 1/4" size may be used as equivalent to the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.			GW	Well graded gravels, gravel-sand mixtures, little or no fines.	Give typical name, indicate approximate percentages of sand and gravel, max. size; angularity, surface condition, and hardness of the coarse grains; local or geologic name and other pertinent descriptive information, and symbol in parentheses.	$C_u = \frac{D_{60}}{D_{10}}$ Greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3	Use grain size curve in identifying the fractions as given under field identification. Determine percentages of gravel and sand from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size) coarse grained soils are classified as follows: Less than 5% GW, GP, SW, SP; More than 12 % GM, GC, SW, SC; 5% to 12% Borderline cases requiring use of dual symbols.
			Predominatly one size or a range of sizes with some intermediate sizes missing.			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines.		Not meeting all gradation requirements for GW	
		GRAVELS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).			GM	Silty gravels, poorly graded gravel-sand-silt mixtures.		Atterberg limits below "A" line or PI less than 4	Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols
			Plastic fines (for identification procedures see CL below).			GC	Clayey gravels, poorly graded gravel-sand-clay mixtures.	For undisturbed soils add information on stratification, degree of compactness, cementation, moisture conditions and drainage characteristics.	Atterberg limits above "A" line or PI greater than 7	
	SANDS (More than half of coarse fraction is smaller than No. 4 sieve size)	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate particle sizes.			SW	Well graded sands, gravelly sands, little or no fines.		$C_u = \frac{D_{60}}{D_{10}}$ Greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between one and 3	
			Predominatly one size or a range of sizes with some intermediate sizes missing.			SP	Poorly graded sands, gravelly sands, little or no fines.	EXAMPLE:	Not meeting all gradation requirements for SW	
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for idendification procedures see ML below).			SM	Silty sands, poorly graded sand-silt mixtures.	Silty Sand, gravelly; about 20% hard, angular gravel particles ½ inch maximum size; rounded and subangular sand grains coarse to fine, about 15 % non-plastic fines with low dry strength, well compacted and moist in place, alluvial sand; (SM).	Atterberg limits below "A" line or PI less than 4	Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols
			Plastic fines (for identification procedures see CL below).			SC	Clayey sands, poorly graded sand-clay mixtures.		Atterberg limits above "A" line or PI greater than 7	
	IDENTIFICATION PROCEDURES ON FRACTION SMALLER THAN No. 40 SIEVE SIZE		DRY STRENGTH (CRUSHING CHARACTERISTICS)	DILATANCY (REACTION TO SHAKING)	TOUGHNESS (CONSISTENCY NEAR PLASTIC LIMIT)					
FINE GRAINED SOILS (More than half of material is smaller than No. 200 sieve size) (The No. 200 sieve size is about the smallest particle visible to the naked eye)	SILTS AND CLAYS Liquid limit less than 50		None to slight	Quick to slow	None	ML	Inorganic silts and very vine sands, rock flour, silty or clayey fine sands withg slight plasticity.	Give typical name, indicate degree and character of plasticity, amount and maximum size of coarse grains, color in wet conditions, odor if any, local or geologic name, and other pertinent descriptive information, and symbol in parentheses.		
			Medium to high	None to very slow	Medium	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.			
			Slight to medium	Slow	Slight	OL	Organic silts and organic silt-clays of low plasticity.			
	SILTS AND CLAYS Liquid limit greater than 50		Slight to medium	Slow to none	Slight to medium	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	For undisturbed soils add information or structure, stratification, consistency in undisturbed and remolded states, moisture and drainage conditions.		
			High to very high	None	High	CH	Inorganic clays of high plasticity, fat clays.	EXAMPLE:		
			Medium to high	None to very slow	Slight to medium	OH	Organic clays of medium to high plasticity.	Clayey silt, brown, slightly plastic, small percentage of fine sand, numerous vertical root holes, firm and dry in place, loess; (ML).		
HIGHLY ORGANIC SOILS			Readily identified by color, odor, spongy feel and frequently by fibrous texture.			Pt	Peat and other highly organic soils.			



PLASTICITY CHART
FOR LABORATORY CLASSIFICATION OF FINE GRAINED SOILS

N. Boundary classifications: Soils possessing characteristics of two groups are designated by combinations of group symbols. For examle GW-GC, well graded gravel-sand mixture with clay binder.
N. All sieve sizes on this chart are U.S. Standard.

FIELD IDENTIFICATION PROCEDURES FOR FINE GRAINED SOILS OR FRACTIONS

These procedures are to be performed on the minus No. 40 sieve size particles, approximately 1/64 inches. For field classification purposes, screening is not intended; simply remove by hands the coarse particles that interfere with the test.

DILATANCY (Reaction to shaking)

After removing portions larger than No. 40 sieve size, prepare a pot of moist soil with a volume of about one-half cubic inch. Add enough water if necessary to make the soil soft but not sticky.

Place the pot in the open palm of one hand and shake horizontally, stricking vigorously against the other hand several times. A positive reaction consists of the appearance of water on the surface of the pot which changes to a livery consistancy and becomes glossy. When the sample is squeezed between the fingers, the water and gloss disappear from the surface, the pot stiffens and finnally it cracks or crumbles. The rapidity of appearance of water during shaking and of its disppearance during squeezing assist in identifying the character of the fines in a soil.

Very fine clean sands give the quickes and most distinct reactoin whereas a plastic clay has no reaction. Inorganic silts, such as a typical rock flour, show a moderately quick reaction.

DRY STRENGTH (Crushing characteristics)

After removing particles larger than No. 40 sieve size, mold a pat of soil to the consistency of putty, adding water if necessary. Allow the pat to dry completely by oven, sun, or air drying, and then test its strength by breaking and crumbling between the fingers. This strength is a measure of the character and quality of the colloidal fraction contained in the soil. The dry strength increases with increasing plasticity.

High dry strength is characteristic for clays of the CH group. A typical inorganic silt possesses only very slight dry strength. Silty fine sand and silts have about the same slight dry strength, but can be distinguished by the feel when powdering the dried specimen. Fine sand feels gritty whereas a typical silt has the smooth feel of flour.

TOUGHNESS (Consistency near plastic limit)

After removing particles larger that the No. 40 sieve size, a specimen of soil about one-half inch cube in size is molded to the consistancy of putty. If too dry, water must be added and if sticky, the specimen should be spread out in a thin layer and allowed to lose some moisture by evaporation. Then the specimen is rolled out by hand on a smooth surface of between the palms into a thread about one-eight inch in diameter. The thread is then folded and rerolled repeatedly. During this manipulation the moisture content is gradually reduced and the specimen stiffens, finally loses its plasticity, and crumbles when the plastic limit is reached.

After the thread crumbles, the pieces should be lumped together and a slight kneading action continued until the lump crumbles.

The tougher the thread near the plastic limit and the stiffer the lump when it finally crumbles, the more potent is the colloidal clay fraction in the soil. Weakness of the thread at the plastic limit and quick loss of coherence of the lump below the plastic limit indicate either inorganic clay of low plasticity, or materials such as kaolin-type clays and organic clays which occure below the A-line.

Highly organic clays have a very weak and spongy feel at the plastic limit.

ADOPTED BY: CORPS OF ENGINEERS AND BUREAU OF RECLAMATION-JANUARY 1952

IO3-D-347

REFERENCES

1. American Society of Civil Engineers, **Minimum Design Loads for Buildings and Other Structures, ASCE Standard ASCE/SEI 7-05 Including Supplement No. 1**, 2006, 385 pp.

2. Allen, C. R., 1975; **Geological criteria for evaluating seismicity**, GSA Bull. v. 86, p. 1041-1057.

3. Bailey, E. H., Irwim, W. P. and Jones, D. L., 1964, **Franciscan and Related Rocks, and their significance in the Geology of Western California,** CDMG Bulletin 183, 177 pp.

4. Bailey, E.H., Ed., 1966, **Geology of Northern California,** CDMG Bulletin 190, 507 pp.

5. Blair, M.L. and Spangle, W. E., 1979, **Seismic Safety and Land-Use Planning - Selected Examples from California,** USGS Professional Paper 941-B.

6. Bolt, B. A., 1975; **Geological Hazards,** Springer-Verlag, 328 p.

7. Bryant, W. A., 1985; **Faults in the Southern Monterey Bay area,** CDMG Fault Evaluation Report FER-167, 13 pp.

8. Bullis, K.C., 1980, **Environmental Constraints Analysis of Monterey County, Part I: Seismic and Geologic Hazards,** Monterey County Planning Department, General Update Program, Second printing June 1982, 54pp and appendices.

9. Bullis, K.C., 1981, **Environmental Constraints Analysis of Monterey County, Part I: Flood, Fire and Miscellaneous Hazards; Emergency Preparedness,** Monterey County Planning Department, General Update Program, pp 55-104 and appendices.

10. Burkland and Assoc., 1975, **Seismic Safety Element of the Monterey County General Plan,** 50 pp w/appendices.

11. Burkland and Associates, 1975; **Geotechnical study for the seismic safety element,** Monterey County, California, File No. K3-0113-M1, 125 pp.

12. California Department of Conservation, 1998, **Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada,** International Conference of Building Officials, Introduction & Maps.

13. 2016 California Building Code, **California Code of Regulations, Title 24, 2 Volumes, California Building Standards Commission**, Based on the 2015 International Building Code.

14. Clark, J. C. and Reitman, J. D., 1973. **Oligocene stratigraphy, tectonics, and paleogeography southwest of the San Andreas fault, Santa Cruz Mountains and Gabilan Range, California Coast Ranges**: U.S. G. S. Professional Paper 783, 18 p.

15. Clark, J. C., Diblee, T. W. Jr., Greene, H. G., and Bowen, O. E., Jr., 1974, **Preliminary geologic map of the Monterey and Seaside 7.5 minute quadrangles, Monterey County, California, with emphasis on active faults,** USGS Miscellaneous Field Studies Map MF-577.

16. Clark, Joseph C., Dupré, William R., & Rosenberg, Lewis I., **Geological Map of the Monterey and Seaside 7.5 minute Quadrangles, Monterey County, California: A Digital Database**, 1997, U. S. Department of the Interior, U. S. Geological Survey, Open-File Report 97-30, Map and Pamphlet, 26 pp.

17. Clark, Joseph C., Brabb, Earl E., & Rosenberg, Lewis I., 2000, **Geologic Map of the Spreckels 7.5-Minute Quadrangle, Monterey County, California,** USGS/Department of the Interior, Map MF-2349 & Pamphlet, 22 pp.

18. Clark, Joseph C. & Rosenberg, Lewis I., March 1999, **Southern San Gregorio Fault Displacement: Stepover Segmentation VS. Through-Going Tectonics,** USGS /Department of the Interior-National Earthquake Hazards Reduction Program, Award number 1434-HQ-98-GR-00007, 22 pp without Appendices

19. Cleveland, G.B., 1975, **Landsliding in Marine Terrace Terrain, California,** CDMG Special Report 119, 24pp.

20. Compton, R. R., 1966; **Granitic and metamorphic rocks of the Salinian Block, California Coast Ranges,** CDMG Bulletin 190, p. 277-287.

21. Diblee, T. W. Jr., 1966; **Evidence for cumulative offset on the San Andreas fault in central and northern California,** CDMG Bulletin 190.

22. Diblee, T. W., Jr., 1999; **Geologic Map of the Monterey Peninsula and Vicinity, Monterey, Salinas, Point Sur, and Jamesburg 15-Minute Quadrangles, Monterey County, California,** Diblee Geological Foundation Map #DF-71.

23. Dickinson, William R., Duccea, Mihai, Rosenberg, Lewis I., Greene, H. Gary, Graham, Stephan A., Clark, Joseph C., Weber , Gerald E., Kidder, Steven, Ernst, W. Gary and Brabb, Earl E., 2005; **Net dextral slip, Neogene San Gregorio-Hosgri fault zone, coastal California: Geologic evidence and tectonic implications**, Geological Society of America, Special Paper 391, 43 pp.

24. Dittmer, E. and Stein, C., 1977, **Salinas Seismic Hazards Technical Report,** Department of Community Development, City of Salinas, 73 pp.

25. Dupre, W. R. and Tinsley, J. C. III, 1980, **Geology and liquefaction potential of northern Monterey and southern Santa Cruz, California**: USGS Miscellaneous Field Studies Map 1199, Scale 1:62,500, 2 sheets.

26. Dupre, W. R., 1990, **Maps Showing Geology and Liquefaction Susceptibility of Quaternary Deposits in the Monterey, Seaside, Spreckels and Carmel Valley Quadrangles, Monterey County, CA**, U. S. Geological Survey and University of Huston, Map #MF-2096, 2 Sheets

27. Durham, D.L., 1974; **Geology of the Southern Salinas Valley Area, California,** USGS Professional Paper 819, 111 pp.

28. Greene, H. G., Lee, W.H.K., McCulloch, D.S., and Brabb, E.E., 1973; **Faults and Earthquakes in the Monterey Bay Region, California**, USGS MF 518, maps and paper, 14pp.

29. Greene, H. G., 1977; **Geology of the Monterey Bay region,** USGS Open-File Report p. 77-718.

30. Hays, W.W., 1980, **Procedures for Estimating Earthquake Ground Motions,** USGS Professional Paper 1114, 77 pp.

31. Jennings, C. W., and Strand, R. G., 1958; **Geologic Map of California, Olaf P. Jenkins edition, Santa Cruz sheet,** Scale 1:250,000, third printing 1971.

32. Jennings, C. W., and Bryant, W. A., 2010 **Fault Activity Map of California: California Geological Survey Geologic Data Map**, No. 6, Map Scale 1:750,000, Includes "An Explanatory Text to Accompany the Fault Activity Map of California", 94 pp

33. Lee, L. Don, Gudson, Seldon and Kauffman, Marvin E., 1978, **Physical Geology,** 5th Ed., Prentice Hall, Inc, Englewwod Cliffs, New Jersey 07632, 490 pp.

34. Lindh, A. G., 1983; **Preliminary assessment of long-term probabilities for large earthquakes along selected fault segments of the San Andreas fault system in California,** USGS Open File Report 83-63, 15 p.

35. Nason, R. D., and Rogers, T. H., 1967; **Self-guiding map to active faulting in the San Juan Bautista quadrangle, conference on geologic problems of the San Andreas fault system,** Stanford University, scale 1:24,000.

36. Nilsen, T.H., Diblee, T.W. Jr., and Blake, M.C. Jr., 1990, **Geology of the Central Diablo Range, CA,** Field Trip June 2-3.

37. Oakeshott, G. B., 1966; **San Andreas fault in the California Coast Range Province,** in Bailey, E. H., ed., **Geology of Northern California,** CDMG Bulletin 190, p. 357-373.

38. Plafker, G. and Galloway, J.P., eds., 1989 (approved for publication), **Lessons Learned from the Loma Prieta, California, Earthquake of October 17, 1989,** USGS Circular 1045, 48 pp.

39. Ray, R.G., 1960, **Aerial Photographs in Geologic Interpretation and Mapping,** USGS Professional Paper 373, seventh printing, 1984, 230 pp.

40. Real Estate Data Inc., 1980; **Aerial/Map Volume of Monterey County, California,** Photo 110, 2398 NW 119th St., Miami, FLA 33167, fifteenth edition.

41. Robbins, S.L., 1982, **Complete Bouguer Gravity, Aeromagnetic, and Generalized Geologic map of the Hollister 15-minute Quadrangle, CA,** Geophysical Investigations Map GP 945, 2 sheets, Scale 1:62,500.

42. Sarna-Wojcicki, A.M., Pampeyan, E.H. and Hall, N.T., 1975, **Maps Showing Recently Active Breaks Along the San Andreas Fault Between the Central Santa Cruz Mountains and the Northern Gabilan Range, CA,** 2 maps, text is on map 2, Scale 1:24,000.

43. Spangle, Wm. and Associates, Burkland and Associates, and Thorup, Richard R., July 1974; **Faults, Seismicity and Tsunami Hazards: Monterey County, California**: Part of Geological Report, County Map 3, File No. K4-0113-M1.

44. Tinsley, J. C. III, 1975, **Quaternary geology of northern Salinas Valley, Monterey County, California**: Stanford University PhD. thesis, 194 p., map, scale 1:62,500.

45. US Department of Agriculture, Soil Conservation Service, 1978, **Soil Survey, Monterey County, CA,** 226 pages and maps.

46. US Geological Survey, California Geological Survey, 2006, **Quaternary Fault and Fold Database for the United States,** access date same as report, from URL: http://earthquakes.usgs.gov/regional/qfaults/

47. US Geological Survey / California Geological Survey, 2006, **The USGS Store, Map Locator,** access date same as report, from URL: http://store.usgs.gov/ click on 'map locator'

48. USGS Earthquake Hazards Program, **Seismic Design Values for Buildings-Earthquake Ground Motion Parameter**, URL: http://earthquake.usgs.gov/research/hazmaps/design/index.php

49. USGS Open File Report 88-398, 1988, **Probabilities of Large Earthquakes Occurring in California on the San Andreas Fault,** by the Working Group on California Earthquake Probabilities, 62 pp.

50. Wallace, R. E., 1970; **Earthquake recurrence intervals on the San Andreas fault,** GSA Bulletin, v. 81.

51. Wagner, David L., Greene, H. Gary, Saucedo, George J. and Pridmore, Cynthia L. Compiled by., Watkins, Sarah E., Little, Jason D. and Bizzarro, Joseph J. Digitalized by. 2002, California Department of Conservation, **Geologic Map of the Monterey 30' x 60' Quadrangle and Adjacent Areas, CA** , 3 maps and CD-ROM

52. Ward, P.L. and Page, R.A., 1989, **The Loma Prieta Earthquake of Oct 17, 1989,** USGS Pamphlet, Hdgen, L.D. and Troll, J.A., eds., second printing, revised, January 1990.

53. Wyss, M., 1979; **Estimating maximum expectable magnitude of earthquakes from fault dimensions,** Geology, v. 7, n. 7, p. 336-340.

54. Youd, T. L., and Hoose, S. N., 1978; **Historic ground failures in northern California triggered by earthquakes,** USGS Professional Paper P-993, p. 177

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