GEOTECHNICAL ENGINEERING INVESTIGATION
CHIEF FARMS CANNABIS PROJECT
50 WEST NINE MILE CANYON ROAD
PEARSONVILLE, INYO COUNTY, CALIFORNIA

BSK PROJECT G20-195-10B

PREPARED FOR:
TIM ZAMORA
ZAMORA DESIGN WORKSHOP
3215 SAN MARINO STREET #7
LOS ANGELES, CA 90006

SEPTEMBER 30, 2020

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Prepared for:

Tim Zamora
Zamora Design Workshop
3215 San Marino Street #7
Los Angeles, CA 90006

Bakersfield Project: G20-195-10B

September 30, 2020

Prepared by:

Adam Terronez, PE, GE
Bakersfield Branch Manager

On Man Lau, PE, GE
South Valley Regional Manager

BSK Associates
700 22nd Street
Bakersfield, California 93301
(661) 327-0671
(661) 324-4218 FAX

Distribution: Client (Email: [timzamora@gmail.com])

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1. INTRODUCTION

This report presents the results of a Geotechnical Engineering Investigation conducted by BSK Associates (BSK), for the proposed Chief Farms Cannabis Facility Project in Pearsonville, California (Site). The Site is located in a vacant parcel (APN: 034-203-005) at 50 West Nine Mile Canyon Road, as shown on the Site Vicinity Map, Figure A-1. The geotechnical engineering investigation was conducted in accordance with BSK Proposal GB20-20404 dated June 26, 2020.

This report provides a description of the geotechnical conditions at the Site and provides specific recommendations for earthwork and foundation design with respect to the planned facility. In the event that changes occur in the design of the project, this report's conclusions and recommendations will not be considered valid unless the changes are reviewed with BSK and the conclusions and recommendations are modified or verified in writing. Examples of such changes would include location, size of structures, foundation loads, etc.

1.1. Planned Construction

BSK understands that the project will consist of the construction of seven (7) new buildings: Five (5) 3,060-SF premanufactured greenhouses, one (1) 960-SF living quarters, and one (1) 1,440-SF premanufactured headhouse. BSK also understands the proposed project will include the construction of a new parking lot and the installation of an agricultural runoff tank, and septic tank with adjacent leach field located east of the proposed buildings.

1.2. Purpose and Scope of Services

The objective of this geotechnical investigation was to characterize the subsurface conditions in the areas of the proposed structures and provide geotechnical engineering recommendations for the preparation of plans and specifications and bearing and lateral earth pressure conditions. The scope of the investigation included a field exploration, laboratory testing, engineering analyses, and preparation of this report. Our scope of services did not include environmental site assessment, sampling, testing and analysis for hazardous materials.

2. FIELD INVESTIGATION AND LABORATORY TESTING

2.1. Field Exploration

The field exploration for this investigation was conducted under the oversight of a BSK staff member. Seven (7) borings were drilled at the Site on September 16, 2020 using a truck-mounted drilling rig provided by Baja Exploration to a maximum depth of 21.5-feet beneath the existing ground surface (bgs). Two (2) percolation tests were conducted at 3-feet bgs in the vicinity of the leach field.

The soil materials encountered in the borings were visually classified in the field, and the logs were recorded during the drilling and sampling operations. Visual classifications of the materials encountered in the borings were made in general accordance with the Unified Soil Classification System (ASTM D 2488). A soil classification chart is presented in Appendix A. Stratification lines were approximated by the field

staff based on observations made at the time of drilling, while the actual boundaries between soil types may be gradual and soil conditions may vary at other locations.

2.2 Laboratory Testing

Laboratory tests were performed on selected soil samples to evaluate moisture content, dry density, shear strength, collapse potential, R-value, expansion index, and corrosion characteristics. A description of the laboratory test methods and results are presented in Appendix B.

3. SITE AND GEOLOGY/SEISMICITY CONDITIONS

The following sections address the Site descriptions and surface conditions, regional geology and seismic hazards, subsurface conditions, and groundwater conditions at the Site. This information is based on BSK's field exploration and published maps and reports.

3.1 Site Description and Surface Conditions

The Site is located in Township 24 South, and Range 38 East of the Mount Diablo Meridian. The NAD 83 GPS coordinates for the center of the Site are 35.8412 degrees North latitude and 117.8772 degrees West longitude. The surface of the site is mostly gravelly silty sand with sparse desert vegetation and discrete stockpiles of waste concrete and gravels from past land use.

3.2 Regional Geology and Seismic Hazards Assessment

Our Scope of services included a review of published maps and reports to assess the regional geology and potential for seismic hazards.

3.2.1 Regional Geology

The Site is located in the Basin and Range Geomorphic Province. The Basin and Range is the westernmost part of the Great Basin. The province is characterized by interior drainage with lakes and playas, and the typical horst and graben structure (subparallel, fault-bounded ranges separated by downdropped basins). Death Valley, the lowest area in the United States (280-feet below sea level at Badwater), is one of these grabens. Another graben, Owens Valley, lies between the bold eastern fault scarp of the Sierra Nevada and Inyo Mountains.

3.2.2 Seismic Hazards Assessment

The types of geologic and seismic hazards assessed include surface ground fault rupture, liquefaction, seismically induced settlement, slope failure, flood hazards and inundation hazards.

The purpose of the Alquist-Priolo Geologic Hazards Zones Act, as summarized in CDMG Special Publication 42 (SP 42), is to "prohibit the location of most structures for human occupancy across the traces of active faults and to mitigate thereby the hazard of fault-rupture." As indicated by SP 42, "the State Geologist is required to delineate "earthquake fault zones" (EFZs) along known active faults in California. Cities and counties affected by the zones must regulate certain development 'projects' within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting.

The Site is not located within an Alquist-Priolo Geologic Hazard Zone (A-P Zone). The closest fault zone is associated with the Little Lake Fault Zone, located approximately 1.5-miles east northeast of the Site and the Garlock Fault Zone, located approximately 30-miles southwest of the site.

Zones of Required Investigation referred to as "Seismic Hazard Zones" (SHZ) in CCR Article 10, Section 3722, are areas shown on Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements. There are no mapped areas that have Seismic Hazard Zones in the project area.

3.3 Subsurface Conditions

The subsurface material generally consisted of silty sand, with varying amounts of gravels and silts throughout to the bottom of the boreholes.

The upper 5-feet of material is anticipated to have very low potential for expansion with an expansion index of 0 at Boring B-2.

Based on the results of the consolidation test, the on-site soils below 5-feet are considered to have a low potential for hydrocompaction.

The boring logs in Appendix A provide a more detailed description of the materials encountered, including the applicable Unified Soil Classification System symbols.

3.4 Groundwater Conditions

Groundwater was not encountered at the Site during drilling on September 16, 2020. Based on the groundwater elevation data from the California Department of Water Resources (DWR), the historic high groundwater depth in the vicinity is approximately 310-feet below ground surface (bgs) on February 27, 2012 from Local Well 358414N1178717W002, located approximately 0.29-miles east of the site.

Please note that the groundwater level may fluctuate both seasonally and from year to year due to variations in rainfall, temperature, pumping from wells and possibly as the result of other factors such as irrigation, that were not evident at the time of our investigation.

4. CONCLUSIONS AND RECOMMENDATIONS

Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the soil conditions would not preclude the construction of the proposed improvements. Provided the recommendations contained in this report are implemented during design and construction, it is our opinion that the structures can be supported on shallow foundations or mat-type foundations.

4.1 Seismic Design Criteria

Based on Section 1613.2.2 of the 2019 CBC, the project Site shall be classified as Site Class A, B, C, D, E or F based on the Site soil properties and in accordance with Chapter 20 of ASCE 7-16. Based on the “N” values of from our soil borings, as per Table 20.3-1 of ASCE 7-16, the Site is Class D (15<N <50).

The 2019 California Building Code (CBC) utilizes ground motion based on the Risk-Targeted Maximum Considered Earthquake (MCE_R) that is defined in the 2019 CBC as the most severe earthquake effects considered by this code, determined for the orientation that results in the largest maximum response to horizontal ground motions and with adjustment for targeted risk. Ground motion parameters in the 2019 CBC are based on ASCE 7-16, Chapter 11.

The Structural Engineers Associates of California (SEAOC) has prepared maps presenting the Risk-Targeted MCE spectral acceleration (5-percent damping) for periods of 0.2 seconds (S_S) and 1.0 seconds (S_1). The values of S_S and S_1 can be obtained from the Occupational Safety Health Planning and Development (OSHPD) Seismic Design Maps Tool at: https://seismicmaps.org/.

Table 1 below presents the spectral acceleration parameters produced for an assumed Site Class D by OSHPD Seismic Design Maps Application and Chapter 16 of the 2019 CBC based on ASCE 7-16.

Table 1: Seismic Design Parameters

Seismic Design Parameter	2019 CBC Value		Reference
MCE Mapped Spectral Acceleration (g)	S_S = 1.465	S_1 = 0.473	USGS Mapped Value
Amplification Factors (Site Class D)	F_a = 1.2	F_V = null[1](1.825)[2]	ASCE Table 11.4
Site Adjusted MCE Spectral Acceleration (g)	S_{MS} = 1.759	S_{M1} = null[1](0.863)[2]	ASCE Equations 11.4.1-2
Design Spectral Acceleration (g)	S_{DS} = 1.172	S_{D1} = null[1] (0.575)[2]	ASCE Equations 11.4.3-4
Geometric Mean PGA (g)	PGA_M = 0.769		Section 11.8.3, ASCE 7-16
Site Short Period – T_s (seconds)	T_s = 0.491		$T_s = S_{D1}/ S_{DS}$
Site Long Period – T_L (seconds)	T_L = 8		USGS Mapped Value

Notes: [1] Requires site-specific ground motion procedure or exception as per ASCE 7-16 Section 11.48
[2] Values from ASCE 7-16 supplement, shall only be used to calculate T_s

As shown above, the short period design spectral response acceleration coefficient, S_{DS}, is greater than 0.50, therefore the Site lies in Seismic Design Category D as specified in Section 1613.3.5 of the 2019 CBC. The long period spectral response acceleration coefficient determined from the Site-Specific Ground Motion Analysis, S_1, is less than 0.75, therefore the Site lies in Seismic Design Category D, based on Risk Category III. 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.

4.2 Soil Corrosivity

A surface soil sample obtained from the Site was tested to provide a preliminary screening of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts. The test results are presented in Appendix B.

The corrosivity evaluation was performed by BSK on soil samples obtained at the time of drilling. The soil was evaluated for minimum resistivity (ASTM G57), pH (ASTM D4972), and soluble sulfate and chlorides (CT 417 and CT 422). At Boring B-2, the minimum resistivity was 10,000 ohm-cm, pH was 6.71, sulfate was not detected, and chloride was detected at 25 parts per million (ppm).

The water-soluble sulfate content severity class is considered not severe to concrete (Exposure Category S0 per Table 4.2.1 of ACI 318-11). Representative samples of the Site soil in the vicinity has a minimum resistivity of 10,000 ohm-cm which is considered severely to mildly to very mildly corrosive to buried metal conduit. Therefore, buried metal conduits, ferrous metal pipes, and exposed steel should have a protective coating in accordance with the manufacturer's specification.

4.3 Site Preparation Recommendations

The following procedures must be implemented during Site preparation for the proposed Site improvements. References to maximum dry density, optimum moisture content, and relative compaction are based on ASTM D 1557 (latest test revision) laboratory test procedures.

1. The areas of proposed improvements must be cleared of surface vegetation and debris. Materials resulting from the clearing and stripping operations must be removed and properly disposed of off-site. In addition, all undocumented fills should be removed where encountered and where fills or structural improvements will be placed.
2. Where existing utilities, inlets, or underground tanks are present, they should be removed to a point at least 3-feet horizontally outside the proposed structural improvement areas. Resultant cavities must be backfilled with engineered fill compacted in accordance with the recommendations presented in this report.
3. Following the stripping operations, BSK recommends at the proposed structures that the exposed ground surface should be overexcavated to 1-foot below the existing grade or bottom of footing elevation, whichever is greater. Following site stripping, pavement areas and flatwork may be scarified a minimum depth of 12-inches and recompacted to at least 90-percent relative compaction. Overexcavation should extend a minimum of 5-feet outside exterior footing lines and pavement. Yielding areas should be observed by the geotechnical consultant and removed and recompacted if necessary. After overexcavation, the bottom of the exposed soil should be scarified 8-inches, moisturized to optimum moisture content, and compacted to 90-percent of ASTM D1557. We recommend that non-expansive soil (EI < 20) be used below the bottom of shallow foundations.
4. Following the required stripping and overexcavation, the exposed ground surface must be inspected by the Geotechnical Engineer to evaluate if loose or soft zones are present that will require over excavation.
5. Imported soil or native excavated soils, free of organic materials or deleterious substances, may be placed as compacted engineered fill. The material must be free of oversized fragments greater than 3-inches in greatest dimension. Engineered fill underneath and extending 5-feet beyond shallow foundations and pavement areas and must be placed in uniform layers not exceeding 8-

inches in loose thickness, moisture conditioned to within 2- to 4-percent above optimum moisture content, and compacted to at least 90-percent relative compaction.

6. BSK must be called to the site to verify the import material properties through laboratory testing.
7. If possible, earthwork operations should be scheduled during a dry, warm period of the year. Should these operations be performed during or shortly following periods of inclement weather, unstable soil conditions may result in the soils exhibiting a "pumping" condition. This condition is caused by excess moisture in combination with moving construction equipment, resulting in saturation and zero air voids in the soils. If this condition occurs, the adverse soils will need to be over-excavated to the depth at which stable soils are encountered and replaced with suitable soils compacted as engineered fill. Alternatively, the Contractor may proceed with grading operations after utilizing a method to stabilize the soil subgrade, which should be subject to review and approval by BSK prior to implementation.
8. Import fill materials must be free from organic materials or deleterious substances. The project specifications must require the contractor to contact BSK to review the proposed import fill materials for conformance with these recommendations at least one week prior to importing to the Site, whether from on-site or off-site borrow areas. Imported fill soils must be non-hazardous and derived from a single, consistent soil type source conforming to the following criteria:

Plasticity Index:	< 12
Expansion Index:	< 20 (Very Low Expansion Potential)
Maximum Particle Size:	3-inches
Percent Passing #4 Sieve:	65 - 100
Percent Passing #200 Sieve:	20 - 45
Low Corrosion Potential:	Soluble Sulfates < 1,500 ppm
	Soluble Chlorides < 150 ppm
	Minimum Resistivity > 3,000 ohm-cm

4.4 Foundations

Provided the recommendations contained in this report are implemented during design and construction, it is our opinion that the structures can be supported on shallow or mat foundations. A structural engineer should evaluate reinforcement and embedment depth of structural elements based on the requirements for the structural loadings, shrinkage, and temperature stresses.

4.4.1 Shallow Foundations

Continuous and isolated spread footings must have a minimum width of 12-inches and 24-inches, respectively and minimum embedment depth of 18-inches below the lowest adjacent grade. Continuous footing foundations may be designed using a net allowable bearing pressure of 3,000 pounds per square foot (psf). Isolated spread footing foundations may be designed using a net allowable bearing pressure of 3,000 psf. The net allowable bearing pressure applies to the dead load plus live load (DL + LL) condition; it may be increased by 1/3 for wind or seismic loads. Total foundation settlements are expected to be less than 0.5-inches and differential settlements between similarly loaded (DL + LL) and sized footings are anticipated to be less than 0.25-inches. Differential settlement of continuous footings, expressed in terms

of angular distortion, is estimated to be approximately 1/600. For slab on grades, a soil modulus of 200 pci may be used for design.

4.4.2 Mat Foundations

We understand that equipment may be supported on a concrete mat foundation. The mat foundation may be designed to impose a maximum allowable pressure of 3,000 psf due to dead plus live loads. This value may be increased by one-third for transient loads such as seismic or wind. The concrete mat foundation should be embedded at least 8-inches below the lowest adjacent grade.

Settlements: Based on the results of our laboratory tests and analyses, total static settlements of the mat foundation under the allowable bearing pressure are expected to be approximately 1-inch, and maximum differential settlements are expected to be about 1/2-inch.

An ultimate coefficient of friction of 0.40 may be used between soil sub-grade and the bottom of mat foundations.

4.5 Lateral Earth Pressures and Frictional Resistance

Provided the Site is prepared as recommended above, the following earth pressure parameters for footings may be used for design purposes. The parameters shown in the table below are for drained conditions of select engineered fill or undisturbed native soil.

Table 2: Recommended Static Lateral Earth Pressures for Footings

Lateral Pressure Condition	Equivalent Fluid Density (pcf) Drained Condition
Active Pressure	30
At Rest Pressure	50
Passive Pressure	475

The lateral earth pressures listed herein are obtained by the conventional equation for active, at rest, and passive conditions assuming level backfill and a bulk unit weight of 125 pcf for the Site soils. A coefficient of friction of 0.38 may be used between soil sub-grade and the bottom of footings.

The coefficient of friction and passive earth pressure values given above represent ultimate soil strength values. BSK recommends that a safety factor consistent with the design conditions be included in their usage in accordance with Sections 1806.3.1 through 1806.3.3 of the 2019 CBC. For stability against lateral sliding that is resisted solely by the passive earth pressure against footings or friction along the bottom of footings, a minimum safety factor of 1.5 is recommended. For stability against lateral sliding that is resisted by combined passive pressure and frictional resistance, a minimum safety factor of 2.0 is recommended. For lateral stability against seismic loading conditions, a minimum safety factor of 1.2 is recommended.

4.6 Excavation Stability

Soils encountered within the depth explored are generally classified as Type C soils in accordance with OSHA (Occupational Safety and Health Administration). The slopes surrounding or along temporary excavations may be vertical for excavations that are less than 5-feet deep and exhibit no indication of potential caving, but should be no steeper than 1.5H:1V for excavations that are deeper than 5-feet, up to a maximum depth of 15-feet. Certified trench shields or boxes may also be used to protect workers during construction in excavations that have vertical sidewalls and are greater than 5-feet deep. Temporary excavations for the project construction should be left open for as short a time as possible and should be protected from water runoff. In addition, equipment and/or soil stockpiles must be maintained at least 10-feet away from the top of the excavations. Because of variability in soils, BSK must be afforded the opportunity to observe and document sloping and shoring conditions at the time of construction. Slope height, slope inclination, and excavation depths (including utility trench excavations) must in no case exceed those specified in local, state, or federal safety regulations, (e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations).

4.7 Trench Backfill and Compaction

Processed on-Site soils, which are free of organic material, are suitable for use as general trench backfill above the pipe envelope. Native soil with particles less than three-inches in the greatest dimension may be incorporated into the backfill and compacted as specified above, provided they are properly mixed into a matrix of friable soils. The backfill must be placed in thin layers not exceeding 12-inches in loose thickness, be well-blended and consistent texture, moisture conditioned to at least optimum moisture content, and compacted to at least 90-percent of the maximum dry density as determined by the ASTM D1557. The uppermost 12-inches of trench backfill below pavement sections must be compacted to at least 95-percent of the maximum dry density as determined by ASTM D1557. Moisture content within two-percent of optimum must be maintained while compacting this upper 12-inch trench backfill zone.

We recommend that trench backfill be tested for compliance with the recommended Relative Compaction and moisture conditions. Field density testing should conform to ASTM Test Methods D1556 or D6938. We recommend that field density tests be performed in the utility trench bedding, envelope and backfill for every vertical lift, at an approximate longitudinal spacing of not greater than 150-feet. Backfill that does not conform to the criteria specified in this section should be removed or reworked, as applicable over the trench length represented by the failing test so as to conform to BSK recommendations.

4.8 Concrete Slabs on Grade

Non-structural concrete slab-on-grade floors must be a minimum of 4-inches thick and must be supported on a compacted subgrade prepared in accordance with Section 4.3. In order to regulate cracking of the slabs, construction joints and/or control joints must be provided in each direction at a maximum spacing of 10-feet along with steel reinforcement as recommended by the Project Structural Engineer. Control joints must have a minimum depth of one-quarter of the slab thickness. Due to the difficulty of installing and maintaining woven or welded wire mesh (WWM) in the middle of concrete slabs-on-grade during construction, it is recommended that any steel reinforcement used in concrete slabs-on-grade consist of

steel rebar. Structural concrete slabs-on-grade may be designed using a modulus of subgrade reaction equal to 200 pci.

Interior concrete slabs must be successively underlain by: 1-½-inches of washed concrete sand; a durable vapor barrier; and a smooth, compacted subgrade surface. The vapor barrier must meet the requirements of ASTM E 1745 Class A and have a water vapor transmission rate (WVTR) of less than or equal to 0.012 Perms as tested by ASTM E 96. Examples of acceptable vapor barrier products include: Stego Wrap (15-mil) Vapor Barrier by STEGO INDUSTRIES LLC; W.R. Meadows Premoulded Membrane with Plasmatic Core; and Zero-Perm by Alumiseal. Because of the importance of the vapor barrier, joints must be carefully spliced and taped. If migration of subgrade moisture through the slab is not a concern, then the vapor barrier and overlying sand may be deleted. The building subgrade must be kept in a moist condition until the vapor barrier or concrete slab is placed. A representative from BSK must be called to the Site to review soil and moisture conditions immediately prior to placing the vapor barrier or concrete slab.

As indicated in the recent PCA Engineering Bulletin 119, Concrete Floors and Moisture, and applicable ACI Committee reports (see ACI 360R-06, Design of Slabs-on-Ground, dated October 2006 and ACI 302.1R-04, Guide for Concrete Floor and Slab Construction, dated June 2004), the sand layer between the vapor barrier and concrete floor slab may be omitted. This must reduce the amount of moisture that can be transmitted through the slab (especially if the sand layer becomes very moist or wet prior to placing the concrete); however, the risk of slab "curling" is much greater. The "curling" may result from a sharp contrast in moisture-drying conditions between the exposed slab surface and the surface in contact with the membrane. As recommended in the referenced ACI Committee reports, measures must be taken to reduce the risk of "curling" such as reducing the joint spacing, using a low shrinkage mix design, and reinforcing the concrete slab. In order to regulate cracking of the slab, we recommend that full depth construction joints and control joints be provided in each direction with slab thickness and steel reinforcing recommended by the structural engineer.

Excessive landscape water or leaking utility lines could create elevated moisture conditions under concrete slabs, which could result in adverse moisture or mildew conditions in floor slabs or walls.

Accordingly, care must be taken to avoid excess irrigation around the structures, as well as to periodically monitor for leaking utility lines. Likewise, positive surface drainage must be provided around the perimeter of the structures.

As indicated above, the control of the deleterious effects of moisture vapor transmission on flooring materials can be substantially improved by the use of a low porosity concrete. This can be achieved by specifying a low water: cement ratio (0.45 or less by weight), 4,000 psi compressive strength at 28 days and a minimum of 7 days wet-curing.

4.9 Drainage Considerations

The control surface drainage in the project areas is an important design consideration. BSK recommends that final grading around shallow foundations must provide for positive and enduring drainage away from

the structures, and ponding of water must not be allowed around, or near the shallow foundations. Ground surface profiles next to the shallow foundations must have at least a 2-percent gradient away from the structures.

4.10 Percolation

The percolation testing was conducted by a BSK staff member on September 17, 2020. Two (2) percolation tests were conducted in test borings in the area of the proposed leach field. These tests were conducted in accordance with Inyo County Department of Environmental Health Services' Local Area Management Program. The Percolation Test locations can be found on Figure A-2: Boring and Percolation Test Location Map. The results of the percolation tests are presented on Figures A-4 and A-5, and in the table below.

Table 3: Summary of Percolation Test Result

Test Location	Soil Description	Percolation Rate (minute/inch)
P-1	Silty Sand	4.44
P-2	Silty Sand	5.71

5. PLANS AND SPECIFICATIONS REVIEW

BSK recommends that it be retained to review the draft plans and specifications for the project, with regard to foundations and earthwork, prior to their being finalized and issued for construction bidding.

6. CONSTRUCTION TESTING AND OBSERVATIONS

Geotechnical testing and observation during construction is a vital extension of this geotechnical investigation. BSK recommends that it be retained for those services. Field review during Site preparation and grading allows for evaluation of the exposed soil conditions and confirmation or revision of the assumptions and extrapolations made in formulating the design parameters and recommendations. BSK's observations must be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. BSK must also be called to the Site to observe foundation excavations, prior to placement of reinforcing steel or concrete, in order to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report. BSK must also be called to the Site to observe placement of foundation and slab concrete.

If a firm other than BSK is retained for these services during construction, then that firm must notify the owner, project designers, governmental building officials, and BSK that the firm has assumed the responsibility for all phases (i.e., both design and construction) of the project within the purview of the geotechnical engineer. Notification must indicate that the firm has reviewed this report and any subsequent addenda, and that it either agrees with BSK's conclusions and recommendations, or that it will provide independent recommendations.

7. LIMITATIONS

The analyses and recommendations submitted in this report are based upon the data obtained from the Borings performed at the locations shown on the Boring Location Map, Figure A-2. The report does not reflect variations which may occur between or beyond the Borings. The nature and extent of such variations may not become evident until construction is initiated. If variations then appear, a re-evaluation of the recommendations of this report will be necessary after performing on-Site observations during the excavation period and noting the characteristics of the variations.

The validity of the recommendations contained in this report is also dependent upon an adequate testing and observation program during the construction phase. BSK assumes no responsibility for construction compliance with the design concepts or recommendations unless it has been retained to perform the testing and observation services during construction as described above.

The findings of this report are valid as of the present. However, changes in the conditions of the Site can occur with the passage of time, whether caused by natural processes or the work of man, on this property or adjacent property. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, governmental policy or the broadening of knowledge.

BSK has prepared this report for the exclusive use of the Client and members of the project design team. The report has been prepared in accordance with generally accepted geotechnical engineering practices which existed in Inyo County at the time the report was written. No other warranties either expressed or implied are made as to the professional advice provided under the terms of BSK's agreement with Client and included in this report.

8. REFERENCES

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Lee, Norman. California Geomorphic Provinces (2012): n. pag. California Department of Conservation. California Geological Survey. <http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_36/Documents/note_36.pdf>. September 2020.

USGS/OSHPD, U.S. Seismic Design Maps, https://seismicmaps.org/. September 2020.

APPENDIX A

FIELD EXPLORATION

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FIELD EXPLORATION

The field exploration for this investigation was conducted under the oversight of a BSK staff member. Seven (7) borings were drilled at the Site on September 16, 2020 using a truck-mounted drilling rig provided by Baja Exploration to a maximum depth of 21.5-feet beneath the existing ground surface (bgs). Two (2) percolation tests were conducted at 3-feet bgs in the vicinity of the leach field.

The soil materials encountered in the test borings were visually classified in the field, and the logs were recorded during the drilling and sampling operations. Visual classification of the materials encountered in the test borings was made in general accordance with the Unified Soil Classification System (ASTM D 2488). A soil classification chart is presented herein. Boring logs are presented herein and should be consulted for more details concerning subsurface conditions. Stratification lines were approximated by the field staff based on observations made at the time of drilling, while the actual boundaries between soil types may be gradual and soil conditions may vary at other locations.

Subsurface samples were obtained at the successive depths shown on the boring logs by hand-driven samplers which consisted of a 2.5-inch inside diameter (I.D.) Shelby tube sampler. The samplers were driven 12-inches by hand using a metal fence post hammer. The relatively undisturbed soil core samples were capped at both ends to preserve the samples at their natural moisture content. Soil grab samples were also obtained using the hand auger equipment in which the samples were placed and sealed in polyethylene bags. At the completion of the field exploration, the test borings were backfilled with the excavated soil cuttings.

Table A-1: Consistency of Coarse-Grained Soil by Sampler Blow Count		
Consistency Descriptor	**SPT Blow Count (#Blows / Foot)**	**2.5" I.D. California Sampler Blow Count (#Blows / Foot)**
Very Loose	<4	<6
Loose	4 – 10	6 – 15
Medium Dense	10 – 30	15 – 45
Dense	30 – 50	45 – 80
Very Dense	>50	>80

Table A-2: Apparent Relative Density of Fine-Grained Soil by Sampler Blow Count		
Consistency Descriptor	**SPT Blow Count (#Blows / Foot)**	**2.5" I.D. California Sampler Blow Count (#Blows / Foot)**
Very Soft	<2	<3
Soft	2 – 4	3 – 6
Firm	4 – 8	6 – 12
Very Firm	8 – 15	12 – 24
Hard	15 – 30	24 – 45
Very Hard	>30	>45

REFERENCE IMAGE: Google Earth 2020

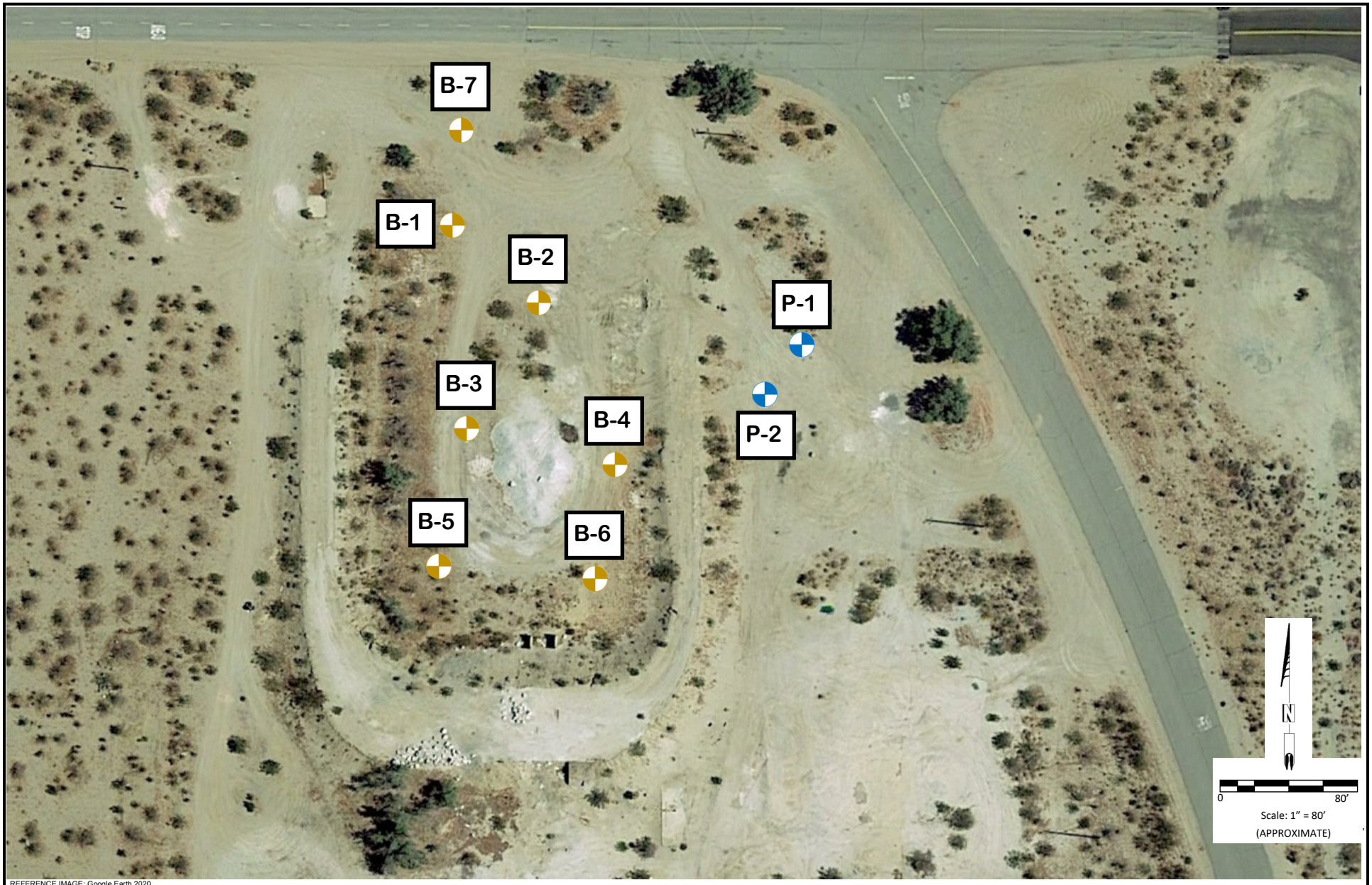
BSK ASSOCIATES
700 22nd Street
Bakersfield, California 93301
Tel. (661) 327-0671

SITE VICINITY MAP

Chief Farms Cannabis Project
50 West Nine Mile Canyon Road
Pearsonville, Inyo County, California

FIGURE A-1

JOB NO. G20-195-10B
DATE September 2020
DR. BY LP
CH. BY AXT
SCALE AS SHOWN
SHEET NO. 1 OF 1 SHEETS



REFERENCE IMAGE: Google Earth 2020

LEGEND:

APPROXIMATE BORING LOCATION B-1

APPROXIMATE PERCOLATION LOCATION P-1

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Tel. (661) 327-0671

BORING AND PERCOLATION LOCATION MAP

Chief Farms Cannabis Project
50 West Nine Mile Canyon Road
Pearsonville, Inyo County, California

FIGURE A-2

JOB NO. G20-195-10B
DATE September 2020
DR. BY LP
CH. BY AXT
SCALE AS SHOWN

SHEET NO. 1 OF 1 SHEETS

MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS More than Half >#200	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP	POORLY GRADED GRAVELS, GRAVEL- SAND MIXTURES
		GRAVELS WITH OVER 15% FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS
			SP	POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 15% FINES	SM	SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS More than Half <#200 sieve	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS , MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

Note: Dual symbols are used to indicate borderline soil classifications.

	Pushed Shelby Tube	RV	R-Value
	Standard Penetration Test	SA	Sieve Analysis
	Modified California	SW	Swell Test
	Auger Cuttings	TC	Cyclic Triaxial
	Grab Sample	TX	Unconsolidated Undrained Triaxial
	Sample Attempt with No Recovery	TV	Torvane Shear
CA	Chemical Analysis	UC	Unconfined Compression
CN	Consolidation	(1.2)	(Shear Strength, ksf)
CP	Compaction	WA	Wash Analysis
DS	Direct Shear	(20)	(with % Passing No. 200 Sieve)
PM	Permeability		Water Level at Time of Drilling
PP	Pocket Penetrometer		Water Level after Drilling (with date measured)

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA
Unified Soil Classification System

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PLATE: Figure A-3

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700 22nd Street
Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-01

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	MATERIAL DESCRIPTION	Samples	Penetration Blows / Foot	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)
	Surface: SILTY SAND, pale brown, fine to coarse grained, angular sands.				
	SM: SILTY SAND: very light brown, fine to coarse grained, dry, moderately graded, angular, trace fine gravel.				
	medium dense		30	123	1
5	medium dense		32	127	1
10	medium dense, decrease in coarse material		28		
15	medium dense, light yellowish brown, decrease in coarse material		23		
20	**SM/ML: SILTY SAND/ SANDY SILT:** yellowish brown, fine to coarse grained, dense, slight moisture, poorly graded, subangular.		35		
	End of boring.				
25					

Graphic Log; Sample Number; Pocket Penetrometer, TSF; % Passing No. 200 Sieve; Liquid Limit; Plastic Limit; Plasticity Index

Completion Depth:	21.5	**Drilling Equipment:**	Mobile B-61
Date Started:	9/16/20	**Drilling Method:**	Hollow Stem
Date Completed:	9/16/20	**Drive Weight:**	140 pounds
California Sampler:	2.4" inner diameter	**Hole Diameter:**	8 inches
SPT Sampler:	1.4" inner diameter	**Drop:**	30 inches
		Remarks:	-

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Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-02

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	MATERIAL DESCRIPTION	Samples	Penetration Blows / Foot	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)
0	**Surface:** SILTY SAND, pale brown, fine to coarse grained, angular sands.				
	SM: SILTY SAND: light yellowish brown, fine to coarse grained, dry, poorly graded, angular to subangular, trace fine gravel.				
	medium dense, very light brown, dry		33	123	2
5	**CL: SANDY CLAY:** reddish brown, moist, very hard, fine to coarse grained sand, subrounded to subangular, trace fine grained gravel.		38	126	2
10	medium dense, yellowish brown		29		
15	medium dense		20		
20	medium dense		29		
	End of boring.				
25					

Sample Number | Pocket Penetrometer, TSF | % Passing No. 200 Sieve | Liquid Limit | Plastic Limit | Plasticity Index

Completion Depth:	21.5	**Drilling Equipment:**	Mobile B-61
Date Started:	9/16/20	**Drilling Method:**	Hollow Stem
Date Completed:	9/16/20	**Drive Weight:**	140 pounds
California Sampler:	2.4" inner diameter	**Hole Diameter:**	8 inches
SPT Sampler:	1.4" inner diameter	**Drop:**	30 inches
		Remarks:	-

GEO_TARGET BORING LOGS CHIEF FARMS - CANNABIS FACILITY.GPJ GEOTECHNICAL 08.GDT 9/23/20

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Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-03

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetrometer, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
		Surface: SILTY SAND, pale brown, fine to coarse grained, angular sands.										
		SM: SILTY SAND: light brown, fine to coarse grained, dry, poorly graded, subangular.										
		medium dense			33			120	2			
5		GRAVELLY SILTY SAND, dense, moderately graded, angular to subangular, fine gravel			38				1			
10		medium dense, poorly graded, trace fine gravel			29							
15		medium dense, no gravel			20							
20		medium dense			29							
25		End of boring.										

Completion Depth:	21.5	**Drilling Equipment:**	Mobile B-61
Date Started:	9/16/20	**Drilling Method:**	Hollow Stem
Date Completed:	9/16/20	**Drive Weight:**	140 pounds
California Sampler:	2.4" inner diameter	**Hole Diameter:**	8 inches
SPT Sampler:	1.4" inner diameter	**Drop:**	30 inches
		Remarks:	-

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Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-04

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	MATERIAL DESCRIPTION	Samples	Penetration Blows / Foot	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)
0	**Surface:** SILTY SAND, pale brown, fine to coarse grained, angular sands.				
	SM: SILTY SAND: light brown, fine to coarse grained, dry, poorly graded, angular to subangular.				
	medium dense	■	39	126	2
5	medium dense, fine to medium grained, decrease in fines, trace coarse sand	■	44	123	3
10	medium dense, fine to medium grained	■	21		
15	medium dense, fine to medium grained	☒	16		
20	medium dense, trace coarse sand	☒	25		
	End of boring.				
25					

Pocket Penetrometer, TSF | % Passing No. 200 Sieve | Liquid Limit | Plastic Limit | Plasticity Index

Completion Depth:	21.5	**Drilling Equipment:**	Mobile B-61
Date Started:	9/16/20	**Drilling Method:**	Hollow Stem
Date Completed:	9/16/20	**Drive Weight:**	140 pounds
California Sampler:	2.4" inner diameter	**Hole Diameter:**	8 inches
SPT Sampler:	1.4" inner diameter	**Drop:**	30 inches
		Remarks:	-

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Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-05

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	MATERIAL DESCRIPTION	Samples	Penetration Blows / Foot
	Surface: SILTY SAND, pale brown, fine to coarse grained, angular sands.		
	SM: SILTY SAND: yellowish brown, fine to coarse grained, dry, poorly graded, subangular.		
	medium dense		31
5	medium dense, trace fine gravel		35
10	medium dense, no gravel, increase in fines		43
15	medium dense		24
20	medium dense		30
	End of boring.		
25			

Sample Number | Pocket Penetrometer, TSF | % Passing No. 200 Sieve | In-Situ Dry Weight (pcf) | In-Situ Moisture Content (%) | Liquid Limit | Plastic Limit | Plasticity Index

Completion Depth: 21.5
Date Started: 9/16/20
Date Completed: 9/16/20
California Sampler: 2.4" inner diameter
SPT Sampler: 1.4" inner diameter

Drilling Equipment: Mobile B-61
Drilling Method: Hollow Stem
Drive Weight: 140 pounds
Hole Diameter: 8 inches
Drop: 30 inches
Remarks: -

GEO_TARGET BORING LOGS CHIEF FARMS - CANNABIS FACILITY.GPJ GEOTECHNICAL 08.GDT 9/23/20

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Fax: (661) 324-4218

LOG OF BORING NO. B-06

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetrometer, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
0		**Surface:** SILTY SAND, pale brown, fine to coarse grained, angular sands.										
		SM: GRAVELLY SILTY SAND: dark yellowish brown, fine to coarse grained, slightly moist, moderately graded, angular to subangular, fine gravel.										
		medium dense			26							
5		medium dense, very light brown, poorly graded, angular, no gravel			29							
10		medium dense, light brown, fine to coarse grained, increase in fines			32							
15		medium dense			20							
20		medium dense			22							
		End of boring.										
25												

Completion Depth:	21.5	**Drilling Equipment:**	Mobile B-61
Date Started:	9/16/20	**Drilling Method:**	Hollow Stem
Date Completed:	9/16/20	**Drive Weight:**	140 pounds
California Sampler:	2.4" inner diameter	**Hole Diameter:**	8 inches
SPT Sampler:	1.4" inner diameter	**Drop:**	30 inches
		Remarks:	-

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700 22nd Street
Bakersfield, CA 93301
Telephone: (661) 327-0671
Fax: (661) 324-4218

LOG OF BORING NO. B-07

Project Name: **Chief Farms - Cannabis Facility**
Project Number: **G20-195-10B**
Project Location: **Pearsonville, California**
Logged by: **L. Prosser**
Checked by: **A. Terronez**

Surface El.:
Location:

Depth, feet	Graphic Log	MATERIAL DESCRIPTION	Samples	Sample Number	Penetration Blows / Foot	Pocket Penetrometer, TSF	% Passing No. 200 Sieve	In-Situ Dry Weight (pcf)	In-Situ Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index
0		**SM: SILTY SAND:** light brown, fine to coarse grained, dry, poorly graded, subangular.										
5												
10												
15												
20												
25												

Completion Depth: 5.0
Date Started: 9/16/20
Date Completed: 9/16/20
California Sampler: 2.4" inner diameter
SPT Sampler: 1.4" inner diameter

Drilling Equipment: Mobile B-61
Drilling Method: Hollow Stem
Drive Weight: 140 pounds
Hole Diameter: 8 inches
Drop: 30 inches
Remarks: -

GEO_TARGET BORING LOGS CHIEF FARMS - CANNABIS FACILITY.GPJ GEOTECHNICAL 08.GDT 9/23/20

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Fax: (661) 324-4218

Percolation Test

Project Name: Chief Farms - Cannabis Facility
Tested By: L. Prosser
Project Number: G20-195-10B
Test Date: 9/17/2020
Test Hole No: P-2
Depth of Test Hole: 3'
Time Presaturation: 9:00
Diameter of Test Hole: 6"
Soil Description: Gravelly SM: fine to coarsely grained with fine grained gravel.

Initial Time T_1 (hr:min)	Depth of Water d_1, (Inch)	Final Time T_2 (hr:min)	Final Depth d_2 (inch)	Time Interval ΔT (min:sec)	Change in Depth Δd (inch)	Percolation Rate ΔT/Δd (min/in)
10:56	14	11:26	0	30:00	14	2.14
11:30	13.5	12:00	0	30:00	13.5	2.22
12:10	6	12:20	4.25	10:00	1.75	5.71
12:20	6	12:30	3.75	10:00	2.25	4.44
12:30	6	12:40	4.25	10:00	1.75	5.71
12:40	6.25	12:50	4	10:00	2.25	4.44
12:50	6	13:00	4.25	10:00	1.75	5.71
13:00	6	13:10	4.25	10:00	1.75	5.71

Figure A-5

Percolation Rate: **5.71 minutes/inch**

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Percolation Test

Project Name: Chief Farms - Cannabis Facility
Tested By: L. Prosser
Project Number: G20-195-10B
Test Date: 9/17/2020
Test Hole No: P-1
Depth of Test Hole: 3'
Time Presaturation: 9:00
Diameter of Test Hole: 6"
Soil Description: Gravelly SM: fine to coarsely grained with fine grained gravel.

Initial Time T_1 (hr:min)	Depth of Water d_1, (Inch)	Final Time T_2 (hr:min)	Final Depth d_2 (inch)	Time Interval ΔT (min:sec)	Change in Depth Δd (inch)	Percolation Rate ΔT/Δd (min/in)
10:10	13.5	10:15	9.25	05:00	4.25	1.18
10:15	9.25	10:20	6.75	05:00	2.5	2.00
10:20	6.75	10:25	5	05:00	1.75	2.86
10:25	5	10:30	3.5	05:00	1.5	3.33
10:30	3.5	10:35	1.75	05:00	1.75	2.86
10:35	1.75	10:40	0	05:00	1.75	2.86
10:49	14	11:19	0.25	30:00	13.75	2.18
11:45	6	11:55	3.25	10:00	2.75	3.64
11:55	6	12:05	3.25	10:00	2.75	3.64
12:05	6	12:15	3.25	10:00	2.75	3.64
12:15	8.25	12:25	5.75	10:00	2.5	4.00
12:25	6	12:35	3.75	10:00	2.25	4.44
12:35	6	12:45	3.75	10:00	2.25	4.44

Figure A-4

Percolation Rate: **4.44 minutes/inch**

APPENDIX B

LABORATORY TESTING RESULTS

APPENDIX B
LABORATORY TESTING

Moisture-Density Tests

The field moisture content, as a-percentage of dry weight of the soils, was determined by weighing the samples before and after oven drying in accordance with ASTM D 2216 test procedures. Dry densities, in pounds per cubic foot, were also determined for undisturbed core samples in general accordance with ASTM D 2937 test procedures. Test results are presented on the boring logs in Appendix A.

Direct Shear Test

One (1) Direct Shear Test was performed on relatively undisturbed soil samples obtained at the time of drilling in the area of planned construction. The tests were conducted to determine the soil strength characteristics. The standard test method is ASTM D3080, Direct Shear Test for Soil under Consolidated Drained Conditions. The direct shear test result is presented graphically on Figure B-1.

Collapse Potential Test

One (1) Collapse Potential Test was performed on relatively undisturbed soil samples to evaluate collapse potential characteristics. The test was performed in general accordance with ASTM D 5333. The samples were initially loaded under as-received moisture content to a selected stress level, loaded up to a maximum load of 1300 psf and were then saturated. The test results are presented on Figure B-2.

Expansion Index Test

One (1) Expansion Index Test was performed on bulk soil samples in the Site area. The tests were performed in general accordance with UBC Standard 18-2. The test result is presented on Figure B-3.

Soil Corrosivity

One (1) Corrosivity Evaluation was performed on bulk soil samples obtained at the time of drilling in the area of planned construction. The soil was evaluated for minimum resistivity (ASTM G57). The test results are presented in Table B-1.

Table B-1: Summary of Corrosion Test Results

Sample Location	pH	Sulfate, ppm	Chloride, ppm	Minimum Resistivity, ohm-cm
B-2 @ 0-5 feet bgs	6.71	Not Detected	25	10,000

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Ph: (661) 327-0671
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Direct Shear Test

ASTM D 3080

Project Name:	**Chief Farms Cannabis Facility**	**Sample Date:**	9/16/2020
Project Number:	G20-195-10B	**Test Date:**	9/21/2020
Lab Tracking ID:	B20-142	**Report Date:**	9/28/2020
Sample Location:	B-1 @ 3.0-3.5 feet bgs	**Sampled By:**	L. Prosser
Sample Description:	SM: SILTY SAND: very light brown, fine to coarse grained, dry, angular, trace fine gravel.	**Tested By:**	C. Irving

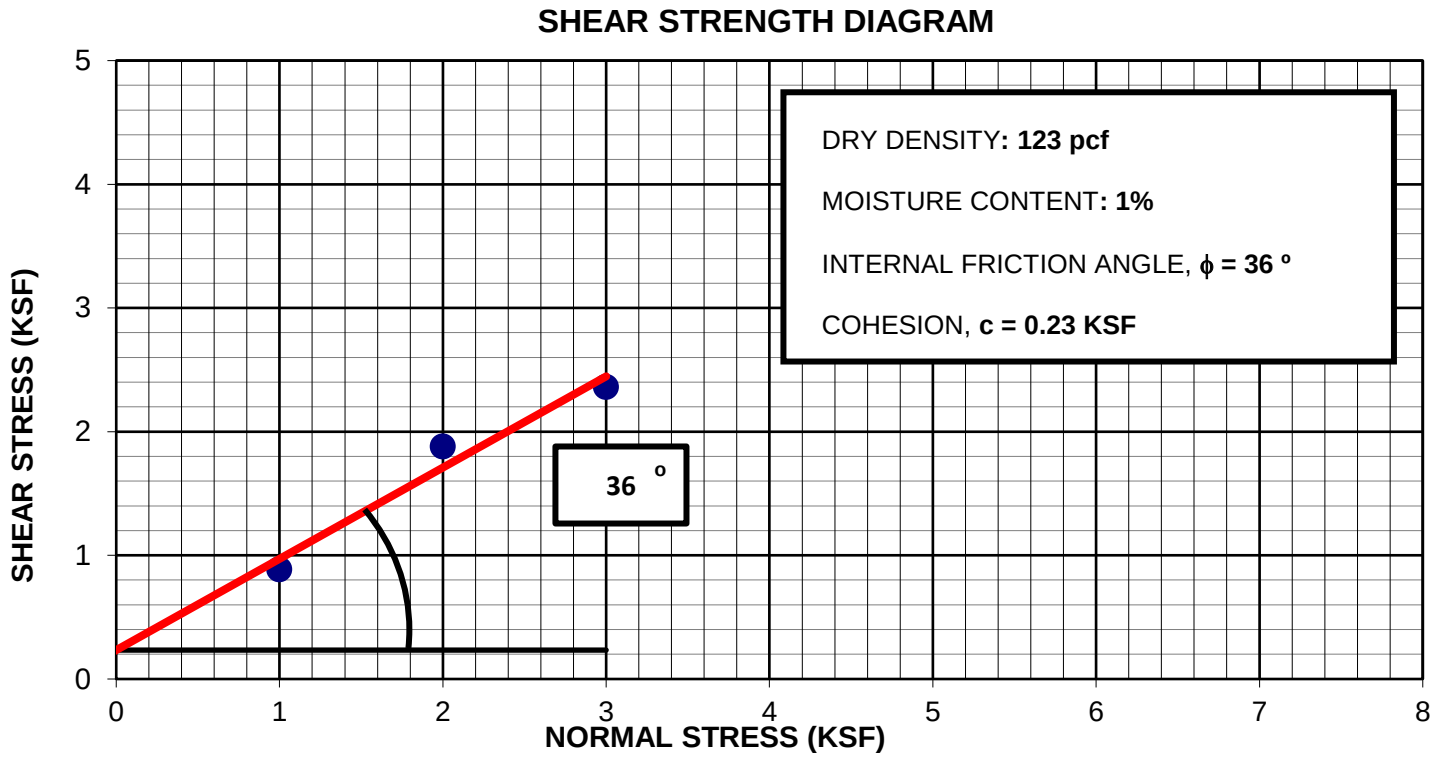

Figure B-1

Reviewed By: *Ian Remotigue*

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Collapse Potential Test

ASTM D 5333, One-Dimensional Analysis

Project Name:	Chief Farms Cannabis Facility	**Sample Date:**	9/16/2020
Project Number:	G20-195-10**B**	**Test Date:**	9/21/2020
Sample Location:	B-2 @ 3.0-3.5 feet bgs	**Sampled By:**	L. Prosser
Sample Description:	SM: SILTY SAND: light yellowish brown, fine to coarse grained, dry, poorly graded, angular to subangular, trace fine gravel.	**Tested By:**	C. Irving
Collapse Potential:	0.14 percent collapse at 1300 psf	**Dry Density (pcf):**	123
Peak Load (psf):	1300	**Initial Moisture Content (%):**	2

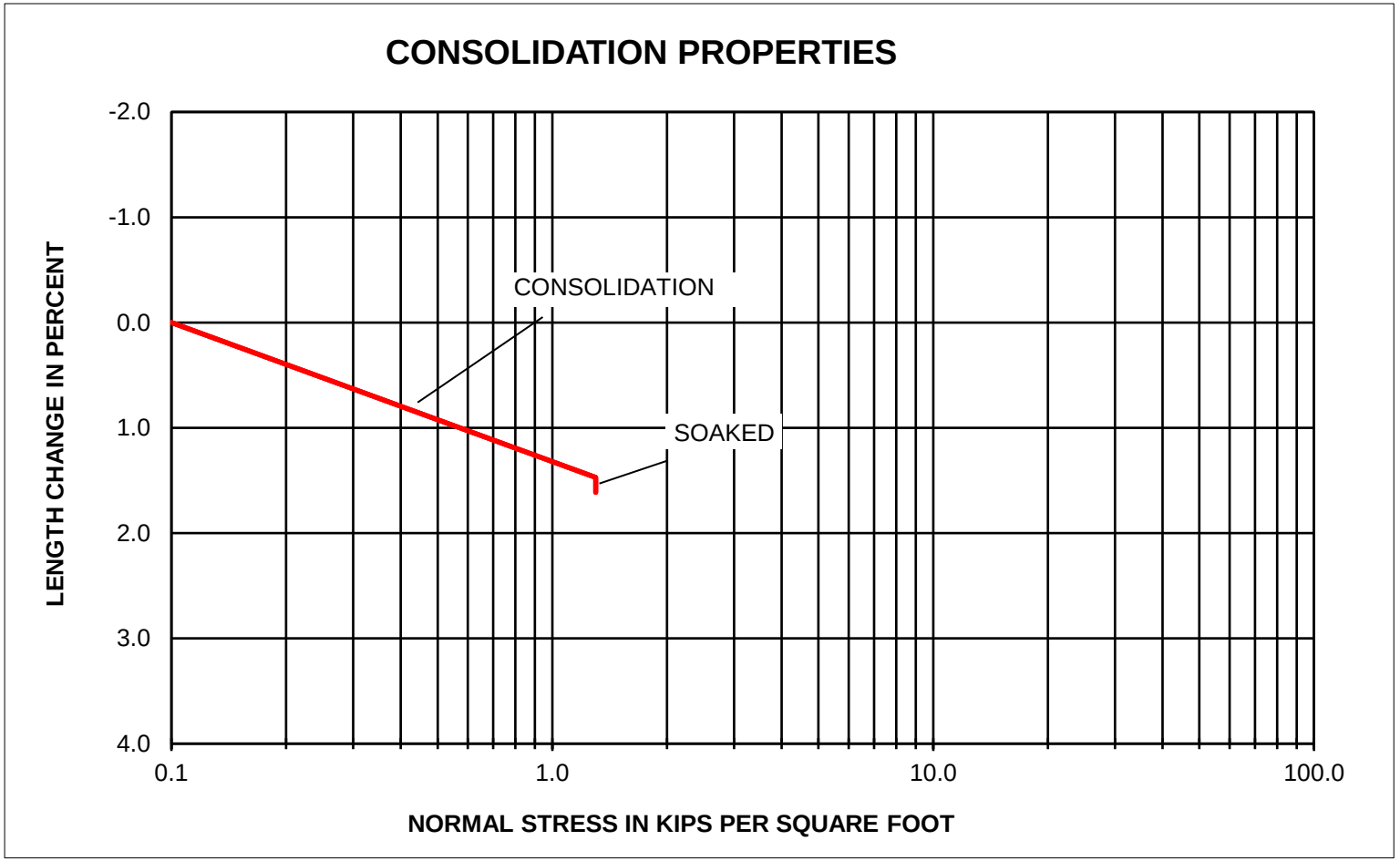

Figure B-2

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Fax: (661) 324-4218

EXPANSION INDEX OF SOILS

ASTM D 4829

Project Name:	Chief Farms - Cannabis Facility	**Sample Date:**	9/28/2020
Project Number:	G20-195-10B	**Sampled By:**	LP
Sample Location:	B2 @ 0'-5'	**Test Date:**	9/22/2020
Source:	Native	**Tested By:**	B. Jackson
Lab ID No.	B20-142		
Sample Description:	SM: SILTY SAND: light yellowish brown, fine to coarse grained, dry, poorly graded, angular to subangular, trace fine gravel.		

TEST DATA

INITIAL SET-UP DATA		**FINAL TAKE-DOWN DATA**	
Sample + Tare Weight (g)	817.3	Sample + Tare Weight (g)	842.0
Tare Weight (g)	372.5	Tare Weight (g)	372.5
Moisture Content Data		**Moisture Content Data**	
Wet Weight + Tare	200.9	Wet Weight + Tare	842.0
Dry Weight + Tare	189.3	Dry Weight + Tare	791.7
Tare Weight (g)	0	Tare Weight (g)	372.5
Moisture Content (%)	6.1%	Moisture Content (%)	12.0%
Initial Volume (ft^3)	0.007272	Final Volume (ft^3)	0.007272
Remolded Wet Density (pcf)	134.8	Final Wet Density (pcf)	142.3
Remolded Dry Density (pcf)	127.1	Final Dry Density (pcf)	127.1
Degree of Saturation	**50.8**	**Degree of Saturation**	**99**

EXPANSION READINGS

Initial Gauge Reading (in)	0.2516
Final Gauge Reading (in)	0.2516
Expansion (in)	0

Uncorrected Expansion Index	**0**

Classification of Expansive Soil

EI	Potential Expansion
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

Remarks: The material has a very low expansion potentional.

Reviewed By: I. Remontigue

Figure B-3