Pangilinan, Marlon

From: Tim Golba <tgolba@golba.com>
Sent: Thursday, May 10, 2018 10:46 AM
To: Pangilinan, Marlon
Cc: Sarah Horton
Subject: RE: LA JOLLA SHORES ADVISORY BOARD - May 21st 2018
Attachments: 596085 - 8333 Call Del Cielo Assessment Letter with Attachments.pdf; Neighbor Outreach Chart.pdf; Allos Residence - basement and first floor plan.pdf; Allos Residence - Second floor and roof plan.pdf; ALLOS Residence Landscape Plan.pdf; Allos Residence - Floor Area Ratio Matrix.pdf; Allos Residence Soils Report.pdf; Allos Residence - Site Plan - 8333 Calle del Cielo.pdf

Importance: High

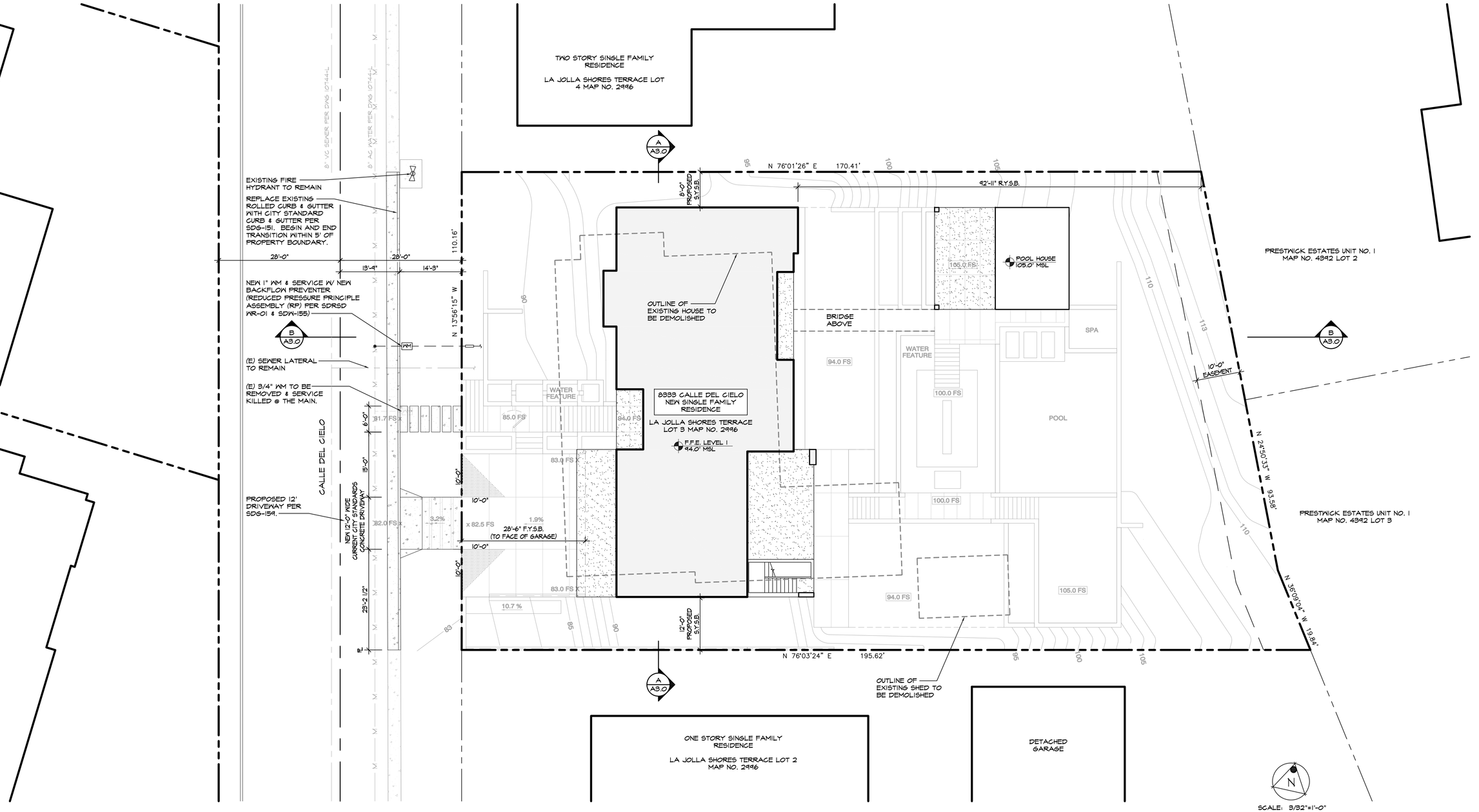
Marlon,

Please find the data and back up on the ALLOS RESIDNECE on your LJSAB agenda for the 21st. The project data and information is below:

Here is the Applicant Information:

- Project PTS number from Development Services and project name: **#596085, Kristian and Natasha Allos Residence**
- Address and APN(s): **8333 Calle Del Cielo, APN: 346-190-03-00**
- Project contact name, phone, e-mail: **Sarah Horton, 619-231-9905, shorton@golba.com**
- Project description: **Scope includes demolition of an existing 4,085 sf two story over basement garage single family residence and construction of a new 5,958 sf two story over basement garage single family residence.**
    - lot size: 19,988 square feet
    - existing structure square footage and FAR: 4,085 square feet or a 00.20 Floor Area Ratio (FAR)
    - proposed square footage and FAR: **5,958 square feet or a 00.30 Floor Area Ratio (FAR)**
    - existing and proposed setbacks on all sides:

      Existing: Front Yard: 26'-3 1/2"
      Side Yards: 14'-8 1/2" & 20'-8"
      Rear Yard: 83'-1 1/2"
      Proposed: Front Yard: 28'-6"
      Side Yards: 8'-0" & 12'-0"
      Rear Yard: 92'-11"
    - height if greater than 1-story (above ground): **2 stories over basement garage, 26'-6" high** (existing height 25'-10")



STORM WATER QUALITY NOTES/ CONSTRUCTION BMP'S:

THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE PERMIT, CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SAN DIEGO REGION, ORDER NO. 2001-01 NPDES NO. CAS0108758 (HTTP://WWW.SWRCB.CA.GOV/RWQCB9/PROGRAMS/SDSTORMWATER.HTML) AND CITY OF SAN DIEGO LAND DEVELOPMENT CODE (HTTP:// CLERKDOC.SANNET.GOV/RIGHTSITE/GETCONTENT/LOCAL.PDF?DMW_OBJECTID=0900145180088C43)

NOTES 1-6 BELOW REPRESENT KEY MINIMUM REQUIREMENTS FOR CONSTRUCTION BMP'S.

1.) SUFFICIENT BMP'S MUST BE INSTALLED TO PREVENT SILT, MUD OR OTHER CONSTRUCTIONS DEBRIS FROM BEING TRACKED INTO THE ADJACENT STREET(S) OR STORM WATER CONVEYANCE SYSTEM DUE TO CONSTRUCTION VEHICLES OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ANY SUCH DEBRIS THAT MAY BE IN THE STREET AT THE END OF EACH WORK DAY OR AFTER A STORM EVENT THAT CAUSES A BREECH IN THE INSTALLED CONSTRUCTION BMP'S.
2.) ALL STOCK PILES OF UNCOMPACTED SOIL AND/OR BUILDING MATERIALS THAT ARE INTENDED TO BE LEFT UNPROTECTED FOR A PERIOD GREATER THAN SEVEN CALENDAR DAYS ARE TO BE PROVIDED WITH EROSION AND SEDIMENT CONTROL. SUCH SOIL MUST BE PROTECTED EACH DAY WHEN THE PROBABILITY OF RAIN IS 40% OR GREATER.
3.) A CONCRETE WASHOUT SHALL BE PROVIDED ON ALL PROJECTS WHICH PROPOSE THE CONSTRUCTION OF ANY CONCRETE IMPROVEMENTS THAT ARE TO BE POURED IN PLACE ON THE SITE.
4.) ALL EROSION/ SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN WORKING ORDER AT ALL TIMES.
5.) ALL SLOPES THAT ARE CREATED OR DISTURBED BY CONSTRUCTION ACTIVITY MUST BE PROTECTED AGAINST EROSION AND SEDIMENT TRANSPORT AT ALL TIMES.
6.) THE STORAGE OF ALL CONSTRUCTION MATERIALS AND EQUIPMENT MUST BE PROTECTED AGAINST ANY POTENTIAL RELEASE OF POLLUTANTS INTO THE ENVIRONMENT.

SITE NOTES:

1. THIS STRUCTURE SHALL NOT EXCEED 30' IN HEIGHT IN CONFORMANCE WITH SDMC SECTION 113.0270.
2. THERE ARE NO EXISTING OR PROPOSED BUS/ TRANSIT STOPS.
3. PROVIDE BUILDING ADDRESS NUMBERS VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. (UFC 901.4.4).
4. METER LOCATIONS ARE SUBJECT TO APPROVAL BY SDG&E.
5. SEE ATTACHED TOPOGRAPHIC SURVEY FOR THE SOURCE OF TOPOGRAPHIC INFORMATION.
6. SEE ATTACHED PRELIMINARY GRADING PLAN FOR GRADING AND DRAINAGE INFORMATION.
7. SEE ATTACHED LANDSCAPE DEVELOPMENT PLAN FOR MORE INFORMATION.
8. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

SITE LEGEND:

- INDICATES PROPERTY LINE
- INDICATES SETBACK LINE
- EM — ELECTRIC METER
- GM — GAS METER
- WM — WATER METER
- NEW HARDSCAPE OR DECK
- NEW CONCRETE PAVING
- EXISTING CONCRETE PAVING
- VISIBILITY AREA - NO OBSTRUCTION INCLUDING SOLID WALLS IN THE VISIBILITY AREA SHALL EXCEED 3'-0" IN HEIGHT. PLANT MATERIAL, OTHER THAN TREES, W/IN THE PUBLIC RIGHT-OF-WAY THAT IS LOCATED WITHIN VISIBILITY AREAS SHALL NOT EXCEED 24 INCHES IN HEIGHT, MEASURED FROM THE TOP OF THE ADJACENT CURB.

Prepared By:
Golba Architecture
1940 Garnet Ave. #100
San Diego, CA 92109
(619) 231-9905
fax: 858-750-3471

Project Address:
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

Project Name:
ALLOS RESIDENCE

Sheet Title:
SITE PLAN

Revision 14:
Revision 13:
Revision 12:
Revision 11:
Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3:
Revision 2:
Revision 1: 04-15-18

Original Date: 01-29-18

Sheet 5 Of 12

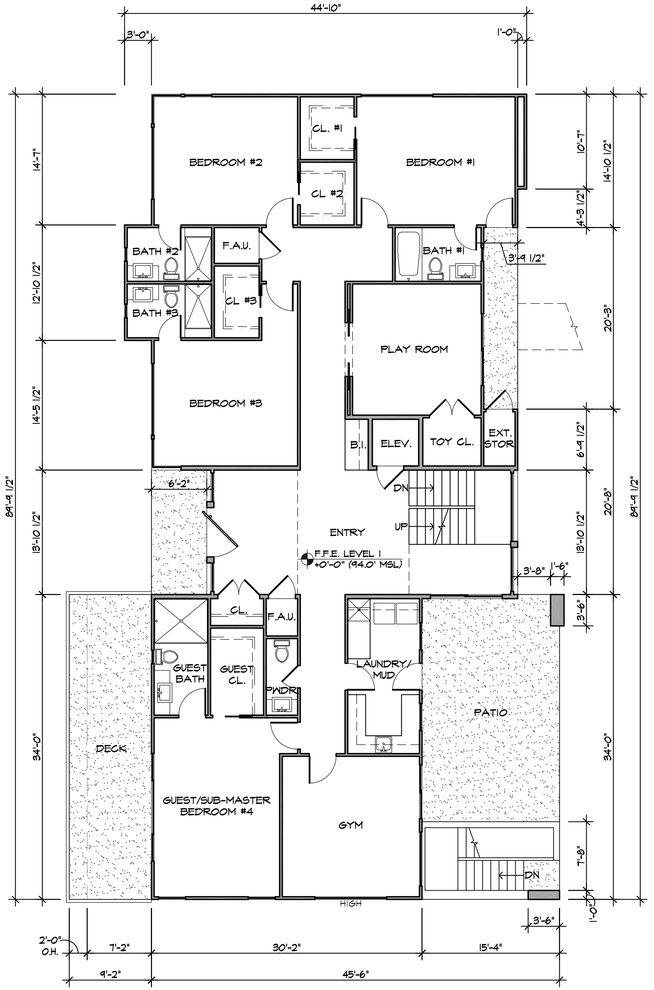
GOLBA ARCHITECTURE inc
Architecture ■ Space Planning ■ Interior Design
1940 Garnet Ave. #100 San Diego California 92109
Phone: (619) 231-9905 Fax: (858) 750-3471

ALLOS RESIDENCE
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

REGISTERED ARCHITECT TIMOTHY J. GOLBA No. C14738 Ren. 7-31-19 STATE OF CALIFORNIA

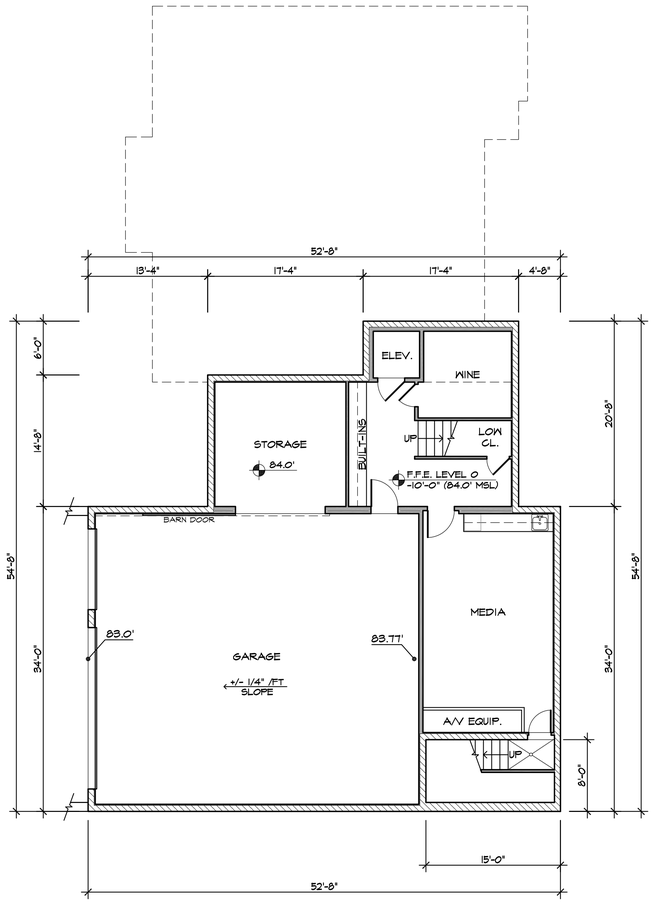
A 0.0

DATE: 01-29-18



FIRST FLOOR PLAN

SCALE: 1/8"=1'-0"



BASEMENT PLAN

SCALE: 1/8"=1'-0"

WALL LEGEND

- MASONRY OR CONCRETE WALL
- WOOD STUD WALL PER STRUCTURAL DRAWINGS
- LOW WALL, 42" A.F.F., TYP.

SCALE: 1/8"=1'-0"

Prepared By:
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(619) 231-9905
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Project Address:
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

Project Name:
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Revision 2:
Revision 1:

Original Date: 01-29-18

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Sheet Title:
BASEMENT & FIRST FLOOR PLANS

GOLBA ARCHITECTURE inc
Architecture ■ Space Planning ■ Interior Design
1940 Garnet Ave. #100 San Diego California 92109
Phone: (619) 231-9905 Fax: (858) 750-3471

ALLOS RESIDENCE
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

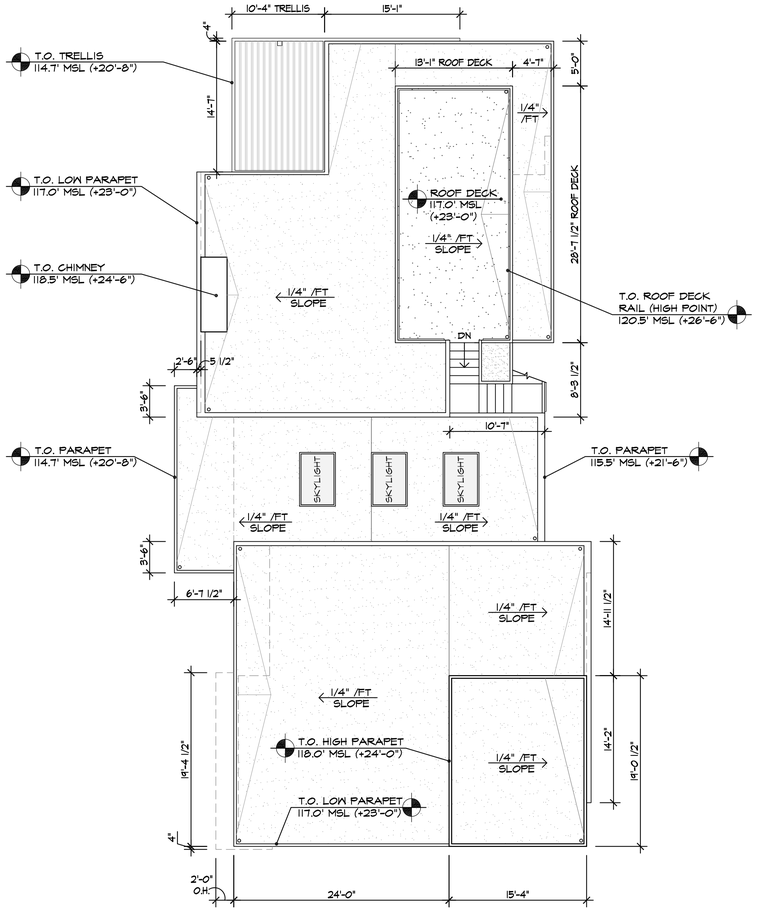
STATE OF CALIFORNIA ★ REGISTERED ARCHITECT ★ TIMOTHY J. GOLBA No. C14738 Ren. 7-31-19

golba inc.

A 1.0

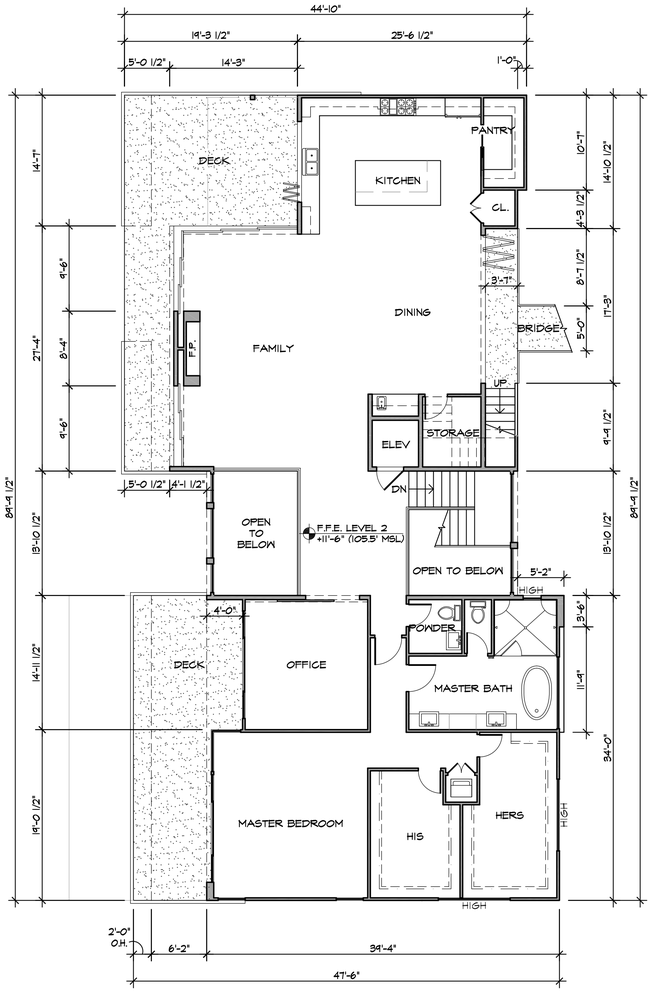
DATE: 01-29-18

NOTE:
THE HIGHEST POINT OF THE ROOF EQUIPMENT, OR ANY VENT, PIPE, ANTENNA, OR OTHER PROJECTION SHALL NOT EXCEED 30'-0" ABOVE THE GRADE (SDMC 113.0270)



ROOF PLAN

SCALE: 1/8"=1'-0"



SECOND FLOOR PLAN

SCALE: 1/8"=1'-0"

WALL LEGEND

- MASONRY OR CONCRETE WALL
- WOOD STUD WALL PER STRUCTURAL DRAWINGS
- LOW WALL, 42" A.F.F., TYP.

SCALE: 1/8"=1'-0"

Prepared By:
Golba Architecture
1940 Garnet Ave. #100
San Diego, CA 92109
(619) 231-9905
fax: 858-750-3471

Project Address:
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

Project Name:
ALLOS RESIDENCE

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Original Date: 01-29-18

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Sheet Title:
SECOND FLOOR & ROOF PLANS

GOLBA ARCHITECTURE inc
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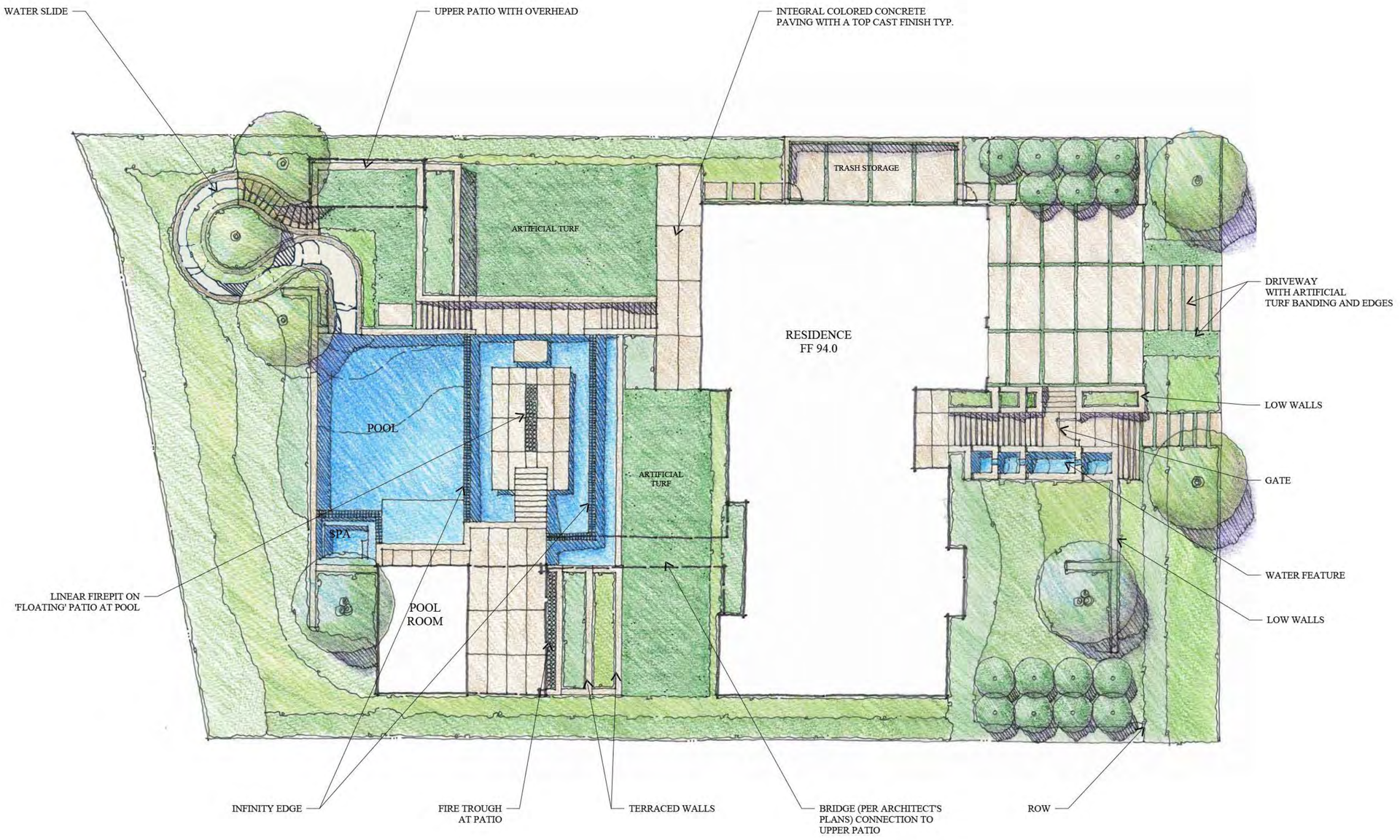
ALLOS RESIDENCE
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

REGISTERED ARCHITECT
TIMOTHY J. GOLBA
No. C14736
Ren. 7-31-19
STATE OF CALIFORNIA

golba inc

A 1.1

DATE: 01-29-18



ALLOS RESIDENCE

CONCEPTUAL LANDSCAPE PLAN

San Diego, California

MAY 1, 2018

GRAPHIC SCALE

10' 0 10' 30'

SCALE: 1" = 10'

SJA
landscape architecture
land planning

31726 Rancho Viejo Road | Suite 201
San Juan Capistrano, CA 92675
TEL 949 276 6500 | FAX 949 276 6505
www.sjainc.com

GOLBA ARCHITECTURE
1940 Garnet Avenue, Suite 100
San Diego, CA 92109

8333 CALLE DEL CIELO

LA JOLLA SHORES NEIGHBORHOOD FLOOR AREA RATIO

LOT NUMBER	FRONT SETBACK	SIDE SETBACK	SIDE SETBACK	LOT SIZE	GROSS S.F.	F.A.R.
2385 Calle Del Oro	10.0	15.0	16.0	23,522	3,856	0.16
8366 Calle Del Cielo	15.0	5.0	6.0	17,460	5,773	0.33
8361 Del Oro Court	25.0	6.0	8.0	20,561	2,875	0.14
8350 Calle Del Cielo	18.0	6.0	4.0	22,215	10,400	0.47
8351 Del Oro Court	10.0	18.0	5.0	29,620	8,134	0.27
2350 Calle De La Garza	10.0	5.0	8.0	24,393	8,081	0.33
8332 Calle Del Cielo	20.0	4.0	4.0	19,314	3,307	0.17
2355 Calle De La Garza	10.0	4.0	4.0	22,215	5,552	0.25
8320 Calle Del Cielo	15.0	4.0	4.0	19,624	11,923	0.61
8308 Calle Del Cielo	12.0	4.0	8.0	19,986	6,933	0.35
8283 La Jolla Shores Dr.	15.0	8.0	8.0	48,787	8,885	0.18
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8280 Calle Del Cielo	15.0	6.0	6.0	25,000	7,000	0.28
8305 Calle Del Cielo	21.0	4.0	4.0	30,056	4,231	0.14
8315 Calle Del Cielo	18.0	4.0	4.0	21,521	4,946	0.23
8347 Calle Del Cielo	20.0	6.0	5.0	19,969	4,799	0.24
8361 Calle Del Cielo	22.0	4.0	12.0	19,983	3,035	0.15
2415 Calle Del Oro	20.0	12.0	8.0	18,939	2,302	0.12
8416 Westway Dr.	15.0	5.0	5.0	20,787	5,901	0.28
2430 Calle Del Oro	10.0	5.0	5.0	54,450	7,114	0.13

2429 Calle Del Oro		6.0		5.0		18.0		19,670		3,670		0.19
2443 Calle Del Oro		10.0		9.0		5.0		20,210		4,217		0.21
2457 Calle Del Oro		10.0		4.0		6.0		20,205		3,557		0.18
2471 Calle Del Oro		10.0		4.0		7.0		20,445		3,468		0.17
2485 Calle Del Oro		10.0		6.0		5.0		21,305		3,925		0.18
2505 Calle Del Oro		10.0		6.0		4.0		22,672		4,835		0.21
2470 Calle Del Oro		8.0		8.0		4.0		20,844		4,626		0.22
2456 Calle Del Oro		8.0		4.0		9.0		18,130		4,562		0.25
2442 Calle Del Oro		8.0		5.0		4.0		22,651		5,166		0.23
AVERAGES:		**14.73**		**6.61**		**6.91**		**23987**		**5613**		**0.21**
8333 Calle Del Cielo		20.0		8.0		12.0		19,912		5,958		0.29

REPORT OF PRELIMINARY GEOTECHNICAL INVESTIGATION

Allos Residence
8333 Calle Del Cielo
La Jolla, California

JOB NO. 18-11851
25 April 2018

Prepared for:

Kristian and Natasha Allos

Geotechnical Exploration, Inc.
SOIL AND FOUNDATION ENGINEERING ● GROUNDWATER ● ENGINEERING GEOLOGY

25 April 2018

Kristian and Natasha Allos
1753 Slate Terrace
El Cajon, CA 92019

Job No. 18-11851

Subject: **Report of Preliminary Geotechnical Investigation**
Allos Residence
8333 Calle Del Cielo
La Jolla, California

Dear Mr. & Mrs. Allos:

In accordance with the request of your architect, Golba Architecture Inc., and our proposal of March 20, 2018, ***Geotechnical Exploration, Inc.*** has performed an investigation of the geotechnical and general geologic conditions at the location of the subject site. The field work was performed on April 2, 2018.

If the conclusions and recommendations presented in this report are incorporated into the design and construction of the proposed new residence and associated improvements, it is our opinion that the site is suitable for the proposed project.

This opportunity to be of service is sincerely appreciated. Should you have any questions concerning the following report, please do not hesitate to contact us. Reference to our **Job No. 18-11851** will expedite a response to your inquiries.

Respectfully submitted,

GEOTECHNICAL EXPLORATION, INC.

Jaime A. Cerros, P.E.
R.C.E. 34422/G.E. 2007
Senior Geotechnical Engineer

Jay R. Heiser
Senior Project Geologist

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REPORT OF PRELIMINARY GEOTECHNICAL INVESTIGATION
Allos Residence
8333 Calle Del Cielo
La Jolla, California

Job No. 18-11851

The following report presents the findings and recommendations of ***Geotechnical Exploration, Inc.*** for the subject project.

I. PROJECT SUMMARY

It is our understanding, based on communications with your architect Golba Architecture Inc., that the existing residential structure will be removed and the site will be developed to receive a new two-story, single-family residence with a basement, swimming pool, pool house and associated improvements. The new residential structure will be constructed utilizing standard-type building materials utilizing conventional foundations with concrete slab on-grade floors.

Final construction plans have not been provided to us during the preparation of this report, however, when completed they should be made available for our review. Additional or modified recommendations may be provided as warranted.

II. SCOPE OF WORK

The scope of work performed for this investigation included a review of available published information pertaining to the site geology, a site reconnaissance and subsurface exploration program, laboratory testing, geotechnical engineering analysis of the research, field and laboratory data, and the preparation of this report. The data obtained and the analyses performed were for the purpose of providing design and construction criteria for the project earthwork, building foundations, and slab on-grade floors.

III. SUMMARY OF GEOTECHNICAL & GEOLOGIC FINDINGS

Our subsurface investigation and site reconnaissance revealed that the site is underlain at depth by very stiff to hard, adequate bearing sandy clay of the Ardath Shale Formation (Ta) and dense, clayey sand formational soils referred to as Old Paralic Deposits (Qop_6). The encountered formational soils are overlain by approximately 2 to 4 feet of sandy clay and clayey sand fill materials. The fill soils are of variable density and will not provide a stable soil base for the proposed residential structure or associated improvements. As such, it is recommended that either new foundations be founded into the underlying formational soils utilizing a deepened footing foundation system or the existing fill soils be removed and recompacted.

The on-site soils should provide adequate bearing strength for new slab on-grade exterior improvements, after proper removal and recompaction of the existing shallow surface soils. As such, we recommend that the existing fill soils (2 to 4 feet) be removed and recompacted as part of site preparation prior to placement of slab on-grade exterior improvements in these areas.

In our opinion, the site is suited for the proposed residential construction provided the following recommendations are implemented during site development. Conventional construction techniques and materials can be utilized. Detailed construction plans have not been provided to us for the preparation of this report, however, when completed they should be made available for our review for new or modified recommendations. In addition, the proposed work will not, in our opinion, destabilize or result in settlement of adjacent property if the recommendations presented in this report are implemented.

IV. SITE DESCRIPTION

The approximately 0.45-acre site is more particularly referred to as Assessor's Parcel No. 346-190-03-00, Lot 3 of the La Jolla Shores Terrace, according to Recorded Map 2996, in the La Jolla area of the City and County of San Diego, State of California. For the location of the site, refer to the Vicinity Map, Figure No. I.

The property is bordered on the north, south and east by existing residential properties; and on the west by Calle del Cielo. Elevations across the property range from approximately 83 feet above Mean Sea Level (MSL) at the southwest corner of the property, to 113 feet above MSL at the northeast corner of the property. Information concerning approximate elevations across the site was obtained from a site plan prepared by Golba Architecture Inc., dated January 29, 2018. Refer to the Plot Plan, Figure No. II.

Vegetation at the site consists primarily of lawns, ground cover ornamental shrubbery and a few mature trees. A multi-level, single-family residence currently exists on the property.

V. FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using hand tools to investigate and sample the subsurface soils. Five exploratory excavations were advanced within the areas of the proposed structure and associated improvements on April 2, 2018, to a maximum depth of 5 feet. The soils encountered in the exploratory excavations were continuously logged in the field by our geologist and described in accordance with the Unified

Soil Classification System (refer to Appendix A). The approximate locations of the exploratory excavations are shown on the Plot Plan, Figure No. II.

VI. LABORATORY TESTS AND SOIL INFORMATION

Laboratory tests were performed on disturbed soil samples in order to evaluate their strength, expansion index, and compressibility properties. The test results are presented on Figures Nos. IIIa-e and IV. The following tests were conducted on the sampled soils:

1. *Laboratory Compaction Characteristics (ASTM D1557-12)*
2. *Determination of Percentage of Particles Passing #200 Sieve (ASTM D1140-14)*
3. *Expansion Index (ASTM D4829-11)*

Laboratory compaction tests establish the laboratory maximum dry density and optimum moisture content of the tested soils and are also used to aid in evaluating the strength characteristics of the soils.

The particle size smaller than a No. 200 sieve analysis aids in classifying the tested soils in accordance with the Unified Soil Classification System and provides qualitative information related to engineering characteristics such as expansion potential, permeability, and shear strength.

The expansion potential of soils is determined, when necessary, utilizing the Standard Test Method for Expansion Index of Soils ASTM D4829. In accordance with the Standard (Table 5.3), potentially expansive soils are classified as follows:

EXPANSION INDEX	EXPANSION POTENTIAL
0 to 20	Very low
21 to 50	Low
51 to 90	Medium
91 to 130	High
Above 130	Very high

Based on the test results, the sampled existing sandy clay fill and formational soils have a low expansion potential, with a maximum measured expansion index of 42.

VII. REGIONAL GEOLOGIC DESCRIPTION

San Diego County has been divided into three major geomorphic provinces: the Coastal Plain, the Peninsular Ranges and the Salton Trough. The Coastal Plain exists west of the Peninsular Ranges. The Salton Trough is east of the Peninsular Ranges. These divisions are the result of the basic geologic distinctions between the areas. Mesozoic metavolcanic, metasedimentary and plutonic rocks predominate in the Peninsular Ranges with primarily Cenozoic sedimentary rocks to the west and east of this central mountain range (Demere, 1997).

In the Coastal Plain region, where the subject property is located, the "basement" consists of Mesozoic crystalline rocks. Basement rocks are also exposed as high relief areas (e.g., Black Mountain northeast of the subject property and Cowles Mountain near the San Carlos area of San Diego). Younger Cretaceous and Tertiary sediments lap up against these older features. The Cretaceous sediments form the local basement rocks on the Point Loma area. These sediments form a "layer cake" sequence of marine and non-marine sedimentary rock units, with some formations up to 140 million years old. Faulting related to the La Nacion and Rose Canyon Fault zones has broken up this sequence into a number of distinct fault blocks in

the southwestern part of the county. Northwestern portions of the county are relatively undeformed by faulting (Demere, 1997).

The Peninsular Ranges form the granitic spine of San Diego County. These rocks are primarily plutonic, forming at depth beneath the earth's crust 140 to 90 million years ago as the result of the subduction of an oceanic crustal plate beneath the North American continent. These rocks formed the much larger Southern California batholith. Metamorphism associated with the intrusion of these great granitic masses affected the much older sediments that existed near the surface over that period of time. These metasedimentary rocks remain as roof pendants of marble, schist, slate, quartzite and gneiss throughout the Peninsular Ranges. Locally, Miocene-age volcanic rocks and flows have also accumulated within these mountains (e.g., Jacumba Valley). Regional tectonic forces and erosion over time have uplifted and unroofed these granitic rocks to expose them at the surface (Demere, 1997).

The Salton Trough is the northerly extension of the Gulf of California. This zone is undergoing active deformation related to faulting along the Elsinore and San Jacinto Fault Zones, which are part of the major regional tectonic feature in the southwestern portion of California, the San Andreas Fault Zone. Translational movement along these fault zones has resulted in crustal rifting and subsidence. The Salton Trough, also referred to as the Colorado Desert, has been filled with sediments to depth of approximately 5 miles since the movement began in the early Miocene, 24 million years ago. The source of these sediments has been the local mountains as well as the ancestral and modern Colorado River (Demere, 1997).

As indicated previously, the San Diego area is part of a seismically active region of California. It is on the eastern boundary of the Southern California Continental Borderland, part of the Peninsular Ranges Geomorphic Province. This region is part of a broad tectonic boundary between the North American and Pacific Plates. The actual plate boundary is characterized by a complex system of active, major, right-lateral strike-slip faults, trending northwest/southeast. This fault system extends eastward to the San Andreas Fault (approximately 70 miles from San Diego) and westward to the San Clemente Fault (approximately 50 miles off-shore from San Diego) (Berger and Schug, 1991).

In California, major earthquakes can generally be correlated with movement on active faults. As defined by the California Division of Mines and Geology (Hart, E.W., 1980), an "active" fault is one that has had ground surface displacement within Holocene time (about the last 11,000 years). Additionally, faults along which major historical earthquakes have occurred (about the last 210 years in California) are also considered to be active (Association of Engineering Geologist, 1973). The California Division of Mines and Geology (now the California Geological Survey) defines a *"potentially active"* fault as one that has had ground surface displacement during Quaternary time, that is, between 11,000 and 1.6 million years (Hart, E.W., 1980).

During recent history, prior to April 2010, the San Diego County area has been relatively quiet seismically. No fault ruptures or major earthquakes had been experienced in historic time within the greater San Diego area. Since earthquakes have been recorded by instruments (since the 1930s), the San Diego area has experienced scattered seismic events with Richter magnitudes generally less than M4.0. During June 1985, a series of small earthquakes occurred beneath San Diego Bay, three of which were recorded at M4.0 to M4.2. In addition, the

Oceanside earthquake of July 13, 1986, located approximately 26 miles offshore of the City of Oceanside, had a magnitude of M5.3 (Hauksson and Jones, 1988).

On June 15, 2004, a M5.3 earthquake occurred approximately 45 miles southwest of downtown San Diego (26 miles west of Rosarito, Mexico). Although this earthquake was widely felt, no significant damage was reported. Another widely felt earthquake on a distant southern California fault was a M5.4 event that took place on July 29, 2008, west-southwest of the Chino Hills area of Riverside County.

Several earthquakes ranging from M5.0 to M6.0 occurred in northern Baja California, centered in the Gulf of California on August 3, 2009. These were felt in San Diego but no injuries or damage was reported. A M5.8 earthquake followed by a M4.9 aftershock occurred on December 30, 2009, centered about 20 miles south of the Mexican border city of Mexicali. These were also felt in San Diego, swaying high-rise buildings, but again no significant damage or injuries were reported.

On Easter Sunday April 4, 2010, a large earthquake occurred in Baja California, Mexico. It was widely felt throughout the southwest including Phoenix, Arizona and San Diego in California. This M7.2 event, the Sierra El Mayor earthquake, occurred in northern Baja California, approximately 40 miles south of the Mexico-USA border at shallow depth along the principal plate boundary between the North American and Pacific plates. According to the U. S. Geological Survey this is an area with a high level of historical seismicity, and it has recently also been seismically active, though this is the largest event to strike in this area since 1892. The April 4, 2010, earthquake appears to have been larger than the M6.9 earthquake in 1940 or any of the early 20th century events (e.g., 1915 and 1934) in this region of northern Baja California. The event caused widespread damage to structures, closure of businesses, government offices and schools, power outages, displacement of people

from their homes and injuries in the nearby major metropolitan areas of Mexicali in Mexico and Calexico in Southern California. Estimates of the cost of the damage range to $100 million.

This event's aftershock zone extends significantly to the northwest, overlapping with the portion of the fault system that is thought to have ruptured in 1892. Some structures in the San Diego area experienced minor damage and there were some injuries. Ground motions for the April 4, 2010, main event, recorded at stations in San Diego and reported by the California Strong Motion Instrumentation Program (CSMIP), ranged up to 0.058g. Aftershocks from this event continue to the date of this report along the trend northwest and south of the original event, including within San Diego County, closer to the San Diego metropolitan area. There have been hundreds of these earthquakes including events up to M5.7.

On July 7, 2010, a M5.4 earthquake occurred in Southern California at 4:53 pm (Pacific Time) about 30 miles south of Palm Springs, 25 miles southwest of Indio, and 13 miles north-northwest of Borrego Springs. The earthquake occurred near the Coyote Creek segment of the San Jacinto Fault. The earthquake exhibited sideways horizontal motion to the northwest, consistent with slip on the San Jacinto Fault. The earthquake was felt throughout Southern California, with strong shaking near the epicenter. It was followed by more than 60 aftershocks of M1.3 and greater during the first hour. Seismologists expect continued aftershock activity.

In the last 50 years, there have been four other earthquakes in the magnitude M5.0 range within 20 kilometers of the Coyote Creek segment: M5.8 in 1968, M5.3 on 2/25/1980, M5.0 on 10/31/2001, and M5.2 on 6/12/2005. The biggest earthquake near this location was the M6.0 Buck Ridge earthquake on 3/25/1937.

VIII. SITE-SPECIFIC SOIL & GEOLOGIC DESCRIPTION

A. Stratigraphy

Our field work, reconnaissance and review of the geologic map by Kennedy and Tan, 2008, *"Geologic Map of San Diego, 30'x60' Quadrangle, CA,"* indicate that the site is underlain by Quaternary-age Old Paralic deposits Unit 6 (Qop_6) formational materials. Figure No. V presents a plan view geologic map (Kennedy and Tan, 2008) of the general area of the site, and Figure No. VI displays the geologic hazards of the area.

Fill Soils (Qaf): The existing and proposed building pad, as well as the eastern portion of the lot, is overlain by approximately 2 to 4 feet of fill soil as encountered in all of the exploratory excavation locations. The encountered fill soils consist of loose to medium dense, clayey sand and firm to stiff sandy clay. These variable density surficial soils are generally dry, of low expansion potential, and are not considered suitable in their current condition for support of loads from structures or additional fill. Refer to Figure No. III for details.

Old Paralic deposits (Qop_6): Old Paralic deposit materials were encountered on the western three-quarters of the lot in exploratory excavations HP-1, HP-4 and HP-5, and generally consists of dense, damp, reddish brown, fine to medium-grained clayey sand. The formational soils were encountered at depths ranging from approximately 2 to 4 feet. The formational soils are of low expansion potential and have good bearing strength characteristics. Refer to Figure Nos. III for details.

Ardath Shale Formation (Ta): Although not mapped on the property per the referenced geologic map, formational materials of the Ardath Shale Formation were encountered on the eastern one-quarter of the lot in exploratory excavations HP-2 and HP-3, below the fill soils at depths ranging from approximately 2.5 to 3.5 feet. The formational soils generally consist of very stiff to hard, damp, yellowish brown, sandy clay and are considered to have a low expansion potential. The formational soils have good bearing strength characteristics (refer to Figure Nos. IIIa-e).

B. Structure

Exploratory excavation HP-2 and HP-3, located on the eastern portion of the site, exposed the Ardath Shale Formation at depth with bedding attitudes ranging from N20°W, 3°NE to N50°W, 5°NE. Based on our research and site observations, the site is underlain by relatively stable formational materials and no adverse geologic conditions are expected. Mapping by Kennedy and Tan, 2008, of the San Diego Quadrangle indicates similar bedding attitudes within the Ardath Shale Formation in the vicinity of the subject site. These dips are into the hillside and, therefore, are considered to be a relatively stable geologic condition.

A review of the City of San Diego Geologic Hazards Map indicates that no faults are mapped on the site. The active Rose Canyon Fault Zone (RCFZ) is mapped approximately ½ mile southwest of the property.

IX. GEOLOGIC HAZARDS

A review of the City of San Diego Geologic Hazards Map Sheet No. 29 indicates that the site is located in a moderate risk geologic hazard area designated as Categories 52 and 26. Category 52 is mapped on the western three-quarters of the property

and is identified as being underlain by *"Other level areas, gently sloping to steep terrain, favorable geologic structure, low risk."* Category 26 is mapped on the eastern one-quarter of the property and is identified as being underlain by *"slide-prone formations"* specifically the Ardath Formation with *"unfavorable geologic structure, moderate risk."* In our opinion, the *"unfavorable geologic structure"* description does not apply due to the favorable dips within the formational materials. An excerpted portion of the Geologic Hazards Map Sheet 29 and the legend are presented as Figure No. VI.

The following is a discussion of the geologic conditions and hazards common to this area of the City of San Diego, as well as project-specific geologic information relating to development of the subject property.

A. Local and Regional Faults

Reference to the geologic map of the area, Figure No. V (Kennedy and Tan, 2008), and the City of San Diego Seismic Safety Study, Geologic Hazards Map No. 29, Figure No. VI, indicates that no faults are mapped on the site. In our explicit professional opinion, neither an active fault nor a potentially active fault underlies the site.

Rose Canyon Fault: The Rose Canyon Fault Zone (Mount Soledad and Rose Canyon Faults) is mapped approximately ½ mile southwest of the subject site. The Rose Canyon Fault is mapped trending north-south from Oceanside to downtown San Diego, from where it appears to head southward into San Diego Bay, through Coronado and offshore. The Rose Canyon Fault Zone is considered to be a complex zone of onshore and offshore, en echelon strike slip, oblique reverse, and oblique normal faults. The Rose Canyon Fault is considered to be capable of generating an

M7.2 earthquake and is considered microseismically active, although no significant recent earthquakes are known to have occurred on the fault.

Investigative work on faults that are part of the Rose Canyon Fault Zone at the Police Administration and Technical Center in downtown San Diego, at the SDG&E facility in Rose Canyon, and within San Diego Bay and elsewhere within downtown San Diego, has encountered offsets in Holocene (geologically recent) sediments. These findings confirm Holocene displacement on the Rose Canyon Fault, which was designated an "active" fault in November 1991 (California Division of Mines and Geology -- Fault Rupture Hazard Zones in California, 1999).

Coronado Bank Fault: The Coronado Bank Fault is located approximately 13 miles southwest of the site. Evidence for this fault is based upon geophysical data (acoustic profiles) and the general alignment of epicenters of recorded seismic activity (Greene, 1979). The Oceanside earthquake of M5.3 recorded July 13, 1986, is known to have been centered on the fault or within the Coronado Bank Fault Zone. Although this fault is considered active, due to the seismicity within the fault zone, it is significantly less active seismically than the Elsinore Fault (Hileman, 1973). It is postulated that the Coronado Bank Fault is capable of generating a M7.6 earthquake and is of great interest due to its close proximity to the greater San Diego metropolitan area.

Newport-Inglewood Fault: The Newport-Inglewood Fault Zone is located approximately 23 miles northwest of the site. A significant earthquake (M6.4) occurred along this fault on March 10, 1933. Since then no additional significant events have occurred. The fault is believed to have a slip rate of approximately 0.6 mm/yr with an unknown recurrence interval. This fault is believed capable of producing an earthquake of M6.0 to M7.4 (SCEC, 2004).

Elsinore Fault: The Elsinore Fault is located approximately 38 miles east and northeast of the site. The fault extends approximately 200 km (125 miles) from the Mexican border to the northern end of the Santa Ana Mountains. The Elsinore Fault zone is a 1- to 4-mile-wide, northwest-southeast-trending zone of discontinuous and en echelon faults extending through portions of Orange, Riverside, San Diego, and Imperial Counties. Individual faults within the Elsinore Fault Zone range from less than 1 mile to 16 miles in length. The trend, length and geomorphic expression of the Elsinore Fault Zone identify it as being a part of the highly active San Andreas Fault system.

Like the other faults in the San Andreas system, the Elsinore Fault is a transverse fault showing predominantly right-lateral movement. According to Hart, et al. (1979), this movement averages less than 1 centimeter per year. Along most of its length, the Elsinore Fault Zone is marked by a bold topographic expression consisting of linearly aligned ridges, swales and hallows. Faulted Holocene alluvial deposits (believed to be less than 11,000 years old) found along several segments of the fault zone suggest that at least part of the zone is currently active.

Although the Elsinore Fault Zone belongs to the San Andreas set of active, northwest-trending, right-slip faults in the southern California area (Crowell, 1962), it has not been the site of a major earthquake in historic time, other than a M6.0 earthquake near the town of Elsinore in 1910 (Richter, 1958; Toppozada and Parke, 1982). However, based on length and evidence of late-Pleistocene or Holocene displacement, Greensfelder (1974) has estimated that the Elsinore Fault Zone is reasonably capable of generating an earthquake ranging from M6.8 to M7.1. Faulting evidence exposed in trenches placed in Glen Ivy Marsh across the Glen Ivy North Fault (a strand of the Elsinore Fault Zone between Corona and Lake Elsinore), suggest a maximum earthquake recurrence interval of 300 years, and when

combined with previous estimates of the long-term horizontal slip rate of 0.8 to 7.0 mm/year, suggest typical earthquakes of M6.0 to M7.0 (Rockwell, 1985).

San Jacinto Fault: The San Jacinto Fault is located 59 miles to the northeast of the site. The San Jacinto Fault Zone consists of a series of closely spaced faults, including the Coyote Creek Fault, that form the western margin of the San Jacinto Mountains. The fault zone extends from its junction with the San Andreas Fault in San Bernardino, southeasterly toward the Brawley area, where it continues south of the international border as the Imperial Transform Fault (Earth Consultants International, 2009).

The San Jacinto Fault zone has a high level of historical seismic activity, with at least 10 damaging earthquakes (M6.0 to M7.0) having occurred on this fault zone between 1890 and 1986. Earthquakes on the San Jacinto Fault in 1899 and 1918 caused fatalities in the Riverside County area. Offset across this fault is predominantly right-lateral, similar to the San Andreas Fault, although some investigators have suggested that dip-slip motion contributes up to 10% of the net slip (ECI, 2009).

The segments of the San Jacinto Fault that are of most concern to major metropolitan areas are the San Bernardino, San Jacinto Valley and Anza segments. Fault slip rates on the various segments of the San Jacinto are less well constrained than for the San Andreas Fault, but the available data suggest slip rates of 12 ±6 mm/yr for the northern segments of the fault, and slip rates of 4 ±2 mm/yr for the southern segments. For large ground-rupturing earthquakes on the San Jacinto fault, various investigators have suggested a recurrence interval of 150 to 300 years. The Working Group on California Earthquake Probabilities (WGCEP, 2008) has estimated that there is a 31 percent probability that an earthquake of M6.7 or

greater will occur within 30 years on this fault. Maximum credible earthquakes of M6.7, M6.9 and M7.2 are expected on the San Bernardino, San Jacinto Valley and Anza segments, respectively, capable of generating peak horizontal ground accelerations of 0.48 to 0.53 g in the County of Riverside, (ECI, 2009). A M5.4 earthquake occurred on the San Jacinto Fault on July 7, 2010.

The United States Geological Survey has issued the following statements with respect to the recent seismic activity on southern California faults:

> The San Jacinto fault, along with the Elsinore, San Andreas, and other faults, is part of the plate boundary that accommodates about 2 inches/year of motion as the Pacific plate moves northwest relative to the North American plate. The largest recent earthquake on the San Jacinto fault, near this location, the M6.5 1968 Borrego Mountain earthquake April 8, 1968, occurred about 25 miles southeast of the July 7, 2010, M5.4 earthquake.
>
> This M5.4 earthquake follows the 4th of April 2010, Easter Sunday, M7.2 earthquake, located about 125 miles to the south, well south of the US Mexico international border. A M4.9 earthquake occurred in the same area on June 12th at 8:08 pm (Pacific Time). Thus this section of the San Jacinto fault remains active.
>
> Seismologists are watching two major earthquake faults in southern California. The San Jacinto fault, the most active earthquake fault in southern California, extends for more than 100 miles from the international border into San Bernardino and Riverside, a major metropolitan area often called the Inland Empire. The Elsinore fault is more than 110 miles long, and extends into the Orange County and Los Angeles area as the Whittier fault. The Elsinore fault is capable of a major earthquake that would significantly affect the large metropolitan areas of southern California. The Elsinore fault has not hosted a major earthquake in more than 100 years. The occurrence of these earthquakes along the San Jacinto fault and continued aftershocks demonstrates that the earthquake activity in the region remains at an elevated level. The San Jacinto fault is known as the most active earthquake fault in southern California. Caltech and USGS seismologist continue to monitor the ongoing earthquake activity using

the Caltech/USGS Southern California Seismic Network and a GPS network of more than 100 stations.

B. ***Other Geologic Hazards***

Ground Rupture: Ground rupture is characterized by bedrock slippage along an established fault and may result in displacement of the ground surface. For ground rupture to occur along a fault, an earthquake usually exceeds M5.0. If a M5.0 earthquake were to take place on a local fault, an estimated surface-rupture length 1 mile long could be expected (Greensfelder, 1974). Our investigation indicates that the subject site is not directly on a known active fault trace and, therefore, the risk of ground rupture is remote.

Ground Shaking: Structural damage caused by seismically induced ground shaking is a detrimental effect directly related to faulting and earthquake activity. Ground shaking is considered to be the greatest seismic hazard in San Diego County. The intensity of ground shaking is dependent on the magnitude of the earthquake, the distance from the earthquake, and the seismic response characteristics of underlying soils and geologic units. Earthquakes of M5.0 or greater are generally associated with significant damage. It is our opinion that the most serious damage to the site would be caused by a large earthquake originating on a nearby strand of the Rose Canyon Fault Zone. Although the chance of such an event is remote, it could occur within the useful life of the structure.

Landslides: Based upon our geotechnical investigation, review of the geologic map (Kennedy and Tan, 2008), review of the referenced City of San Diego Seismic Safety Study -- Geologic Hazards Map Sheet 29 and stereo-pair aerial photographs

(4-11-53, AXN-8M-2 and 3), that depict the area of the site indicate there are no known or suspected ancient landslides located on the site.

Slope Stability: We have performed slope stability analysis along cross section A-A' (Figure No. VII.), based on the laboratory test results from retrieved soil samples collected during the exploratory excavations, our field review of site conditions, our review of aerial photos, review of pertinent documents and geologic maps, and our experience with similar formational units in the La Jolla area of San Diego. We performed slope stability calculations using Bishops Simplified method and conventional equations for gross and shallow stability. Based on our slope stability analysis, a factor of safety (FS) less than 1.5 against gross or shallow slope failure does not exist at any location across the property. In our professional opinion, the site will have a factor of safety of 1.5 or greater following the proposed construction. Refer to Appendix C for details.

Liquefaction: The liquefaction of saturated sands during earthquakes can be a major cause of damage to buildings. Liquefaction is the process by which soils are transformed into a viscous fluid that will flow as a liquid when unconfined. It occurs primarily in loose, saturated sands and silts when they are sufficiently shaken by an earthquake.

On this site, the risk of liquefaction of foundation materials due to seismic shaking is considered to be very low due to the fine-grained (non-porous) nature of the natural-ground material and the lack of a shallow, static groundwater surface under the site. The groundwater surface is estimated to be greater than 50 feet below the ground surface. The site does not have a potential for soil strength loss to occur due to a seismic event.

Tsunami: A tsunami is a series of long waves generated in the ocean by a sudden displacement of a large volume of water. Underwater earthquakes, landslides, volcanic eruptions, meteoric impacts, or onshore slope failures can cause this displacement. Tsunami waves can travel at speeds averaging 450 to 600 miles per hour. As a tsunami nears the coastline, its speed diminishes, its wavelength decreases, and its height increases greatly. After a major earthquake or other near-shore tsunami-inducing activity occurs, a tsunami could reach the shore within a few minutes. One coastal community may experience no damaging waves while another may experience very destructive waves. Some low-lying areas could experience severe inland inundation of water and deposition of debris.

Wave heights and run-up elevations from tsunami along the San Diego Coast have historically fallen within the normal range of the tides (Joy 1968). The largest tsunami effect recorded in San Diego since 1950 was May 22, 1960, which had a maximum wave height of 2.1 feet (NOAA, 1993). In this event, 80 meters of dock were destroyed and a barge sunk in Quivera Basin. Other tsunamis felt in San Diego County occurred on November 5, 1952, with a wave height of 2.3 feet caused by an earthquake in Kamchatka; March 9, 1957, with a wave height of 1.5 feet; May 22, 1960, at 2.1 feet; March 27, 1964, with a wave height of 3.7 feet and September 29, 2009, with a wave height of 0.5 feet. It should be noted that damage does not necessarily occur in direct relationship to wave height, illustrated by the fact that the damage caused by the 2.1-foot wave height in 1960 was worse than damage caused by several other tsunamis with higher wave heights.

Historical wave heights and run-up elevations from tsunamis that have impacted the San Diego Coast have historically fallen within the normal range of the tides (Joy, 1968). The site is located at over 90 feet above mean sea level and approximately 2000 feet from an exposed beach. It is unlikely that a tsunami

would affect the lot. In addition, the site is not mapped within a possible inundation zone on the California Geological Survey's 2009 *"Tsunami Inundation Map for Emergency Planning, La Jolla Quadrangle, San Diego County."*

Geologic Hazards Summary: It is our opinion, based upon a review of the available geologic maps and our site investigation, that the site is underlain by relatively stable formational materials, and is suited for the proposed residential structure and associated improvements provided the recommendations herein are implemented.

The most significant geologic hazard at the site is anticipated ground shaking from earthquakes on active Southern California and Baja California faults. The United States Geologic Survey has issued statements indicating that seismic activity in Southern California may continue at elevated levels with increased risk to major metropolitan areas near the Elsinore and San Jacinto faults. These faults are too far from the subject property to present a seismic risk.

To date, the nearest known "active" faults to the subject site are the northwest-trending Rose Canyon Fault, Coronado Bank Fault and the Elsinore Fault. There are no known significant geologic hazards on or near the site that would prevent the proposed construction.

X. GROUNDWATER

Groundwater and/or perched water conditions were not encountered at the shallow excavation locations and we do not expect significant groundwater problems to develop in the future ***if proper drainage is maintained on the property.*** The potential does exist for perched water conditions to occur if rainwater and irrigation

waters are allowed to infiltrate through the upper, more permeable fill soils and encounter less permeable natural ground materials.

It should be kept in mind that construction operations may change surface drainage patterns and/or reduce permeabilities due to the densification of compacted soils. Such changes of surface and subsurface hydrologic conditions, plus irrigation of landscaping or significant increases in rainfall, may result in the appearance of surface or near-surface water at locations where none existed previously. The appearance of such water is expected to be localized and cosmetic in nature, if good positive drainage is implemented, as recommended in this report, during and at the completion of construction.

On properties such as the subject site where dense, low permeability soils exist at shallow depths, even normal landscape irrigation practices on the property or neighboring properties, or periods of extended rainfall, can result in shallow "perched" water conditions. The perching (shallow depth) accumulation of water on a low permeability surface can result in areas of persistent wetting and drowning of lawns, plants and trees. Resolution of such conditions, should they occur, may require site-specific design and construction of subdrain and shallow "wick" drain dewatering systems.

Subsurface drainage with a properly designed and constructed subdrain system will be required behind proposed below-ground building retaining walls. Additional recommendations may be required at the time of construction.

It must be understood that unless discovered during initial site exploration or encountered during site construction operations, it is extremely difficult to predict if or where perched or true groundwater conditions may appear in the future. When

site fill or formational soils are fine-grained and of low permeability, water problems may not become apparent for extended periods of time.

Water conditions, where suspected or encountered during construction, should be evaluated and remedied by the project civil and geotechnical consultants. The project developer and property owner, however, must realize that post-construction appearances of groundwater may have to be dealt with on a site-specific basis.

XI. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based upon the practical field investigation conducted by our firm, and resulting laboratory tests, in conjunction with our knowledge and experience with similar soils in the La Jolla area. The opinions, conclusions, and recommendations presented in this report are contingent upon ***Geotechnical Exploration, Inc.*** being retained to review the final plans and specifications as they are developed and to observe the site earthwork and installation of foundations. Accordingly, we recommend that the following paragraph be included on the grading and foundation plans for the project:

> If the geotechnical consultant of record is changed for the project, the work shall be stopped until the replacement has agreed in writing to accept the responsibility within their area of technical competence for approval upon completion of the work. It shall be the responsibility of the permittee to notify the governing agency in writing of such change prior to the commencement or recommencement of grading and/or foundation installation work.

A. Seismic Design Criteria

1. *Seismic Design Criteria:* Site-specific seismic design criteria for the proposed project are presented in the following table in accordance with Section 1613 of the 2016 CBC, which incorporates by reference ASCE 7-10 for seismic design. We have determined the mapped spectral acceleration values for the site, based on a latitude of 32.7771 degrees and longitude of -117.2012 degrees, utilizing a tool provided by the USGS, which provides a solution for ASCE 7-10 (Section 1613 of the 2016 CBC) utilizing digitized files for the Spectral Acceleration maps. Based on our past experience with similar conditions, we have assigned a Site Soil Classification of D. Refer to Appendix B.

TABLE I
Mapped Spectral Acceleration Values and Design Parameters

S_s	S_1	F_a	F_v	S_{ms}	S_{m1}	S_{ds}	S_{d1}
1.304g	0.506g	1.000	1.500	1.304g	0.759g	0.869g	0.506g

B. Preparation of Soils for Site Development

2. *Clearing and Stripping:* All existing structures, vegetation and improvements should be removed prior to the preparation of the building pad for areas to receive new structures or improvements. This includes any roots from existing trees and shrubbery. Holes resulting from the removal of root systems or other buried obstructions that extend below the planned grades should be cleared and backfilled with properly compacted fill.

3. *Treatment of Existing Fill Soils or Loose Soils:* In order to provide suitable support for the proposed new residence, basement and associated improvements such as decking, sidewalks and driveways, we recommend that all existing fill soils be removed and replaced as structural fill compacted to a minimum degree of compaction of 90 percent. The limits of recompaction should extend at least 10 feet beyond the perimeter limits of all new improvements, where feasible. The recompaction work should consist of: (a) removing all existing fill soils down to the underlying undisturbed formational materials; (b) scarifying, moisture conditioning, and compacting the exposed natural subgrade soils; and (c) replacing the materials as compacted structural fill. The areal extent and depths required to remove the existing fill should be determined by our representative during the excavation work based on their examination of the soils being exposed and physical constraints.

   In addition, we recommend that low expansion soil from the required removals be selectively stockpiled for use as capping material and wall backfills as recommended below in Recommendation Nos. 4 and 8.

4. *Subgrade Preparation:* After areas to receive new improvements have been cleared, stripped, and the required excavations made, the exposed subgrade soils in areas to receive fill and/or building improvements should be scarified to a depth of 6 inches, moisture conditioned, and compacted to the requirements for structural fill. The near-surface moisture content of clayey soils should be maintained by periodic sprinkling until within 48 hours prior to concrete placement.

5. *Expansive Soil Conditions:* We do not anticipate that significant quantities of highly expansive clay soils will be encountered during grading. Should such soils be encountered and used as fill, however, they should be moisture conditioned or dried to no greater than 5 percent above Optimum Moisture content, compacted to 88 to 92 percent, and placed outside building areas. Soils of medium or greater expansion potential should not be used as retaining wall backfill soils.

6. *Material for Fill:* Any required imported fill material should be a low-expansion potential (Expansion Index of 50 or less per ASTM D4829-11). In addition, both imported and existing on-site materials for use as fill should not contain rocks or lumps more than 6 inches in greatest dimension. All materials for use as fill should be approved by our firm prior to filling.

7. *Fill Compaction:* All structural fill to receive the new foundations and slabs should be compacted to a minimum degree of compaction of 90 percent based upon ASTM D1557-12. Fill material should be spread and compacted in uniform horizontal lifts not exceeding 8 inches in uncompacted thickness. Before compaction begins, the fill should be brought to a water content that will permit proper compaction by either: (1) aerating and drying the fill if it is too wet, or (2) moistening the fill with water if it is too dry. Each lift should be thoroughly mixed before compaction to ensure a uniform distribution of moisture. For low expansive soils, the moisture content should be within 2 percent of optimum. As an alternative to fill soil recompaction, deepened foundations and raised wood floors or structural slabs may be considered.

No uncontrolled fill soils should remain on the site after completion of the site work. In the event that temporary ramps or pads are constructed of uncontrolled fill soils, the loose fill soils should be removed and/or recompacted prior to completion of the grading operation.

8. *Trench and Retaining/Basement Wall Backfill:* All backfill soils placed in utility trenches or behind retaining/basement walls should be compacted to a minimum degree of compaction of 90 percent. Backfill material should be placed in lift thicknesses appropriate to the type of compaction equipment utilized and compacted to a minimum degree of 90 percent by mechanical means. In public street pavement areas, that portion of the trench backfill within the pavement section should conform to the material and compaction requirements of the adjacent pavement section. In addition, the low-expansion potential fill layer should be maintained in utility trench backfill within the building and adjoining exterior slab areas. Trench backfill beneath the level of the low-expansion fill layer should consist of on-site soils in order to minimize the potential for migration of water below the perimeter footings at the trench locations.

Our experience has shown that even shallow, narrow trenches, such as for irrigation and electrical lines, that are not properly compacted can result in problems, particularly with respect to shallow groundwater accumulation and migration.

Backfill soils placed behind retaining/basement walls should be installed as early as the retaining walls are capable of supporting lateral loads. Backfill soils behind retaining/basement walls should be low expansive, with an Expansion Index equal to or lower than 50.

C. Design Parameters for Proposed Foundations

9. *Deepened Footings:* If the existing surface soils are not removed and recompacted, deepened footings for proposed residence should be founded at least 3 feet below the lowest adjacent finished grade and penetrate at least 12 inches in formational soils and have a minimum width of 15 inches. The deepened footings should contain top and bottom reinforcement to provide structural continuity and to permit spanning of local irregularities. The final dimensions and reinforcing should be specified by the structural engineer. A minimum clearance of 3 inches should be maintained between steel reinforcement and the bottom or sides of the footing.

   NOTE: The project Civil/Structural Engineer should review all reinforcing schedules. The reinforcing minimums recommended herein are not to be construed as structural designs, but merely as minimum reinforcement to reduce the potential for cracking and separations.

10. *Shallow Footings:* Shallow footings should bear on undisturbed formational materials or properly compacted fill soils. The footings should be founded at least 18 inches below the lowest adjacent finished grade when founded into properly compacted fill or into dense formational material. Footings located adjacent to utility trenches should have their bearing surfaces situated below an imaginary 1.5:1.0 plane projected upward from the bottom edge of the adjacent utility trench.

11. *Bearing Values*: At the recommended depths, footings on native, medium dense formational soil or properly compacted fill soil may be designed for allowable bearing pressures of 2,500 pounds per square foot (psf) for

combined dead and live loads and increased one-third for all loads, including wind or seismic. The footings should have a minimum width of 12 inches and embedded at least 18 inches in firm ground. An increase of 800 psf is allowed for each additional foot of embedment, and 400 psf for each additional foot in width, not exceeding a maximum of 5,000 psf for static loading.

12. *Footing Reinforcement*: All continuous footings should contain top and bottom reinforcement to provide structural continuity and to permit spanning of local irregularities. We recommend that a minimum of four No. 5 reinforcing bars be provided in the footings; two at the top of the footing and two at the bottom. A minimum clearance of 3 inches should be maintained between steel reinforcement and the bottom or sides of the footing. Isolated square footings should contain, as a minimum, a grid of three No. 4 steel bars on 12-inch centers, both ways. In order for us to offer an opinion as to whether the footings are founded on soils of sufficient load bearing capacity, it is essential that our representative inspect the footing excavations prior to the placement of reinforcing steel or concrete.

NOTE: The project Civil/Structural Engineer should review all reinforcing schedules. The reinforcing minimums recommended herein are not to be construed as structural designs, but merely as minimum reinforcement to reduce the potential for cracking and separations.

13. *Lateral Loads:* Lateral load resistance for structure foundations may be developed in friction between the foundation bottoms and the supporting subgrade. An allowable friction coefficient of 0.35 is considered applicable. An additional allowable passive resistance equal to an equivalent fluid weight

of 350 pounds per cubic foot (pcf) acting against the foundations may be used in design provided the footings are poured neat against the adjacent undisturbed formational materials and/or properly compacted fill materials. In areas where existing fill soils are present in front of foundations (i.e., within three times the depth of embedment), the allowable passive resistance should be reduced to 200 pcf and friction coefficient to 0.35. These lateral resistance values assume a level surface in front of the footing for a minimum distance of three times the embedment depth of the footing.

14. *Settlement:* Settlements under building loads are expected to be within tolerable limits for the proposed additions. For footings designed in accordance with the recommendations presented in the preceding paragraphs, we anticipate that total settlements should not exceed 1 inch and that post-construction differential angular rotation should be less than 1/240.

D. Concrete Slab On-grade Criteria

Slabs on-grade may only be used on new, properly compacted fill or when bearing on dense natural soils. If concrete slabs are planned on existing fills, they should be designed as structural slabs spanning between foundations bearing in formational soils.

15. *Minimum Floor Slab Reinforcement:* Based on our experience, we have found that, for various reasons, floor slabs occasionally crack. Therefore, we recommend that all slabs-on-grade contain at least a minimum amount of reinforcing steel to reduce the separation of cracks, should they occur. Slab subgrade soil should be verified by a ***Geotechnical Exploration, Inc.***

representative to have the proper moisture content within 48 hours prior to placement of the vapor barrier and pouring of concrete.

15.1 New interior floor slabs should be a minimum of 5 inches actual thickness and be reinforced with No. 4 bars on 18-inch centers, both ways, placed at midheight in the slab. *The slabs should be underlain by a 2-inch-thick layer of clean sand (S.E. = 30 or greater) overlying a moisture retardant membrane over 2 inches of sand*. Slab subgrade soil should be verified by a ***Geotechnical Exploration, Inc.*** representative to have the proper moisture content within 48 hours prior to placement of the vapor barrier and pouring of concrete.

16. *Slab Moisture Protection and Vapor Barrier Membrane:* Although it is not the responsibility of geotechnical engineering firms to provide moisture protection recommendations, as a service to our clients we provide the following discussion and suggested minimum protection criteria. Actual recommendations should be provided by the architect and waterproofing consultants or product manufacturer.

Soil moisture vapor can result in damage to moisture-sensitive floors, some floor sealers, or sensitive equipment in direct contact with the floor, in addition to mold and staining on slabs, walls, and carpets. The common practice in Southern California is to place vapor retarders made of PVC, or of polyethylene. PVC retarders are made in thickness ranging from 10- to 60-mil. Polyethylene retarders, called visqueen, range from 5- to 10-mil in thickness. These products are no longer considered adequate for moisture protection and can actually deteriorate over time.

Specialty vapor retarding products possess higher tensile strength and are more specifically designed for and intended to retard moisture transmission into and through concrete slabs. The use of such products is highly recommended for reduction of floor slab moisture emission.

The following American Society for Testing and Materials (ASTM) and American Concrete Institute (ACI) sections address the issue of moisture transmission into and through concrete slabs: ASTM E1745-97 (2009) Standard Specification for Plastic Water Vapor Retarders Used in Contact Concrete Slabs; ASTM E154-88 (2005) Standard Test Methods for Water Vapor Retarders Used in Contact with Earth; ASTM E96-95 Standard Test Methods for Water Vapor Transmission of Materials; ASTM E1643-98 (2009) Standard Practice for Installation of Water Vapor Retarders Used in Contact Under Concrete Slabs; and ACI 302.2R-06 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.

16.1 Based on the above, we recommend that the vapor barrier consist of a minimum 15-mil extruded polyolefin plastic (no recycled content or woven materials permitted). Permeance as tested before and after mandatory conditioning (ASTM E1745 Section 7.1 and sub-paragraphs 7.1.1-7.1.5) should be less than 0.01 perms (grains/square foot/hour in Hg) and comply with the ASTM E1745 Class A requirements. Installation of vapor barriers should be in accordance with ASTM E1643. The basis of design is StegoWrap vapor barrier 15-mil. The vapor barrier should be placed in accordance with the manufacturer's specifications.

16.2 Common to all acceptable products, vapor retarder/barrier joints must be lapped and sealed with mastic or the manufacturer's recommended tape or sealing products. In actual practice, stakes are often driven through the retarder material, equipment is dragged or rolled across the retarder, overlapping or jointing is not properly implemented, etc. All these construction deficiencies reduce the retarder's effectiveness. In no case should retarder/barrier products be punctured or gaps be allowed to form prior to or during concrete placement.

16.3 Following placement of concrete floor slabs, sufficient drying time must be allowed prior to placement of any floor coverings. Premature placement of floor coverings may result in degradation of adhesive materials and loosening of the finish floor materials.

17. *Concrete Isolation Joints:* We recommend the project Civil/Structural Engineer incorporate isolation joints and sawcuts to at least one-fourth the thickness of the slab in any floor designs. The joints and cuts, if properly placed, should reduce the potential for and help control floor slab cracking. We recommend that concrete shrinkage joints be spaced no farther than approximately 20 feet apart, and also at re-entrant corners. However, due to a number of reasons (such as base preparation, construction techniques, curing procedures, and normal shrinkage of concrete), some cracking of slabs can be expected.

18. *Exterior Slab Reinforcement:* Exterior concrete slabs should be at least 4 inches thick. As a minimum for protection of on-site improvements, we recommend that all nonstructural concrete slabs (such as patios, sidewalks, etc.), be founded on properly compacted and tested fill or dense native

formation and be underlain by 2 inches and no more than 3 inches of clean leveling sand, with No. 3 bars at 18-inch centers, both ways, at the center of the slab. Exterior slabs should contain adequate isolation and control joints.

The performance of on-site improvements can be greatly affected by soil base preparation and the quality of construction. It is therefore important that all improvements are properly designed and constructed for the existing soil conditions. The improvements should not be built on loose soils or fills placed without our observation and testing. The subgrade of exterior improvements should be verified as properly prepared and moisture conditioned at least 3 percent over optimum within 48 hours prior to concrete placement. A minimum thickness of 2 feet of properly recompacted soils should underlie the exterior slabs on-grade or be built on dense formational soils.

For exterior slabs with the minimum shrinkage reinforcement, control joints should be placed at spaces no farther than 15 feet apart or the width of the slab, whichever is less, and also at re-entrant corners. Control and isolation joints in exterior slabs should be sealed with elastomeric joint sealant. The sealant should be inspected every 6 months and be properly maintained.

E. Retaining Wall Design Criteria

19. *Static Design Parameters:* Retaining walls must be designed to resist lateral earth pressures and any additional lateral pressures caused by surcharge loads on the adjoining retained surface. We recommend that restrained retaining walls with level backfill be designed for an equivalent fluid pressure of 56 pcf for low expansive soils (import). Wherever restrained walls will be

subjected to surcharge loads, they should also be designed for an additional uniform lateral pressure equal to 0.47 times the anticipated surcharge pressure for low expansive soils. For unrestrained walls utilizing imported low expansive 2.0:1.0 (h:v) sloping backfill, the values are 0.42 and 0.64 for unrestrained and restrained walls, respectively.

Restrained retaining walls supporting a 2.0:1.0 (h:v) backfill of low expansive soils should be designed with a soil pressure of 76 pcf.

Backfill placed behind the walls should be compacted to a minimum degree of compaction of 90 percent using light compaction equipment. If heavy equipment is used, the walls should be appropriately temporarily braced.

20. *Retaining Wall Seismic Earth Pressures:* If seismic loading will be considered for retaining walls more than 6 feet in height, they should be designed for seismic earth pressures in addition to the normal static pressures. For restrained retaining walls with level backfill, we recommend that the seismic pressure increment be taken as an additional fluid pressure distribution (zero pressure at the ground surface and maximum pressure at the base) utilizing an equivalent fluid weight of 16 pounds per cubic foot (pcf). A Kh value of 0.18 may be used is a computer program such as *"Retaining Wall Pro"* or a similar program is used for wall design. The soil pressure described above may be used for the design of shoring structures.

21. *Wall Drainage:* The preceding design pressures assume that the walls are backfilled with the on-site soils or imported low-expansive soils, and that there is sufficient drainage behind the walls to prevent the build-up of hydrostatic pressures from surface water infiltration. We recommend that

drainage be provided by a composite drainage material such as MiraDrain 6000/6200 or equivalent. The drain material should terminate 3 inches below the finish surface where the surface is covered by pavements or slabs or 6 inches below the finish surface in landscape areas (see Figure No. IX for Retaining Wall Drainage schematic). Waterproofing should extend from the bottom to the top of the wall.

Geotechnical Exploration, Inc. will assume no liability for damage to structures or improvements that is attributable to poor drainage. The architectural plans should clearly indicate that subdrains for any lower-level walls be placed at an elevation at least 1 foot below the bottom of the lower-level slabs. At least 0.5-percent gradient should be provided to the subdrain. The subdrain should be placed in an envelope of crushed rock gravel up to 1 inch in maximum diameter, and be wrapped with Mirafi 140N filter or equivalent. A sump pump may be needed if the subdrain does not outlet via gravity. The collected water should be taken to an approved drainage facility.

22. *Drainage Quality Control*: It must be understood that it is not within the scope of our services to provide quality control oversight for surface or subsurface drainage construction or retaining wall sealing and base of wall drain construction. It is the responsibility of the contractor to verify proper wall sealing, geofabric installation, protection board (if needed), drain depth below interior floor or yard surface, pipe percent slope to the outlet, etc.

F. Swimming Pool Recommendations

23. *Swimming Pool Recommendations:* It is our understanding that a swimming pool is planned for the eastern portion of the lot. The swimming pool should be founded entirely in cut native soils. If this is not feasible, then the entire pool shell area should be founded in properly recompacted fill and the fill should be compacted to 90 percent relative compaction. In addition, any above-grade portions of the pool (where applicable) should be designed as a free-standing wall. The swimming pool shell should be designed for a soil pressure of at least 45 pcf (for low to medium expansive soils). In addition, the outer side of the pool (or spa) close to a descending slope should be provided with a foundation setback of at least 10 feet to daylight. Any portion of the pool shell within 10 feet from a slope face or retaining wall should be designed to support the water pressure of 62.4 pcf. Any surcharge load applied within a distance equal to the pool depth should be converted to a uniform lateral pressure by multiplying by a factor of 0.47.

The pool deck subgrade should be properly moisture conditioned and compacted, and should be verified by our firm within 48 hours prior to steel and concrete placement. The pool deck should have dowels or continuous steel reinforcement at all joint locations to help reduce the potential for vertical differential damage. In addition, the control and isolation joints should be sealed with elastomeric joint sealant. The sealant should be inspected and maintained periodically by the owner. The swimming pool deck and surrounding area should be provided with adequate surface drainage including positive surface drainage and/or functional area drains.

G. Slopes

It is our understanding that no large permanent slopes are proposed. Temporary slopes may be required during site preparation and construction.

24. *Slope Observations:* A representative of ***Geotechnical Exploration, Inc.*** must observe any steep temporary slopes *during construction*. In the event that soils and formational material comprising a slope are not as anticipated, any required slope design changes would be presented at that time.

25. *Permanent Slopes*: Any new cut or fill slopes up to 10 feet in height should be constructed at an inclination of 2.0:1.0 (horizontal to vertical). Permanent slopes not exceeding a 2.0:1.0 slope ratio should possess a factor of safety of 1.5 against deep and shallow failure.

26. *Temporary Slopes*: Based on our subsurface investigation work, laboratory test results, and engineering analysis, temporary slopes should be stable for a maximum slope height of up to 12 feet and may be cut at a slope ratio of 1.0:1.0 in properly compacted fill soils and at 0.75:1.0 in medium dense natural soils. Some localized sloughing or raveling of the soils exposed on the slopes, however, may occur.

    Since the stability of temporary construction slopes will depend largely on the contractor's activities and safety precautions (storage and equipment loadings near the tops of cut slopes, surface drainage provisions, etc.), it should be the contractor's responsibility to establish and maintain all temporary construction slopes at a safe inclination appropriate to his

methods of operation. No soil stockpiles or surcharge may be placed within a horizontal distance of 10 feet from the excavation.

If these recommendations are not feasible due to space constraints, temporary shoring may be required for safety and to protect adjacent property improvements. Similarly, footings near temporary cuts should be underpinned or protected with shoring.

27. *Cal-OSHA*: Where not superseded by specific recommendations presented in this report, trenches, excavations, and temporary slopes at the subject site should be constructed in accordance with Title 8, Construction Safety Orders, issued by Cal-OSHA.

H. Site Drainage Considerations

28. *Erosion Control*: Appropriate erosion control measures should be taken at all times during and after construction to prevent surface runoff waters from entering footing excavations or ponding on finished building pad areas.

29. *Surface Drainage:* Adequate measures should be taken to properly finish-grade the lot after the additions and other improvements are in place. Drainage waters from this site and adjacent properties should be directed away from the footings, floor slabs, and slopes, onto the natural drainage direction for this area or into properly designed and approved drainage facilities provided by the project civil engineer. Roof gutters and downspouts should be installed on the residence, with the runoff directed away from the foundations via closed drainage lines. Proper subsurface and surface

drainage will help minimize the potential for waters to seek the level of the bearing soils under the footings and floor slabs.

Failure to observe this recommendation could result in undermining and possible differential settlement of the structure or other improvements on the site or cause other moisture-related problems. Currently, the California Building Code requires a minimum 1-percent surface gradient for proper drainage of building pads unless waived by the building official. Concrete pavement may have a minimum gradient of 0.5-percent.

30. *Planter Drainage:* Planter areas, flower beds and planter boxes should be sloped to drain away from the footings and floor slabs at a gradient of at least 5 percent within 5 feet from the perimeter walls. Any planter areas adjacent to the residence or surrounded by concrete improvements should be provided with sufficient area drains to help with rapid runoff disposal. No water should be allowed to pond adjacent to the residence or other improvements or anywhere on the site.

I. General Recommendations

31. *Project Start Up Notification:* In order to reduce work delays during site development, this firm should be contacted 48 hours prior to any need for observation of footing excavations or field density testing of compacted fill soils. If possible, placement of formwork and steel reinforcement in footing excavations should not occur prior to observing the excavations; in the event that our observations reveal the need for deepening or redesigning foundation structures at any locations, any formwork or steel reinforcement in the affected footing excavation areas would have to be removed prior to

correction of the observed problem (i.e., deepening the footing excavation, recompacting soil in the bottom of the excavation, etc.).

32. *Construction Best Management Practices (BMPs):* Construction BMPs must be implemented in accordance with the requirements of the controlling jurisdiction. Sufficient BMPs must be installed to prevent silt, mud or other construction debris from being tracked into the adjacent street(s) or storm water conveyance systems due to construction vehicles or any other construction activity. The contractor is responsible for cleaning any such debris that may be in the street at the end of each workday or after a storm event that causes breach in the installed construction BMPs.

All stockpiles of uncompacted soil and/or building materials that are intended to be left unprotected for a period greater than 7 days are to be provided with erosion and sediment controls. Such soil must be protected each day when the probability of rain is 40% or greater. A concrete washout should be provided on all projects that propose the construction of any concrete improvements that are to be poured in place. All erosion/sediment control devices should be maintained in working order at all times. All slopes that are created or disturbed by construction activity must be protected against erosion and sediment transport at all times. The storage of all construction materials and equipment must be protected against any potential release of pollutants into the environment.

XII. GRADING NOTES

Geotechnical Exploration, Inc. recommends that we be retained to verify the actual soil conditions revealed during site grading work and footing excavation to be

as anticipated in this "*Report of Preliminary Geotechnical Investigation*" for the project. In addition, the compaction of any fill soils placed during site grading work must be observed and tested by the soil engineer.

It is the responsibility of the grading contractor to comply with the requirements on the grading plans as well as the local grading ordinance. All retaining wall and trench backfill should be properly compacted. ***Geotechnical Exploration, Inc.*** will assume no liability for damage occurring due to improperly or uncompacted backfill placed without our observations and testing.

XIII. LIMITATIONS

Our conclusions and recommendations have been based on available data obtained from our field investigation and laboratory analysis, as well as our experience with similar soils and formational materials located in this area of San Diego. Of necessity, we must assume a certain degree of continuity between exploratory excavations and/or natural exposures. It is, therefore, necessary that all observations, conclusions, and recommendations be verified at the time grading operations begin or when footing excavations are placed. In the event discrepancies are noted, additional recommendations may be issued, if required.

The work performed and recommendations presented herein are the result of an investigation and analysis that meet the contemporary standard of care in our profession within the County of San Diego. No warranty is provided.

As stated previously, it is not within the scope of our services to provide quality control oversight for surface or subsurface drainage construction or retaining wall sealing and base of wall drain construction. It is the responsibility of the contractor

to verify proper wall sealing, geofabric installation, protection board installation (if needed), drain depth below interior floor or yard surfaces; pipe percent slope to the outlet, etc.

This report should be considered valid for a period of two (2) years, and is subject to review by our firm following that time. If significant modifications are made to the building plans, especially with respect to the height and location of any proposed structures, this report must be presented to us for immediate review and possible revision.

It is the responsibility of the owner and/or developer to ensure that the recommendations summarized in this report are carried out in the field operations and that our recommendations for design of this project are incorporated in the structural plans. We should be retained to review the project plans once they are available, to verify that our recommendations are adequately incorporated in the plans. Additional or modified recommendations may be issued if warranted after plan review.

This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for the safety of personnel other than our own on the site; the safety of others is the responsibility of the contractor. The contractor should notify the owner if any of the recommended actions presented herein are considered to be unsafe.

The firm of ***Geotechnical Exploration, Inc.*** shall not be held responsible for changes to the physical condition of the property, such as addition of fill soils or changing drainage patterns, which occur subsequent to issuance of this report and the changes are made without our observations, testing, and approval.

Once again, should any questions arise concerning this report, please feel free to contact the undersigned. Reference to our **Job No. 18-11851** will expedite a reply to your inquiries.

Respectfully submitted,

GEOTECHNICAL EXPLORATION, INC.

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REFERENCES
JOB NO. 18-11851
April 2018

Association of Engineering Geologists, 1973, Geology and Earthquake Hazards, Planners Guide to the Seismic Safety Element, Southern California Section, Association of Engineering Geologists, Special Publication, Published July 1973, p. 44.

Berger & Schug, 1991, Probabilistic Evaluation of Seismic Hazard in the San Diego-Tijuana Metropolitan Region, Environmental Perils, San Diego Region, San Diego Association of Geologists.

Blake, Thomas, 2002, EQFault and EQSearch Computer Programs for Deterministic Prediction and Estimation of Peak Horizontal Acceleration from Digitized California Faults and Historical Earthquake Catalogs.

Bryant, W.A. and E.W. Hart, 1973 (10th Revision 1997), Fault-Rupture Hazard Zones in California, Calif. Div. of Mines and Geology, Special Publication 42.

California Division of Mines and Geology – Alquist-Priolo Special Studies Zones Map, November 1, 1991.

City of San Diego Topographic Surveys, Lambert Coordinates 242-1689, dated 1963 and 1979.

Crowell, J.C., 1962, Displacement Along the San Andreas Fault, California; Geologic Society of America Special Paper 71, 61 p.

Demere, Thomas A., 2003, Geology of San Diego County, California, BRCC San Diego Natural History Museum.

Grading Plan Muirlands West Unit No. 4 dated February 3, 1965, As-built, City of San Diego Engineering Department, Drawing No. 11885-32.

Greene, H.G., 1979, Implication of Fault Patterns in the Inner California Continental Borderland between San Pedro and San Diego, in "Earthquakes and Other Perils, San Diego Region," P.L. Abbott and W.J. Elliott, editors.

Greensfelder, R.W., 1974, Maximum Credible Rock Acceleration from Earthquakes in California; Calif. Div. of Mines and Geology, Map Sheet 23.

Hart, E.W., D.P. Smith, and R.B. Saul, 1979, Summary Report: Fault Evaluation Program, 1978 Area (Peninsular Ranges-Salton Trough Region), Calif. Div. of Mines and Geology, OFR 79-10 SF, 10.

Hart E.W. and W. A. Bryant, 1997, Fault-Rupture Hazard Zones in California, California Geological Survey, Special Publication 42, Supplements 1 and 2 added 1999.

Hauksson, E. and L. Jones, 1988, The July 1988 Oceanside (M_L=5.3) Earthquake Sequence in the Continental Borderland, Southern California Bulletin of the Seismological Society of America, v. 78, p. 1885-1906.

Hileman, J.A., C.R. Allen and J.M. Nordquist, 1973, Seismicity of the Southern California Region, January 1, 1932 to December 31, 1972; Seismological Laboratory, Cal-Tech, Pasadena, Calif.

Kennedy, M.P., 1975, Geology of the San Diego Metropolitan Area, California; Bulletin 200, Calif. Div. of Mines and Geology, 1975.

Kennedy, M. P., S. H. Clarke, H. G. Greene, R. C. Jachens, V. E. Langenheim, J. J. Moore and D. M. Burns, 1994, A digital (GIS) Geological/Geophysical/Seismological Data Base for the san Diego 30x60 Quadrangle, California—A New Generation, Geological Society of America Abstracts with Programs, v. 26, p. 63.

Kennedy, M. P. and S. H. Clarke, 1997A, Analysis of Late Quaternary Faulting in San Diego Bay and Hazard to the Coronado Bridge, Calif. Div. of Mines and Geology Open-file Report 97-10A.

Kennedy, M. P. and S. H. Clarke, 1997B, Age of Faulting in San Diego Bay in the Vicinity of the Coronado Bridge, an addendum to Analysis of Late Quaternary Faulting in San Diego Bay and Hazard to the Coronado Bridge, Calif. Div. of Mines and Geology Open-file Report 97-10B.

Kennedy, M. P. and S. H. Clarke, 2001,Late Quaternary Faulting in San Diego Bay and Hazard to the Coronado Bridge, California Geology, July/August 2001.

Kennedy, M.P. and S.S. Tan, 1977, Geology of National City, Imperial Beach, and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California, Map Sheet 29, California Division of Mines and Geology, 1977.

Kennedy, M.P., S.S. Tan, R.H. Chapman, and G.W. Chase, 1975; Character and Recency of Faulting, San Diego Metropolitan Area, California, Special Report 123, Calif. Div. of Mines and Geology.

Kennedy, M.P. and S.S. Tan, 2005, Geologic Map of San Diego 30'x60' Quadrangle, California, California Geological Survey, Dept. of Conservation.

Kennedy, M.P. and E.E. Welday, 1980, Character and Recency of Faulting Offshore, metropolitan San Diego California, Calif. Div. of Mines and Geology Map Sheet 40, 1:50,000.

Kern, J.P. and T.K. Rockwell, 1992, Chronology and Deformation of Quaternary Marine Shorelines, San Diego County, California in Heath, E. and L. Lewis (editors), The Regressive Pleistocene Shoreline, Coastal Southern California, pp. 1-8.

Kern, Philip, 1983, Earthquakes and Faults in San Diego, Pickle Press, San Diego, California.

McEuen, R.B. and C.J. Pinckney, 1972, Seismic Risk in San Diego; Transactions of the San Diego Society of Natural History, Vol. 17, No. 4.

Reed, Leslie D., The Soledad Avenue Terrace: A Newly Identified Pleistocene Marine Terrace Deposit, Association of Engineering Geologists, Abstract and Presentation, Las Vegas, Nevada, September 2005.

Reed, Leslie D., The Chronology and Rate of Mt. Soledad Uplift and Resultant Creation of Landslide-prone Terrain, La Jolla, California, Association of Environmental and Engineering Geologists, Abstract and Presentation, Lake Tahoe, Nevada, September 2009

Reed, Leslie D., Preliminary Evidence of a Mt. Soledad Western Flank Mega-slide, La Jolla, California, Association of Environmental and Engineering Geologists, Abstract and Presentation, Lake Tahoe, Nevada, September 2009.

Richter, C.G., 1958, Elementary Seismology, W.H. Freeman and Company, San Francisco, Calif.

Rockwell, T.K., D.E. Millman, R.S. McElwain, and D.L. Lamar, 1985, Study of Seismic Activity by Trenching Along the Glen Ivy North Fault, Elsinore Fault Zone, Southern California: Lamar-Merifield Technical Report 85-1, U.S.G.S. Contract 14-08-0001-21376, 19 p.

Simons, R.S., 1977, Seismicity of San Diego, 1934-1974, Seismological Society of America Bulletin, v. 67, p. 809-826.

Tan, S.S., 1995, Landslide Hazards in Southern Part of San Diego Metropolitan Area, San Diego County, Calif. Div. of Mines and Geology Open-file Report 95-03.

Toppozada, T.R. and D.L. Parke, 1982, Areas Damaged by California Earthquakes, 1900-1949; Calif. Div. Of Mines and Geology, Open-file Report 82-17, Sacramento, Calif.

Treiman, J.A., 1993, The Rose Canyon Fault Zone, Southern California, Calif. Div. of Mines and Geology Open-file Report 93-02, 45 pp, 3 plates.

URS Project No. 27653042.00500 (2010), San Diego County Multi-Jurisdiction Hazard Mitigation Plan San Diego County, California.

U.S. Dept. of Agriculture, 1953, Aerial Photographs AXN-8M-2 and 3.

U.S.G.S. La Jolla Quadrangle, 1967 (revised 1975); 1:24,000

VICINITY MAP

Thomas Bros Guide San Diego County pg 1227-H5

Allos Residence
8333 Calle del Cielo
La Jolla, CA.

Figure No. I
Job No. 18-11851

GOLBA ARCHITECTURE INC
Architecture ■ Space Planning ■ Interior Design
1640 Garnet Ave. #200, San Diego, CA 92109
Phone: (619) 231-9905 Fax: (858) 750-3471

ALLOS RESIDENCE
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

A 0.0

CALLE DEL CIELO

EXISTING FIRE HYDRANT TO REMAIN

EXISTING 5' WIDE ROLLED CURB TO REMAIN

NEW 1" WM & SERVICE W/ NEW BACKFLOW PREVENTER (REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) PER SDRSD WR-01 & SDW-155)

(E) SEWER LATERAL TO REMAIN

(E) 3/4" WM TO BE REMOVED & SERVICE KILLED @ THE MAIN.

NEW 12'-0" WIDE CURRENT CITY STANDARDS CONCRETE DRIVEWAY

8'-0" PROPOSED S.Y.S.B.

12'-0" PROPOSED S.Y.S.B.

28'-6" F.Y.S.B. (TO FACE OF GARAGE)

N 76°01'26" E 170.41'

92'-11" R.Y.S.B.

N 1°56'15" W 110.16'

N 76°03'24" E 195.62'

N 24°50'33" W 93.58'

N 35°09'04" W 19.84'

HP-1 HP-2 HP-3 HP-4 HP-5

Qaf / Qop6

Qaf / Ta

OUTLINE OF EXISTING HOUSE TO BE DEMOLISHED

8333 CALLE DEL CIELO
NEW SINGLE FAMILY RESIDENCE
LA JOLLA SHORES TERRACE LOT 5 MAP NO. 2996
F.F.E. LEVEL 1 44.0' MSL

POOL HOUSE 105.0' MSL

OUTLINE OF EXISTING SHED TO BE DEMOLISHED

BRIDGE ABOVE

WATER FEATURE

SPA

POOL

WATER SLIDE

10'-0" EASEMENT

PRESTWICK ESTATES UNIT NO. 1
MAP NO. 4842 LOT 2

PRESTWICK ESTATES UNIT NO. 1
MAP NO. 4842 LOT 3

A A'

N

Scale: 1" = 20' (approximate)

SITE LEGEND:

- INDICATES PROPERTY LINE
- INDICATES SETBACK LINE
- ELECTRIC METER
- GAS METER
- WATER METER
- NEW HARDSCAPE OR DECK
- NEW CONCRETE PAVING
- EXISTING CONCRETE PAVING
- VISIBILITY AREA - NO OBSTRUCTION INCLUDING LANDSCAPING OR SOLID WALLS IN THE VISIBILITY AREA SHALL EXCEED 3 FEET IN HEIGHT

ONE STORY SINGLE FAMILY RESIDENCE
LA JOLLA SHORES TERRACE LOT 2
MAP NO. 2996

DETACHED GARAGE

REFERENCE: This PLOT PLAN was prepared from an existing SITE PLAN by GOLBA ARCHITECTURE INC. dated 01-29-18 and from on-site field reconnaissance performed by GEI.

NOTE: This Plot Plan is not to be used for legal purposes. Locations and dimensions are approximate. Actual property dimensions and locations of utilities may be obtained from the Approved Building Plans or the "As-Built" Grading Plans.

GEOLOGIC LEGEND

- Qaf — Artificial Fill
- Qop6 — Old Paralic Deposits
- Ta — Ardath Shale Formation
- Approximate Geologic Contact

LEGEND

- HP-5 — Approximate Location of Exploratory Handpit
- A — A' Approximate Location of Cross Section

Sheet Title:
SITE PLAN

PLOT PLAN AND SITE SPECIFIC GEOLOGIC MAP

Allos Residence
8333 Calle del Cielo
La Jolla, CA.
Figure No. II
Job No. 18-11851

Geotechnical Exploration, Inc.

(March 2018)

18-11851-p.ai

EQUIPMENT	DIMENSION & TYPE OF EXCAVATION	DATE LOGGED
Hand Tools	**2' X 2' X 3' Handpit**	**4-2-18**
SURFACE ELEVATION	GROUNDWATER/ SEEPAGE DEPTH	LOGGED BY
± 92' Mean Sea Level	**Not Encountered**	**JKH**

DEPTH (feet)	SYMBOL	SAMPLE	FIELD DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS (Grain size, Density, Moisture, Color)	U.S.C.S.	IN-PLACE MOISTURE (%)	IN-PLACE DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	MAXIMUM DRY DENSITY (pcf)	DENSITY (% of M.D.D.)	EXPAN. + (%) CONSOL. -	BLOW COUNTS/FT.	SAMPLE O.D. (INCHES)
1			**CLAYEY SAND**, with abundant roots and cobbles. Loose to medium dense. Dry. Dark brown. **FILL (Qaf)**	SC								
2			**CLAYEY SAND**, moderately well cemented. Dense. Damp. Red-brown. **OLD PARALIC DEPOSITS (Qop $_6$)**	SC								
3			Bottom @ 3'									
4												

PERCHED WATER TABLE
BULK BAG SAMPLE
IN-PLACE SAMPLE
MODIFIED CALIFORNIA SAMPLE
NUCLEAR FIELD DENSITY TEST
STANDARD PENETRATION TEST

JOB NAME		
Allos Residence		
SITE LOCATION		
8333 Calle del Cielo, La Jolla, CA		
JOB NUMBER	REVIEWED BY	LOG No.
18-11851	**LDR/JAC**	**HP-1**
FIGURE NUMBER	GEI Geotechnical Exploration, Inc.	
IIIa		

EXPLORATION LOG 11851 ALLOS.GPJ GEO_EXPL.GDT 4/20/18

EQUIPMENT	DIMENSION & TYPE OF EXCAVATION	DATE LOGGED
Hand Tools	**3' X 3' X 4' Handpit**	**4-2-18**
SURFACE ELEVATION	GROUNDWATER/ SEEPAGE DEPTH	LOGGED BY
± 106' Mean Sea Level	**Not Encountered**	**JKH**

DEPTH (feet)	SYMBOL	SAMPLE	FIELD DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS (Grain size, Density, Moisture, Color)	U.S.C.S.	IN-PLACE MOISTURE (%)	IN-PLACE DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	MAXIMUM DRY DENSITY (pcf)	DENSITY (% of M.D.D.)	EXPAN. + (%) CONSOL. -	EXPANSION INDEX	BLOW COUNTS/FT.	SAMPLE O.D. (INCHES)
1			**SANDY CLAY**, with some roots and cobbles. Firm to stiff. Dry. Dark brown. **FILL (Qaf)**	CL									
2			-- 83% passing #200 sieve.				13.2	119.2			42		
3			**SANDY CLAY**, slightly fractured. Very stiff to hard. Damp. Yellow-brown. **ARDATH SHALE FORMATION (Ta)** Bedding attitude: N50°W, 5°NE.	CL									
		1	-- 83% passing #200 sieve.								39		
4			Bottom @ 4'										
5													

- PERCHED WATER TABLE
- BULK BAG SAMPLE
- [1] IN-PLACE SAMPLE
- MODIFIED CALIFORNIA SAMPLE
- [S] NUCLEAR FIELD DENSITY TEST
- STANDARD PENETRATION TEST

JOB NAME		
Allos Residence		
SITE LOCATION		
8333 Calle del Cielo, La Jolla, CA		
JOB NUMBER	REVIEWED BY	LOG No.
18-11851	**LDR/JAC**	**HP-2**
FIGURE NUMBER	Geotechnical Exploration, Inc.	
IIIb		

EXPLORATION LOG 11851 ALLOS.GPJ GEO_EXPL.GDT 4/20/18

EQUIPMENT	DIMENSION & TYPE OF EXCAVATION	DATE LOGGED
Hand Tools	**3' X 3' X 5' Handpit**	**4-2-18**
SURFACE ELEVATION	**GROUNDWATER/ SEEPAGE DEPTH**	**LOGGED BY**
± 109' Mean Sea Level	**Not Encountered**	**JKH**

DEPTH (feet)	SYMBOL	SAMPLE	FIELD DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS (Grain size, Density, Moisture, Color)	U.S.C.S.	IN-PLACE MOISTURE (%)	IN-PLACE DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	MAXIMUM DRY DENSITY (pcf)	DENSITY (% of M.D.D.)	EXPAN. + (%) CONSOL. -	BLOW COUNTS/FT.	SAMPLE O.D. (INCHES)
1			**SANDY CLAY**, with some roots and cobbles. Firm to stiff. Dry. Dark brown. **FILL (Qaf)**	CL								
2												
3												
4			**SANDY CLAY**, slightly fractured. Very stiff to hard. Damp. Yellow-brown. **ARDATH SHALE FORMATION (Ta)** Bedding attitude: N20°W, 3°NE.	CL								
5			Bottom @ 5'									
6												

- PERCHED WATER TABLE
- BULK BAG SAMPLE
- [1] IN-PLACE SAMPLE
- MODIFIED CALIFORNIA SAMPLE
- [S] NUCLEAR FIELD DENSITY TEST
- STANDARD PENETRATION TEST

JOB NAME		
Allos Residence		
SITE LOCATION		
8333 Calle del Cielo, La Jolla, CA		
JOB NUMBER	REVIEWED BY	LOG No.
18-11851	**LDR/JAC**	**HP-3**
FIGURE NUMBER	Geotechnical Exploration, Inc.	
IIIc		

EXPLORATION LOG 11851 ALLOS.GPJ GEO_EXPL.GDT 4/20/18

EQUIPMENT	DIMENSION & TYPE OF EXCAVATION	DATE LOGGED
Hand Tools	**3' X 3' X 4' Handpit**	**4-2-18**
SURFACE ELEVATION	GROUNDWATER/ SEEPAGE DEPTH	LOGGED BY
± 85' Mean Sea Level	**Not Encountered**	**JKH**

DEPTH (feet)	SYMBOL	SAMPLE	FIELD DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS (Grain size, Density, Moisture, Color)	U.S.C.S.	IN-PLACE MOISTURE (%)	IN-PLACE DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	MAXIMUM DRY DENSITY (pcf)	DENSITY (% of M.D.D.)	EXPAN. + (%) CONSOL. -	BLOW COUNTS/FT.	SAMPLE O.D. (INCHES)
1			**CLAYEY SAND** , with some roots and cobbles. Loose to medium dense. Dry. Dark brown. **FILL (Qaf)**	SC								
2												
3			**CLAYEY SAND** , moderately well cemented. Dense. Damp. Red-brown. **OLD PARALIC DEPOSITS (Qop $_6$)** -- 51% passing #200 sieve.	SC								
4			Bottom @ 4'									
5												

PERCHED WATER TABLE
BULK BAG SAMPLE
1 IN-PLACE SAMPLE
MODIFIED CALIFORNIA SAMPLE
S NUCLEAR FIELD DENSITY TEST
STANDARD PENETRATION TEST

JOB NAME
Allos Residence

SITE LOCATION
8333 Calle del Cielo, La Jolla, CA

JOB NUMBER
18-11851

REVIEWED BY
LDR/JAC

FIGURE NUMBER
IIId

Geotechnical Exploration, Inc.

LOG No.
HP-4

EXPLORATION LOG 11851 ALLOS.GPJ GEO_EXPL.GDT 4/20/18

EQUIPMENT	DIMENSION & TYPE OF EXCAVATION	DATE LOGGED
Hand Tools	**3' X 3' X 5' Handpit**	**4-2-18**
SURFACE ELEVATION	GROUNDWATER/ SEEPAGE DEPTH	LOGGED BY
± 91' Mean Sea Level	**Not Encountered**	**JKH**

DEPTH (feet)	SYMBOL	SAMPLE	FIELD DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS (Grain size, Density, Moisture, Color)	U.S.C.S.	IN-PLACE MOISTURE (%)	IN-PLACE DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	MAXIMUM DRY DENSITY (pcf)	DENSITY (% of M.D.D.)	EXPAN. + (%) CONSOL. -	BLOW COUNTS/FT.	SAMPLE O.D. (INCHES)
1			**SANDY CLAY** , with some roots and cobbles. Firm to stiff. Dry to damp. Dark brown. **FILL (Qaf)**	CL								
2												
3												
4			**CLAYEY SAND** , moderately well cemented. Dense. Damp. Red-brown. **OLD PARALIC DEPOSITS (Qop $_6$)**	SC								
5			Bottom @ 5'									
6												

EXPLORATION LOG 11851 ALLOS.GPJ GEO_EXPL.GDT 4/20/18

PERCHED WATER TABLE
BULK BAG SAMPLE
1 IN-PLACE SAMPLE
MODIFIED CALIFORNIA SAMPLE
S NUCLEAR FIELD DENSITY TEST
STANDARD PENETRATION TEST

JOB NAME
Allos Residence

SITE LOCATION
8333 Calle del Cielo, La Jolla, CA

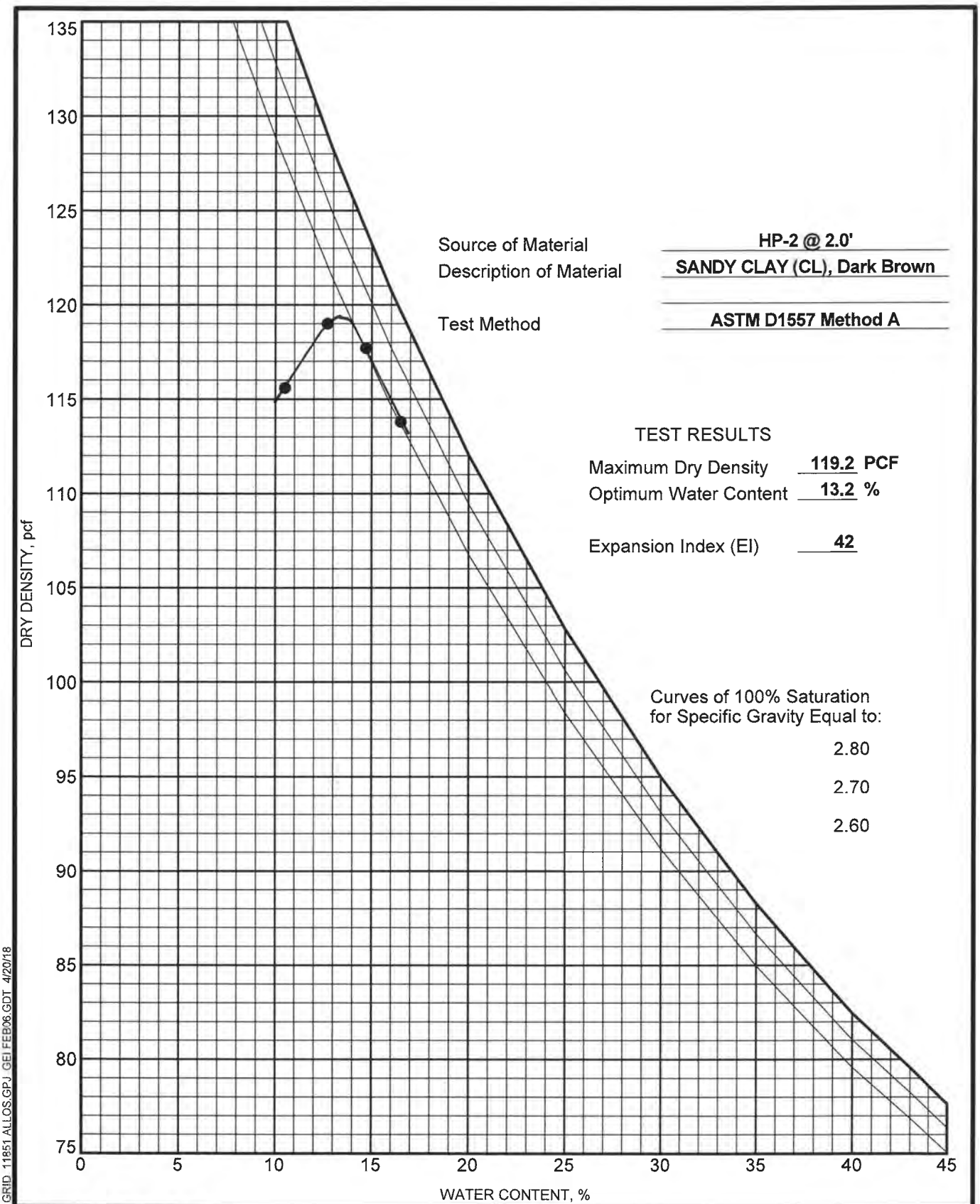
JOB NUMBER
18-11851

REVIEWED BY
LDR/JAC

FIGURE NUMBER
IIIe

Geotechnical Exploration, Inc.

LOG No.
HP-5

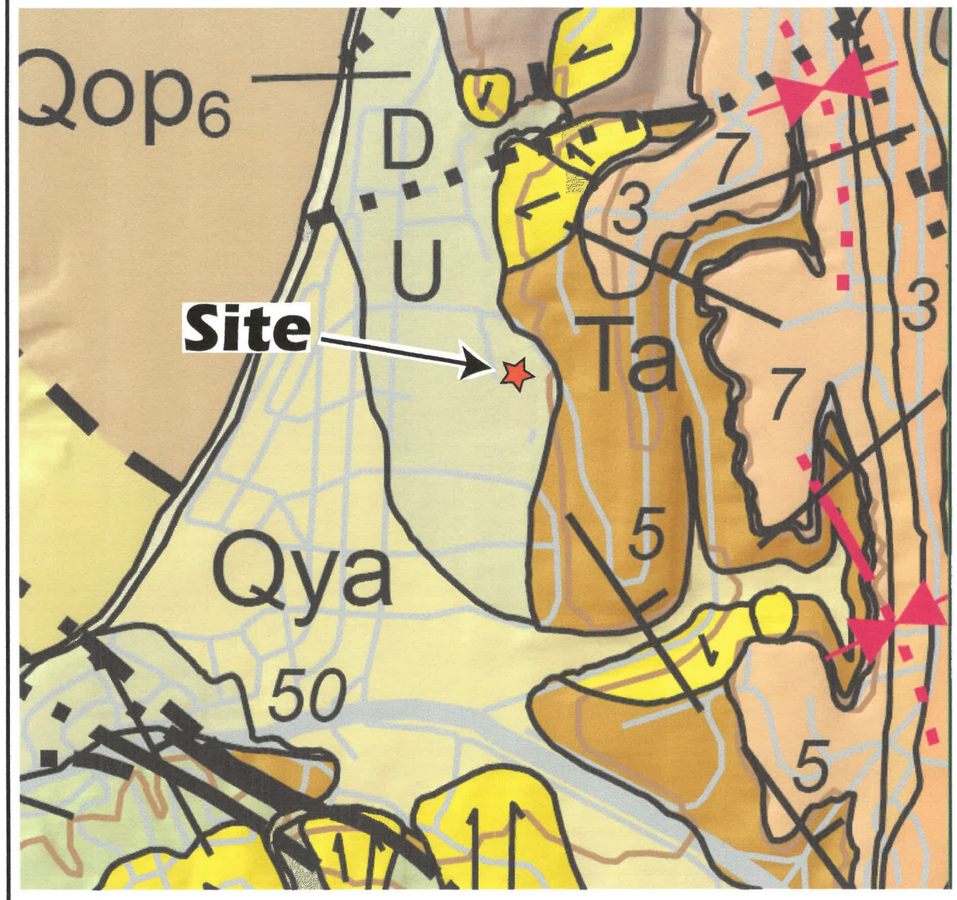


COMPACTION + EI DARK GRID 11851 ALLOS.GPJ GEI FEB06.GDT 4/20/18

Geotechnical Exploration, Inc.

MOISTURE-DENSITY RELATIONSHIP

Figure Number: IV
Job Name: Allos Residence
Site Location: 8333 Calle del Cielo, La Jolla, CA
Job Number: 18-11851



Allos Residence
8333 Calle del Cielo
La Jolla, CA.

EXCERPT FROM GEOLOGIC MAP OF THE SAN DIEGO 30' x 60' QUADRANGLE, CALIFORNIA

By
Michael P. Kennedy[1] and Siang S. Tan[1]
2008
Digital preparation by
Kelly R. Bovard[2], Anne G. Garcia[2], Diane Burns[2], and Carlos I. Gutierrez[1]
1. Department of Conservation, California Geological Survey
2. U.S. Geological Survey, Department of Earth Sciences, University of California, Riverside

ONSHORE MAP SYMBOLS

Contact - Contact between geologic units; dotted where concealed.

70 U/D — Fault - Solid where accurately located; dashed where approximately located; dotted where concealed. U = upthrown block, D = downthrown block. Arrow and number indicate direction and angle of dip of fault plane.

Anticline - Solid where accurately located; dashed where approximately located; dotted where concealed. Arrow indicates direction of axial plunge.

Syncline - Solid where accurately located; dotted where concealed. Arrow indicates direction of axial plunge.

Qls? — Landslide - Arrows indicate principal direction of movement. Queried where existence is questionable.

Strike and dip of beds

70 — Inclined

Strike and dip of igneous joints

60 — Inclined

Vertical

Strike and dip of metamorphic foliation

55 — Inclined

ABBREVIATED EXPLANATION

Artificial fill

Qop6 — Old paralic deposits
Unit 6

Ta — Ardath Shale

Base Map

Onshore base (hypsography, hydrography, and transportation) from U.S.G.S. digital line graph (DLG) data, San Diego 30' x 60' metric quadrangle. Shaded topographic base from U.S.G.S. digital elevation models (DEM's). Offshore bathymetric contours and shaded bathymetry from N.O.A.A. single and multibeam data. Projection is UTM, zone 11, North American Datum 1927.

This map was funded in part by the U.S. Geological Survey National Cooperative Geologic Mapping Program, STATEMAP Award no. 98HQAG2049.

Prepared in cooperation with the U.S. Geological Survey, Southern California Areal Mapping Project.

Figure No. V
Job No. 18-11851

Geotechnical Exploration, Inc.

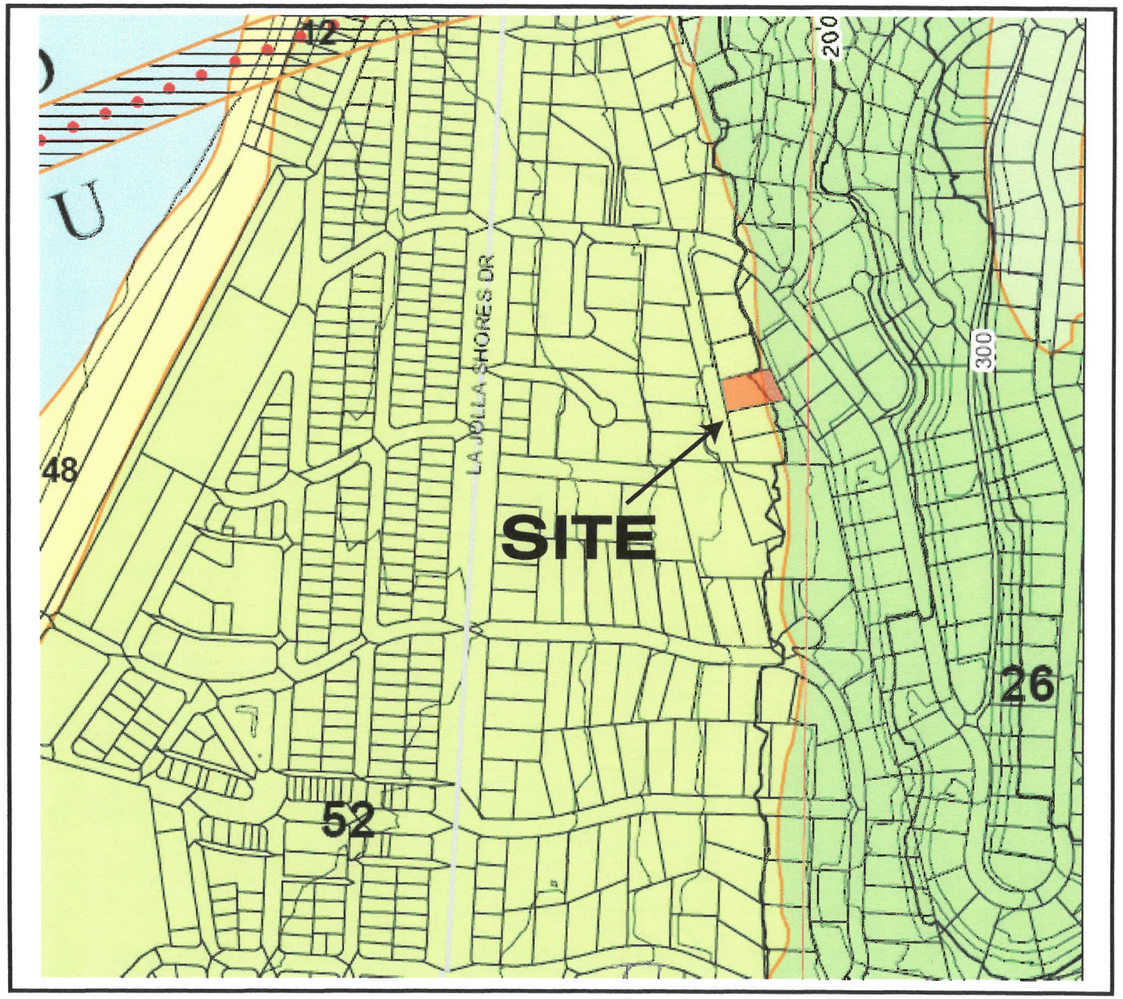
April 2018

Allos-8333-combo-2008-geo.ai

Geologic Hazards Map Excerpt from City of San Diego Geologic Hazards and Fault Map Sheet 29

Development Services Department

DATE: 4/3/2008



Allos Residence
8333 Calle del Cielo
La Jolla, CA.

LEGEND

Geologic Hazard Categories

FAULT ZONES

- 11 Active, Alquist-Priolo Earthquake Fault Zone
- 12 Potentially Active, Inactive, Presumed Inactive, or Activity Unknown
- 13 Downtown special fault zone

LANDSLIDES

- 21 Confirmed, known, or highly suspected
- 22 Possible or conjectured

SLIDE-PRONE FORMATIONS

- 23 Friars: neutral or favorable geologic structure
- 24 Friars: unfavorable geologic structure
- 25 Ardath: neutral or favorable geologic structure
- 26 Ardath: unfavorable geologic structure
- 27 Otay, Sweetwater, and others

LIQUEFACTION

- 31 High Potential -- shallow groundwater major drainages, hydraulic fills
- 32 Low Potential -- fluctuating groundwater minor drainages

COASTAL BLUFFS

- 41 Generally unstable Numerous landslides, high steep bluffs, severe erosion, unfavorable geologic structure
- 42 Generally unstable Unfavorable bedding plains, high erosion
- 43 Generally unstable Unfavorable jointing, local high erosion
- 44 Moderately stable Mostly stable formations, local high erosion
- 45 Moderately stable Some minor landslides, minor erosion
- 46 Moderately stable Some unfavorable geologic structure, minor or no erosion
- 47 Generally stable Favorable geologic structure, minor or no erosion, no landslides
- 48 Generally stable Broad beach areas, developed harbor

OTHER TERRAIN

- 51 Level mesas -- underlain by terrace deposits and bedrock nominal risk
- 52 Other level areas, gently sloping to steep terrain, favorable geologic structure, Low risk
- 53 Level or sloping terrain, unfavorable geologic structure, Low to moderate risk
- 54 Steeply sloping terrain, unfavorable or fault controlled geologic structure, Moderate risk
- 55 Modified terrain (graded sites) Nominal risk

Water (Bays and Lakes)

FAULTS

- Fault
- Inferred Fault
- Concealed Fault
- Shear Zone

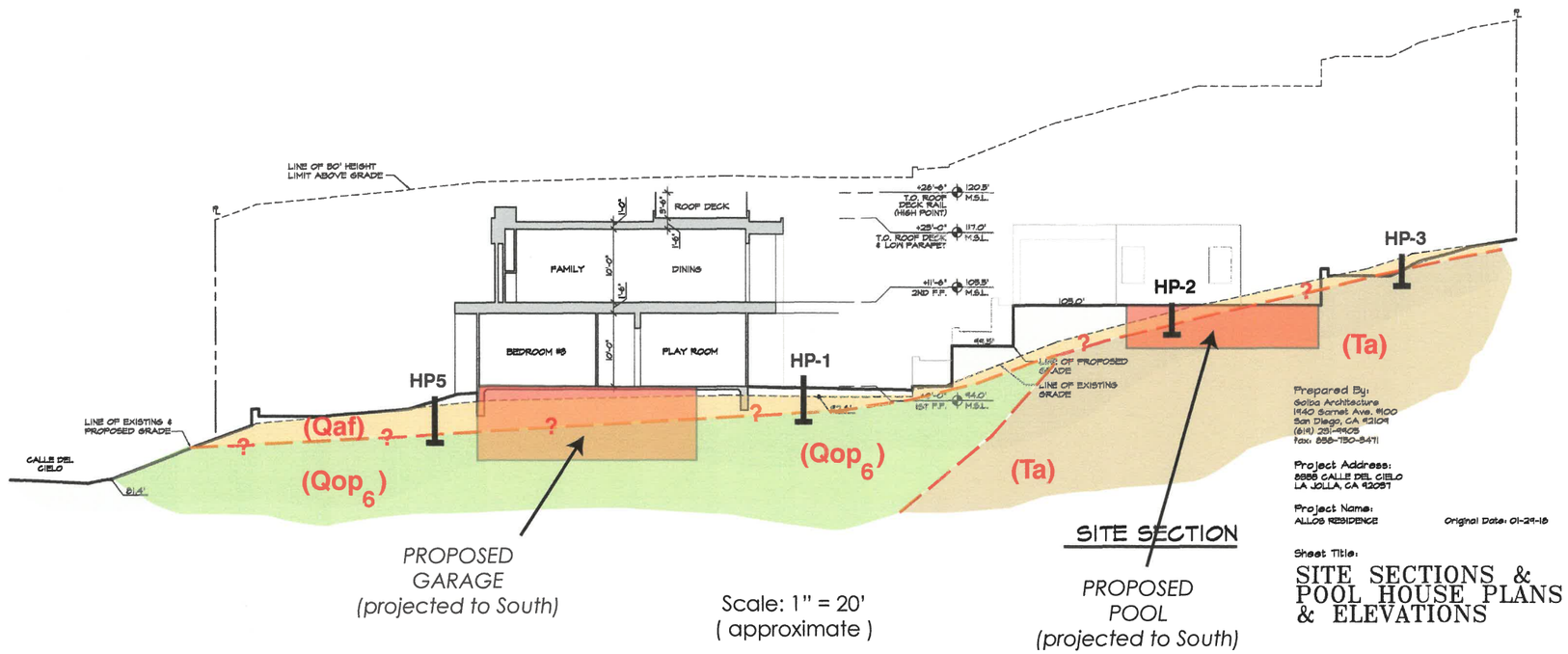
Figure No. VI
Job No. 18-11851

Geotechnical Exploration, Inc.

April 2018

Allos-8333-seis-combo.ai

CROSS SECTION A-A'



GOLBA ARCHITECTURE
Architecture ▪ Space Planning ▪ Interior Design
1640 Garnet Ave. #100, San Diego, CA 92109
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ALLOS RESIDENCE
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

A 3.0

Prepared By:
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San Diego, CA 92109
(619) 231-9905
fax: 858-750-3471

Project Address:
8333 CALLE DEL CIELO
LA JOLLA, CA 92037

Project Name:
ALLOS RESIDENCE
Original Date: 01-29-18

Sheet Title:
SITE SECTIONS & POOL HOUSE PLANS & ELEVATIONS

LEGEND

Qaf	Artificial Fill
Qop_6	Old Paralic Deposits
Ta	Ardath Shale Formation
- - -	Approximate Geologic Contact

REFERENCE: This Cross Section was prepared from an existing SITE SECTIONS & POOL HOUSE PLANS & ELEVATIONS by GOLBA ARCHITECTURE, INC. dated 01-29-18 and from on-site field reconnaissance performed by GEI.

CROSS SECTION

Allos Residence
8333 Calle del Cielo
La Jolla, CA.
Figure No. VII
Job No. 18-11851

Geotechnical Exploration, Inc.
(April 2018)

18-11851-AA.ai

APPENDIX A
UNIFIED SOIL CLASSIFICATION CHART
SOIL DESCRIPTION

Coarse-grained (More than half of material is larger than a No. 200 sieve)

GRAVELS, CLEAN GRAVELS (More than half of coarse fraction is larger than No. 4 sieve size, but smaller than 3")	GW	Well-graded gravels, gravel and sand mixtures, little or no fines.
	GP	Poorly graded gravels, gravel and sand mixtures, little or no fines.
GRAVELS WITH FINES (Appreciable amount)	GC	Clay gravels, poorly graded gravel-sand-silt mixtures
SANDS, CLEAN SANDS (More than half of coarse fraction is smaller than a No. 4 sieve)	SW	Well-graded sand, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines.
SANDS WITH FINES (Appreciable amount)	SM	Silty sands, poorly graded sand and silty mixtures.
	SC	Clayey sands, poorly graded sand and clay mixtures.

Fine-grained (More than half of material is smaller than a No. 200 sieve)

SILTS AND CLAYS		
Liquid Limit Less than 50	ML	Inorganic silts and very fine sands, rock flour, sandy silt and clayey-silt sand mixtures with a slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, silty clays, clean clays.
	OL	Organic silts and organic silty clays of low plasticity.
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.
HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils

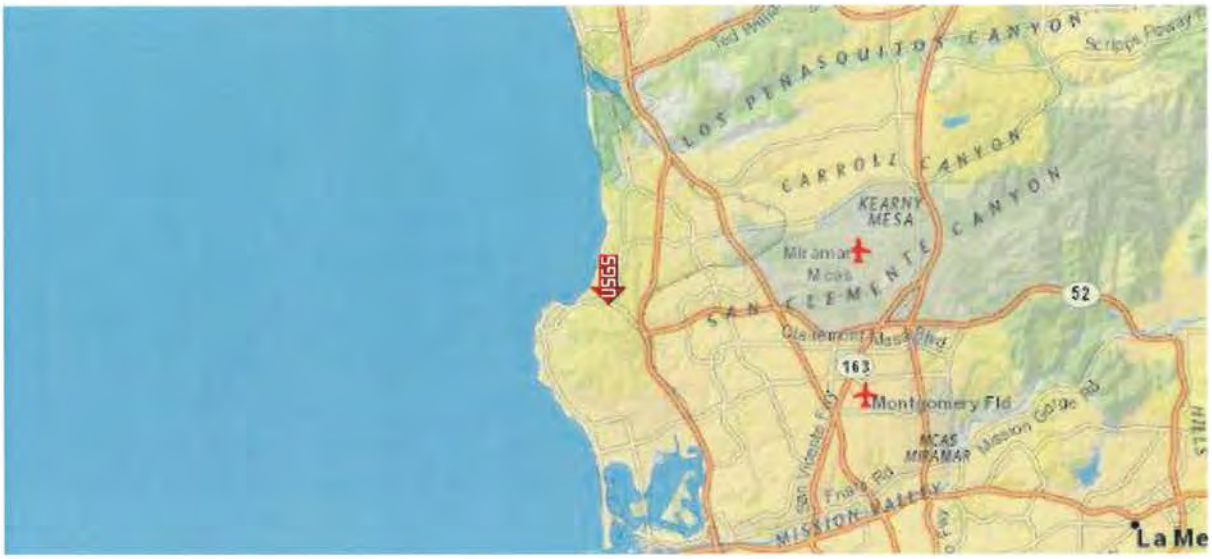
APPENDIX B

USGS DESIGN MAPS SUMMARY REPORT

USGS Design Maps Summary Report

User–Specified Input

Report Title	Allos Residence Fri April 20, 2018 22:26:14 UTC
Building Code Reference Document	ASCE 7-10 Standard (which utilizes USGS hazard data available in 2008)
Site Coordinates	32.8577°N, 117.2507°W
Site Soil Classification	Site Class D – "Stiff Soil"
Risk Category	I/II/III

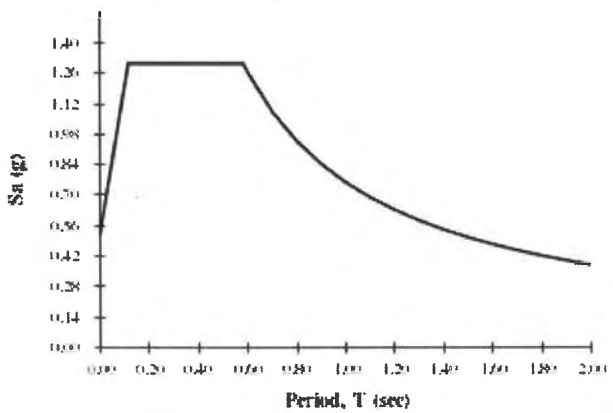


USGS–Provided Output

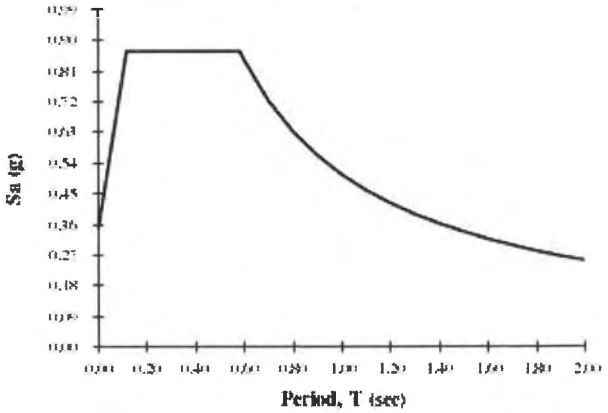
S_S =	1.304 g	S_{MS} =	1.304 g	S_{DS} =	0.869 g
S_1 =	0.506 g	S_{M1} =	0.759 g	S_{D1} =	0.506 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.

MCE_R Response Spectrum



Design Response Spectrum



For PGA_M, T_L, C_{RS}, and C_{R1} values, please view the detailed report.

USGS Design Maps Detailed Report

ASCE 7-10 Standard (32.8577°N, 117.2507°W)

Site Class D – "Stiff Soil", Risk Category I/II/III

Section 11.4.1 — Mapped Acceleration Parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain S_S) and 1.3 (to obtain S_1). Maps in the 2010 ASCE-7 Standard are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 11.4.3.

From Figure 22-1 [1]	S_S = 1.304 g
From Figure 22-2 [2]	S_1 = 0.506 g

Section 11.4.2 — Site Class

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class D, based on the site soil properties in accordance with Chapter 20.

Table 20.3–1 Site Classification

Site Class	$\bar{v}_s$	$\bar{N}$ or $\bar{N}_{ch}$	$\bar{s}_u$
A. Hard Rock	>5,000 ft/s	N/A	N/A
B. Rock	2,500 to 5,000 ft/s	N/A	N/A
C. Very dense soil and soft rock	1,200 to 2,500 ft/s	>50	>2,000 psf
D. Stiff Soil	600 to 1,200 ft/s	15 to 50	1,000 to 2,000 psf
E. Soft clay soil	<600 ft/s	<15	<1,000 psf
	Any profile with more than 10 ft of soil having the characteristics: • Plasticity index PI > 20, • Moisture content $w \geq 40\%$, and • Undrained shear strength $\bar{s}_u$ < 500 psf		
F. Soils requiring site response analysis in accordance with Section 21.1	See Section 20.3.1		

For SI: 1ft/s = 0.3048 m/s 1lb/ft² = 0.0479 kN/m²

Section 11.4.3 — Site Coefficients and Risk-Targeted Maximum Considered Earthquake (MCE_R) Spectral Response Acceleration Parameters

Table 11.4-1: Site Coefficient F_a

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at Short Period				
	$S_S \leq 0.25$	$S_S = 0.50$	$S_S = 0.75$	$S_S = 1.00$	$S_S \geq 1.25$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight-line interpolation for intermediate values of S_S

For Site Class = D and S_S = 1.304 g, F_a = 1.000

Table 11.4-2: Site Coefficient F_v

Site Class	Mapped MCE_R Spectral Response Acceleration Parameter at 1-s Period				
	$S_1 \leq 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \geq 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See Section 11.4.7 of ASCE 7				

Note: Use straight-line interpolation for intermediate values of S_1

For Site Class = D and S_1 = 0.506 g, F_v = 1.500

Equation (11.4–1): $S_{MS} = F_a S_S = 1.000 \times 1.304 = 1.304$ g

Equation (11.4–2): $S_{M1} = F_v S_1 = 1.500 \times 0.506 = 0.759$ g

Section 11.4.4 — Design Spectral Acceleration Parameters

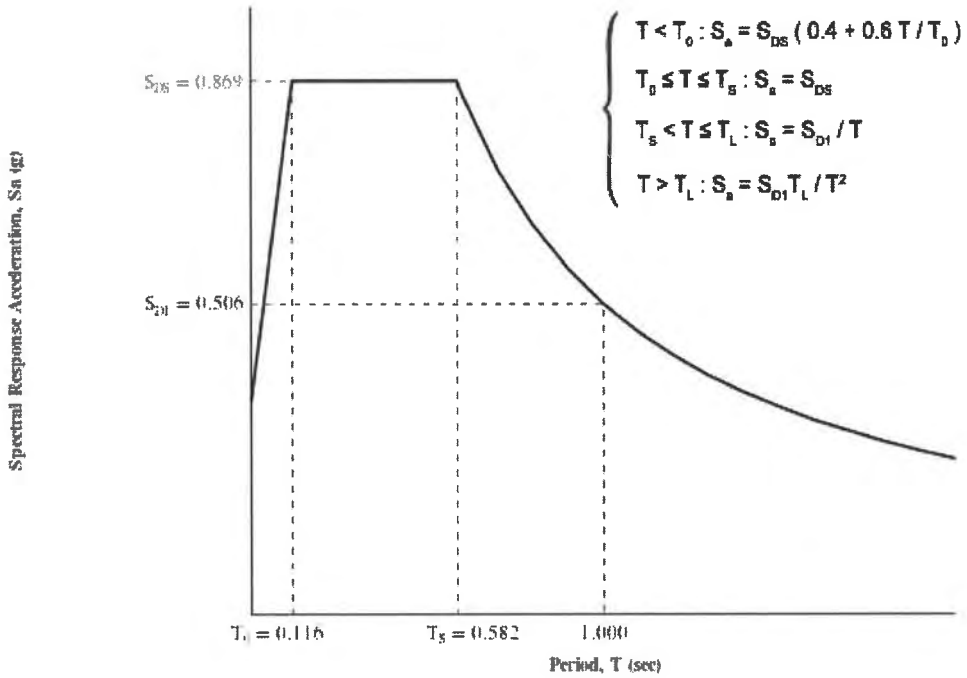
Equation (11.4–3): $S_{DS} = \frac{2}{3} S_{MS} = \frac{2}{3} \times 1.304 = 0.869$ g

Equation (11.4–4): $S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 0.759 = 0.506$ g

Section 11.4.5 — Design Response Spectrum

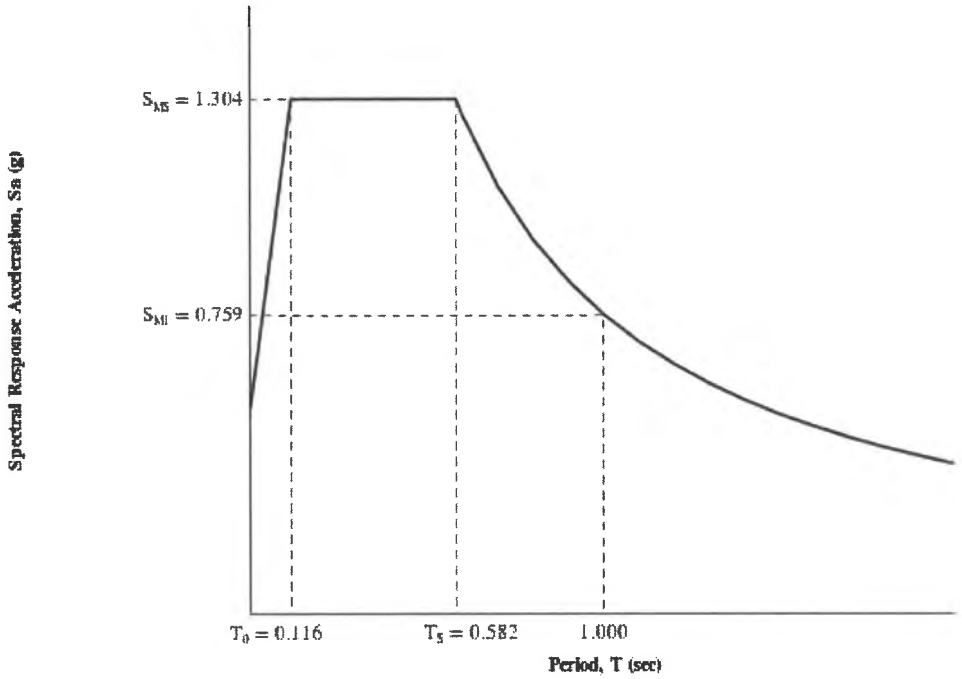
From Figure 22-12 [3] $T_L = 8$ seconds

Figure 11.4–1: Design Response Spectrum



Section 11.4.6 — Risk-Targeted Maximum Considered Earthquake (MCE_R) Response Spectrum

The MCE_R Response Spectrum is determined by multiplying the design response spectrum above by 1.5.



Section 11.8.3 — Additional Geotechnical Investigation Report Requirements for Seismic Design Categories D through F

From Figure 22-7 [4] PGA = 0.593

Equation (11.8-1): $PGA_M = F_{PGA}PGA = 1.000 \times 0.593 = 0.593$ g

Table 11.8-1: Site Coefficient F_{PGA}

Site Class	Mapped MCE Geometric Mean Peak Ground Acceleration, PGA				
	PGA ≤ 0.10	PGA = 0.20	PGA = 0.30	PGA = 0.40	PGA ≥ 0.50
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight-line interpolation for intermediate values of PGA

For Site Class = D and PGA = 0.593 g, F_{PGA} = 1.000

Section 21.2.1.1 — Method 1 (from Chapter 21 – Site-Specific Ground Motion Procedures for Seismic Design)

From Figure 22-17 [5] C_{RS} = 0.833

From Figure 22-18 [6] C_{R1} = 0.867

Section 11.6 — Seismic Design Category

Table 11.6-1 Seismic Design Category Based on Short Period Response Acceleration Parameter

VALUE OF S_{DS}	RISK CATEGORY		
	I or II	III	IV
$S_{DS} < 0.167g$	A	A	A
$0.167g \le S_{DS} < 0.33g$	B	B	C
$0.33g \le S_{DS} < 0.50g$	C	C	D
$0.50g \le S_{DS}$	D	D	D

For Risk Category = I and S_{DS} = 0.869 g, Seismic Design Category = D

Table 11.6-2 Seismic Design Category Based on 1-S Period Response Acceleration Parameter

VALUE OF S_{D1}	RISK CATEGORY		
	I or II	III	IV
$S_{D1} < 0.067g$	A	A	A
$0.067g \le S_{D1} < 0.133g$	B	B	C
$0.133g \le S_{D1} < 0.20g$	C	C	D
$0.20g \le S_{D1}$	D	D	D

For Risk Category = I and S_{D1} = 0.506 g, Seismic Design Category = D

Note: When S_1 is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category ≡ "the more severe design category in accordance with Table 11.6-1 or 11.6-2" = D

Note: See Section 11.6 for alternative approaches to calculating Seismic Design Category.

References

1. *Figure 22-1*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-1.pdf
2. *Figure 22-2*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-2.pdf
3. *Figure 22-12*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-12.pdf
4. *Figure 22-7*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-7.pdf
5. *Figure 22-17*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-17.pdf
6. *Figure 22-18*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010_ASCE-7_Figure_22-18.pdf

APPENDIX C

SLOPE STABILITY CALCULATIONS

SLOPE STABILITY CALCULATIONS WITH SLIDE 6 COMPUTER PROGRAM
Allos Residential Project
GEI Job No. 18-11851

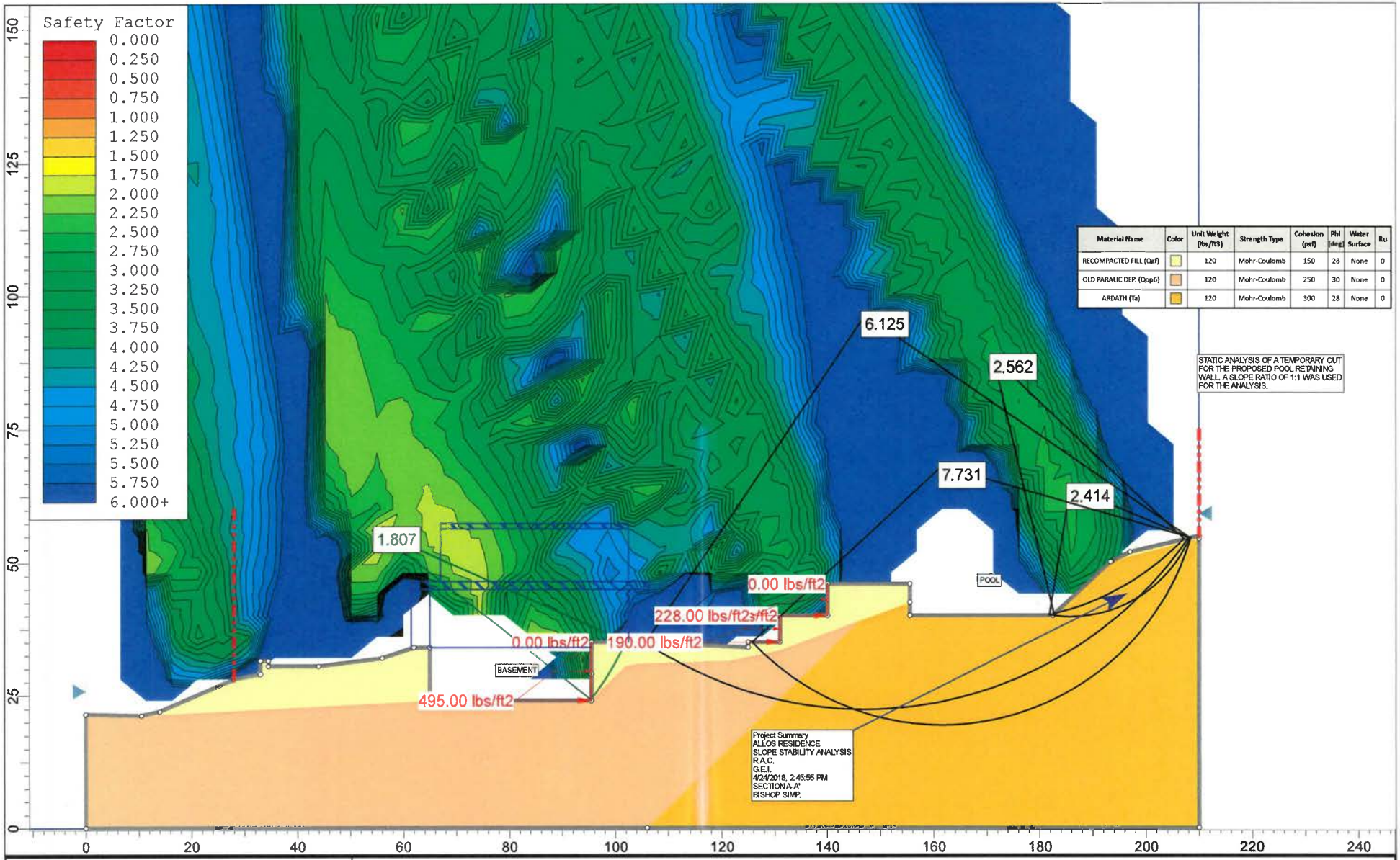
We have performed gross slope stability calculations using the *SLIDE 6* program by Roc Science. The program is a limit equilibrium slope stability program that allows the use of several slope stability methods to calculate the factors of safety against shear failure. On this project, we used the Bishop Simplified method as basis for calculations when using circular slide surfaces for analysis through the site geological cross sections.

The program calculates the factor of safety against failure of potential slide surfaces for a selected range. We chose the range of slide surfaces where failures are most likely to occur. The printout displays the factor of safety for the analyzed surface range. The printout shows a block with contours of different colors and shades that correspond to the different factors of safety calculated, and that can be obtained for the analyzed range of slide surfaces (see attached printouts) for Section A-A' in our report. The green circular surface value displayed, is the lowest possible factor of safety located within the specified search range. Soil strength values, geometry, and water conditions (no water encountered) used in the program were based on geological information at the site obtained by our project geologist. Based on our sieve analysis and our experience with similar soils, the on-site soil strength values for the site and slopes in the vicinity were conservatively assumed for the gross slope stability analysis.

In some of the included analysis, the calculated factor of safety is below 1.5. The factor of safety is below 1.5 due to the support pressures of the basement, exterior step-up, and pool retaining walls not being included in the analysis. We have separately included the retaining wall pressures and the factor of safety against sliding that have achieved a factor of safety of 1.5 or greater. The basement, exterior step-up, and pool retaining walls will require a temporary cut with a slope ratio of 1:1 or temporary shoring. An equivalent lateral fluid pressure of 45 pcf was used for the basement retaining wall and 38 pcf was used for the exterior step-up and pool retaining walls in the analysis.

Once the static gross stability of different slide planes was calculated, we analyzed the same sections including a seismic lateral force of 0.15g to obtain the factor of safety for seismic conditions. The calculated factors of safety for both static and seismic analysis yielded values that are considered acceptable, i.e., 1.5 or higher for static load analysis, and 1.15 for seismic analysis.

The shallow slope stability calculations were performed on the different slope segments measured on the slope faces of sections along the different slopes by using a geotechnical accepted equation for infinite slopes with saturated upper layer. The calculations were performed by assuming that the upper 3 feet of those soils were saturated and the slope segment analyzed had infinite length. The calculations yielded the factor of safety against shear failure of a sliding block 3 feet high against the soil shear strength frictional and cohesion strength opposing the driving force. The calculated factors of safety also yielded factors of safety that are equal or higher than the minimum acceptable of 1.5.

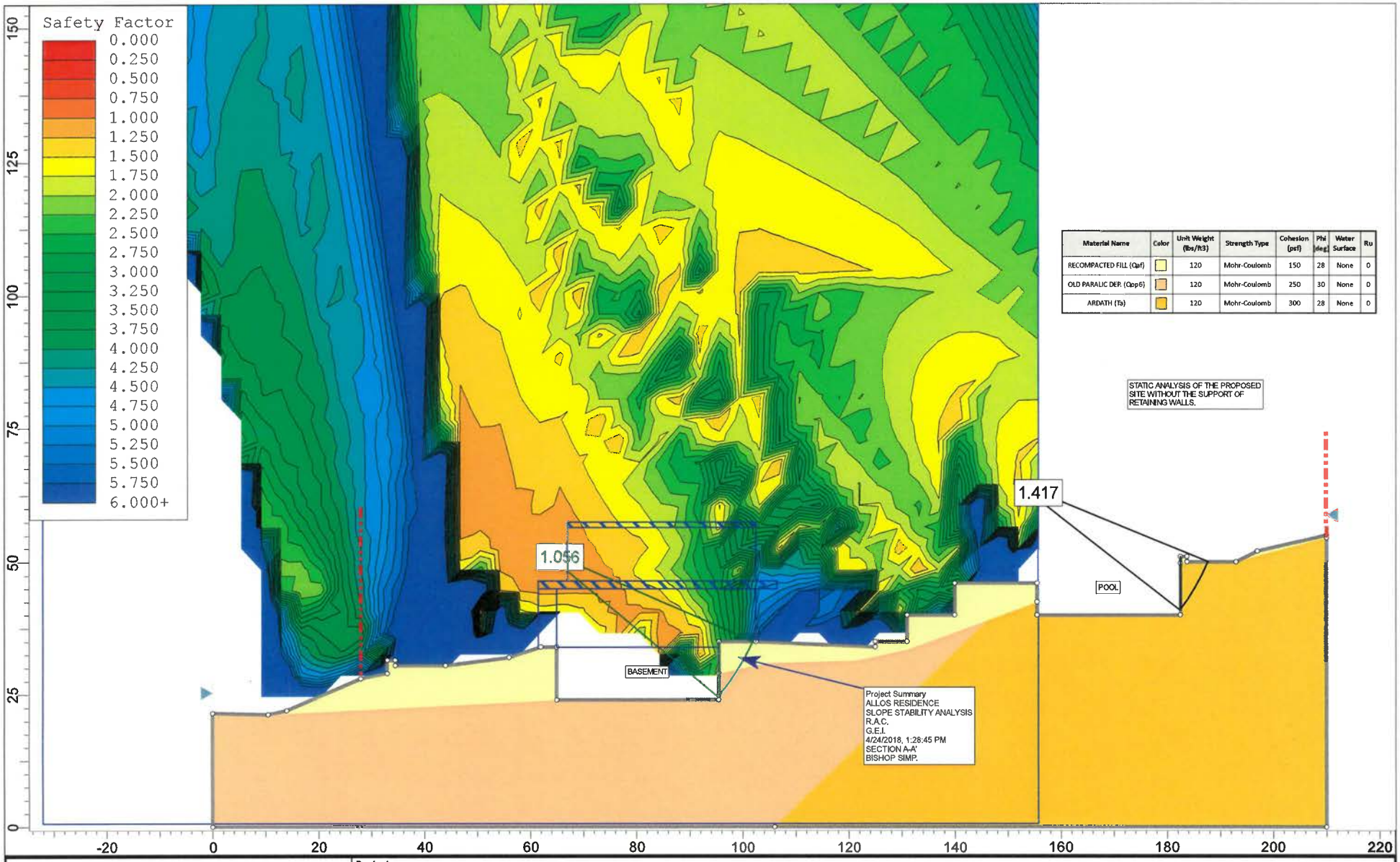


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qop6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
Drawn By	R.A.C.	Scale	1:300	Company	G.E.I.
Date	4/24/2018, 2:45:55 PM			File Name	JOB NO. 18-11851A06.slim

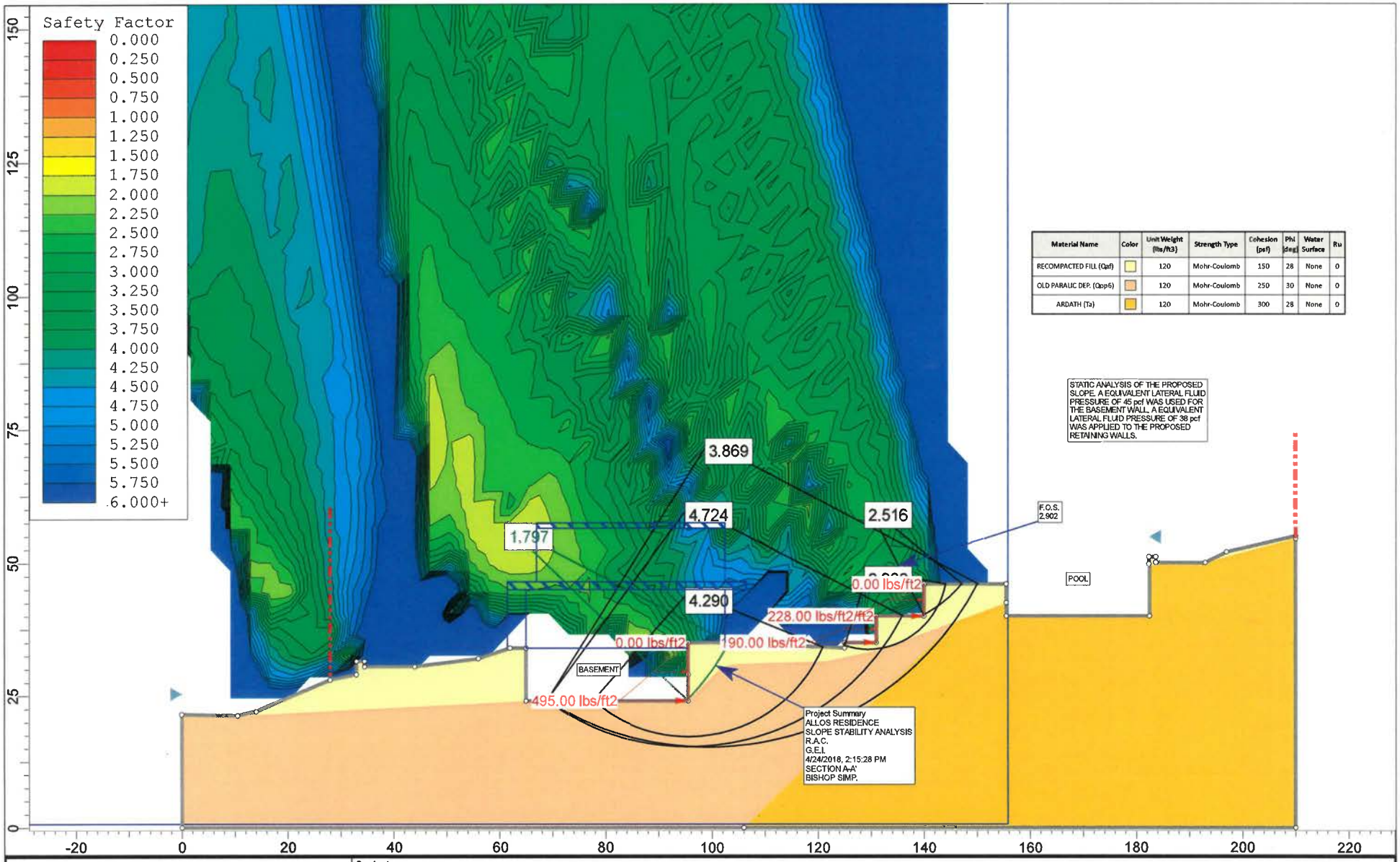


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qpp6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
Drawn By	R.A.C.	Scale	1:300	Company	G.E.I.
Date	4/24/2018, 1:28:45 PM			File Name	JOB NO. 18-11851A01.slim

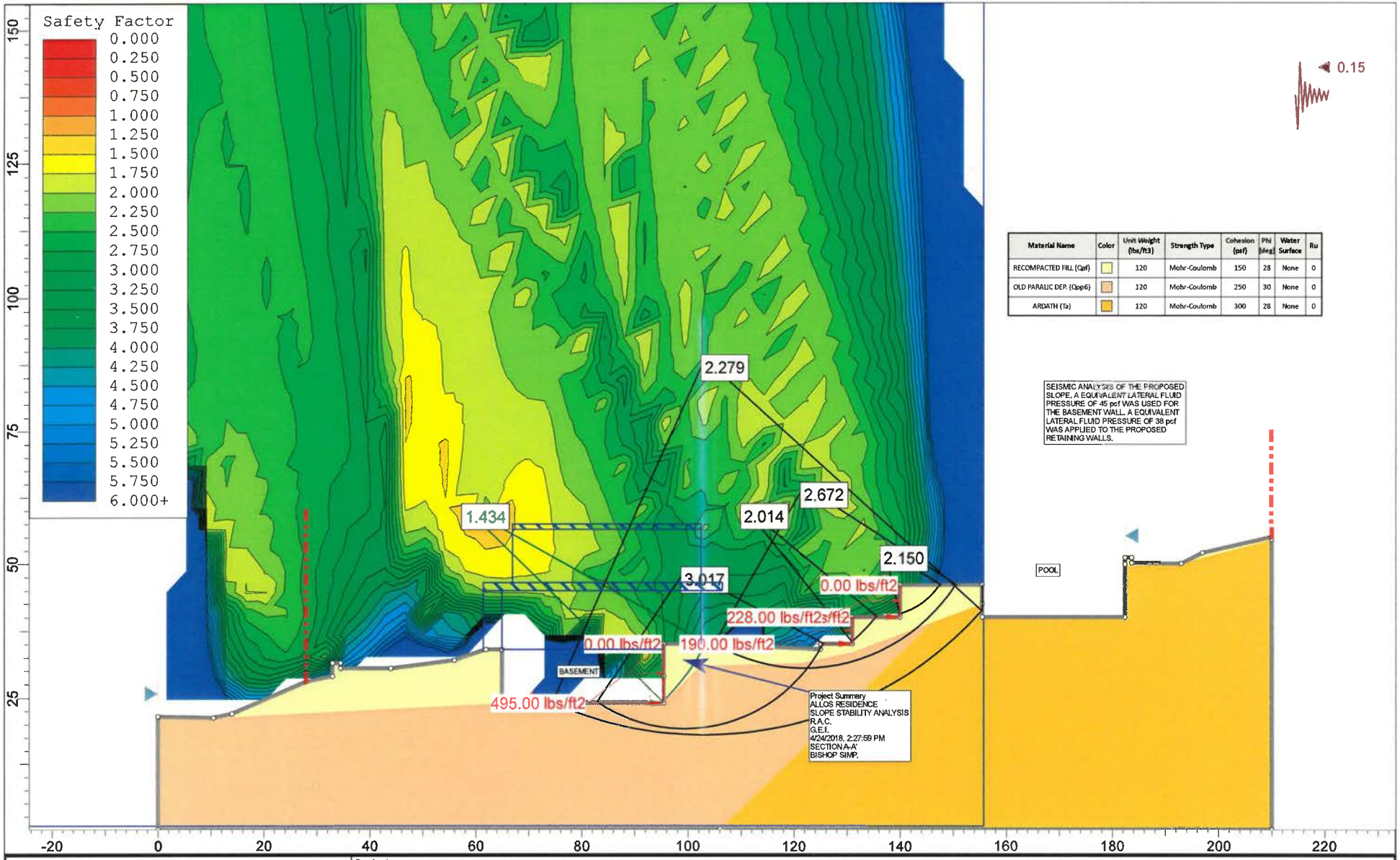


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qop6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE			
Analysis Description	SLOPE STABILITY ANALYSIS			
Drawn By	R.A.C.	Scale	1:300	Company G.E.I.
Date	4/24/2018, 2:15:28 PM			File Name JOB NO. 18-11851A02.slim



Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
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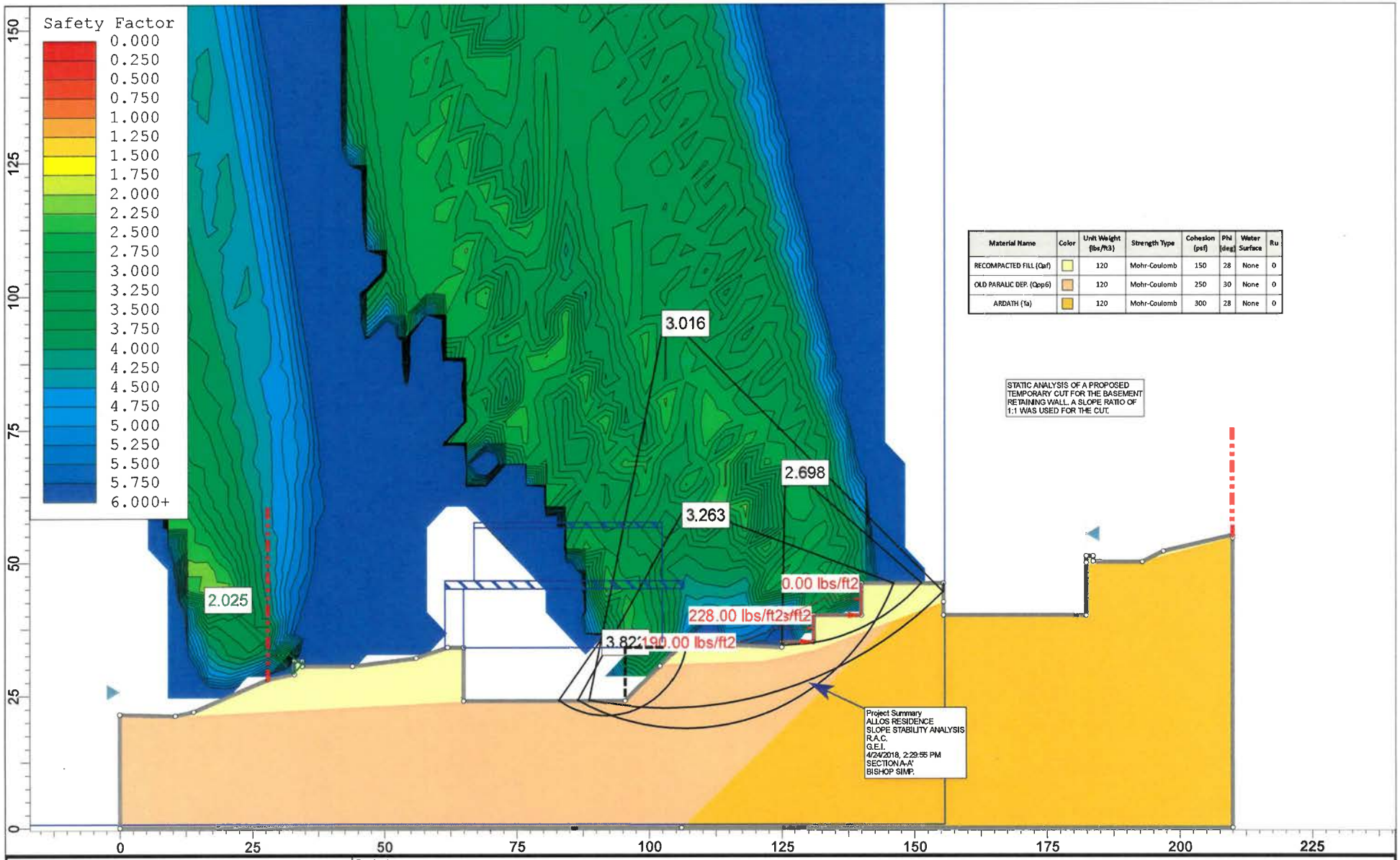

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qpp6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

STATIC ANALYSIS OF A PROPOSED TEMPORARY CUT FOR THE BASEMENT RETAINING WALL. A SLOPE RATIO OF 1:1 WAS USED FOR THE CUT.

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
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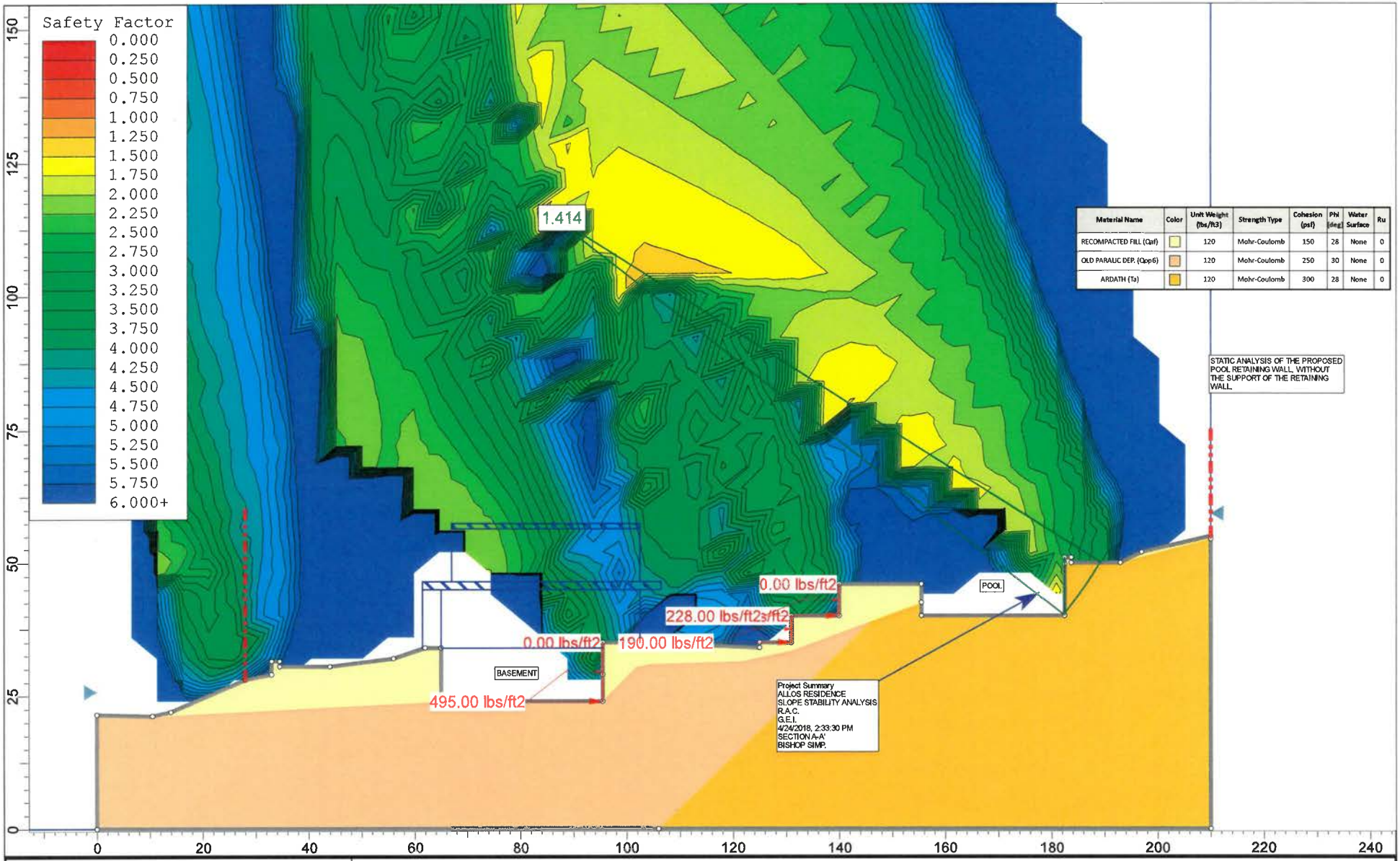

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qop6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE			
Analysis Description	SLOPE STABILITY ANALYSIS			
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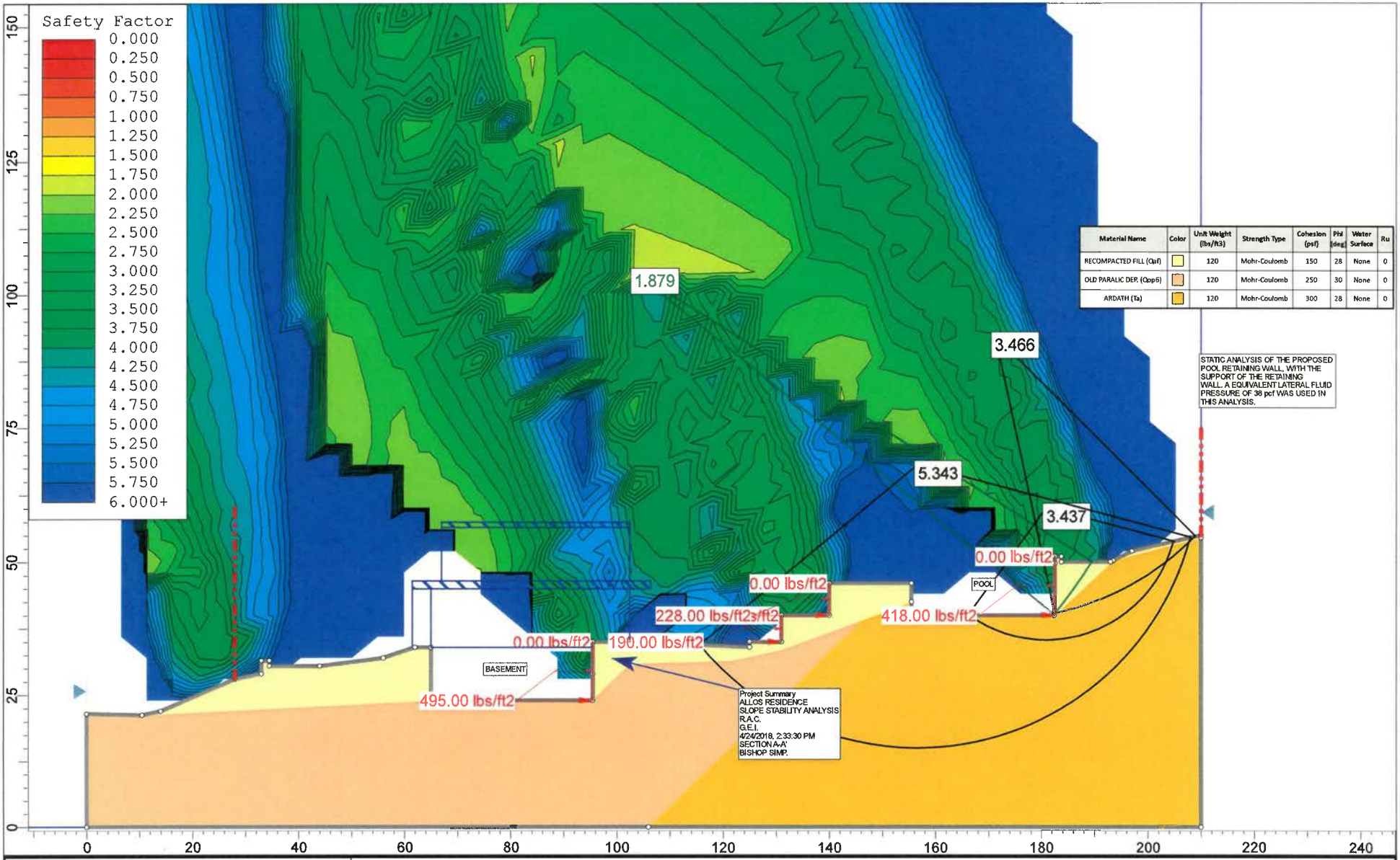
Date	4/24/2018, 2:33:30 PM			File Name JOB NO. 18-11851A04.slim

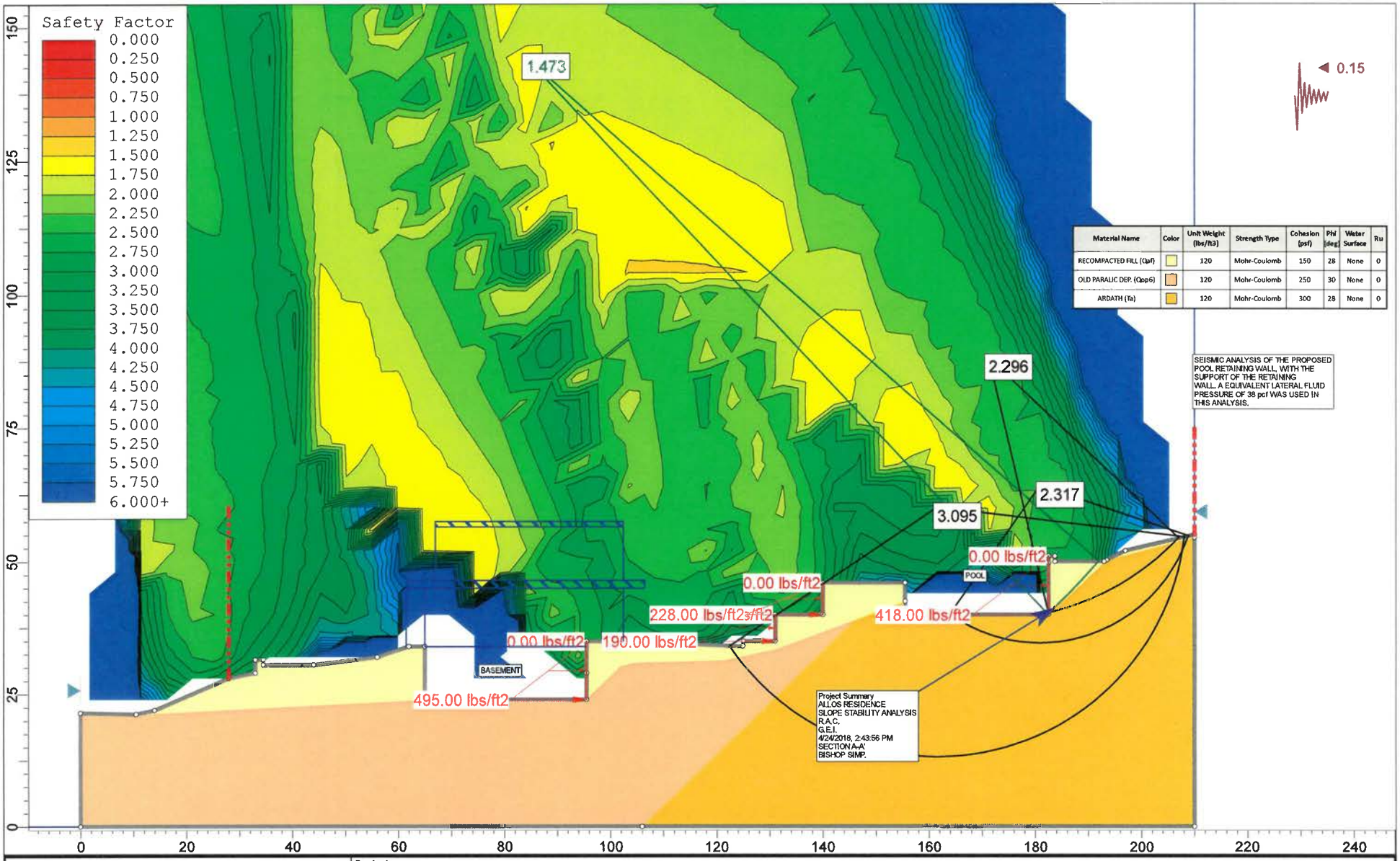


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Ru
RECOMPACTED FILL (Qaf)		120	Mohr-Coulomb	150	28	None	0
OLD PARALIC DEP. (Qop6)		120	Mohr-Coulomb	250	30	None	0
ARDATH (Ta)		120	Mohr-Coulomb	300	28	None	0

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
Drawn By	R.A.C.	Scale	1:300	Company	G.E.I.
Date	4/24/2018, 2:33:30 PM			File Name	JOB NO. 18-11851A05.slim



Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SLOPE STABILITY ANALYSIS				
Drawn By	R.A.C.	Scale	1:300	Company	G.E.I.
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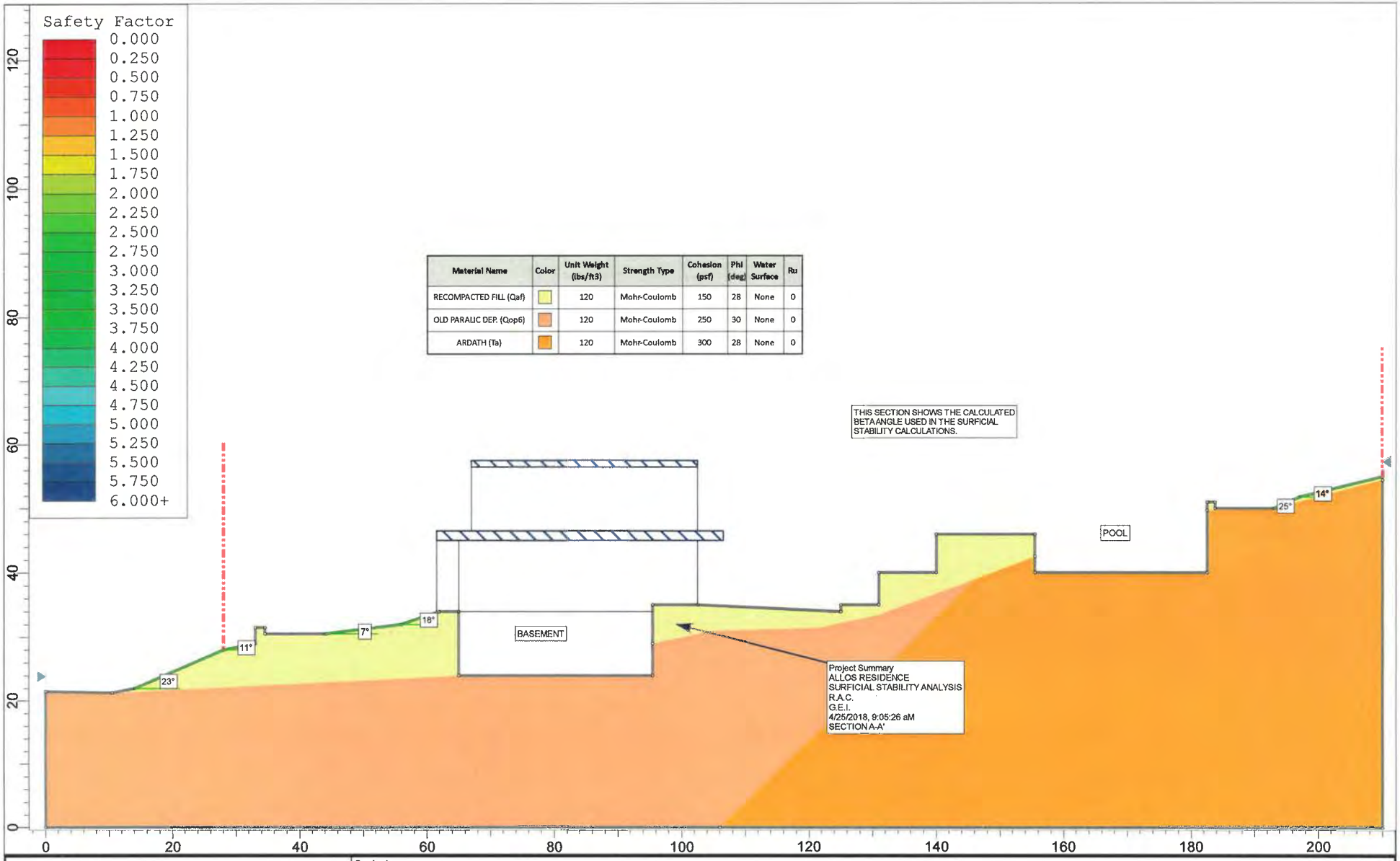

Geotechnical Exploration, Inc.

SLIDEINTERPRET 6.039

Project	ALLOS RESIDENCE				
Analysis Description	SURFICIAL STABILITY ANALYSIS				
Drawn By	R.A.C.	*Scale*	1:250	*Company*	G.E.I.
Date	4/25/2018, 9:05:26 aM			*File Name*	JOB NO. 18-11851A_SURFICIAL.slim

SHALLOW FAILURE

EQUATION 1

$$F.S. = \left(\frac{C}{\gamma_{sat} \times H \times \cos(\beta) \times \sin(\beta)}\right) + \left(\frac{\gamma'}{\gamma_{sat}} * \frac{\tan(\varphi)}{\tan(\beta)}\right)$$

γ_{sat}	γ_{water}	γ'	H
pcf	pcf	pcf	ft
130	62.4	67.6	3

SHALLOW SLOPE STABILITY ANALYSIS IS BASED ON EQUATION (1) FOR THE CALCULATED VALUES.

CROSS-SECTION A-A'

SOIL TYPE	C (psf)	ϕ(°)	β(°)	F.S.
RECOMPACTED FILL (Qaf)	150	28	14	2.747
RECOMPACTED FILL (Qaf)	150	28	25	1.597
RECOMPACTED FILL (Qaf)	150	28	18	2.160
RECOMPACTED FILL (Qaf)	150	28	7	5.431
RECOMPACTED FILL (Qaf)	150	28	11	3.476
RECOMPACTED FILL (Qaf)	150	28	23	1.721

β	Slope inclination with respect to the horizontal plane
ϕ	Friction angle of the soil
C	Cohesion of the soil
γ_{sat}	Saturated unit weight of the soil
γ'	Submerged unit weight of the soil
H	Thickness of the saturated soil layer
F.S.	Factor of Safety

Factors of Safety ABOVE 1.5 are adequate.

The City of SAN DIEGO
Development Services Department
Project Submittal & Management Division

March 12, 2018

via email: shorton@golba.com

Sarah Horton
Golba Architecture Inc.
1940 Garnet Avenue, Suite 100

Subject: 8333 Calle Del Cielo Assessment Letter; Project No. 596085;
Internal Order No. 24007719; La Jolla Community Planning Area.

Dear Ms. Horton:

The Development Services Department has completed the first review of the project referenced above, and described as the demolition of an existing dwelling and construction of two-story-over basement, single dwelling unit located at 8333 Calle Del Cielo.

Enclosed is a Cycle Issues Report (Enclosure 1) which contains review comments from staff representing various disciplines. The purpose of this assessment letter is to summarize the significant project issues and identify a course of action for the processing of your project.

If any additional requirements should arise during the subsequent review of your project, we will identify the issue and the reason for the additional requirement. To resolve any outstanding issues, please provide the information that is requested in the Cycle Issues Report.

The Development Services Department will generally formulate a formal recommendation for your project subsequent to completion of the following milestones: 1) After the City Council recognized Community Planning Group has provided a formal project recommendation; 2) After all City staff project-review comments have been adequately addressed; and 3) During the final stages of the environmental review process.

As your Development Project Manager, I will coordinate all correspondence, emails, phone calls, and meetings directly with the applicants assigned "Point of Contact." Please notify me should your role change while I am managing this project.

I. **REQUIRED APPROVALS/FINDINGS:** Your project as currently proposed requires the processing of a Process Two Coastal Development Permit, for development with the Coastal Overlay Zone (Non-appealable) and a Process Three La Jolla Shores Planned District Permit (processed as a Site Development Permit) for development within the La Jolla Shores Planned District.

All actions will be consolidated under this application and processed concurrently, pursuant to the Consolidation of Processing regulations contained in Municipal Code Section 112.0103. The decision to approve, conditionally approve, or deny the project will be made by the Hearing Officer.

Required Findings: In order to recommend approval of your project, certain findings must be substantiated in the record. Enclosure 2 contains the required findings.

II. SIGNIFICANT PROJECT ISSUES: There are no significant issues. Please review the Cycle Issues Report for clarifications requested on plans.

III. STUDIES/REPORTS REQUIRED: Revised Geotechnical Reports and Hydrology Reports are requested. Please review the Cycle Issues Report for additional information.

IV. PROJECT ACCOUNT STATUS: Our records show approximately $1300.00 billed to date. However, please be advised that the total cost of this review has not been posted to your account, and it may take four to six weeks to post these charges to the account. Statements are mailed to the Financially Responsible Party for this project on a monthly basis.

V. TIMELINE: Upon your review of the attached Cycle Issues Report, you may wish to schedule a meeting with staff and your consultants prior to resubmitting the project. Please telephone me if you wish to schedule a meeting with staff. During the meeting, we will also focus on key milestones that must be met in order to facilitate the review of your proposal and to project a potential timeline for a hearing date. Your next review cycle should take approximately 15 days to complete.

Municipal Code Section 126.0114 requires that a development permit application be closed if the applicant fails to submit or resubmit requested materials, information, fees, or deposits within 90 calendar days. Please note that long delays in resubmitting projects and/or responding to City staff's inquiries negatively impact this Department's ability to effectively manage workload, which can lead to both higher processing costs and longer timelines for your project. Please notify me if you anticipate a long delay in resubmitting.

VI. RESUBMITTALS/NEXT STEPS: Resubmittals are done on a walk-in basis. Please check in on the third floor of the Development Service Center (1222 First Avenue). Please be prepared to provide the following:

A. Plans and Reports: Provide the number of sets of plans and reports as shown on the attached Submittal Requirements Report. The plans should be folded to an approximate 8 ½ x 11 inch size.

B. Response to Cycle Issues Report: Prepare a cover letter that specifically describes how you have addressed each of the issues identified in the Cycle Issues Report and any issues identified in this cover letter, if applicable. Or, you may choose to simply submit the Cycle Issues Report, identifying within the margins how you have addressed the issue. If the issue is addressed on one or more sheets of the plans or the reports, please reference the plan,

sheet number, report or page number as appropriate. If it is not feasible to address a particular issue, please indicate the reason. Include a copy of this Assessment Letter, Cycle Issues Report and your response letter if applicable, with each set of plans.

VII. COMMUNITY PLANNING GROUP: Staff provides the decision maker with the recommendation from your locally recognized community planning group and advisory board. If you have not already done so, please contact Bob Steck, President of the La Jolla Community Planning Association, at (858) 456-7900 to schedule your project for a recommendation from the group. If you have already obtained a recommendation from the community planning group, in your resubmittal, if applicable, please indicate how your project incorporates any input suggested to you by the community planning group.

Information Bulletin 620, "Coordination of Project Management with Community Planning Committees" (available at http://www.sandiego.gov/development-services), provides some valuable information about the advisory role the Community Planning Group. Council Policy 600-24 provides standard operating procedures and responsibilities of recognized Community Planning Committees and is available at http://www.sandiego.gov/city-clerk/officialdocs/index.shtml.

VIII. STAFF REVIEW TEAM: Should you require clarification about specific comments from the staff reviewing team, please contact me, or feel free to contact the reviewer directly. The names and telephone numbers of each reviewer can be found on the enclosed Cycle Issues Report.

In conclusion, please note that information forms and bulletins, project submittal requirements, and the Land Development Code may be accessed on line at http://www.sandiego.gov/development-services. Many land use plans for the various communities throughout the City of San Diego are now available on line at http://www.sandiego.gov/planning/community/profiles/index.shtml.

Open DSD: To view project details online, visit: http://www.sandiego.gov/development-services/opendsd/.

For modifications to the project scope, submittal requirements or questions regarding any of the above, please contact me prior to resubmittal. I may be reached at (619) 446-5433 or FMendoza@sandiego.gov.

Sincerely,

Francisco Mendoza
Development Project Manager

Enclosures:
1. Cycle No. 2 Issues Report

2. Required Findings
3. Submittal Requirements Report

cc: File
Bob Steck, President, La Jolla Community Planning Association
Dan
Reviewing Staff (Assessment letter only)
Marlon Pangilinan, Community Planner, Planning Department

Revised 2-27-18

Cycle Issues

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Project Information

Project Nbr: **596085** **Title:** 8333 Calle Del Cielo-CDP/SDP
Project Mgr: Mendoza, Pancho (619) 446-5433 Fmendoza@sandiego.gov

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	LDR-Planning Review	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Borjeson, Steve**	**Assigned:**	02/01/2018	
	(619) 446-5174	**Started:**	03/02/2018	
	Sborjeson@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	12.00	**Completed:**	03/02/2018	**COMPLETED LATE**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for LDR-Planning Review on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 12 outstanding review issues with LDR-Planning Review (all of which are new).
. Last month LDR-Planning Review performed 95 reviews, 78.9% were on-time, and 58.1% were on projects at less than < 3 complete submittals.

FIRST REVIEW - MAR 2018

PROJECT INFORMATION

Cleared?	Issue Num	Issue Text
☐	1	The proposed project is located at 8333 Calle Del Cielo in the La Jolla Shores Planned District Single-Family (LJSPD-SF) zone or the La Jolla Community Plan area. (New Issue)

DISCRETIONARY PERMIT

Cleared?	Issue Num	Issue Text
☐	2	The project requires a Coastal Development Permit (CDP) in accordance with Process 3 and Site Development Permit (SDP) in accordance with Process 3. (New Issue)

SCOPE OF WORK

Cleared?	Issue Num	Issue Text
☐	3	The proposed project is to demolish exiting single dwelling unit and construct new single dwelling unit (SDU), consisting of a basement and two stories for a total of 8,241 square feet of constructionon a 19,998sf site. The project site is located within the Coastal Overlay Zone (Non-Appealable Area), Coastal Height Limit Overlay Zone, and the Parking Impact OZ (Coastal Impact Area). (New Issue)

DEVELOPMENT REGULATIONS

Cleared?	Issue Num	Issue Text
☐	4	Structure Height Coastal Height Limit Overlay Zone and Section 1510.0314(c); No building or structure shall be erected, constructed, altered, moved in or enlarged to a greater height than 30 feet. Proposed: 26'-6" (120.5' AMSL) - Conforms (New Issue)
☐	5	Setbacks A setback survey of the primary structures within approximately a 300' radius (general vicinity) of the proposed site has been provided. Pursuant to 1510.0304(b)(4), structure setbacks shall be in general conformity with those in the vicinity. Front setback: 28'-6"', 14.73 avg. Side yard setback: 8'-0", 6.61'avg. Side yard setback:12'-0", 6.91' avg. The proposed setbacks are more than the neighborhood average.The proposed projects setbacks are in general conformance with other primary structures in the general vicinity. (New Issue)
☐	6	The proposed projects setbacks are in general conformance with other primary structures in the general vicinity. (New Issue)

For questions regarding the 'LDR-Planning Review' review, please call Steve Borjeson at (619) 446-5174. Project Nbr: 596085 / Cycle: 1

Cleared?	Issue Num	Issue Text
☐	7	FAR/GFA Floor Area Ratio is not regulated by the La Jolla Shores Planned District. The La Jolla Community Plan places more importance on bulk and scale of the development (Page 90, LJCP). References to FAR on the plans and the survey are for informational purposes only. (New Issue)

COMMUNITY PLAN

Cleared?	Issue Num	Issue Text
☐	8	Land Use The proposed project is located in an area identified as single family use and the proposed project is consistent with that land use. (New Issue)
☐	9	Design Criteria The proposed development is compatible with the style, scale and character of the existing development in the zone per Section 1510.0314. (New Issue)
☐	10	Density The proposed project is located in an area identified as very low density (0-5 DU/acre) residential in the La Jolla Community Plan (LJCP) and is consistent with that land use. (New Issue)
☐	11	Residential Character Per Policy 2(a) of the Residential Land Use element of the La Jolla Community Plan, the development recommendations contained in the Plan should be applied to promote good design and visual harmony in the transitions between new and older structures. Please provide a recommendation from the La Jolla Shores Advisory Board and the La Jolla Community Planning Association. (New Issue)
☐	12	Visual Resources The proposed project does not contain a designated public view or is within a public view corridor, and as such, the proposed project will not obstruct any identified public views in accordance with the Natural Resources & Open Space System section of the La Jolla Community Plan (Figure 9, p. 46). (New Issue)

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	LDR-Environmental	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Madamba, Jessica**	**Assigned:**	02/05/2018	
	(619) 446-5445	**Started:**	02/26/2018	
	Jmadamba@sandiego.gov	**Review Due:**	03/06/2018	
Hours of Review:	6.00	**Completed:**	03/06/2018	**COMPLETED ON TIME**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for LDR-Environmental on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 8 outstanding review issues with LDR-Environmental (all of which are new).
. Last month LDR-Environmental performed 95 reviews, 84.2% were on-time, and 45.5% were on projects at less than < 3 complete submittals.

Cycle 1 2/26/18

Archaeological Resources

Cleared?	Issue Num	Issue Text
☐	1	The project site is located in an urban developed area, and includes lands that have been previously disturbed for the construction of the existing residence. In addition, DSD Staff has conducted a CHRIS search and no archaeological sites have been recorded in or adjancent to the project site. However, La Jolla in general is sensitive for archaeological resources and staff has determined that further information is necessary to analyze the project's potential to impact important archaeological resources. (New Issue)
☐	2	The LDR-Geology review discipline has requested a geotechnical study. The information provided in this study will help determine the project's potential to impact archaeological resources as well. Please provide the LDR-Environmental reviewer with a copy of the geotechnical study. (New Issue)

Biological Resources

Cleared?	Issue Num	Issue Text
☒	3	The project is located in an urban developed area that has been previously disturbed and is not indicated as environmentally sensitive lands. Therefore, the project will not impact important biological resources. (New Issue)

Geologic Conditions

Cleared?	Issue Num	Issue Text
☐	4	The LDR-Environmental review discipline will defer to the LDR-Geology review discipline to determine the project's potential to impact important geology resources. The LDR-Geology review discipline has required a project geotechnical report, please provide the LDR-Environmental review with this report. (New Issue)

Hydrology

Cleared?	Issue Num	Issue Text
☐	5	The LDR-Engineering review discipline has identified project issues that will need to be addressed before the LDR-Environmental Review discipline can adequately assess the project's potential environmental impacts that are related to water quality and hydrology. (New Issue)

Land Use

Cleared?	Issue Num	Issue Text
☐	6	The LDR-Planning review discipline has identified project issues that will need to be addressed before the LDR-Environmental Review discipline can adequately assess the project's potential environmental impacts. (New Issue)

Paleontological Resources

Cleared?	Issue Num	Issue Text
☒	7	The project site is underlain by the Baypoint geologic formation. The Baypoint geologic formation is identified in the City of San Diego CEQA Significance Thresholds as highly sensitive for the discovery of paleontological resources. The City's Thresholds state that when a highly sensitive formation may be disturbed by a project with excavation depths greater than 10 feet deep and more than 1,000 cubic yards of excavation, monitoring will be required. However, the project proposes excavation depths of 7 feet and 1,480 cubic yards and will not exceed the significance thresholds. (New Issue)

For questions regarding the 'LDR-Environmental' review, please call Jessica Madamba at (619) 446-5445. Project Nbr: 596085 / Cycle: 1

Cleared?	Issue Num	Issue Text
☒	8	Therefore, the project will not significantly impact important paleontological resources and monitoring will not be required. (New Issue)

Visual Effects

Cleared?	Issue Num	Issue Text
☒	9	The project proposes a structure height that complies with the designated zone's structure height limits. In addition, the project site is not located within a public view corridor. Therefore, the project will not significantly impact visual resources. (New Issue)

Greenhouse Gas Emissions

Cleared?	Issue Num	Issue Text
☒	10	As demonstrated by the project's Greenhouse Gas Emissions Climate Action Plan (CAP) Consistency Checklist, the proposed project is consistent with the underlying community plan and zoning designations which designate the project site as residential. In addition, the project will include roofing materials that comply with Step 2: CAP Strategies Consistency requirements. The project also proposes residential plumbing fixtures that comply with Strategy 1: Energy & Water Efficient Buildings requirements. (New Issue)
☒	11	The project is consistent with the City's CAP Checklist and therefore will not significantly impact greenhouse gas emissions. (New Issue)

Tribal Cultural Resources

Cleared?	Issue Num	Issue Text
☐	12	Since the project proposes ground disturbance it is subject to Tribal Consultation under Assembly Bill 52. However, pending additional information from the geotechnical report, DSD EAS staff will determine if notification to the local Kumeyaay community for possible consultation on this project is required. Please note that a request for consultation must be submitted by the tribe within 30 days of initial notification. If no request is made, no consultation will be required. (New Issue)
☐	13	If a request for consultation is made, then DSD EAS staff will meet with representatives of the local Kumeyaay community to determine what measures, if any, are necessary to protect Tribal Cultural Resources. Any measures that are required will be incorporated into the MMRP in the CEQA document for the project. (New Issue)

CEQA Determination

Cleared?	Issue Num	Issue Text
☐	14	Additional information is required before an environmental review can be completed. The issues identified above and in any other discipline review comments must be addressed before an environmental determination can be made on this project. A determination of Categorical/Statutory Exemption, Negative Declaration (ND), Mitigated Negative Declaration (MND) or Environmental Impact Report (EIR) will be made based on the information provided in any subsequent submittals. (New Issue)

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	LDR-Engineering Review	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Vera, Karen**	**Assigned:**	02/01/2018	
	(619) 541-4348	**Started:**	02/20/2018	
	Kvera@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	4.00	**Completed:**	02/22/2018	**COMPLETED ON TIME**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for LDR-Engineering Review on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 15 outstanding review issues with LDR-Engineering Review (all of which are new).
. Last month LDR-Engineering Review performed 84 reviews, 95.2% were on-time, and 44.9% were on projects at less than < 3 complete submittals.

1st Review - 02/22/2018

Cleared?	Issue Num	Issue Text
☐	1	The Engineering Review Section has reviewed the subject development and have the following comments that need to be addressed prior to a Public Hearing / Public Notice of Decision. Upon resubmittal, we will complete our review of the Site Development Permit Plans.
☐	2	(New Issue) The San Diego Water Board adopted Order No. R9-2013-0001, NPDES No. CAS0109266, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region. This project will be required to adhere to the City of San Diego Storm Water Standards in effect at the time of approval of ministerial permit. The current Storm Water Development Regulations became effective on February 16, 2016 and this project will be subject to those regulations.
☐	3	(New Issue) Please note: This project will be conditioned for a Grading Permit.
☐	4	(New Issue) Retaining walls: Please show the TW (Top of Wall) and TF (Top of Footing), along the proposed wall on site plan and provide a cross section identifying the Max cut/ fill and show/call out existing grade along each proposed retaining wall. Show the property lines and dimensions.
☐	5	(New Issue) Revise the Section Plans. Dimension the max cut/fill along existing and proposed grades
☐	6	(New Issue) Drainage Study: Revise post-construction Exhibit. Area "PC-D" is incorrect, please revise for next submittal.
☐	7	(New Issue) Drainage Study: Revise post-construction exhibit. Show/Provide Q & V (Peak Discharge and Velocity) at all discharge points.
☐	8	(New Issue) Revise Site Plan. Add a note that states: No obstruction including solid walls in the visibility area shall exceed 3 feet in height. Plant material, other than trees, within the public right-of-way that is located within visibility areas shall not exceed 24 inches in height, measured from the top of the adjacent curb.
☐	9	(New Issue) On the Site Plan and Grading Plan, call out to replace the existing curb with current City Standard curb and gutter, adjacent to the site on Calle Del Cielo.
☐	10	(New Issue) Revise the Site/Grading Plans. Show and call out the driveway shall be constructed to current City Standards, adjacent to the site on Calle Del Cielo.
		(New Issue)

For questions regarding the 'LDR-Engineering Review' review, please call Karen Vera at (619) 541-4348. Project Nbr: 596085 / Cycle: 1

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Cleared?	Issue Num	Issue Text
☐	11	Revise the Site/Grading Plan. Remove proposed Rip Rap from the public ROW. Revise EMRA note.
		(New Issue)
☐	12	Regarding previous comment. Propose to install a sidewalk underdrain or curb outlet depending on discharge flow. Please note, a max Q or 0.5 CFS is allowed for a sidewalk underdrain per City of San Diego Drainage Design Manual. Please update design accordingly.
		(New Issue)
☐	13	Development Permit Conditions will be determined on the next submittal when all requested information is provided.
		(New Issue)
☐	14	Please provide a written response to all comments whether you agree or not and in case of disagreement, express your reasoning.
		(New Issue)
☐	15	Additional comments may be recommended pending further review of any redesign of this project. These comments are not exclusive. Should you have any questions or comments, please call Karen Vera at 619 446-5331.
		(New Issue)

Cycle Issues

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	Community Planning Group	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Mendoza, Pancho**	**Assigned:**	02/15/2018	
	(619) 446-5433	**Started:**	03/08/2018	
	Fmendoza@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	0.10	**Completed:**	03/08/2018	**COMPLETED LATE**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for Community Planning Group on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 2 outstanding review issues with Community Planning Group (all of which are new).
. Last month Community Planning Group performed 54 reviews, 51.9% were on-time, and 51.9% were on projects at less than < 3 complete submittals.

Contact Group

Cleared?	Issue Num	Issue Text
☐	1	Please contact the Chair for the La Jolla Community Planning Association at 858.456.7900 or info@lajollacpa.org to schedule your project presentation. This Community Planning Group is officially recognized by the City as a representative of the community, and an advisor to the City in actions that would affect the community. The Development Services Department has provided the group a copy of the project plans and documents. (New Issue)
☐	2	Projects within La Jolla Shores require a recommendation from the La Jolla Shores Planned District Advisory Board, in addition to the La Jolla Community Planning Association (LDC Section 1510.0105(b)). Contact the City Planner Marlon Pangilinan at 619-235-5293 or MPangilinan@sandiego.gov when ready to schedule your project before the LJSPBAB, which meets the third Tuesday of the month. Presentation materials should include elevations, photographs of surrounding properties, samples of colors, finishes, and special treatments. (New Issue)

For questions regarding the 'Community Planning Group' review, please call Pancho Mendoza at (619) 446-5433. Project Nbr: 596085 / Cycle: 1

Cycle Issues

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	LDR-Landscaping	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Navagato, Andrea**	**Assigned:**	01/31/2018	
	(619) 446-5197	**Started:**	02/27/2018	
	Anavagato@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	5.00	**Completed:**	02/27/2018	**COMPLETED ON TIME**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for LDR-Landscaping on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 10 outstanding review issues with LDR-Landscaping (all of which are new).
. Last month LDR-Landscaping performed 47 reviews, 87.2% were on-time, and 46.3% were on projects at less than < 3 complete submittals.

1st Review - 2/27/2018

Cleared?	Issue Num	Issue Text
☐	1	Scope: Coastal Development Permit (CDP) to construct a 2-story + basement, 8,241 sq.ft. single family residence located in the SF Zone of La Jolla Shores Planned Development. The development is subject to the following landscape regulations §142.0409, §142.0413, §1510.0304(h), La Jolla Community Plan. [Info Only - No Response Required] (New Issue)
☐	2	Provide the following note on the Landscape Plan: "All landscape and irrigation shall conform to the standards of the City-Wide Landscape Regulations and the City of San Diego Land Development Manual Landscape Standards and all other landscape related City and Regional Standards." (New Issue)
☐	3	Mulch Depth: Indicate a minimum mulch depth of 3" at Note #1 on sheet 11. (New Issue)
☐	4	Street Trees [SDMC §142.0409]: This project is subject to street tree requirements. Propose 2 street trees from La Jolla Community Plan Tree District 3, located away from all underground utilities per SDMC §142.0409. Show the location, species, and size (min. 24" box) on the plans. Indicate the location of the existing Schinus terebinthifolia to remain on plans. (New Issue)
☐	5	Right-of-Way Planting [§129.0710(a)(2)(c)]: The Landscape Development Plan indicates several shrubs proposed in the right-of-way (ROW) that are greater than 36". Revise planting in ROW to indicate only shrubs with a mature height of less than 36". (New Issue)

Conditions

Cleared?	Issue Num	Issue Text
☐	6	Prior to issuance of any construction permits for structures, the Owner/Permittee shall submit complete landscape and irrigation construction documents to the Development Services Department for approval. The construction documents shall be consistent with approved Exhibit 'A,' the La Jolla Shores Planned District Ordinance, the La Jolla Community Plan, and the Land Development Manual - Landscape Standards. (New Issue)
☐	7	Prior to issuance of any grading permit, the Owner/Permittee shall submit complete construction documents for the revegetation and hydro-seeding of all disturbed land in accordance with the City of San Diego Landscape Standards, Stormwater Design Manual, and to the satisfaction of the Development Services Department. All plans shall be in substantial conformance to this permit (including Environmental conditions) and Exhibit 'A,' on file in the Development Services Department. (New Issue)

For questions regarding the 'LDR-Landscaping' review, please call Andrea Navagato at (619) 446-5197. Project Nbr: 596085 / Cycle: 1

Cleared?	Issue Num	Issue Text
☐	8	Prior to issuance of any public improvement permit, the Owner/Permittee shall submit complete landscape construction documents for right-of-way improvements to the Development Services Department for approval. Improvement plans shall show, label, and dimension a 40-sq.ft. area around each tree which is unencumbered by utilities. Driveways, utilities, drains, water and sewer laterals shall be designed so as not to prohibit the placement of street trees. (New Issue)
☐	9	The Owner/Permittee shall be responsible for the maintenance of all landscape improvements shown on the approved plans, including in the right-of-way, unless long-term maintenance of said landscaping will be the responsibility of a Landscape Maintenance District or other approved entity. All required landscape shall be maintained consistent with the Landscape Standards in a disease, weed, and litter free condition at all times. Severe pruning or "topping" of trees is not permitted. (New Issue)
☐	10	If any required landscape (including existing or new plantings, hardscape, landscape features, etc.) indicated on the approved construction document plans is damaged or removed during demolition or construction, it shall be repaired and/or replaced in kind and equivalent size per the approved documents to the satisfaction of the Development Services Department within 30 days of damage. (New Issue)

Cycle Issues

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	Fire-Plan Review	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Sylvester, Brenda**	**Assigned:**	02/08/2018	
	(619) 446-5449	**Started:**	03/06/2018	
	bsylvester@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	0.40	**Completed:**	03/06/2018	**COMPLETED LATE**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. We request a 2nd complete submittal for Fire-Plan Review on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Last month Fire-Plan Review performed 44 reviews, 27.3% were on-time, and 89.2% were on projects at less than < 3 complete submittals.

Fire Department Issues

Cleared?	Issue Num	Issue Text
☒	1	INFORMATION: If in the very high fire severity zone and 35 feet of Zone 1and 65 feet of zone 2 can not be accomplished (per landscape review) additional mitigation is required with Fire Department. (New Issue)

For questions regarding the 'Fire-Plan Review' review, please call Brenda Sylvester at (619) 446-5449. Project Nbr: 596085 / Cycle: 1

Cycle Issues

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-003A

Review Information

Cycle Type:	1 Submitted (Multi-Discipline)	**Submitted:**	01/29/2018	Deemed Complete on 01/31/2018
Reviewing Discipline:	LDR-Geology	**Cycle Distributed:**	01/31/2018	
Reviewer:	**Mills, Kreg**	**Assigned:**	02/01/2018	
	(619) 446-5295	**Started:**	02/28/2018	
	Kmills@sandiego.gov	**Review Due:**	03/01/2018	
Hours of Review:	2.00	**Completed:**	02/28/2018	**COMPLETED ON TIME**
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**	03/12/2018	

. The review due date was changed to 03/06/2018 from 03/06/2018 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. We request a 2nd complete submittal for LDR-Geology on this project as: Submitted (Multi-Discipline).
. The reviewer has requested more documents be submitted.
. Your project still has 6 outstanding review issues with LDR-Geology (all of which are new).
. Last month LDR-Geology performed 78 reviews, 85.9% were on-time, and 76.1% were on projects at less than < 3 complete submittals.

596085-1 (2/28/2018)

REFERENCES REVIEWED:

Cleared?	Issue Num	Issue Text
☒	1	Development Plans for Allos Residence, 8333 Calle Del Cielo, California 92037, prepared by Golba Architecture Inc, dated January 29, 2018 (New Issue)

REVIEW COMMENTS:

Cleared?	Issue Num	Issue Text
☐	2	The project is partially located in Geologic Hazard Category 26 as shown on the City's Seismic Safety Study Geologic Hazard Maps and is characterized by potential slope instability and slide-prone formations with unfavorable geologic structure. Submit a geotechnical investigation report that addresses the site and proposed development plans as required by San Diego Municipal Code §145.1803. For information regarding geotechnical reports, see the City's Guidelines for Geotechnical Reports (www.sandiego.gov/sites/default/files/legacy/development-services/pdf/industry/geoguidelines.pdf). (New Issue)
☐	3	The geotechnical investigation report must contain a geologic/geotechnical map that shows the distribution of fill and geologic units, location of exploratory excavations, proposed development, and location of cross-sections. The limits of anticipated remedial grading should be circumscribed on the geologic/geotechnical map to delineate the proposed footprint of the project. (New Issue)
☐	4	The geotechnical investigation report must contain representative geologic/geotechnical cross sections that show the existing and proposed grades, distribution of fill and geologic units, and the anticipated area of the proposed basement excavation and temporary slopes. The cross-sections should extend beyond the property lines to show adjacent structures and right of way. (New Issue)
☐	5	The project's geotechnical consultant should provide a conclusion regarding if the proposed development will destabilize or result in settlement of adjacent property or the right of way. (New Issue)
☐	6	The project's geotechnical consultant must provide a professional opinion that the site will have a factor-of-safety of 1.5 or greater for both gross and surficial stability following project completion. (New Issue)
☐	7	The project's geotechnical consultant should provide a statement as to whether or not the site is suitable for the intended use. (New Issue)

For questions regarding the 'LDR-Geology' review, please call Kreg Mills at (619) 446-5295. Project Nbr: 596085 / Cycle: 1

Submittal Requirements

THE CITY OF SAN DIEGO
Development Services Department
1222 First Avenue, San Diego, CA 92101-4154

L64A-001

Project Information

Project Nbr: **596085** **Title:** 8333 Calle Del Cielo-CDP/SDP
Project Mgr: Mendoza, Pancho (619)446-5433 Fmendoza@sandiego.gov

Review Cycle Information

Review Cycle: 2 Submitted (Multi-Discipline) **Opened:** 03/12/2018 10:59 am **Submitted:**
Due: **Closed:**

Required Documents:

Package Type	Pkg Qty	Document Type	Qty Needed
Development Plans	6	Applicant Response to Issues	6
Geotechnical Reports	3	Geotechnical Investigation Report	3
Drainage/Hydrology Study	3	Drainage Study	3
Development Plans	6	Site Development Plans	6

KRISTIAN & NATASHA ALLOS RESIDENCE

8333 Calle del Cielo La Jolla, CA 92037

	NEIGHBOR OUTREACH STATUS
1	Met with Neighbor – **They support project**
2	Met with Neighbor – *unhappy with all construction especially 7 unit subdivisio*n
3	Met with Neighbor – **They support project**
4	Met with Neighbor – **They support project**
5	Met with Neighbor – **They support project**
6	Met with Neighbor – **They support project**
7	Numerous Attempts – *No Answer or no one living full time at Residence*
8	Numerous Attempts – *No Answer or no one living full time at Residence*
9	Numerous Attempts – *No Answer or no one living full time at Residence*