

GEOLOGIC RECONNAISSANCE

**CLAIREMONT VILLAGE
FIELD STREET AND COWLEY WAY
SAN DIEGO, CALIFORNIA**



GEOCON
INCORPORATED

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

**CLAIREMONT VILLAGE QUAD, LLC
SAN DIEGO, CALIFORNIA**

**OCTOBER 28, 2021
PROJECT NO. G1992-52-03**



Project No. G1992-52-03
October 28, 2021

Clairemont Village Quad, LLC
12625 High Bluff Drive, Suite 310
San Diego, California 92130

Attention: Mr. Chris Smith

Subject: GEOLOGIC RECONNAISSANCE
CLAIREMONT VILLAGE
FIELD STREET AND COWLEY WAY
SAN DIEGO, CALIFORNIA

Dear Mr. Smith:

In accordance with your request and authorization of our Proposal No. LG-21484 dated September 28, 2021, we have prepared this geologic reconnaissance for the subject property located at the northwest corner of Field Street and Cowley Way in San Diego, California.

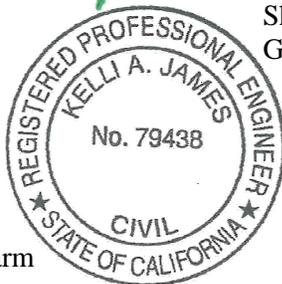
The accompanying report describes the general site soil and geologic conditions based on a desktop study and presents the results of findings of our study. We should be contacted to prepare a geotechnical investigation to provide engineering recommendations for proposed development of the property during the construction permit submittals.

Should you have any questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

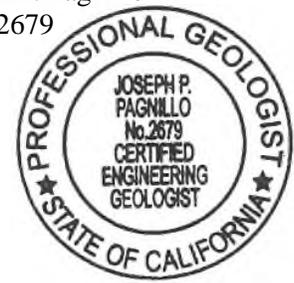
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APPENDIX A

PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING (GEOCON, November 13, 1990)

APPENDIX B

PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING (GEOCON, December, 12 1990)

APPENDIX C

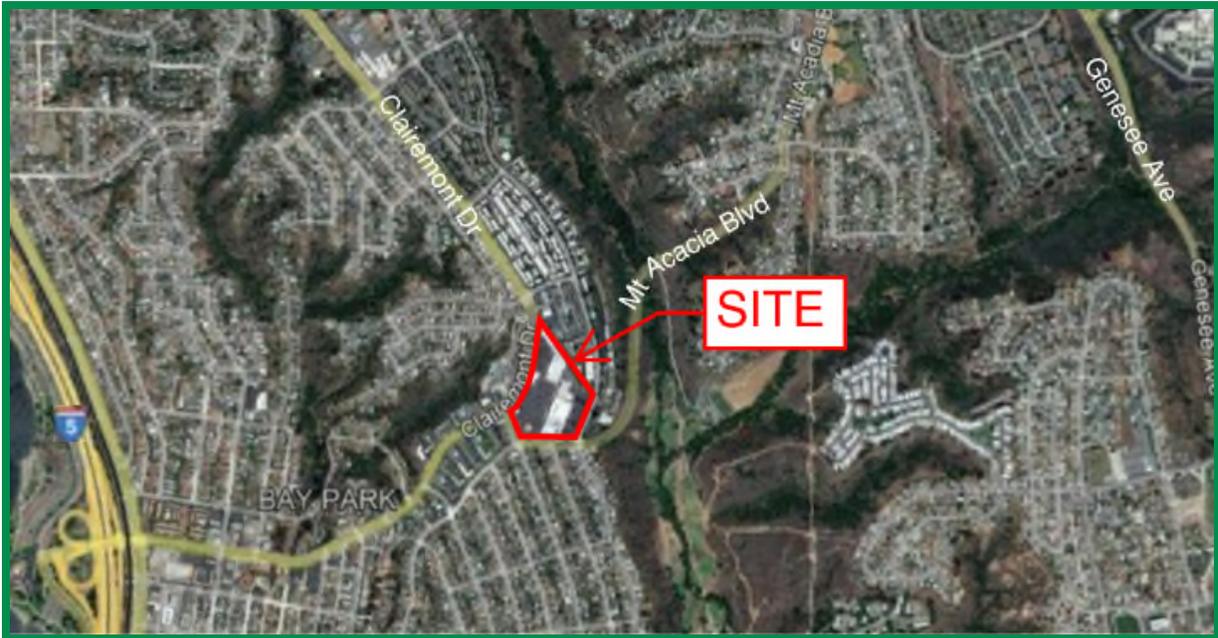
PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING (GEOCON, July 27, 2016)

LIST OF REFERENCES

GEOLOGIC RECONNAISSANCE

1. PURPOSE AND SCOPE

This report presents the results of a geologic reconnaissance related to the evaluation of the property located at the northwest corner of Field Street and Cowley Way in San Diego, California (see Vicinity Map).



Vicinity Map

The scope of our study consisted of a review of the following plans and geotechnical reports:

- *Overall Site Plan, Clairemont Village*, prepared by AO Architects, dated August 15, 2021 (Job No. 2020-020).
- *Grading and Drainage Plan for: Clairemont Village, Neighborhood Development Permit*, prepared by NOVA Engineering, dated September 15, 2021.
- *Geotechnical Investigation and Geologic Reconnaissance for Clairemont Village Shopping Center, Building K, San Diego, California*, prepared by Geocon Incorporated, dated December 12, 1990 (Project No. 04623-05-02).
- *Geotechnical Investigation and Geologic Reconnaissance for Clairemont Village Shopping Center, Keil's Grocery Building, San Diego, California*, prepared by Geocon Incorporated, dated November 13, 1990 (Project No. 04623-05-01).
- *Geotechnical Recommendations Letter, Clairemont Village Improvements, Clairemont Village Improvements, 3015 Clairemont Drive, San Diego, California*, prepared by Geocon Incorporated, dated June 24, 2016 (Project No. G1992-52-01).

The conclusions presented herein are based on a review of published geologic information, data from properties on or adjacent to this study, and our experience with similar soil and geologic conditions in the surrounding area.

2. SITE DESCRIPTION

The property is located east of Clairemont Drive, northeast of Burgener Boulevard, north of Field Street and east of Cowley Way in the Clairemont area of San Diego, California. The site is currently a part of a commercial complex with accompanied asphalt concrete and Portland cement concrete parking and drive lanes. The commercial property includes a Sprouts grocery store, Carl's Jr. restaurant, Starbucks, Rite Aid, dental office, restaurant building and other retail stores. The buildings are single-story and consist of wood and stucco. We expect the structures are supported on conventional shallow foundations. Landscaping exists within planter wells in the parking lot areas and the parkways adjacent to the roadways. The retail complex is relatively flat with an elevation of about 295 feet above Mean Sea Level (MSL) in the southeast end of the property to 323 feet MSL at the northwest corner of the property. The Existing Site Map shows the site conditions.



Existing Site Map

We understand current development plans include constructing a new apartment building in the southeast corner of the property consisting of a 5-story apartment building over 2 levels of parking

including one partially subterranean level. Using the current concept site plan, with an assumed lowest level finish floor elevation ranging from 294 to 298 feet MSL, it appears cuts of approximately up to 11 feet would be required to achieve finish floor elevation for the lower parking level.

We are currently performing a fault investigation for the site. We should prepare a future geotechnical investigation for future structural improvements to the property that would include additional field studies, laboratory testing and design recommendations.

3. PREVIOUS STUDIES

Based on review of historic aerial photographs and our referenced reports, the original development of the property occurred sometime between 1953 and 1964 that consisted of construction of several commercial buildings and paved parking. Construction of the current Carl's Jr. building and an addition to the south end of the grocery store occurred around 1980 or 1981. The existing dental office and restaurant building was constructed around 1986 or 1987. Another addition to the south end of the grocery building occurred around 1985 or 1986. We did not observe the grading operations for the existing development.

We previously performed a geotechnical investigation for improvements to the entrance (west side) of the existing grocery store in our report dated November 13, 1990. The previous borings performed for that investigation indicate the depth of existing compacted fill/depth to formation ranges from 0 to 3 feet as shown in Appendix A.

We previously performed a geotechnical investigation dated December 12, 1990 for a proposed commercial building in the southeast corner of the property and a proposed warehouse and truck well addition to the south side of the grocery building. It appears that those proposed improvements were not constructed. The previous borings performed for that investigation indicate that formational materials were encountered immediately below the existing asphalt concrete pavement as shown in Appendix B.

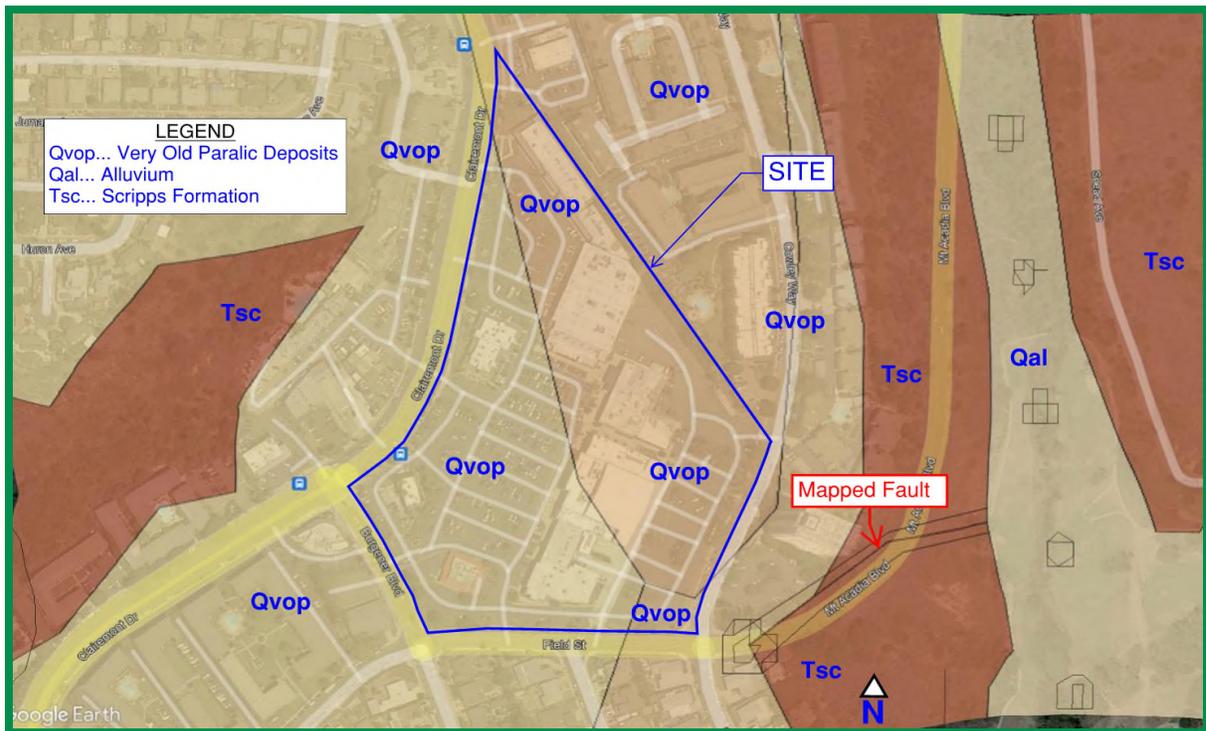
We performed geotechnical borings in 2016 for a proposed remodel and pavement improvements to the existing grocery store as shown in Appendix C. The borings were located within the drive lanes at the east and west sides of the existing grocery store building. We also performed borings for infiltration testing along the south side of the property near Field Street and southwest of the Carl's Jr. building near Field Street and Burgener Boulevard. The borings performed for that investigation indicate that in the vicinity of the grocery building the depth of existing compacted fill/depth to formation ranged from 0 to 2 feet. The two borings located in the landscaped areas southwest of the existing Carl's Jr. building encountered 4½ to 5 feet of fill below existing grade above the formation.

4. GEOLOGIC SETTING

Regionally, the site is located in the Peninsular Ranges geomorphic province. The province is bounded by the Transverse Ranges to the north, the San Jacinto Fault Zone on the east, the Pacific Ocean coastline on the west, and the Baja California on the south. The province is characterized by elongated northwest-trending mountain ridges separated by straight-sided sediment-filled valleys. The northwest trend is further reflected in the direction of the dominant geologic structural features of the province that are northwest to west-northwest trending folds and faults, such as the nearby Rose Canyon Fault Zone.

Locally, the site is within the coastal plain of San Diego County. The coastal plain is underlain by a thick sequence of relatively undisturbed and non-conformable sedimentary bedrock units that thicken to the west and range in age from Upper Cretaceous age through the Pleistocene age which have been deposited on Cretaceous to Jurassic age igneous and volcanic bedrock. Geomorphically, the coastal plain is characterized by a series of twenty-one, stair-stepped marine terraces (younger to the west) that have been dissected by west flowing rivers. The coastal plain is a relatively stable block that is dissected by relatively few faults consisting of the potentially active La Nacion Fault Zone and the active Rose Canyon Fault Zone.

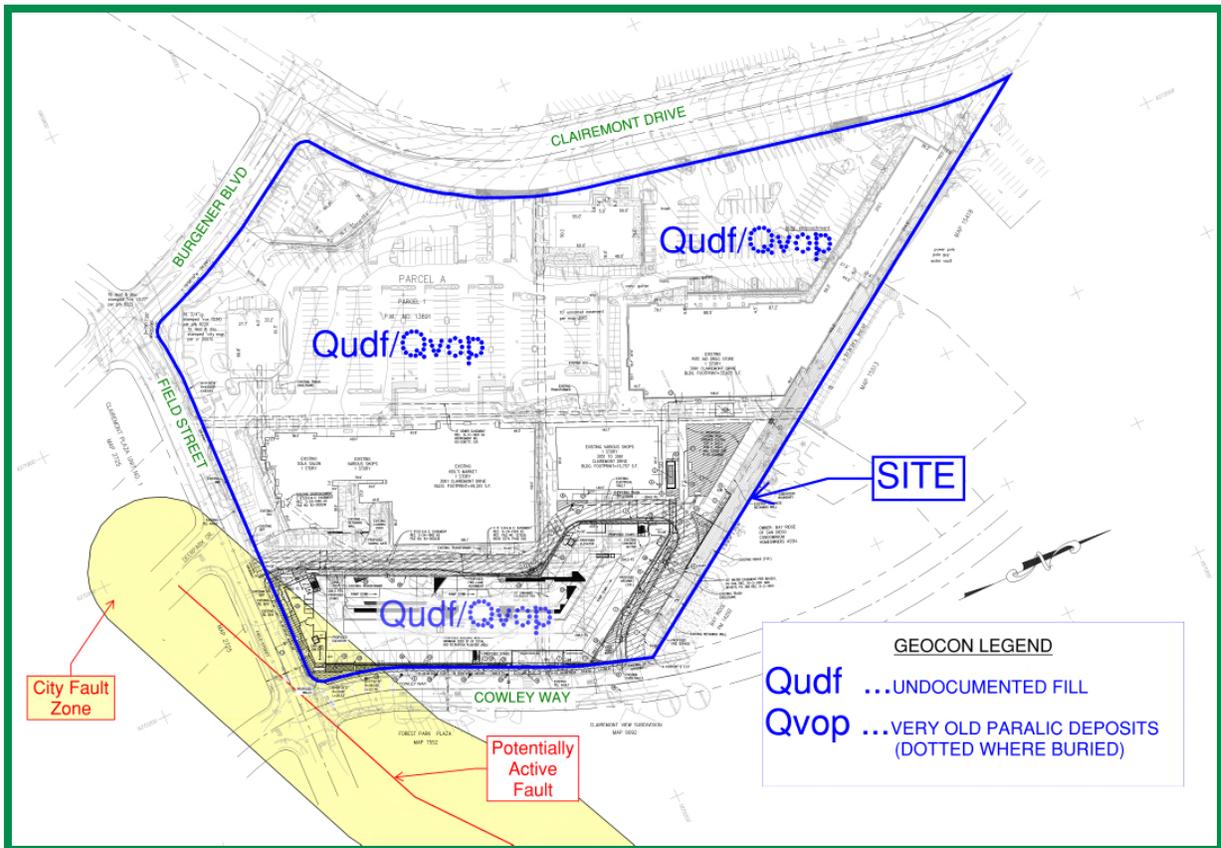
The site is located on the central portion of the coastal plain. Sedimentary units make up the geologic sequence encountered on the site and consist of Eocene-age Stadium Conglomerate (Kennedy and Tan, 2008). The mapped regional geology at the site is shown on the Regional Geologic Map.



Regional Geologic Map

5. SOIL AND GEOLOGIC CONDITIONS

Based on our review of previous reports and published maps, we expect the site is underlain by shallow undocumented fill (Qudf) placed during the previous grading for the development, overlying formational materials of the Very Old Paralic Deposits (Qvop). The fill is considered undocumented, because we did not observe the placement and compaction of the fill during the grading operations during the original site development. The surficial soil and geologic units are described herein in order of increasing age. The approximate lateral extent of the geologic conditions is presented on the Geologic Map.



Geologic Map

5.1 Undocumented Fill (Qudf)

Based on previous geotechnical reports, we expect a relatively thin layer of undocumented fill underlies the majority of the site generally less than 3 feet thick. We encountered fill to depths of 4½ to 5 feet within the landscape areas southwest of the Carl's Jr. building. Deeper fill may exist in the areas of existing underground utilities. The fill, as encountered in our previous borings, consists of loose to very dense, dry to damp, silty to clayey, fine to coarse sand. We anticipate the fills across the site will generally have a “very low” to “low” expansion potential (expansion index of 50 or less). The existing fill soil is

undocumented and is considered unsuitable for supporting new structures and pavements. Therefore, remedial grading would be required in areas to receive structural fill or improvements.

5.2 Very Old Paralic Deposits (Qvop)

We expect Quaternary-age Very Old Paralic Deposits (formerly called the Lindavista Formation) underlies the existing fill soil. Based on our previous borings, the Very Old Paralic Deposits consists of very dense, moist to damp, silty, fine to coarse sand and was described as medium to moderately cemented. Excavations within this unit will likely encounter difficult digging conditions in the cemented zones and oversize material may be generated. In addition, coring and rock breaking equipment may be required to excavate the very dense and cemented sandstone layers. The Very Old Paralic Deposits are considered suitable for support of properly compacted fill and structural loading.

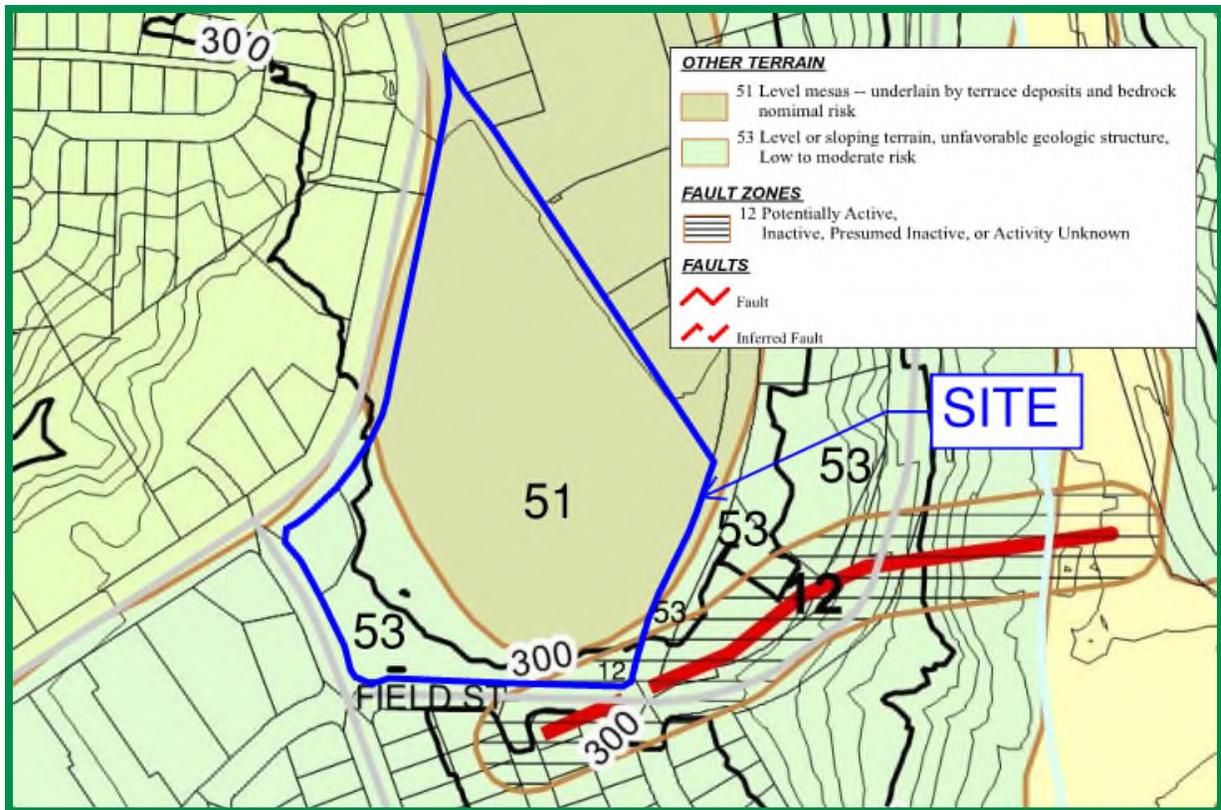
6. GROUNDWATER

We did not encounter groundwater in our previous borings and we expect groundwater exists deeper than 100 feet below the site. We do not expect groundwater to adversely impact the site; however, it is not uncommon for groundwater or seepage conditions to develop where none previously existed due to the permeability characteristics of the geologic units on site. Seepage likely occurs at the fill/formational contact within the canyon fill area. During the rainy season, seepage conditions may develop that would require special consideration.

7. GEOLOGIC HAZARDS

7.1 Geologic Hazard Category

The City of San Diego Seismic Safety Study, Geologic Hazards and Faults, Sheet 25 defines the northern portion of the site with *Hazard Category 51: Level mesas, underlain by terrace deposits and bedrock, nominal risk*. The southern portion of the site is defined as *Hazard Category 53: Level or sloping terrain, unfavorable geologic structure, low to moderate risk*. A fault is mapped southeast of the site and is labeled as *Hazard Category 12: potentially active, inactive, presumed inactive, or activity unknown* (as shown on the Hazard Category Map).



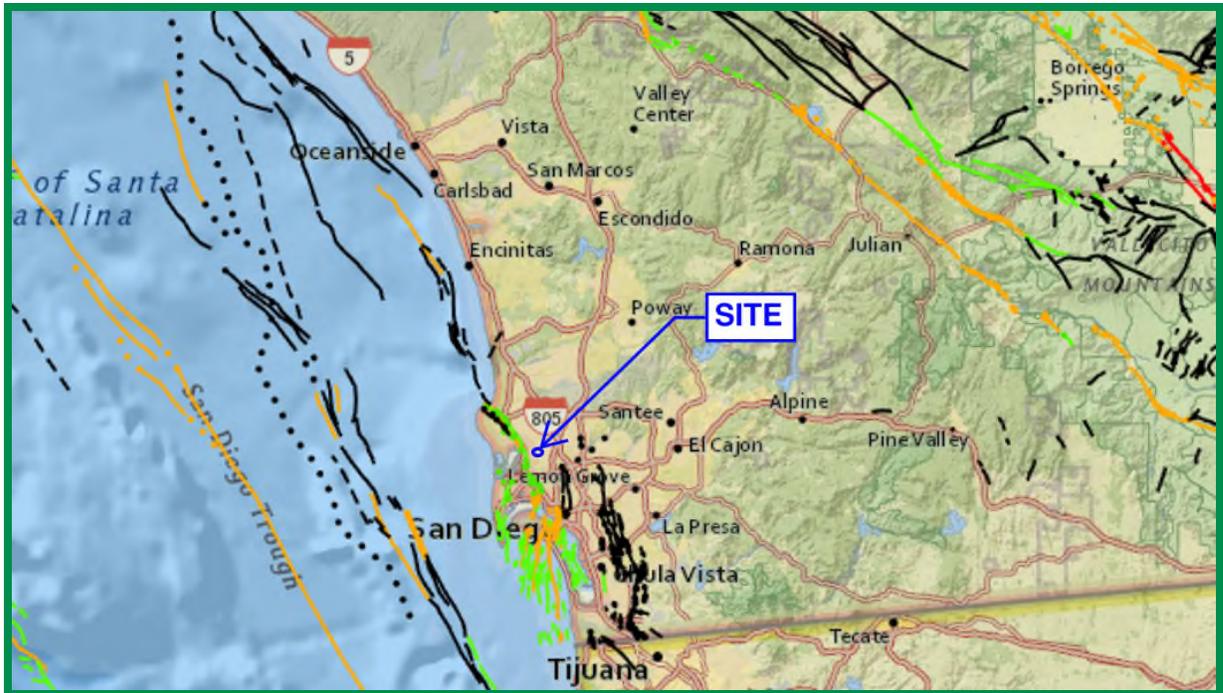
Hazard Category Map

7.2 Faulting and Seismicity

A review of geologic literature and experience with the soil and geologic conditions in the general area indicate that known active, potentially active or inactive faults are not located at the site. An active fault is defined by the California Geological Survey (CGS) as a fault showing evidence for activity within the last 11,700 years. The site is not located within a State of California Earthquake Fault Zone.

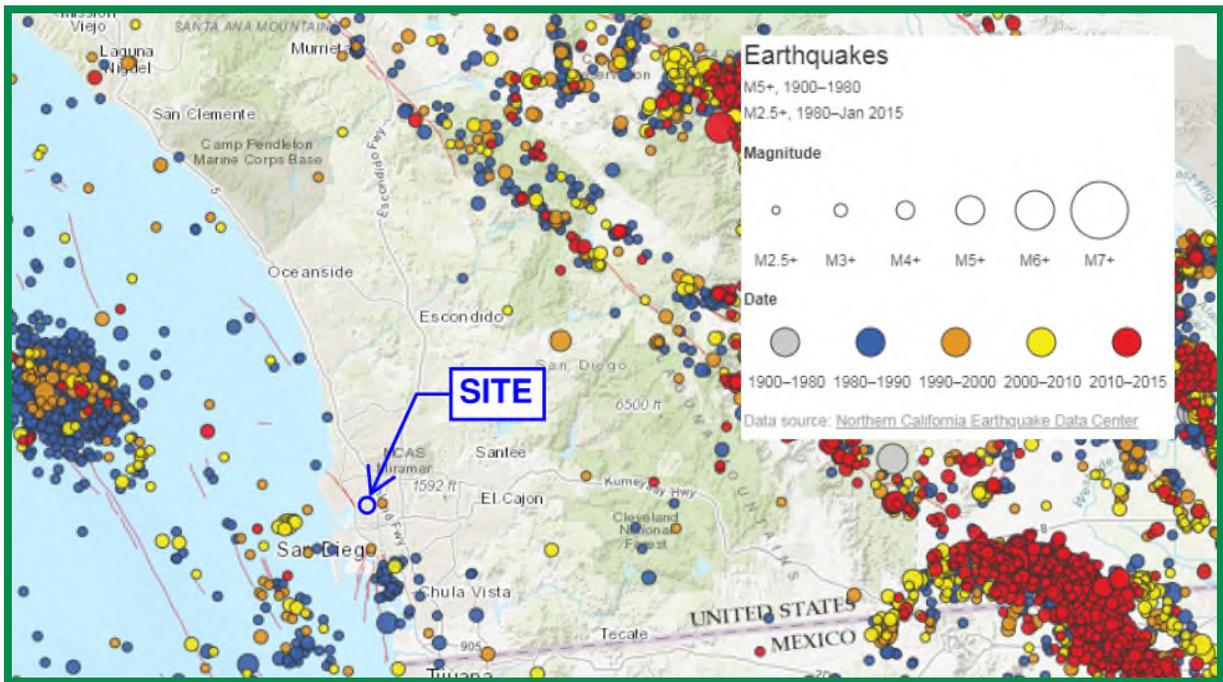
We are currently performing a fault evaluation on the southern portion property based on the City of San Diego Seismic Safety Study. We did not observe faulting during the study and we will provide an updated report that includes a summary of our observations, fault trench map and logs. Therefore, we opine, from a geologic standpoint, active or potentially active faults do not cross the subject property.

The USGS has developed a program to evaluate the approximate location of faulting in the area of properties. The following figure shows the location of the existing faulting in the San Diego County and Southern California region. The fault traces are shown as solid, dashed and dotted that represent well-constrained, moderately constrained and inferred, respectively. The fault line colors represent fault with ages less than 150 years (red), 15,000 years (orange), 130,000 years (green), 750,000 years (blue) and 1.6 million years (black).



Faults in Southern California

The San Diego County and Southern California region is very seismically active. The following figure presents the occurrence of earthquakes with a magnitude greater than 2.5 from the period of 1900 through 2015 according to the Bay Area Earthquake Alliance website.



Earthquakes in Southern California

Considerations important in seismic design include the frequency and duration of motion and the soil conditions underlying the site. Seismic design of structures should be evaluated in accordance with the California Building Code (CBC) guidelines currently adopted by the local agency.

7.3 Ground Rupture

Ground surface rupture occurs when movement along a fault is sufficient to cause a gap or rupture where the upper edge of the fault zone intersects the earth surface. The potential for ground rupture is considered to be negligible due to the absence of active faults at the subject site.

7.4 Tsunamis and Seiches

A tsunami is a series of long-period waves generated in the ocean by a sudden displacement of large volumes of water. The site is located approximately 3½ miles from the Pacific Ocean and approximately 1 mile from Mission Bay at an elevation of approximately 300 feet Mean Sea Level (MSL). The risk of a tsunami affecting the site is considered negligible due to the distance of the site from the ocean and relatively high elevation.

Seiches are standing wave oscillations of an enclosed water body after the original driving force has dissipated. Driving forces are typically caused by seismic ground shaking. The risk of a seiche affecting the site is considered negligible due to the distance of the site from the bay and relatively high elevation.

7.5 Liquefaction

Liquefaction typically occurs when a site is located in a zone with seismic activity, on-site soils are cohesionless or silt/clay with low plasticity, groundwater is encountered, and soil relative densities are less than about 70 percent. If the four previous criteria are met, a seismic event could result in a rapid pore-water pressure increase from the earthquake-generated ground accelerations. Seismically induced settlement may occur whether the potential for liquefaction exists or not. Due to the lack of a near surface groundwater table and the dense to dense nature of the existing fill soils and the formational units, the potential for liquefaction and seismically induced settlement occurring at the site is considered negligible.

7.6 Landslides

Examination of aerial photographs in our files and published geologic mapping indicates landslides are not present on or adjacent to the site. Therefore, we opine the potential for a landslide is not a significant concern for this project.

7.7 Erosion

The site is relatively flat and is not located adjacent to the Pacific Ocean coast or a free-flowing drainage where active erosion is occurring. Provided the engineering recommendations herein are followed and the project civil engineer prepares the grading plans in accordance with generally-accepted regional standards, we do not expect erosion to be a major impact to site development. In addition, we expect the proposed development would not increase the potential for erosion if properly designed.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 General

- 8.1.1 From a geotechnical engineering standpoint, we opine soil or geologic conditions do not exist at the subject site that is considered adverse to the proposed improvements and development can occur from a geotechnical engineering standpoint.
- 8.1.2 The City of San Diego Seismic Safety Study, Geologic Hazards and Faults, Sheet 25 indicates a fault southeast of the site, and the fault zone labeled as *Hazard Category 12: potentially active, inactive, presumed inactive, or activity unknown* is mapped within the southeast corner of the site (as shown on the Hazard Category Map). We did not observe faulting during a recent investigation, and are currently preparing a fault investigation report for the that will summarize our observations.
- 8.1.3 Based on a review of the referenced documents and our experience in the area, we expect the site is generally underlain by up to approximately 5 feet of undocumented fill overlying Very Old Paralic Deposits. This fill is undocumented and is considered unsuitable for supporting new structures and pavements, and will require remedial grading in areas to receive structural fill or improvements.
- 8.1.4 We expect groundwater extends deeper than 100 feet below the existing site. It is not uncommon for groundwater or seepage conditions to develop where none previously existed due to the permeability characteristics of the geologic units on site. During the rainy season, seepage conditions may develop that would require special consideration.
- 8.1.5 We understand this report is being prepared to provide geologic reconnaissance information related to the possible re-development of the property. We should be contacted to evaluate changes with respect to geotechnical conditions and to provide appropriate recommendations once development plans are prepared. We should prepare a geotechnical investigation to provide engineering recommendations for the future structural improvements to the property for the construction permit submittal process.
- 8.1.6 We understand current development plans include constructing a new apartment building in the southeast corner of the property that may consist of a 5-story apartment building over 2 levels of parking. Using the current concept site plan, with an assumed lowest level finish floor elevation ranging from 294 to 298 feet MSL, it appears cuts of up to approximately 11 feet would be required to achieve finish floor elevation for the lower parking level. It is likely that the entire building footprint would bear in formational materials of the Very Old Paralic Deposits, and shallow footings could be used for the building. However, we should

perform a future geotechnical investigation to determine the depths of existing fill across the footprint of the proposed building.

- 8.1.7 Adequate drainage provisions are imperative to the performance of the development. Site drainage should be maintained to direct surface runoff into controlled drainage devices. Positive site drainage should be maintained away from structures and pavements and tops of slopes and directed to storm drain facilities.

8.2 Excavation and Soil Characteristics

- 8.2.1 Excavation of the in-situ soil should be possible with moderate to heavy effort using conventional heavy-duty equipment. Excavation of the formational materials or previously placed rock fill will require very heavy effort and would generate oversized material using conventional heavy-duty equipment during the grading operations. Oversized rock (rocks greater than 12-inches in dimension) may be generated within the formational that can be incorporated into landscape use, if available. Portions of the formational materials can possess cemented zones that could encounter refusal and very difficult excavations.

- 8.2.2 We expect the existing soil can be considered to be “non-expansive” and “expansive” (expansion index [EI] of 20 or less and greater than 20) as defined by 2019 California Building Code (CBC) Section 1803.5.3. We expect the soil onsite to possess a “very low” to “low” expansion potential (expansion index of 50 or less). Table 8.2.1 presents soil classifications based on the expansion index.

**TABLE 8.2.1
EXPANSION CLASSIFICATION BASED ON EXPANSION INDEX**

Expansion Index (EI)	Expansion Classification	2019 CBC Expansion Classification
0 – 20	Very Low	Non-Expansive
21 – 50	Low	Expansive
51 – 90	Medium	
91 – 130	High	
Greater Than 130	Very High	

- 8.2.3 Based on previous laboratory testing, we expect the onsite soils possess “S0” sulfate exposure to concrete structures as defined by 2019 CBC Section 1904 and ACI 318-14 Chapter 19. The presence of water-soluble sulfates is not a visually discernible characteristic; therefore, soil samples from the site could yield different concentrations.

Additionally, over time landscaping activities (i.e., addition of fertilizers and other soil nutrients) may affect the concentration.

- 8.2.4 Geocon Incorporated does not practice in the field of corrosion engineering. Therefore, if improvements that could be susceptible to corrosion are planned, further evaluation by a corrosion engineer should be performed.

8.3 Seismic Design Criteria

- 8.3.1 The underlying soil conditions should be evaluated during the future geotechnical investigation. We expect future structures on the property will likely possess a Site Class C in accordance with Section 1613.2.2 of the 2019 CBC and Table 20.3-1 of ASCE 7-16. The Site Class for future structures will be determined based on the proposed building layouts and thickness of fill below each structure.

8.4 Site Drainage and Moisture Protection

- 8.4.1 Adequate site drainage is critical to reduce the potential for differential soil movement, erosion and subsurface seepage. Under no circumstances should water be allowed to pond adjacent to footings and improvements. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with 2019 CBC 1804.4 or other applicable standards. In addition, surface drainage should be directed away from the top of slopes into swales or other controlled drainage devices. Roof and pavement drainage should be directed into conduits that carry runoff away from the proposed structure.
- 8.4.2 In the case of basement walls or building walls retaining landscaping areas, a water-proofing system should be used on the wall and joints, and a Miradrain drainage panel (or similar) should be placed over the waterproofing. The project architect or civil engineer should provide detailed specifications on the plans for all waterproofing and drainage.
- 8.4.3 Underground utilities should be leak free. Utility and irrigation lines should be checked periodically for leaks, and detected leaks should be repaired promptly. Detrimental soil movement could occur if water is allowed to infiltrate the soil for prolonged periods of time.
- 8.4.4 Landscaping planters adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. Area drains to collect excess irrigation water and transmit it to drainage structures or impervious above-grade planter boxes can be used. In addition, where landscaping is planned adjacent to the pavement, construction of a cutoff wall along the edge of the pavement that extends at least 6 inches below the bottom of the base material should be considered.

8.5 Storm Water Management

- 8.5.1 We should be contacted to provide recommendations for storm water management if these devices are being proposed. If not properly constructed, there is a potential for distress to improvements and properties located hydrologically down gradient or adjacent to these devices. Factors such as the amount of water to be detained, its residence time, and soil permeability have an important effect on seepage transmission and the potential adverse impacts that may occur if the storm water management features are not properly designed and constructed. We have not performed a hydrogeological study at the site. If infiltration of storm water runoff occurs, downstream properties may be subjected to seeps, springs, slope instability, raised groundwater, movement of foundations and slabs, or other undesirable impacts as a result of water infiltration.
- 8.5.2 The United States Department of Agriculture (USDA), Natural Resources Conservation Services, possesses general information regarding the existing soil conditions for areas within the United States. The USDA website also provides the Hydrologic Soil Group. Table 8.5.1 presents the descriptions of the hydrologic soil groups. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. In addition, the USDA website also provides an estimated saturated hydraulic conductivity for the existing soil.

**TABLE 8.5.1
HYDROLOGIC SOIL GROUP DEFINITIONS**

Soil Group	Soil Group Definition
A	Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
B	Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.
C	Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
D	Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

- 8.5.3 The Hydrologic Soil Group Map presents output from the USDA website showing the limits of the soil units.



Hydrologic Soil Group Map

8.5.4 Table 8.5.2 presents the information from the USDA website for the subject property.

**TABLE 8.5.2
USDA WEB SOIL SURVEY – HYDROLOGIC SOIL GROUP***

Map Unit Name	Map Unit Symbol	Approximate Percentage of Property	Hydrologic Soil Group*	k_{SAT} of Most Limiting Layer (inches/ hour)
Carlsbad-Urban land complex, 2 to 9 percent slopes	CcC	100	B	1.98 – 5.95

*The areas of the property that possess fill materials should be considered to possess a Hydrologic Soil Group D.

8.5.5 We should perform infiltration testing in the area where storm water management devices are planned. We expect the site would be a “no Infiltration” condition due to the presence of the shallow and hard nature of the existing formational materials. However, some areas may be required to be investigated to evaluate the infiltration rates where formational materials exist near grade.

8.6 Geotechnical Investigation Report

- 8.6.1 We should prepare a geotechnical investigation report after the grading and development plans have been developed. The report would include design recommendations for proposed structures. Additional borings and laboratory tests may be required depending on the planned development. We can provide an estimated scope and fee once the plans have been prepared.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.
2. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Incorporated should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon Incorporated.
3. This report is issued with the understanding that it is the responsibility of the owner or his representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

APPENDIX

A

APPENDIX A

PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING

BY GEOCON INCORPORATED:

**GEOTECHNICAL INVESTIGATION AND GEOLOGIC
RECONNAISSANCE FOR CLAIREMONT VILLAGE SHOPPING
CENTER, KEIL'S GROCERY BUILDING, SAN DIEGO, CALIFORNIA**

PREPARED BY GEOCON INCORPORATED

PROJECT NO. 04623-05-01

DATED NOVEMBER 13, 1990

FOR

**CLAIREMONT VILLAGE
SAN DIEGO, CALIFORNIA**

PROJECT NO. G1992-52-03

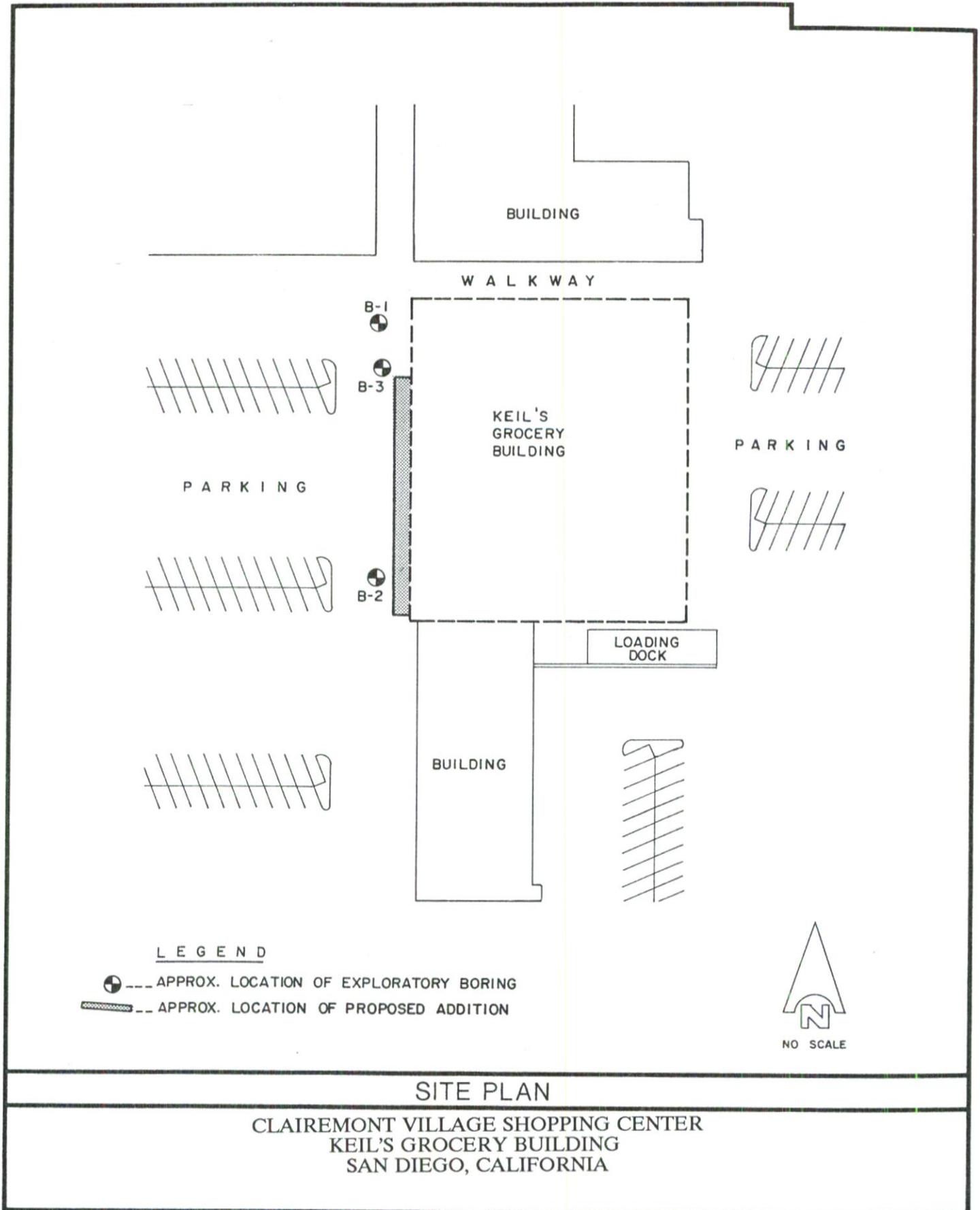


Figure 2

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
				SOIL CLASS (USCS)	ELEVATION _____ DATE COMPLETED <u>10/22/90</u>			
					EQUIPMENT <u>MOBILE B61 DRILL RIG</u>			
MATERIAL DESCRIPTION								
0		■			ASPHALT/CONCRETE - 2 inches			
2		SM			BASE MATERIAL - 6 inches			
					FILL Loose, slightly moist, reddish brown, fine to medium, Silty <u>SAND</u> , with trace clay -Encountered brick, reinforced concrete and electrical wire at 2 feet			
					BORING TERMINATED AT 3 FEET			

Figure A-1 Log of Test Boring B 1, page 1 of 1

CVSC

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input checked="" type="checkbox"/>	... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>	... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	BORING B 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
				ELEVATION _____ DATE COMPLETED <u>10/22/90</u>	EQUIPMENT <u>MOBILE B61 DRILL RIG</u>				
MATERIAL DESCRIPTION									
0					ASPHALT/CONCRETE - 2 inches				
2					BASE MATERIAL - 6 inches				
2	B2-1			SM	LINDA VISTA FORMATION Very dense, slightly moist, reddish-brown, medium cemented, Silty, fine to medium <u>SAND</u> , trace clay	50/3"			
3	B2-2								
4	B2-3						137/6"	96.3	6.7
6									
8									
10	B2-4			SM	Very dense, slightly moist, light brown, Silty, fine to medium <u>SAND</u> , moderately cemented	96/6"	100.3	7.3	
12									
14	B2-5					100/2"			
BORING TERMINATED AT 15 FEET									

Figure A-2 Log of Test Boring B 2, page 1 of 1

CVSC

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input checked="" type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION _____	DATE COMPLETED <u>10/22/90</u>	EQUIPMENT <u>MOBILE B61 DRILL RIG</u>			
MATERIAL DESCRIPTION										
0					ASPHALT/CONCRETE - 2 inches					
2					BASE MATERIAL - 6 inches					
4				SM	LINDA VISTA FORMATION Very dense, slightly moist, reddish-brown, moderately cemented, fine to medium, Silty <u>SAND</u> , trace clay					
6	B3-1						86/6"	104.3	5.8	
8	B3-2									
10	B3-3						100/6"	97.5	6.2	
BORING TERMINATED AT 10.5 FEET										

Figure A-3 Log of Test Boring B 3, page 1 of 1

CVSC

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input checked="" type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

File No. 04623-05-01
November 13, 1990

TABLE B-I

Summary of Laboratory Compaction Test Results

ASTM D1557-78, Method A

Sample No.	Description	Maximum Dry Density pcf	Optimum Moisture % Dry Wt.
B3-2	Reddish brown fine to medium silty SAND	127.4	10.0

TABLE B-II

Summary of Direct Shear Test Results

Sample No.	Depth (feet)	Dry Density pcf	Moisture Content %	Unit Cohesion psf	Angle of Shear Resistance Degrees
B3-2	8	121.0	10.0	340	36

File No. 04623-05-01
November 13, 1990

TABLE B-III

Summary of Laboratory Expansion Index Test Results

Sample No.	Moisture Content		Dry Density pcf	Expansion Index
	Before Test %	After Test %		
B2-2	7.9	18.3	117.3	0

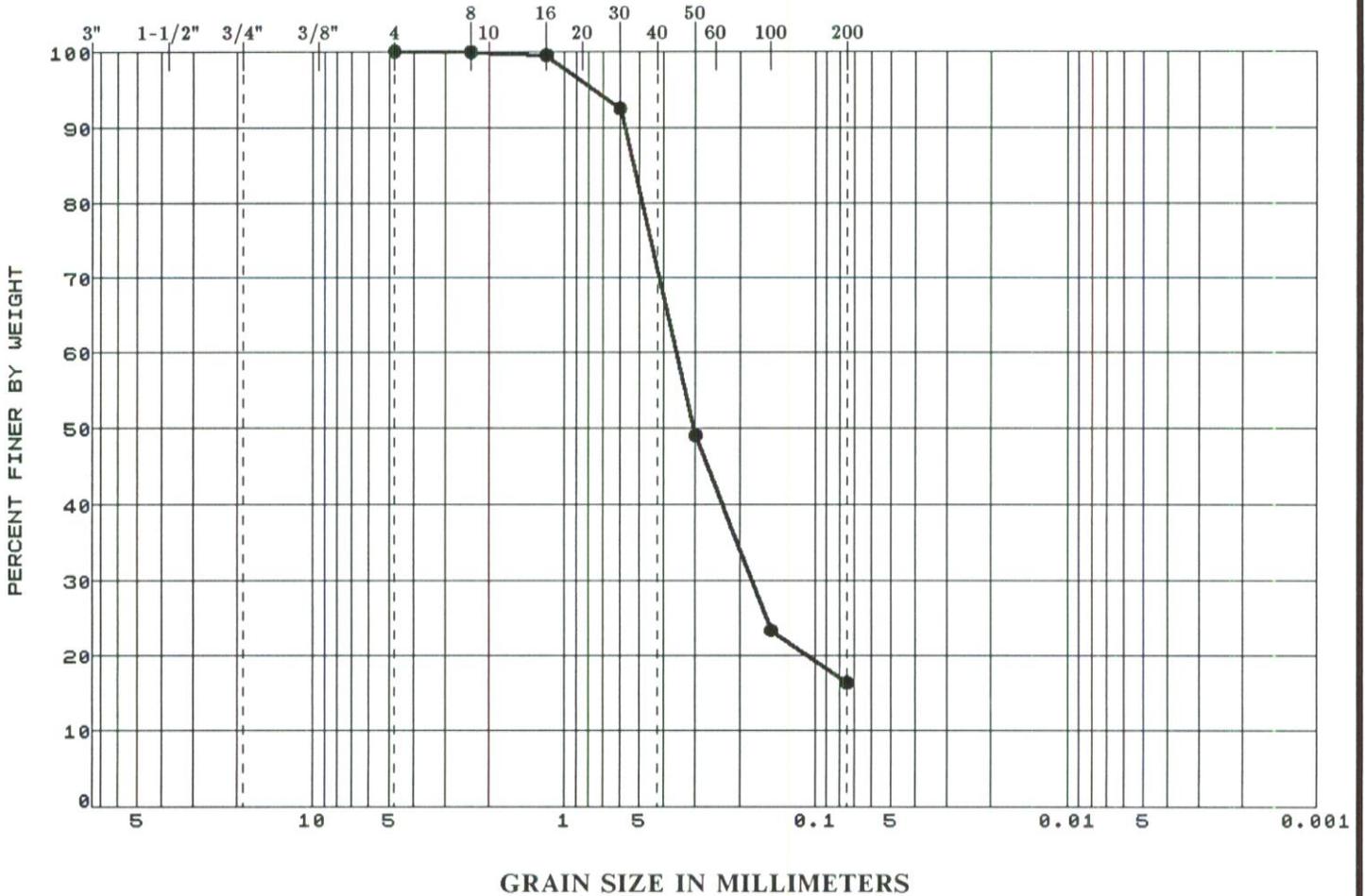
TABLE B-IV

Summary of Laboratory R-Value Test Results

Sample No.	R-Value
B2-2	56

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	

U. S. STANDARD SIEVE SIZE

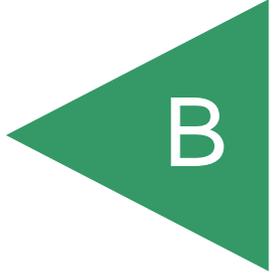


SAMPLE	Depth (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
● B2-1	3	(SM) Silty, fine to medium SAND				

GRADATION CURVE

CLAIREMONT VILLAGE SHOPPING CENTER
 KEIL'S GROCERY BUILDING
 SAN DIEGO, CALIFORNIA

APPENDIX



APPENDIX B

PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING

BY GEOCON INCORPORATED:

**GEOTECHNICAL INVESTIGATION AND GEOLOGIC
RECONNAISSANCE FOR CLAIREMONT VILLAGE SHOPPING
CENTER, BUILDING K, SAN DIEGO, CALIFORNIA**

PREPARED BY GEOCON INCORPORATED

PROJECT NO. 04623-05-02

DATED DECEMBER 12, 1990

FOR

**CLAIREMONT VILLAGE
SAN DIEGO, CALIFORNIA**

PROJECT NO. G1992-52-03

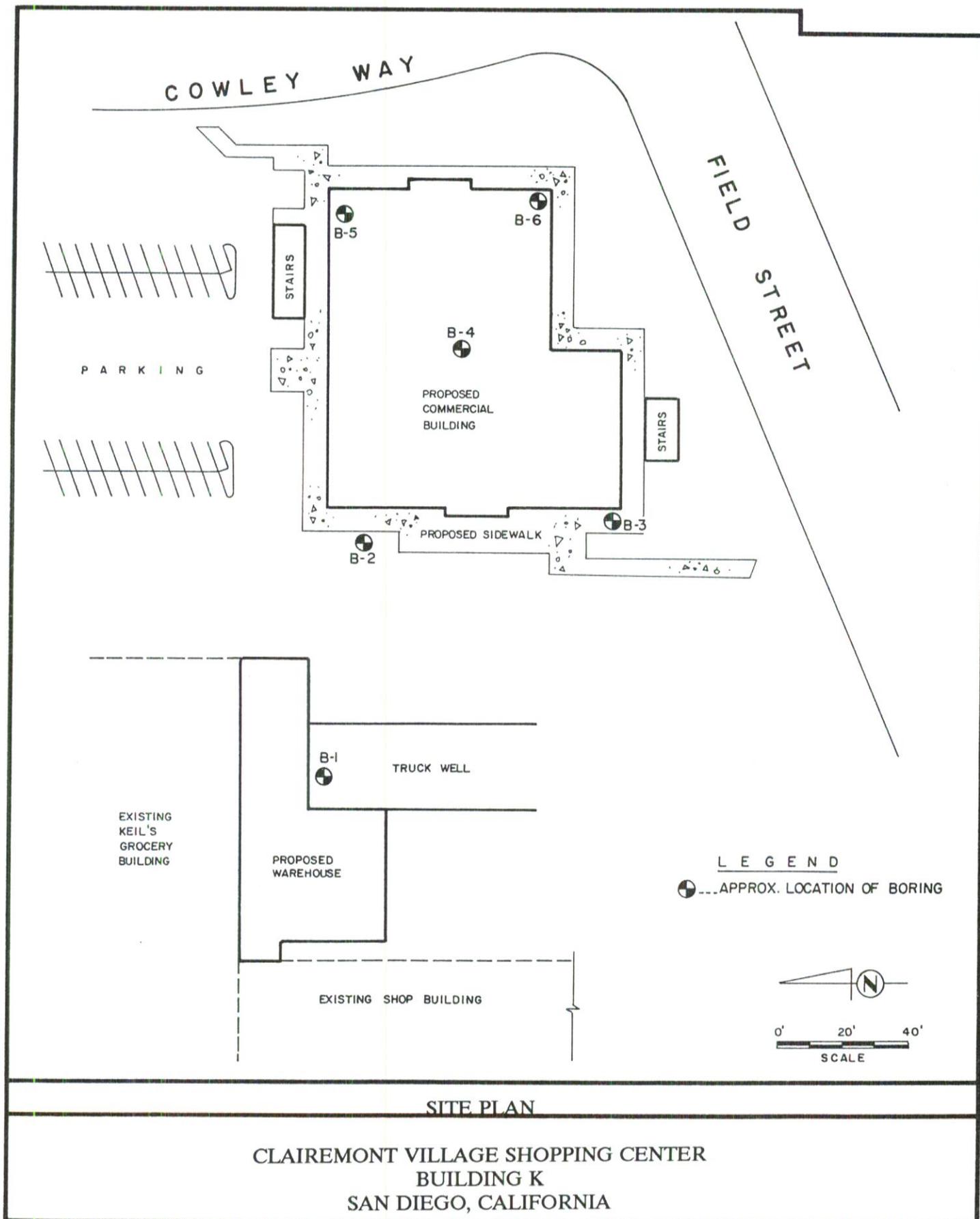


Figure 2

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 1			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION <u>303</u>	DATE COMPLETED <u>11/30/90</u>	EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>			
MATERIAL DESCRIPTION										
0					ASPHALT CONCRETE 3 INCHES					
1	B1-1			SM	LINDAVISTA FORMATION Very dense, slightly moist, reddish-brown Silty fine to medium <u>SAND</u> , with some gravels			50/2 1/2"		8.2
2	B1-2									
4					Very dense, slightly moist to moist, reddish-brown to brown, Silty fine to medium <u>SAND</u> - Becomes very moist to wet at 7 feet			50/4"	107.0	10.4
6	B1-3			SM						
8								50/5"	115.8	13.5
10	B1-4									
12										
14										
BORING TERMINATED AT 15 FEET										

Figure A-1 Log of Boring B 1, page 1 of 1

CVSCK

SAMPLE SYMBOLS	□ ... SAMPLING UNSUCCESSFUL	▣ ... STANDARD PENETRATION TEST	■ ... DRIVE SAMPLE (UNDISTURBED)
	⊗ ... DISTURBED OR BAG SAMPLE	▨ ... CHUNK SAMPLE	▽ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION <u>301</u>	DATE COMPLETED <u>11/30/90</u>			
					EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>				
					MATERIAL DESCRIPTION				
0					ASPHALT CONCRETE 3.5 INCHES				
2	B2-1			SM	LINDAVISTA FORMATION Very dense, slightly moist, reddish-brown to tan, Silty fine to medium SAND		50/3 1/2"	105.9	8.2
6	B2-2						50/3 1/2"	109.1	6.2
10	BORING TERMINATED AT 10 FEET								

Figure A-2 Log of Boring B 2, page 1 of 1

CVSCK

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input checked="" type="checkbox"/>	... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>	... CHUNK SAMPLE	<input checked="" type="checkbox"/>	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION <u>299</u>	DATE COMPLETED <u>11/30/90</u>	EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>			
MATERIAL DESCRIPTION										
0		■			ASPHALT CONCRETE 3 INCHES					
2	B3-1	■		SM	LINDAVISTA FORMATION Very dense, slightly moist, reddish-brown Silty fine to medium <u>SAND</u> - Becomes moist at 5 feet - Becomes moderately cemented at 9 feet			50/4"	109.1	8.9
4	B3-2	⊗								
6	B3-3	■						50/3"	113.4	8.9
12	BORING TERMINATED AT 12 FEET									

Figure A-3 Log of Boring B 3, page 1 of 1

CVSCK

SAMPLE SYMBOLS	□ ... SAMPLING UNSUCCESSFUL	■ ... STANDARD PENETRATION TEST	■ ... DRIVE SAMPLE (UNDISTURBED)
	⊗ ... DISTURBED OR BAG SAMPLE	▨ ... CHUNK SAMPLE	▽ ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 4			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION <u>299</u>	DATE COMPLETED <u>11/30/90</u>	EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>			
MATERIAL DESCRIPTION										
0					ASPHALT CONCRETE 7 INCHES					
2	B4-1			SM	LINDAVISTA FORMATION Very dense, slightly moist, reddish-brown to tan, Silty fine to medium <u>SAND</u>			50/2"	116.6	9.6
6	B4-2				- Becomes moist, trace clay at 5 feet			50/3 1/2"	111.2	11.1
10	BORING TERMINATED AT 10 FEET									

Figure A-4 Log of Boring B 4, page 1 of 1

CVSCK

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input type="checkbox"/>	... STANDARD PENETRATION TEST	<input type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>	... CHUNK SAMPLE	<input checked="" type="checkbox"/>	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 5			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEVATION <u>299</u>	DATE COMPLETED <u>11/30/90</u>	EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>			
MATERIAL DESCRIPTION										
0					ASPHALTIC CONCRETE 3.5 INCHES					
2	B5-1			SM	LINDAVISTA FORMATION Very dense, slightly moist, reddish-brown to tan Silty fine to medium SAND			50/4"		7.6
6	B5-2							50/4 1/2"	108.7	9.6
8					- Becomes moderately cemented at 8 feet					
10					BORING TERMINATED AT 10 FEET					

Figure A-5 Log of Boring B 5, page 1 of 1

CVSCK

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input type="checkbox"/>	... STANDARD PENETRATION TEST	<input type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input type="checkbox"/>	... CHUNK SAMPLE	<input type="checkbox"/>	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 6			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
					ELEVATION <u>297</u>	DATE COMPLETED <u>11/30/90</u>	EQUIPMENT <u>MOBILE B61 8"HLW.STM</u>				
MATERIAL DESCRIPTION											
0					ASPHALT CONCRETE 4" INCHES						
2	B6-1			SM	LINDAVISTA FORMATION Very dense, slightly moist reddish-brown, Silty fine to medium <u>SAND</u>			50/4"	104.0	7.0	
4					BORING TERMINATED AT 5 FEET						

Figure A-6 Log of Boring B 6, page 1 of 1

CVSCK

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

File No. 04623-05-02
December 12, 1990

TABLE B-I

Summary of Direct Shear Test Results

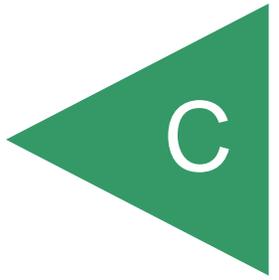
Sample No.	Depth (feet)	Dry Density pcf	Moisture Content %	Unit Cohesion psf	Angle of Shear Resistance Degrees
B3-1	1	109.1	8.9	810	22

TABLE B-II

Summary of Laboratory Expansion Index Test Results

Sample No.	<u>Moisture Content</u>		Dry Density pcf	Expansion Index
	Before Test %	After Test %		
B3-2	9.0	16.9	114.0	0

APPENDIX



APPENDIX C

PREVIOUS MAP, BORING LOGS AND LABORATORY TESTING

BY GEOCON INCORPORATED:

**GEOTECHNICAL TESTING RESULTS, CLAIREMONT VILLAGE
IMPROVEMENTS, 3015 CLAIREMONT DRIVE,
SAN DIEGO, CALIFORNIA**

PREPARED BY GEOCON INCORPORATED

PROJECT NO. G1992-52-01

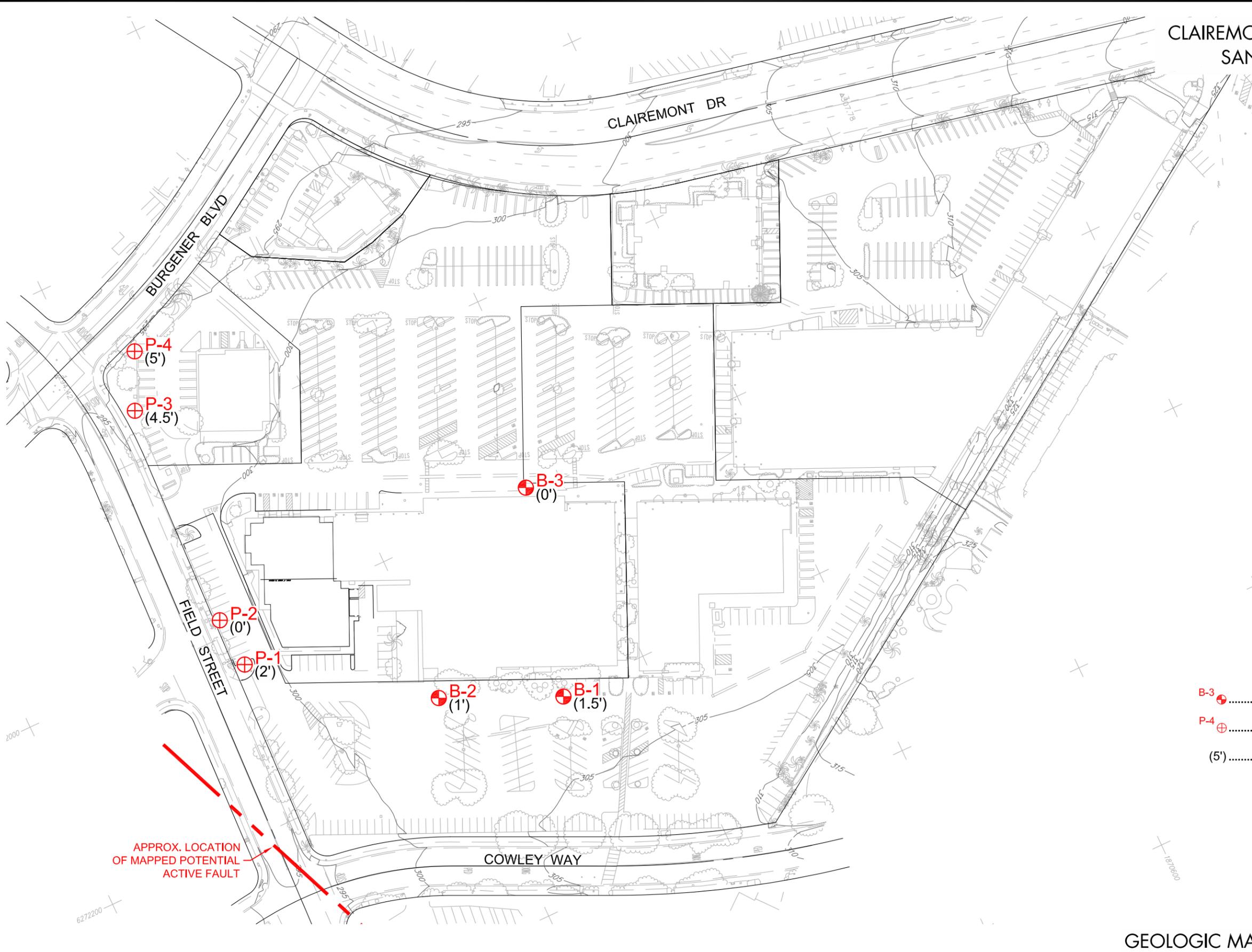
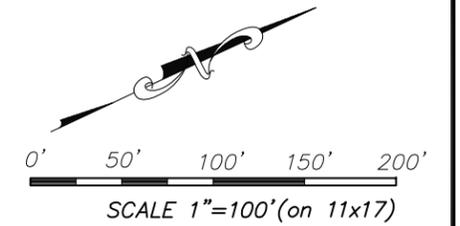
DATED JULY 27, 2016

FOR

**CLAIREMONT VILLAGE
SAN DIEGO, CALIFORNIA**

PROJECT NO. G1992-52-03

CLAIREMONT VILLAGE IMPROVEMENTS
SAN DIEGO, CALIFORNIA



GEOCON LEGEND

- B-3 ⊕APPROX. LOCATION OF EXPLORATORY BORING
- P-4 ⊕APPROX. LOCATION OF PERMEABILITY TEST
- (5')APPROX. DEPTH TO FORMATION (Feet)

APPROX. LOCATION
OF MAPPED POTENTIAL
ACTIVE FAULT

GEOCON
INCORPORATED

GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159
PROJECT NO. G1992 - 52 - 01
FIGURE 2
DATE 07 - 27 - 2016

GEOLOGIC MAP

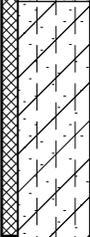
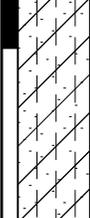
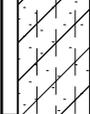
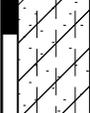
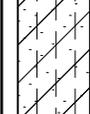
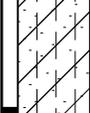
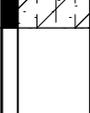
DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>306'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
MATERIAL DESCRIPTION									
0	B1-1			SM	3" ASPHALT CONCRETE				
				SM	UNDOCUMENTED FILL (Qudf) Medium dense, damp, brown, Silty, fine SAND				
2				SM	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, damp, light reddish brown, Silty, fine to coarse SAND with clay				
4									
6	B1-2						88/8"	103.3	7.3
8									
10	B1-3						50/6"		
12									
14	B1-4						50/6"		
					BORING TERMINATED AT 15.5 FEET Groundwater not encountered				

Figure A-1,
Log of Boring B 1, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>305'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
					MATERIAL DESCRIPTION				
0	B2-1			SM	3" ASPHALT CONCRETE				
				SM	UNDOCUMENTED FILL (Qudf) Very dense, dry, light brown, Silty, fine to medium SAND				
2					VERY OLD PARALIC DEPOSITS (Qvop) Very dense, dry, light brown, Silty, fine to medium SAND				
4									
6	B2-2						50/4"	100.4	4.9
8									
10	B2-3				-Becomes damp, reddish brown, fine to coarse		50/5"	97.2	7.3
12									
14	B2-4				-Becomes dark reddish brown		90/8"	111.4	6.5
					BORING TERMINATED AT 15.75 FEET Groundwater not encountered				

Figure A-2,
Log of Boring B 2, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>306'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
MATERIAL DESCRIPTION									
0	B3-1			SM	3" ASPHALT CONCRETE				
2					VERY OLD PARALIC DEPOSITS (Qvop) Very dense, damp, reddish brown, Silty, fine to medium SAND with clay				
6	B3-2				-Becomes reddish brown, mottled with light brown		95/8"	109.6	7.8
10	B3-3						50/4"	93.6	9.0
12					-Difficult drilling at 12-15 feet				
14	B3-4						77/9"	111.4	9.0
					BORING TERMINATED AT 15.75 FEET Groundwater not encountered				

Figure A-3,
Log of Boring B 3, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>301'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
					MATERIAL DESCRIPTION				
0				SC	UNDOCUMENTED FILL (Qudf) Medium dense, damp, brown, Clayey, fine to coarse SAND				
2				SC	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, moist, reddish brown, Clayey, fine to coarse SAND				
4									
6									
7.5	P1-1						50/5"	117.4	15.9
8.0	P1-2						77/11"		
					BORING TERMINATED AT 8.75 FEET Groundwater not encountered				

Figure A-4,
Log of Boring P 1, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>300'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
MATERIAL DESCRIPTION									
0				SM	3" ASPHALT CONCRETE				
					VERY OLD PARALIC DEPOSITS (Qvop) Dense, moist, reddish brown, Silty, fine to medium SAND				
2									
4	P2-1						69	110.2	10.9
6	P2-2						50/4"	115.4	10.4
8	P2-3						87/10"		
					BORING TERMINATED AT 9 FEET Groundwater not encountered				

Figure A-5,
Log of Boring P 2, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

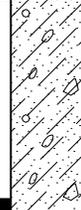
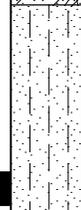
DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P 3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>300'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
MATERIAL DESCRIPTION									
0				SC	UNDOCUMENTED FILL (Qudf) Medium dense, moist, brown, Clayey, fine to coarse SAND with silt little gravel				
2	P3-1					18	110.7	10.3	
4				SM	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, moist, reddish brown, Silty, fine to medium SAND				
6	P3-2					50/5"	107.4	11.2	
8	P3-3								
					BORING TERMINATED AT 9.5 FEET Groundwater not encountered				

Figure A-6,
Log of Boring P 3, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P 4		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>298'</u>	DATE COMPLETED <u>05-26-2016</u>			
					EQUIPMENT <u>CME 75</u> BY: <u>K. JAMES</u>				
MATERIAL DESCRIPTION									
0				SC	UNDOCUMENTED FILL (Qudf) Medium dense, damp, brown, Clayey, fine to coarse SAND				
2									
4					VERY OLD PARALIC DEPOSITS (Qvop) Very dense, damp, reddish brown, Silty, fine to coarse SAND				
6	P4-1			SM			50/1"	99.0	9.2
8	P4-2						94/7"		
BORING TERMINATED AT 9 FEET Groundwater not encountered									

Figure A-7,
Log of Boring P 4, Page 1 of 1

G1992-52-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX B

LABORATORY TESTING

We performed laboratory tests in accordance with generally currently accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. We tested selected soil samples for their maximum dry density and optimum moisture content, shear strength, expansion index, water-soluble sulfate characteristics, R-value, unconfined compressive strength, consolidation characteristics, and grain size. Tables B-I through B-VI and Figures B-1 through B-5 present the results of our laboratory tests. In addition, the in-place dry density and moisture content test results are presented on the boring logs in Appendix A.

**TABLE B-I
SUMMARY OF LABORATORY MAXIMUM DRY DENSITY AND
OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557**

Sample No.	Depth (feet)	Description (Geologic Unit)	Maximum Dry Density (pcf)	Optimum Moisture Content (% dry wt.)
B2-1	0-5	Light brown, Silty, fine to medium SAND (Qpf)	133.9	7.5

**TABLE B-II
SUMMARY OF LABORATORY DIRECT SHEAR TEST RESULTS
ASTM D 3080**

Sample No.	Dry Density (pcf)	Moisture Content (%)		Peak [Ultimate ¹] Cohesion (psf)	Peak [Ultimate ¹] Angle of Shear Resistance (degrees)
		Initial	Final		
B1-2	103.3	7.3	19.7	260 [260]	33 [33]

¹ Ultimate at end of test at 0.2 inch deflection

**TABLE B-III
SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829**

Sample No.	Moisture Content (%)		Dry Density (pcf)	Expansion Index	2013 CBC Expansion Classification	Soil Expansion Classification
	Before Test	After Test				
B2-1	7.4	12.0	119.9	2	Non-Expansive	Very Low

**TABLE B-IV
SUMMARY OF LABORATORY WATER-SOLUBLE SULFATE TEST RESULTS
CALIFORNIA TEST NO. 417**

Sample No.	Water-Soluble Sulfate (%)	Sulfate Severity	Sulfate Class
B2-1	0.009	Not Applicable	S0

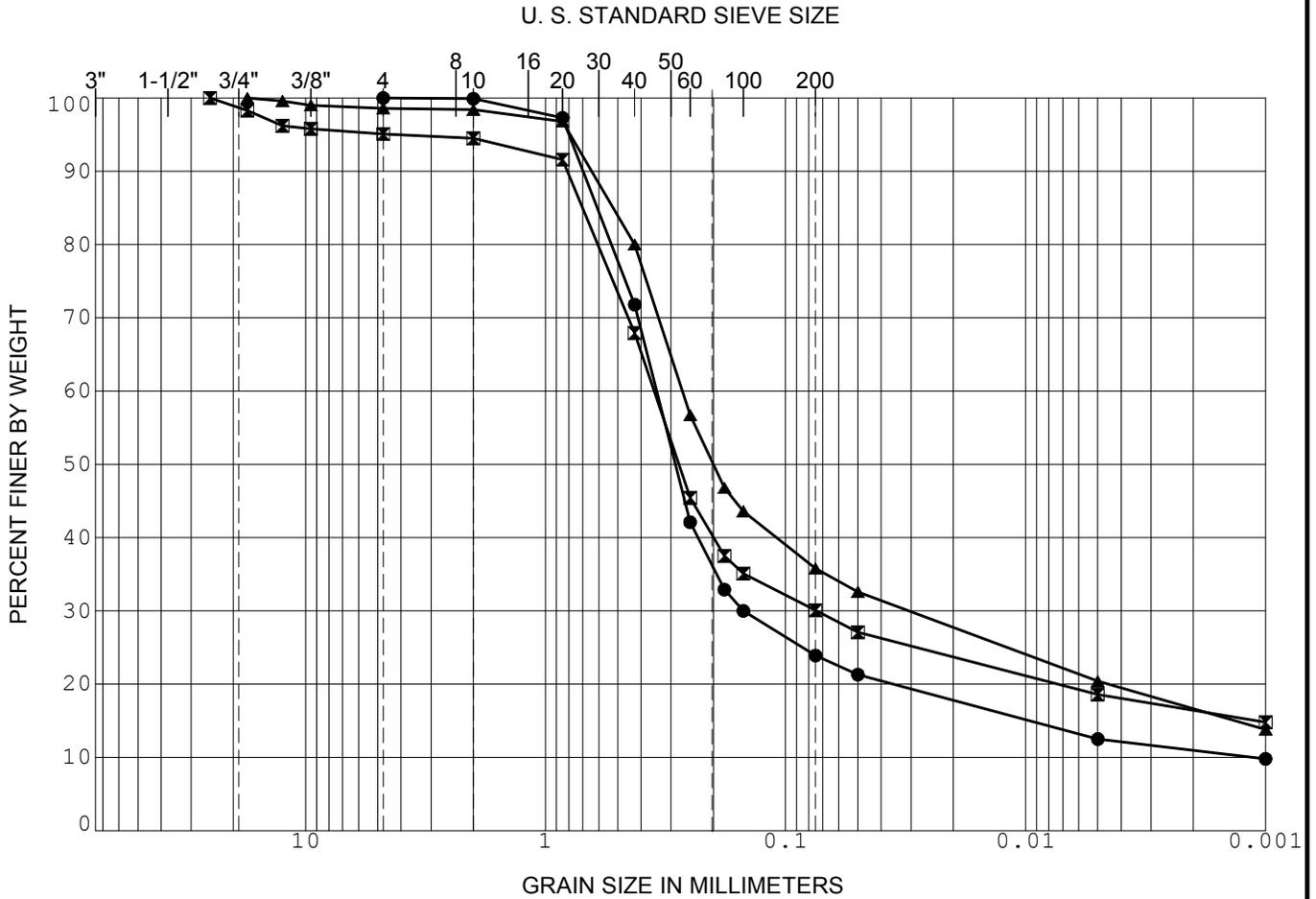
**TABLE B-V
SUMMARY OF LABORATORY RESISTANCE VALUE (R-VALUE) TEST RESULTS
ASTM D 2844**

Sample No.	Description (Geologic Unit)	R-Value
B2-1	Light brown, Silty, fine to medium SAND (Qpf)	16

**TABLE B-VI
SUMMARY OF LABORATORY UNCONFINED compressive strength TEST RESULTS
ASTM D 1558**

Sample No.	Depth (feet)	Geologic Unit	Hand Penetrometer Reading, Unconfined Compression Strength (tsf)	Undrained Shear Strength (ksf)
B2-2	5	Qvop	4.0	4.0
B2-3	10	Qvop	4.0	4.0
B2-4	15	Qvop	4.5	4.5
B3-2	5	Qvop	4.5	4.5
B3-3	10	Qvop	4.5	4.5
B3-4	15	Qvop	4.5	4.5
P2-1	3	Qvop	4.5	4.5
P3-1	3	Qudf	4.5	4.5

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	

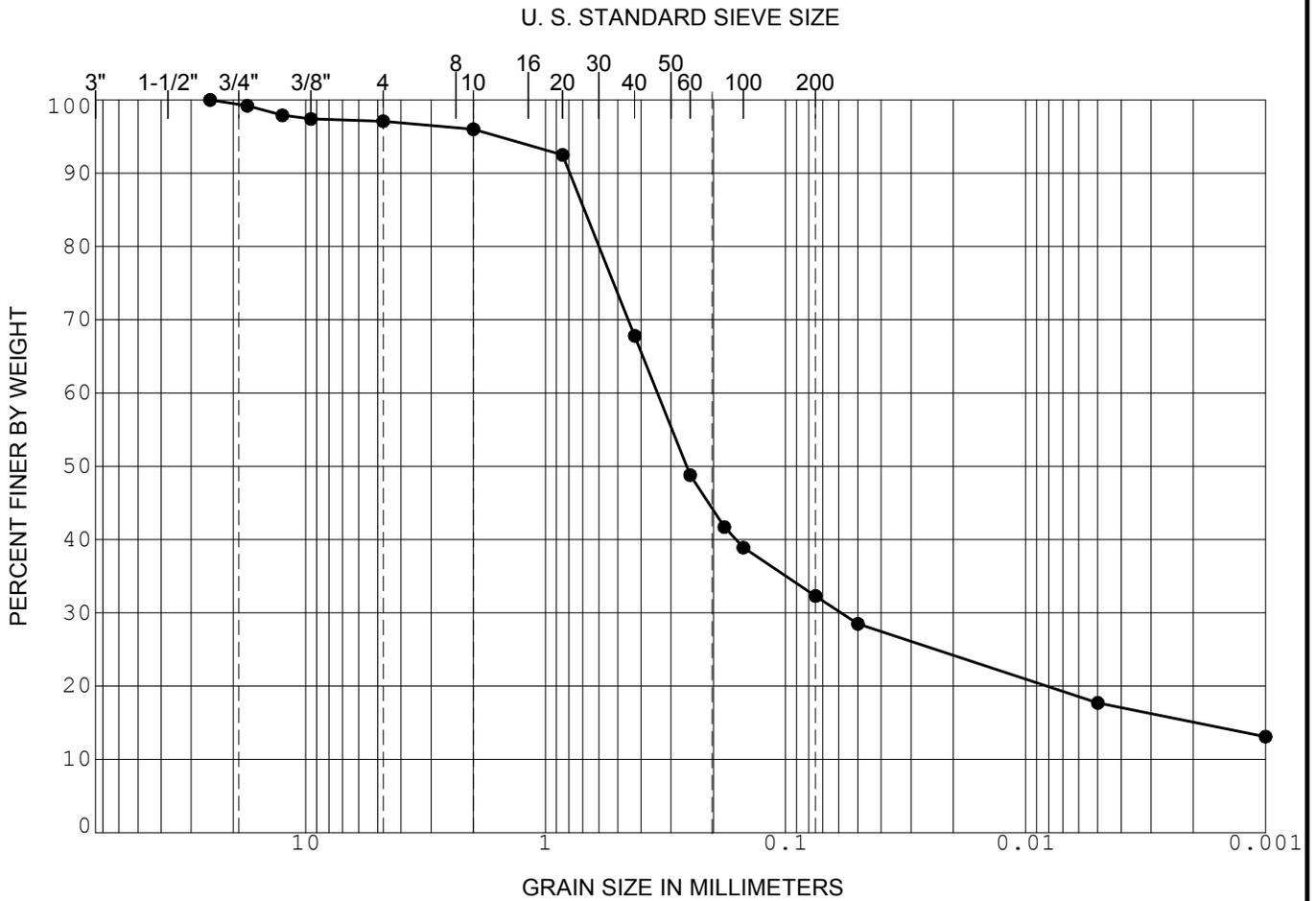


GRADATION CURVE

CLAIREMONT VILLAGE IMPROVEMENTS

SAN DIEGO, CALIFORNIA

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	

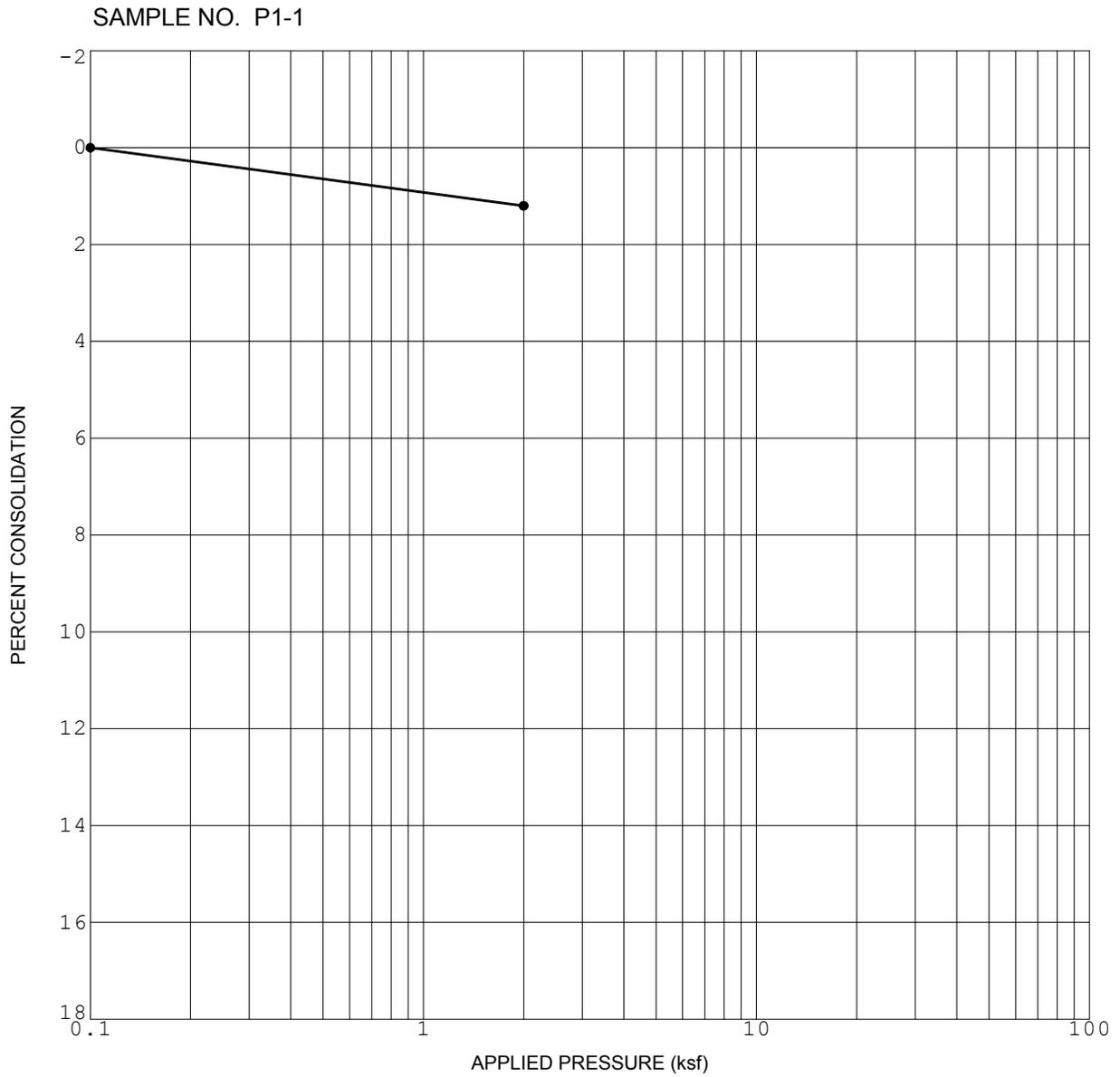


	SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	P4-2	8.5	(SM) Silty SAND				
☒							
▲							

GRADATION CURVE

CLAIREMONT VILLAGE IMPROVEMENTS

SAN DIEGO, CALIFORNIA



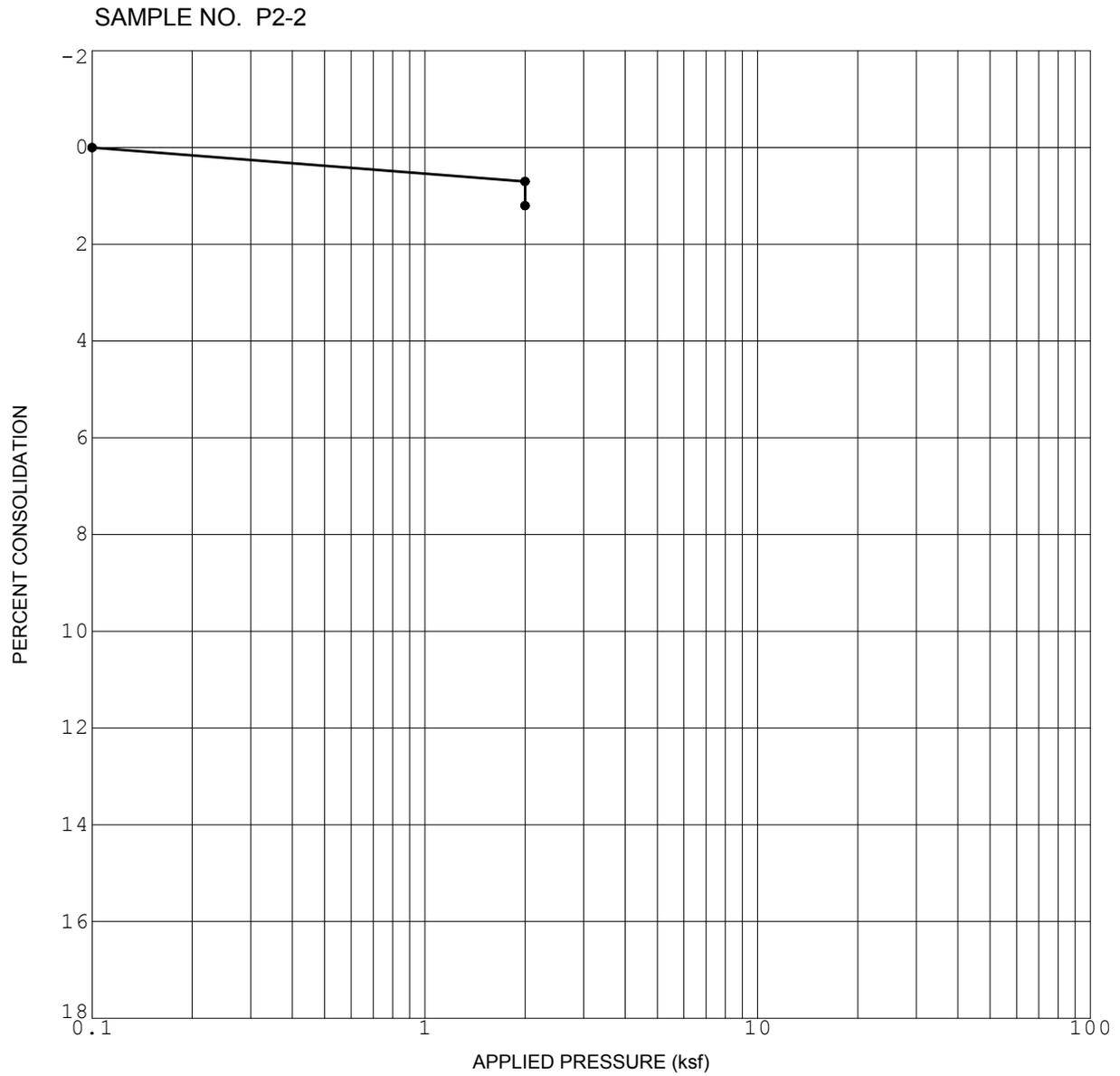
Initial Dry Density (pcf)	117.4
Initial Water Content (%)	15.9

Initial Saturation (%)	100
Sample Saturated at (ksf)	2.0

CONSOLIDATION CURVE

CLAIREMONT VILLAGE IMPROVEMENTS

SAN DIEGO, CALIFORNIA



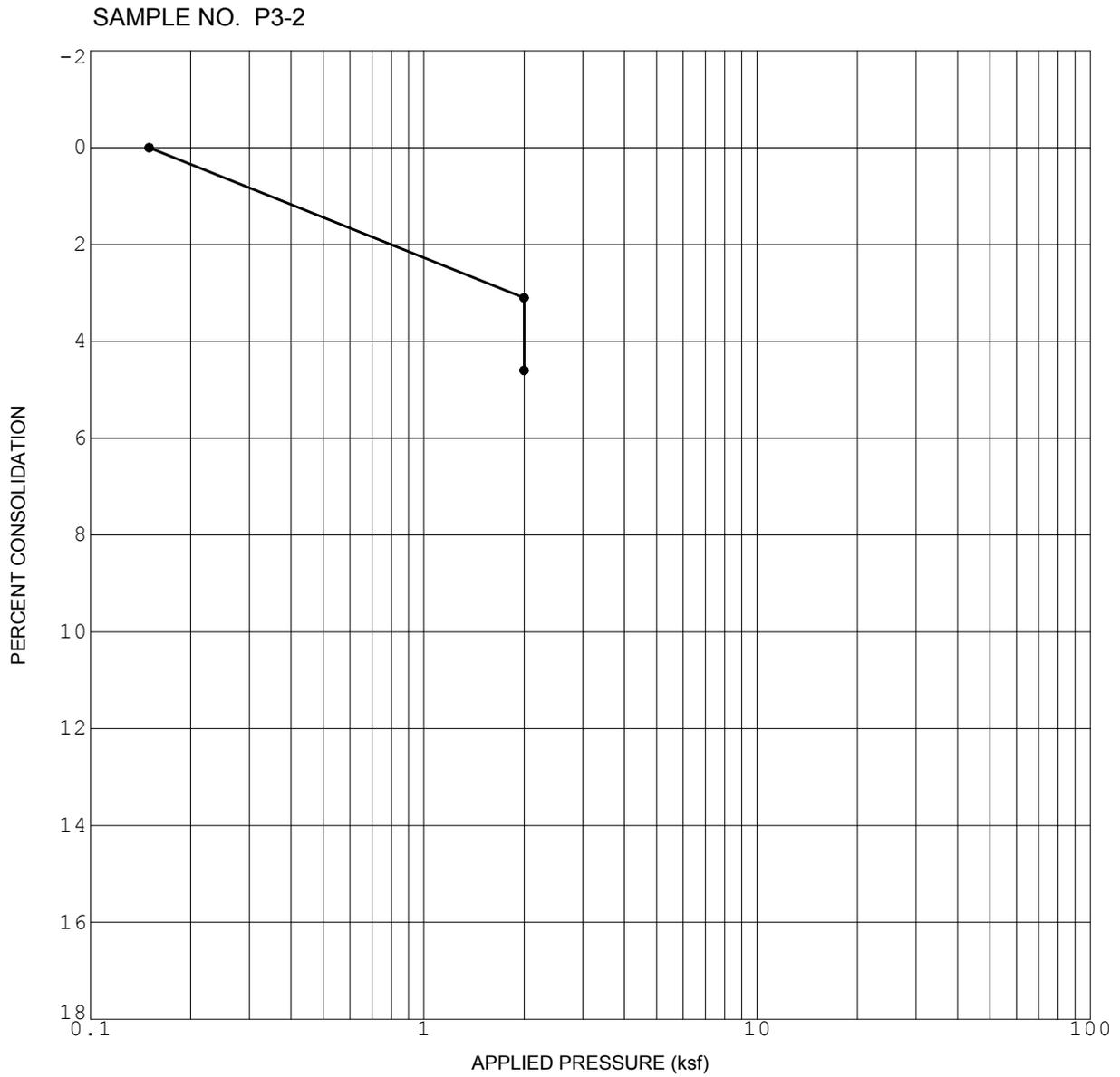
Initial Dry Density (pcf)	115.4
Initial Water Content (%)	10.4

Initial Saturation (%)	63.1
Sample Saturated at (ksf)	2.0

CONSOLIDATION CURVE

CLAIREMONT VILLAGE IMPROVEMENTS

SAN DIEGO, CALIFORNIA



Initial Dry Density (pcf)	107.4
Initial Water Content (%)	11.2

Initial Saturation (%)	54.4
Sample Saturated at (ksf)	2.0

CONSOLIDATION CURVE

CLAIREMONT VILLAGE IMPROVEMENTS

SAN DIEGO, CALIFORNIA

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