Appendix H

Campus Town Preliminary Geological Investigation

DUE DILIGENCE LEVEL GEOTECHNICAL INVESTIGATION
SURPLUS II – SEASIDE
PROPOSED RESIDENTIAL AND COMMERCIAL DEVELOPMENT
CAMPUS TOWN
LIGHTFIGHTER DRIVE AND COLONEL DURHAM STREET
SEASIDE, CALIFORNIA

FOR

KB Bakewell Seaside Ventures II, LLC

Job No. 3961.100

BERLOGAR STEVENS & ASSOCIATES

Via E-Mail

July 24, 2018
Job No. 3961.100

BERLOGAR
STEVENS &
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Mr. Charles Hazelbaker
KB Bakewell Seaside Ventures II, LLC
5000 Executive Parkway, Suite 125
San Ramon, California 94583

Subject: Due Diligence Level Geotechnical Investigation
Surplus II – Seaside
Proposed Residential and Commercial Development – Campus Town
Lightfighter Drive and Colonel Durham Street
Seaside, California

Dear Mr. Hazelbaker:

Berlogar Stevens & Associates (BSA) is pleased to present our Due Diligence Level Geotechnical Investigation report for the proposed residential and commercial development in Seaside, California. With consideration of the data collected during this investigation and our previous experience at the former Fort Ord post in Seaside and Marina, it is our opinion that the site, from a geotechnical and geologic engineering perspective, may be developed as proposed, provided the geotechnical and geologic concerns identified in this report are addressed in site design and construction. The principal geotechnical and geologic concerns with development of the site include: the potential for very strong or intense seismic shaking, loose near-surface sand deposits, and stability of cut and fill slopes.

We trust that the attached report provides the information that you require at this time. If you have any questions, please contact the undersigned at (925) 484-0220.

Respectfully Submitted,
BERLOGAR STEVENS & ASSOCIATES

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DUE DILIGENCE LEVEL GEOTECHNICAL INVESTIGATION
SURPLUS II – SEASIDE
PROPOSED RESIDENTIAL AND COMMERCIAL DEVELOPMENT
CAMPUS TOWN
LIGHTFIGHTER DRIVE AND COLONEL DURHAM STREET
SEASIDE, CALIFORNIA

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PURPOSE AND SCOPE

The purpose of the due diligence level geotechnical investigation is to identify the predominant geologic and geotechnical conditions at the site, to evaluate their potential impacts on the future redevelopment of the site and to provide preliminary recommendations for mitigation of adverse geotechnical and geologic conditions to the extent considered to be practical. Preliminary recommendations to mitigate adverse conditions, such as loose sands and uncontrolled fills, will be provided along with recommendations for future exploration and analysis, as warranted by the conditions encountered. Preliminary recommendations will also be provided for site grading and building foundations for preliminary design development. Final design recommendations should be developed after the full scope of the development project has been finalized. Further exploration and analysis will be required at that time. The scope of our services was in general accordance with our proposal of April 30, 2018 and included the following:

1. Review of readily available published geologic maps and reports for the area.
2. Review of in-house geotechnical and geologic reports and literature pertinent to the area.
3. Review of site topographic map prepared by Ruggeri-Jensen-Azar, Inc.
4. Review of the preliminary site plan by SDG Architects, Inc, dated February 1, 2018.
5. Site reconnaissance by a member of our engineering staff.
6. Marking of CPT, boring and test pit locations, and USA North notification.
7. Perform subsurface exploration consisting of Cone Penetration Tests and auger borings.
8. Performance of infiltration tests.
9. Engineering analysis of the data collected.
10. Preparation of this report.

PROJECT LOCATION AND SITE DESCRIPTION

The irregular-shaped site occupies an area of about 100 acres on the site of the former Fort Ord Army base, as shown on the attached Vicinity Map, Plate 1. The site, located primarily along the south side of Lightfighter Drive and Colonel Durham Street in Seaside, California, is approximately 6,650 feet in length. The site is bounded by 1st Avenue to the west and 7th avenue to the east. The majority of the proposed development site was previously developed as a part of the Fort Ord military base.

Site ground elevations range from about 160 feet at the west end to 340 feet at the east end of the property. Elevation change in the north-south direction, between Gigling on the south and Col. Durham Street on the north, descends about 30 to 40 feet in the northerly direction. The change in elevation is relatively gentle. The steepest gradient occurs in the vicinity of Gen. Jim Moore Boulevard, which bisects the site in an approximate north-south direction with about 40 feet of grade change in about 350 feet from east to west.

The western-most parcel is located on the south side of Lightfighter Drive, between 1st Avenue and General Jim Moore Boulevard. With the exception of one single-story office building and associated parking lot off of Lightfighter Drive, the approximately 24-acre site is undeveloped.

The parcel located between General Jim Moore Boulevard on the west, Malmedy Road to the east, Lightfighter Drive to the north and Gigling Road to the south occupies an area of about 19 acres. The Presidio of Monterey Ord Military Community Fire Station is located within the parcel. The fire station, which fronts on General Jim Moore Boulevard, includes three single-story structures to house their trucks and equipment. A restaurant building is located at the northeast corner of General Jim Moore Boulevard and Gigling Road. A large paved parking lot is located along the east side of this parcel.

The proposed development area within the area bounded by Colonel Durham Street to the north, Gigling Road to the south, Malmedy Road to the west and 7th Avenue to the east was primarily used for military housing. There are 20 three-story barracks buildings, with additional single-story buildings used for clinics, command headquarters, an exchange, administration and supply, and dining commons.

There are three small areas of the project site that are located on the north side of Colonel Durham Drive. There is a gymnasium and chapel building on one of the three sites, with housing and recreation buildings at the other two locations.

The housing units and most of the other structures are no longer in use. Review of the 1998 aerial photograph and an aerial photograph from 2018 available on Google Earth indicates that the site is relatively unchanged since 1998. One dining common building was noted to have been removed from the site at the northeast corner of Malmedy and Gigling Roads. Redevelopment of the site will require clearing of existing buildings, underground utilities and pavements.

PROJECT UNDERSTANDING

A preliminary site plan prepared by SDG Architects, Inc, dated February 1, 2018, depicts a mixed development including attached and detached townhomes, single family detached in clusters and front loaded, mixed use and retail. The plan is included on our Site Plan, Plate 2. We anticipate that all structures will be constructed at grade. Residential buildings are expected to be of wood-frame construction two- to three-stories in height. Mixed use and retail buildings are anticipated to be single-story buildings potentially including reinforced concrete and/or masonry construction along with

wood-frame construction. With these types of construction building loads are anticipated to be relatively light. A hotel has been proposed for the west end of the site. Loading associated with a multi-story hotel is likely to be moderate. Redevelopment of the site will require construction of new infrastructure likely including public and private underground utilities and roadway construction. Based on information provided by Ruggeri-Jensen-Azar (RJA), we understand that four on-site areas are being considered for stormwater basins. One basin is proposed at the east end of the site, two along Gen. Jim Moore Boulevard and one at the west end of the site. Site grading is generally expected to be limited to minor cuts and fills to achieve site grades. This will likely require the construction of cut and fill slopes of less than 10 feet in height. Relatively low retaining walls, generally less than 10 feet high are expected at various locations to achieve the site grading.

GEOLOGY AND FAULTING

REGIONAL AND LOCAL GEOLOGY

The Monterey Bay Area lies within the Coast Ranges Geomorphic Province, a semi-continuous series of northwest-trending mountain ranges, ridges, and intervening valleys characterized by complex folding and faulting. The San Andreas fault system (SAF) controls the geomorphic and strong northwestern geologic structural orientation in the San Francisco Bay Region, which includes the Monterey Bay Area. This right-lateral, strike-slip fault forms a portion of the boundary between the North American and Pacific tectonic plates. Movement across this plate boundary is concentrated on the SAF and is also distributed, to a lesser degree across a number of other faults, including the Monterey Bay, San Gregorio-Palo Colorado and Rinconada faults among others in the San Andreas fault system (Brown, 1990).

Monterey County is in part underlain by Cretaceous age granitic rock, which is interpreted as similar to Sierra Nevada and high-grade metamorphic rocks of the Salinian Block (Green, 1990). The SAF forms the eastern boundary of the Salinian Block and the Sur-Nacimiento fault zone forms the western boundary. Basement rock in the adjacent areas both east and west of the Salinian Block consist of the Jurassic/Cretaceous Franciscan Complex, a chaotic mixture of highly deformed marine sedimentary, submarine volcanic and metamorphic rocks. Cretaceous and Tertiary marine and continental sedimentary rocks, as well as some Tertiary volcanic rocks overlie the basement rocks. These Cretaceous and Tertiary rocks are typically folded and faulted into a series of generally northwest-trending folds and faulted blocks. The inland valleys are filled with Quaternary unconsolidated to semi-consolidated alluvial (stream channel and over-bank) deposits. Quaternary marine terrace deposits, consisting primarily of poorly consolidated sand and gravel, as well as unconsolidated sand dune deposits occur along the coast. Pliocene to early Pleistocene deposits of gravel, sand and silt form the foothills of San Benancio Canyon and the southern part of the Fort Ord Reservation. Sea-level rise and fall throughout the Pleistocene created a dynamic interfingering of the windborne and oceanic sediments with the sediments along the coast. Wind-blown sands formed dunes during multiple sea-level lows in the Pleistocene in the eastern part of what is now Monterey Bay, from the vicinity of the former Fort Ord site to the northernmost part of Monterey county.

The Pleistocene coastal terrace deposits (Qctl) underlie the site, which are composed of marine sand with thin discontinuous gravels lenses, and upon which soils have been developed. These deposits are in turn overlain by Quaternary older and younger dune sand (Qod) deposits composed of weakly consolidated sand. These dune deposits are part of the extensive dune deposits in and around the Fort Ord site. The Paso Robles Formation underlies the dunes and terrace deposits.

The majority of the project site is mapped to be underlain by older dune sand deposits (Dupré and Tinsley, 1980). A small portion of the site is also younger dune sand deposits. The dune sand deposits are estimated to range up to 100 feet in thickness and extend up to several miles inland in the coastal Monterey Bay area. The dune sands typically consist of well-sorted, weakly to moderately consolidated, fine to medium-grained sands (Clark, et. al., 1997). Older dune deposits may be indurated by clay and iron oxide cementation in the weathered zone in the upper 10 to 18 feet.

REGIONAL AND LOCAL FAULTING

The site is not located within an Alquist-Priolo Earthquake Fault Zone (Hart and Bryant, 1997). The only zoned fault in Monterey County is the San Andreas fault, located about 31.7 kilometers (km) northeast of the site. However, there are several fault zones in the Monterey Bay region that have the capability of impacting the site. These include the San Andreas, Palo Colorado-San Gregorio and the Monterey Bay-Tularcitos fault zones. There are a number of local faults associated with each of these zones. Some of these faults present a seismic shaking hazard to the proposed development. The most important of these are the San Andreas, Monterey Bay-Tularcitos, Reliz, Vergeles-Zayante, San Gregorio, and Calaveras faults. Other nearby local faults include the Navy fault, the Sylvan Thrust, and the Chupines fault. A regional fault map is presented on Plate 3.

SITE INVESTIGATION

FIELD EXPLORATION

Field exploration for this investigation consisted of site reconnaissance by a member of our engineering staff and subsurface exploration. Subsurface exploration consisted of performing seven Cone Penetration Tests (CPTs) and drilling of eight exploratory borings.

The CPTs were conducted on June 1, 2018, using a truck-mounted CPT rig with a 25-ton capacity. A cone with a projected area of 15 square centimeters and a net area ratio of 0.8 was used to conduct the soundings. The CPTs were conducted to depths of between 36 and 50 feet below the ground surface (bgs). On completion of the CPTs, the holes were grouted with neat cement grout. The CPT soundings are presented in Appendix A.

The borings were drilled on June 4, 2018, using a track-mounted drill rig with hollow-stem augers. They were advanced to depths of about 16-1/2 to 23 feet bgs. A member of our staff visually classified the soils in the field as the drilling progressed and recorded a log of each boring. Visual classification of the soils was made in general accordance with the Unified Soil Classification System (ASTM D2487). Sampling was conducted using either a 2½-inch inside diameter Modified California sampler with 6-inch long liners or a 2-inch outside diameter, 1⅜-inch inside diameter Standard Penetration Test (SPT) split-spoon sampler (smooth inside bore with no provisions for use of liners). The samplers were driven 18 inches with a 140-pound hammer falling 30 inches. A rope and cathead were used for the drive hammer. The number of blows required to drive the sampler the last 12 inches of the 18-inch drive are shown as blows per foot on the boring logs. The blow counts are the number recorded without adjustment. Soil samples were collected for possible laboratory testing. Upon completion of the borings, they were backfilled with neat cement grout. The logs of the borings are presented in Appendix B.

The approximate locations of the CPTs and borings conducted for our investigation are shown on the attached Site Plan, Plate 2. The locations were determined based on orientation from existing features on the site and along the site boundaries.

SUBSURFACE CONDITIONS

The CPTs performed for this investigation generally encountered medium dense to very dense sandy soils to the maximum depths explored of 36 to 50 feet bgs. Loose sands were encountered to the depth of about 5 feet in CPT-3. Older dune sand deposits were encountered in all of our exploratory borings and extended to the maximum depth of exploration at 23 feet. These deposits typically consisted of poorly graded, fine to medium-grained silty sand and sand. The upper few inches to about the upper one-foot of surface soils are generally loose, which is typical for unconfined sands with little or no cohesion.

Although not clearly identified in our borings, the presence of near-surface fill soils should be anticipated due to the previous site grading. Fill soils will likely consist of re-worked older dune sand deposits with variable consistency.

Groundwater was not encountered in any of the four borings drilled at the site, the deepest of which extended to a maximum depth of 23 feet. Groundwater was not encountered in the CPTs conducted at the site, the deepest extending to depths of 50 feet bgs.

The above is a general description of the subsurface conditions encountered in the borings drilled. For a more detailed description of the subsurface conditions encountered, please refer to the CPT logs presented in Appendix A and the boring logs presented in Appendix B.

STORMWATER BASIN INFILTRATION TESTS

Infiltration tests were conducted on July 5, 6 and 9 at four proposed stormwater basin locations. The locations of the tests are shown on the Site Plan, Plate 2. As required by the City of Seaside, the tests were conducted approximately 10 feet below the proposed bottom of the basins. Test locations 1 and 2 were excavated to depths of about 10 feet below existing grade. Test locations 3 and 4 were excavated to depths of about 15 feet below existing grade. A double ring infiltrometer was used to conducted the tests. The tests were performed in general accordance with ASTM test method D3385-18. The tests indicate that infiltration rates range from a low of 8 inches/hour at test site 4 to a high of 20 inches/hour at test site 3. The results of the tests are presented in Appendix C.

GEOLOGIC AND SEISMIC HAZARDS

Potential geologic and seismic hazards include fault ground-rupture, ground shaking, liquefaction, lateral spreading, seismic-induced settlement and landsliding. Earthquake Fault Zones and Seismic Hazard Zone Maps are produced by the California Geologic Survey. The fault maps identify active faults. The seismic hazard maps identify areas where soil liquefaction and earthquake-induced landslides are most likely to occur. Review of the Seismic Hazard Zones maps for the State of California shows the site to be outside of the areas that have been mapped by the California Geological Survey. The following sections present a discussion of these hazards as they apply to the site.

GROUND-RUPTURE POTENTIAL

The site is not located within an Alquist-Priolo Earthquake Fault Zone and there are no known active faults crossing or trending toward the site. The closest known fault considered capable of surface ground rupture is the San Andreas fault, located about 32 km northeast of the site. Based upon the reviewed geologic reports and maps, no known active or potentially active faults, cross or project across the site. It is our opinion that the potential for fault-related ground-rupture at the site is low based upon current information.

SEISMIC SHAKING AND SEISMIC DESIGN PARAMETERS

The site is located in a region of high seismicity. There are several major faults within the San Francisco Bay Region and Monterey Bay area that are capable of causing significant ground shaking at the site. The most notable of these are the San Andreas and Calaveras faults. The site will likely be subject to at least one moderate to severe earthquake and associated seismic shaking during the useful life of the planned development, as well as periodic slight to moderate earthquakes. The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the region is evaluated by the Working Group on California Earthquake Probabilities on a periodic basis, as are the probabilities of earthquakes of varying magnitudes on each of the major faults. The faults with the greater probability of a moment magnitude of 6.7 or

higher earthquake between 2014 and 2044 are the San Andreas fault, located about 32 km northeast of the site and the Calaveras fault, located approximately 40 km east-northeast of the site, with each having a probability of 15.9 percent. Although there are closer faults considered to be active or potentially active, the probabilities of these fault generating an earthquake of moment magnitude of 6.7 or greater is generally less than 1 percent. Some degree of structural damage due to strong seismic shaking should be expected at the site, but the risk can be reduced through adherence to seismic design codes.

The U.S. Geological Survey (USGS) Earthquake Hazards Program maintains a website with an application for U.S. Seismic Design Maps. The approximate center of the site is located at latitude: 37.64701 North and longitude: 121.81178 West. Based on this location, site soil classification D and risk category I/II/III, the design level peak ground acceleration (PGA) is 0.56 according to the USGS website. Additional seismic design parameters obtained from the USGS Earthquake Hazards Program in accordance with the 2016 CBC, U.S. Seismic Design Maps program, determined with consideration of the 2010 ASCE 7 (w/March 2013 errata) publication, are presented in the table below.

Site Coefficients and Risk-Targeted Maximum Considered Earthquake Spectral Response Acceleration Parameters	
Site Class	D
Mapped MCE_R Spectral Response Acceleration Parameter at Short Period[1], S_S	1.483 g
Mapped MCE_R Spectral Response Acceleration Parameter at 1-Second Period, S_1	0.531g
Site Coefficient (Short Period) F_a	1.0
Site Coefficient (1-Second Period) F_v	1.5
Mapped MCE_R Spectral Response Acceleration Parameter at Short Period adjusted for Site Class D, S_{MS}	1.483g
Mapped MCE_R Spectral Response Acceleration Parameter at 1-Second Period adjusted for Site Class D, S_{M1}	0.796 g
Design Spectral Acceleration Parameter, S_{DS}	0.988 g
Design Spectral Acceleration Parameter, S_{D1}	0.531 g
Design Response Spectrum Long-Period Transition Period, T_L	12 sec.
Seismic Design Category (When $S_1 \geq 0.75$ Seismic Design Category is E)	D
Additional Parameters for Sites with Site Design Categories D through F	
Peak Ground Acceleration, PGA	0.560
Site Coefficient, F_{PGA}	1.0
Peak Ground Acceleration – geometric mean, PGA_M	0.56
Risk Coefficient at 0.2 s Spectral Response Period, C_{RS}	1.015
Risk Coefficient at 1.0 s Spectral Response Period, C_{R1}	0.998

1 For Site Class B, 5 percent damped. Adjustments for other Site Classes are made, as needed, within the program.

The Earthquake Hazards Program also includes a unified hazard tool that allows for determination of the maximum considered earthquake (10 percent probability of exceedance in 50 years [475-year return period]) for the site. Using the Deaggregation component of the unified hazard tool, the maximum considered earthquake (MCE) magnitude is 6.68.

SEISMICALLY INDUCED GROUND FAILURE

Liquefaction

We reviewed the 2007 Monterey County General Plan, Draft EIR (September 2008), which identifies liquefaction as a geologic/seismic hazard in the County. Exhibit 4.4.3 of the Draft EIR is a map of Relative Liquidation Potential for the County. The project site is in an area with a liquefaction potential designation of low. We reviewed several published geologic maps (Rosenberg, 2001, Dupré, 1990, Dupré and Tinsley, 1980) to further assess the liquefaction potential, all of which show a liquefaction potential of low.

A review of the CPT interpretation plots and boring logs indicates that sands with relative density ranging from medium dense to very dense underlie the site. These sands are Pleistocene age older dune deposits. These soils are also generally well drained. Groundwater was not encountered in any of our borings or CPTs to the maximum depth of exploration for this study of 50 feet. In the absence of groundwater and with consideration of the relative densities and age of the deposit, these soils are not prone to liquefaction. The underlying terrace deposit materials are not conducive to liquefaction. With the potential for liquefaction to occur at the site rated as low, the potential for lateral spreading is also low.

Landslides and Seismically Induced Slope Failures

There are no significant natural or manmade slopes present on the site. The general topography is gently sloping. There was no evidence of sliding, bulging or tension cracks suggestive of slope instability in the few relatively low slopes observed. We reviewed the 2007 Monterey County General Plan, Draft EIR (September 2008), which identifies landsliding as a geologic/seismic hazard in the County. Exhibit 4.4.4 of the Draft EIR is a map showing the Earthquake-Induced Landslide Susceptibility. The site is in an area with a designation of low with respect to landslide potential. The site is not in close proximity to areas with moderate or high susceptibility designations. In our opinion, the potential for landsliding to affect the site is considered very low.

Dynamic Compaction

Another type of seismically-induced ground failure which can occur as a result of seismic shaking is dynamic compaction or seismic settlement. Such phenomena typically occur in unsaturated, loose granular material or uncompacted fill soils. Dune sand deposits are known to have variable relative densities ranging from relatively loose to dense. Our subsurface exploration encountered medium dense silty and relatively clean sands beginning just below the surface with increasing density below depths of about 5 to 7 feet. We assessed the deformation potential of the subsurface

material using empirically based analyses of the field data from the CPTs. We performed our analyses of dynamic compaction potential using the software package CLiq Version 1.7.1.5.39 by GeoLogismiki Geotechnical Software. With consideration of input parameters of a PGA_M of 0.56 and a Mw 6.68 earthquake, the settlement potential associated with dynamic compaction of loose to medium dense sands at out CPT locations was found to be less than 3/4-inch at CPTs 1-2, 4-7. Settlement potential on the order of 1 to 1-1/2 inches is estimated in the area of CPT-3

Based on the limited data collected during this investigation, it appears that likelihood of encountering significant zones of loose cohesionless soils at the site is low. However, our past experience on the Fort Ord site indicates that loose sands may be present in the upper 5 to about 7 feet in some areas. The relative density of the near-surface sands should be further evaluated during the design level geotechnical investigation.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Based on the information collected during this investigation and prior experience with geotechnical investigations and geotechnical consultation during site development on other sites in Seaside and nearby Marina, it is our opinion from a Geotechnical Engineering perspective that development of the site is feasible. Site development planning will need to consider the geotechnical and geologic conditions discussed in this report along with the preliminary recommendations presented below. The primary geotechnical consideration for the proposed development, that should be investigated further during the design level geotechnical investigation, is the potential for loose sand deposits within the upper few to several feet of the site.

LOOSE SOILS

In the event that loose soils are found within the near-surface sands, such as those encountered at CPT-3, the common method of mitigation is to over-excavate the areas to receive fills, support buildings and roadways to a depth of 2 feet below design finished grade followed by replacement of the excavated soils as engineered fill. Concrete slab-on-grade foundations designed to resist bending are also used as a method of mitigation where loose deposits are present.

In the event that loose sands are present and remain below the zone of grading, there is a potential that strong seismic shaking will densify the sands, resulting in areal settlement. Near-surface loose sands in the Seaside area east of Highway 1 are generally limited in depth to about 5 to 7 feet. Seismic settlement of loose sands varying in thickness from about 3 to 7 feet are estimated to have a seismic-induced settlement potential of between 3/4 and 2-1/2 inches. Where buildings are supported by shallow conventional strip and isolated spread footings with non-structural slab floors, some differential settlement should be expected. This may result in cracking or bending of

the slabs. The use of a more rigid structural slab foundation would aid in distributing building loads and would tend to settle more uniformly.

EXCAVATION

We anticipate that on-site excavations can be readily made with conventional excavation equipment. Due to the characteristics of the granular soils present at the site, it is very unlikely that vertical cuts of any height will stand more than a few days. Sands and silty sands are prone to raveling and caving as they lose moisture. Our experience in dune sand deposits indicates that attempts to maintain moisture are generally unsuccessful and result in erosion of the cut face. Vibration due to construction traffic also causes cut bank failure where steep to vertical cuts are made in dune sands.

In general, the sand deposits have an OSHA soil classification of C. Based on this classification, temporary cut slopes or trench walls should be sloped no steeper than 1-½H:1V. The relative density and apparent cohesion of the sands does increase with depth, generally below the depth of 5 to 7 feet from the ground surface. In addition, there is apparent weak cementation of the sands in some areas. Where cemented sands are present the OSHA soil classification may be interpreted as class B. Caution should be exercised in considering classifying soils as class B. The sands, where apparently cemented in the upper 10 to 15 feet of the site, are weakly cemented and are prone to raveling or cut bank failure where vibration, such as that associated with construction equipment, occurs. Heavy construction equipment, building materials, excavated soil, and vehicular traffic should not be allowed within 5 feet of the top (edge) of the excavation.

GRADED SLOPES

The earth materials encountered in our borings mostly consisted of cohesionless sandy soils which are very prone to wind and/or water erosion. In addition, slopes formed in these cohesionless sandy soils are readily disturbed by the activities of machinery and equipment, and construction traffic on the slopes during construction of the planned buildings. Therefore, it is our opinion, from a geotechnical engineering standpoint, that retaining walls are generally in preference to slopes to achieve the design grades between lots, with the exception of slopes less than 2 feet high.

Where slopes are preferred as opposed to the use of retaining walls, for preliminary planning purposes, assume that permanent cut and fill slopes at the site should be constructed with slope inclinations of 3H:1V or flatter.

EROSION PROTECTION

The cohesionless sandy soils on the site will be susceptible to wind and/or water erosion if left exposed. All graded slopes and exposed soil surfaces should be planted with erosion resistant vegetation and/or protected with erosion control matting. For temporary erosion protection, all cut

and fill slopes should be protected by erosion control matting. It should be noted that erosion control matting is only a temporary erosion control measure used during construction. In addition, erosion control matting is not intended to protect the slopes from disturbance caused by foot or equipment traffic. Where the slopes are disturbed during construction, they need to be rebuilt.

EARTHWORK

Site development will require the demolition and clearing of buildings, underground utilities and roadways. Excavations that occur as a result of removal of structures and utilities should be backfilled with engineered fill. Engineered fill is defined as materials that meets the recommended soil properties, placed in controlled lifts with proper moisture conditioning and compacted to meet the recommended relative compaction. Additionally, the soils placed as engineered fill need to be observed, tested and documented by a representative of the Geotechnical Engineer, as the fills are constructed.

Our subsurface exploration encountered older dune sand deposits present at ground surface. The near-surface sands exhibited consistencies varying from loose to medium dense on the upper one to six feet, and medium dense to dense below, with some zones of very dense or cemented sands present in the upper 15 feet at the locations explored. In order to provide uniform foundation support for the building and other at-grade structures, where present the near-surface soils should be over-excavated and replaced with compacted engineered fill. Where relatively stiff structural slab foundations are constructed, the depth of over-excavation and recompaction may potentially be reduced to provide a minimum of two feet of engineered fill. The amount of over-excavation should be determined by the design level geotechnical investigation. The on-site sandy soils may be used as engineered fill, provided they are free of organic materials and have been screened to remove rock fragments larger than 3 inches in greatest dimension.

The actual required depths of over-excavation and recompaction of the soils as engineered fill in building and roadway areas should be determined in a complete design level geotechnical investigation.

FOUNDATIONS

Based on the conditions encountered in our CPTs and borings, it is our opinion that the use of shallow foundations consisting of conventional spread footings with non-structural slab-on-grade floors or structural slab-on-grade foundations are feasible for lightly to moderately loaded structures. As noted above, where loose soils are present, remedial grading may be required to reduce the settlement potential associated with these soils. Seismic shaking could potentially induce settlement of up to about 2-1/2 inches. The amount of deflection is a function of the soil properties and the magnitude of the applied load. The use of a structural slab foundation can aid in mitigating the effects of seismic-induce differential settlement.

Post-tensioned concrete slab foundations are commonly used for support of residential structures to mitigate the effects of minor ground movement associated with seismic-induced settlement of sands. Based on our previous experience with projects incorporating the use of a stiff mat-slab foundation, we expect the slab thickness to be about 10 to 12 inches for the proposed residential structures. Mat slabs for larger structures would likely be on the order of 12 to 14 inches thick. The ultimate slab thickness will need to be determined through structural design.

PRELIMINARY STRUCTURAL PAVEMENT SECTIONS

The Caltrans flexible pavement design method was used to develop the preliminary pavement sections presented below. These sections are provided to aid in preliminary planning. Soil R-value testing was not performed as part of this investigation. Soils should be tested as part of a design level geotechnical investigation for determination of actual pavement sections. Based on our experience R-values typically are between values of 50 to 70 for dune sands, though slightly lower values can occur where significant silt content is present in the sand. We have assumed an R-value of 50 for use in the preliminary design. Based on an R-value of 50 and the Caltrans "Design Method for Flexible Pavements," we recommend the following preliminary asphalt pavement sections.

PRELIMINARY PAVEMENT SECTIONS
ASPHALT CONCRETE (FLEXIBLE) PAVEMENTS

Traffic Index (T.I.)	Thickness (inches)	
	Asphalt Concrete	Aggregate Base Class 2
4	2½	4
4½	2½	4
5	3	4
5½	3	4
6	3½	4
6½	4	4
7	4	4½
8	5	5
10	6	8

The T.I.s represent a different level of use. The owner or project civil engineer should determine which level of use best reflects the project and select appropriate pavement sections in accordance with the requirement set forth by the City of Seaside.

SOIL CORROSIVITY

Soil corrosivity testing will need to be performed as part of the design level geotechnical investigation. The dune sand deposits are known to be mildly to moderately corrosive and have

the potential to impact underground metallic pipelines. In general, the soils in the area are non-corrosive to buried concrete structure elements.

ADDITIONAL GEOTECHNICAL ENGINEERING SERVICES

As discussed in this report, this investigation is for due diligence purposes with our findings and preliminary recommendations based on limited initial study. The primary focus of this initial study was to evaluate generalized subsurface conditions and provide preliminary geotechnical design information. Preparation of a final design level geotechnical report will be required to develop geotechnical criteria for design and construction of the proposed improvements. The investigation should include additional exploration to better define the subsurface soil profile and to evaluate the soil engineering properties. Design level recommendations should be provided for site preparation, grading and compaction; temporary excavation support; structure foundation design; retaining walls; subsurface and surface drainage; concrete slabs-on-grade; and design pavement sections.

LIMITATIONS

The conclusions and preliminary recommendations presented herein were developed based on the data obtained from widely spaced points of subsurface exploration. Site conditions described in this report are those existing at the times of our field explorations and are not necessarily representative of such conditions at other locations and times. The CPT data plots and boring logs show subsurface conditions at the locations and on the date indicated. It is not warranted that they are representative of such conditions elsewhere or at other times. With the past development history and identification of near-surface loose sand deposits, it is important that a design level geotechnical investigation be performed, particularly for larger footprint and heavier buildings, to more fully investigate the seismic-induced settlement potential at the site. The preliminary recommendations presented herein are subject to modification or revisions based on the data obtained and the engineering analyses performed during the recommended design level geotechnical investigation.

The information provided herein was developed for use by KB Bakewell Seaside Ventures II, LLC for the project as described herein. In the event that changes in the nature, design or location of the proposed project are planned, or revisions are made to the Building Code that are related to Geotechnical Engineering, the conclusions and preliminary recommendations in this report shall be considered invalid, unless the changes are reviewed and the conclusions and preliminary recommendations are confirmed or modified in writing by BSA. In light of this, there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that two years from the date of this report be considered a reasonable time for the usefulness of this report.

The opinions, conclusions and recommendations presented herein are based on our field and office studies, the properties of the soils encountered in our CPTs and borings, and our engineering analyses. This geotechnical investigation has been conducted, and the opinions, conclusions and preliminary recommendations presented in this report were developed, in accordance with accepted Geotechnical Engineering practices that exist in the San Francisco Bay Region at the time this report was prepared. No warranty, expressed or implied, is offered, inferred or made, by or through our performance of professional services.

REFERENCES

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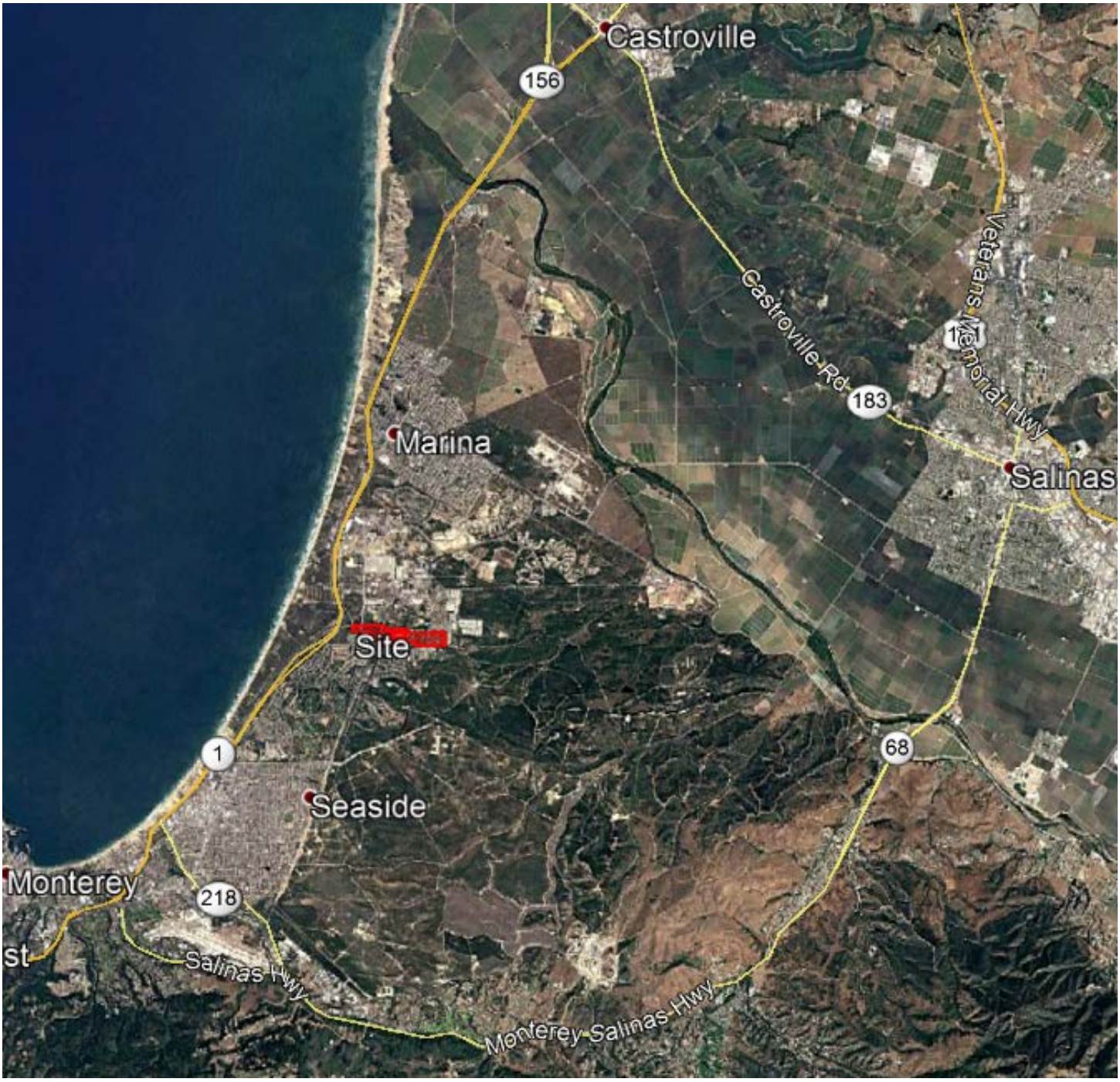
PLATES



Scale: 1":10,000'

Source: Google Earth

VICINITY MAP

SURPLUS II – SEASIDE

CAMPUS TOWN

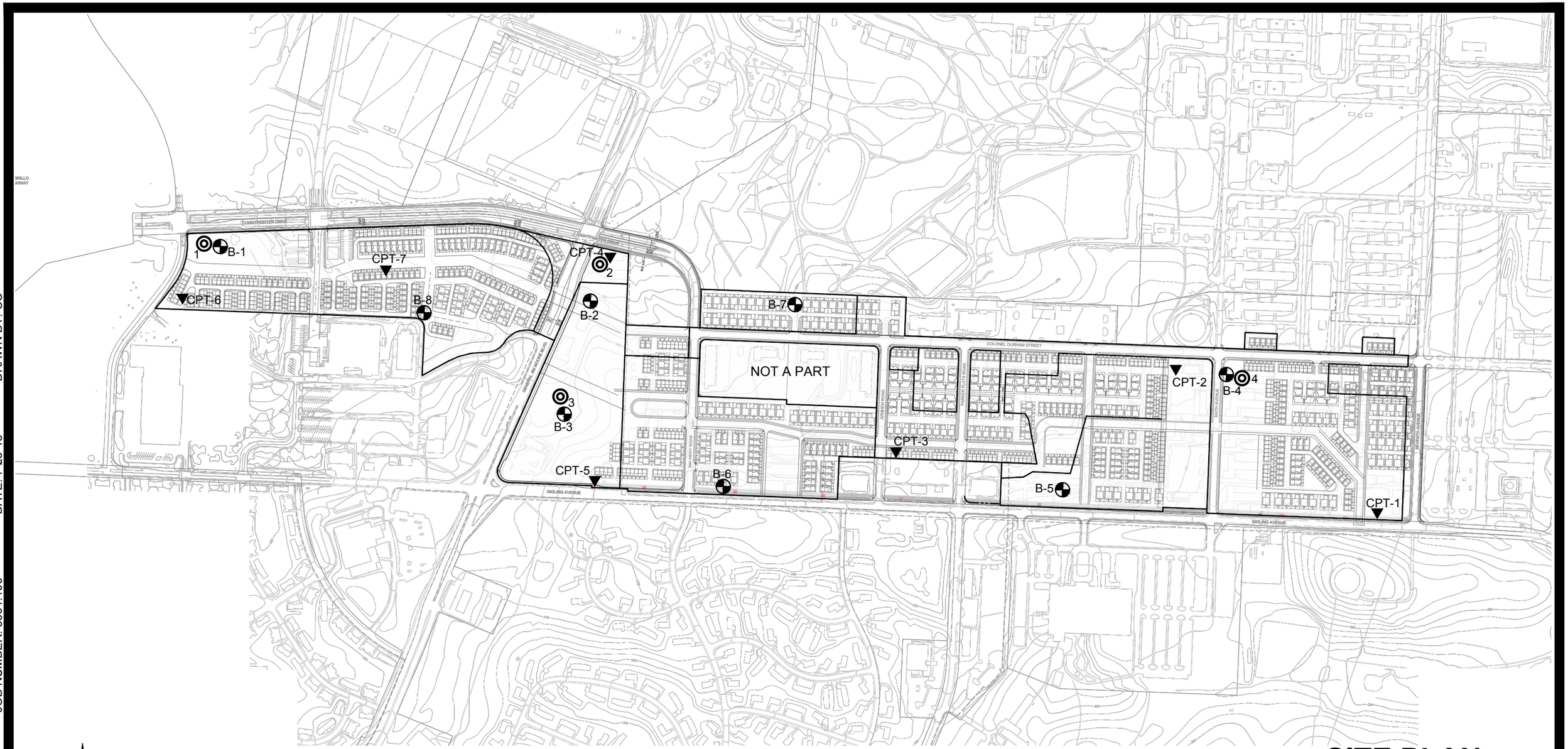
LIGHTFIGHTER DRIVE AND COLONEL DURHAM STREET
SEASIDE, CALIFORNIA
FOR
KB BAKEWELL SEASIDE VENTURE II, LLC

Berlogar Stevens & Associates
SOIL ENGINEERS * ENGINEERING GEOLOGISTS

DRAWN BY: CC

DATE: 7-23-18

JOB NUMBER: 3961.100



N

0 500

1"=500'

EXPLANATION

B-8 — BORING LOCATIONS

CPT-7 — CPT LOCATIONS

4 — INFILTRATION TEST LOCATIONS

SITE PLAN

SURPLUS II - SEASIDE

LIGHTFIGHTER DRIVE

SEASIDE, CALIFORNIA

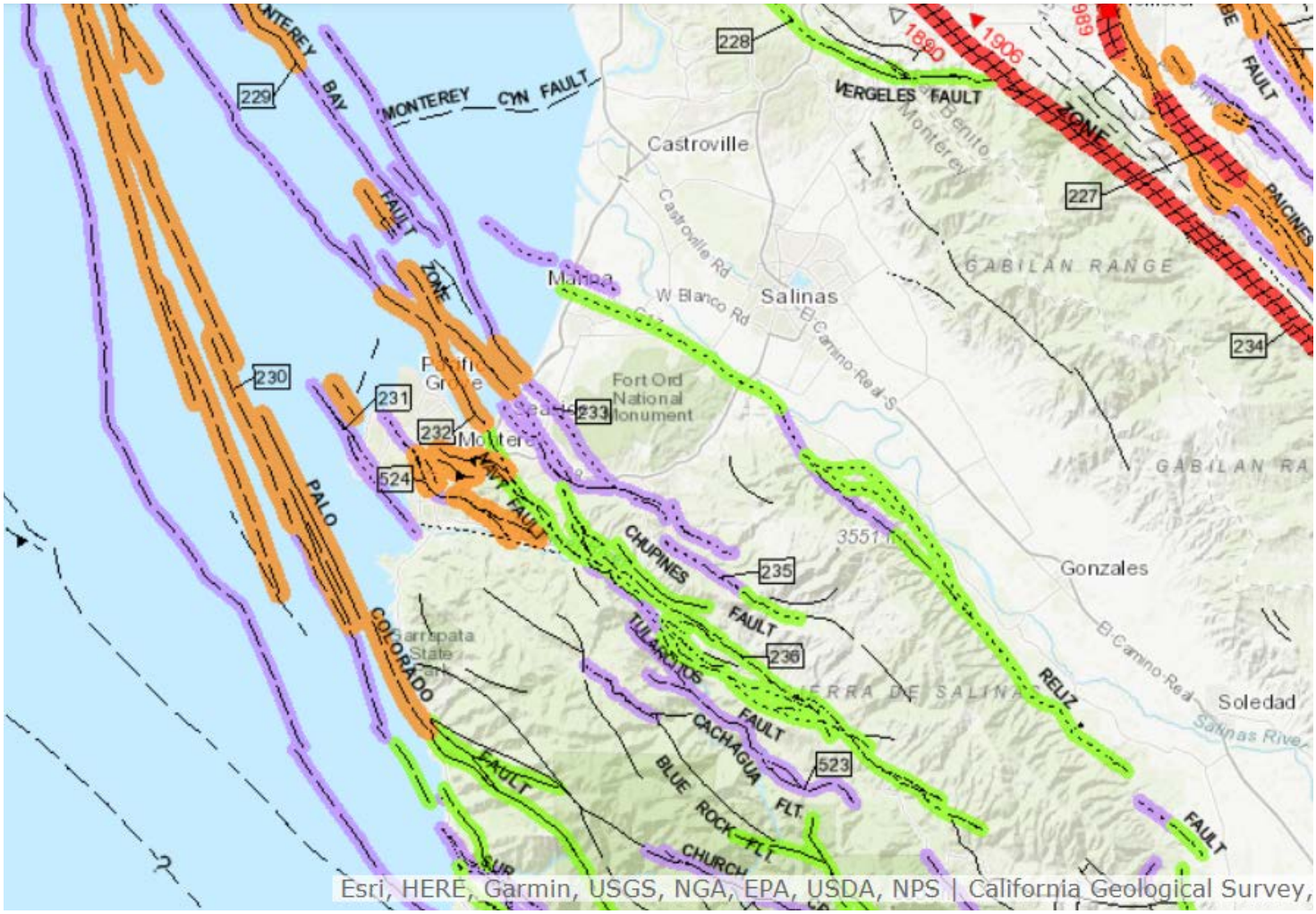
FOR

KB BAKEWELL SEASIDE VENTURE II, LLC

Berlogar Stevens & Associates

SOIL ENGINEERS * ENGINEERING GEOLOGISTS

PLATE 2



Source: http://maps.conservation.ca.gov/cgs/fam/ Fault Activity Maps of California (2010)

SYMBOL EXPLANATION

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.

Holocene fault displacement (during past 11,700 years) without historic record.

Late Quaternary fault displacement (during past 700,000 years).

Quaternary fault (age undifferentiated).

Pre-Quaternary fault (older that 1.6 million years) or fault without recognized Quaternary displacement.

REGIONAL FAULTS

SURPLUS II – SEASIDE
CAMPUS TOWN

LIGHTFIGHTER DRIVE AND COLONEL DURHAM STREET
SEASIDE, CALIFORNIA
FOR
KB BAKEWELL SEASIDE VENTURE II, LLC

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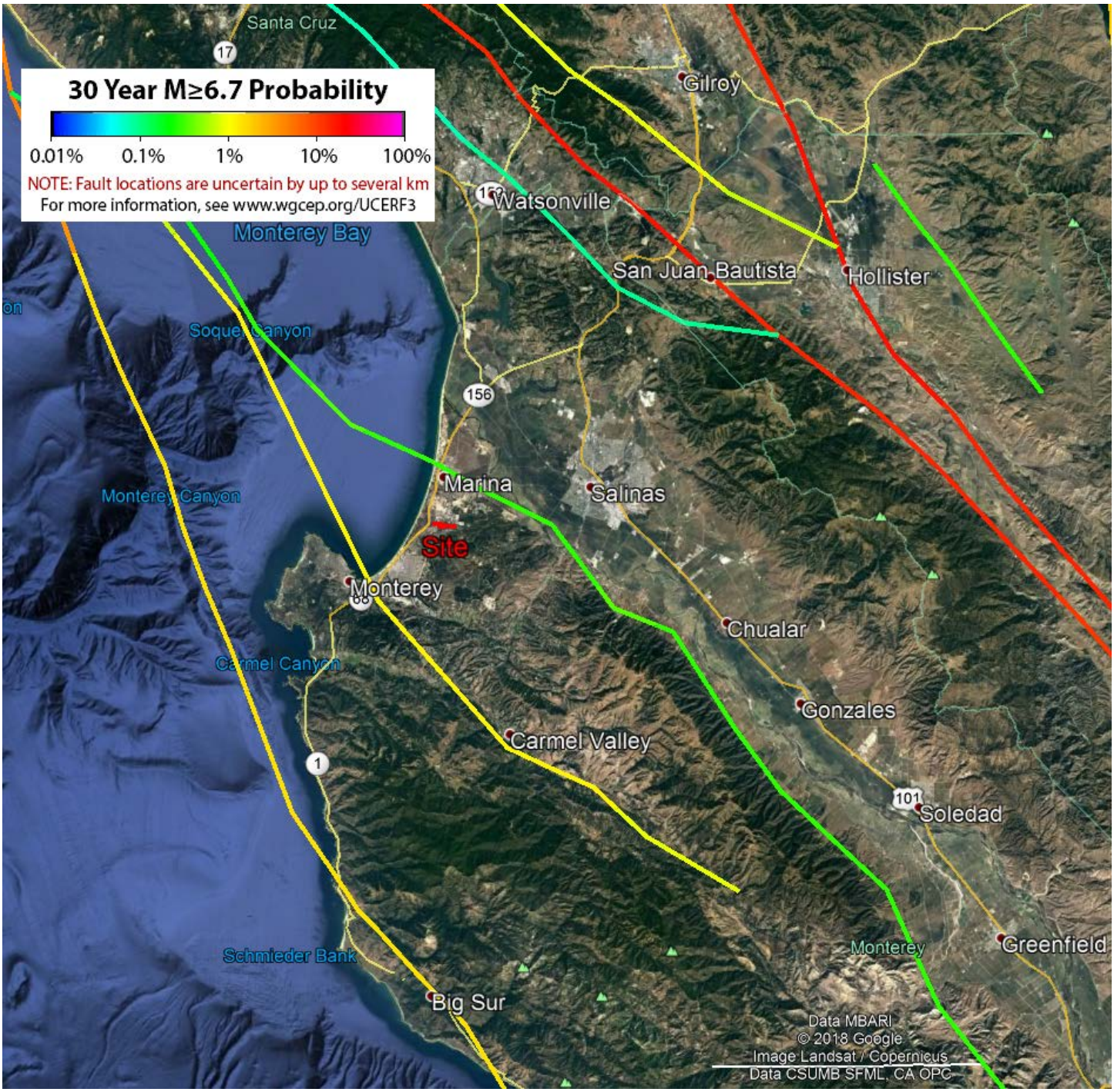


Likelihood of Mag 6.7 or greater earthquakes in the next 30 years from 2014, expressed as a percentage.

Source: Working Group on California Earthquake Probabilities, The Third California Earthquake Rupture Forecast (UCERF3)

http://www.wgcep.org/UCERF3
Google earth file with fault probabilities

EARTHQUAKE M ≥6.7 PROBABILITY

SURPLUS II – SEASIDE
CAMPUS TOWN

LIGHTFIGHTER DRIVE AND COLONEL DURHAM STREET
SEASIDE, CALIFORNIA
FOR
KB BAKEWELL SEASIDE VENTURE II, LLC

Berlogar Stevens & Associates
SOIL ENGINEERS * ENGINEERING GEOLOGISTS

APPENDIX A

CPT INTERPRETATIONS AND PLOTS

Berlogar, Stevens & Associates
5587 Sunol Boulevard
Pleasanton, California

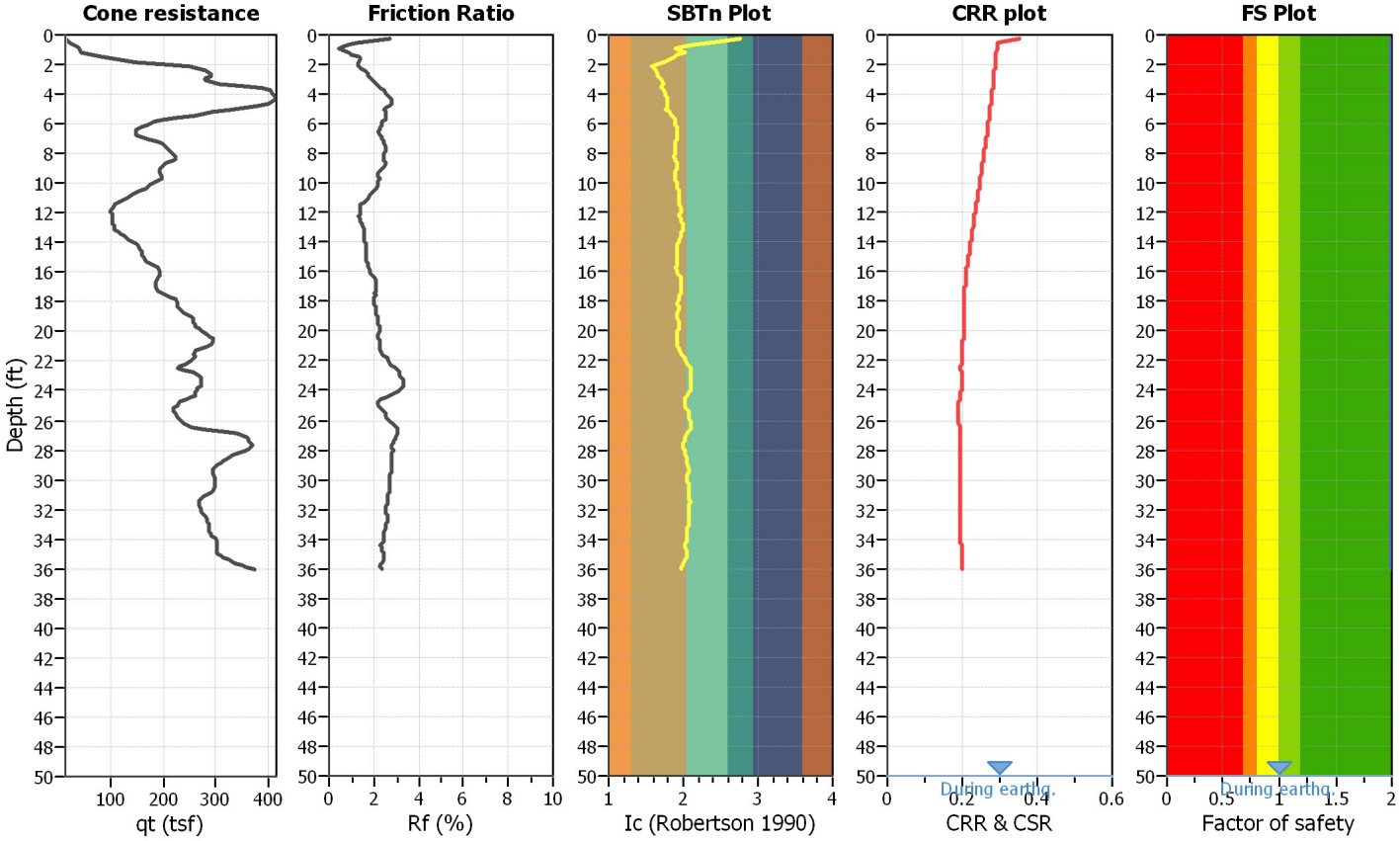
LIQUEFACTION ANALYSIS REPORT

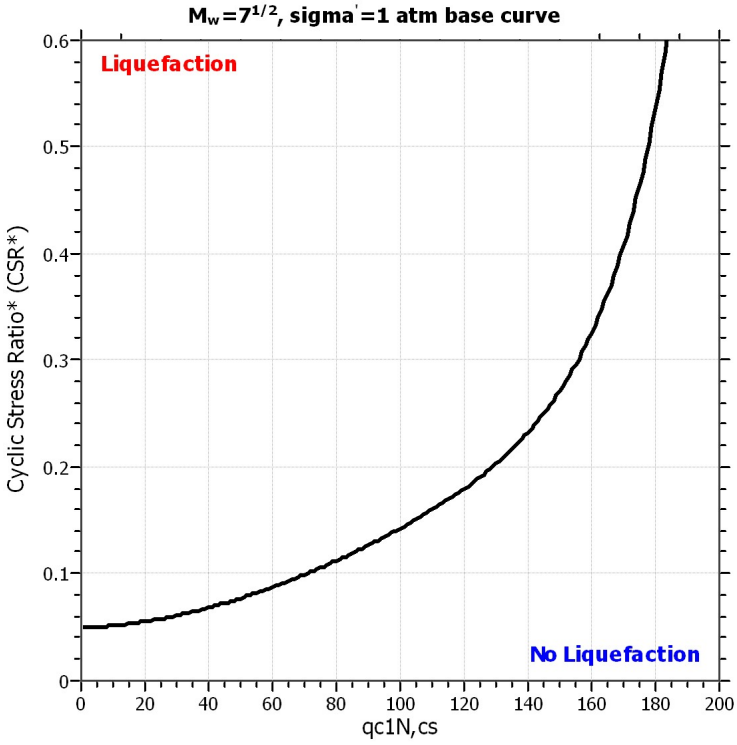
Project title : Campus Town **Location : Seaside, CA**

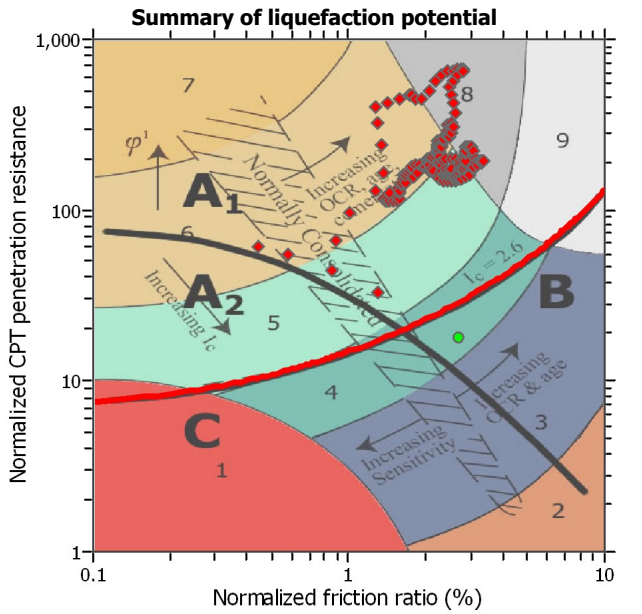
CPT file : CPT-01

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

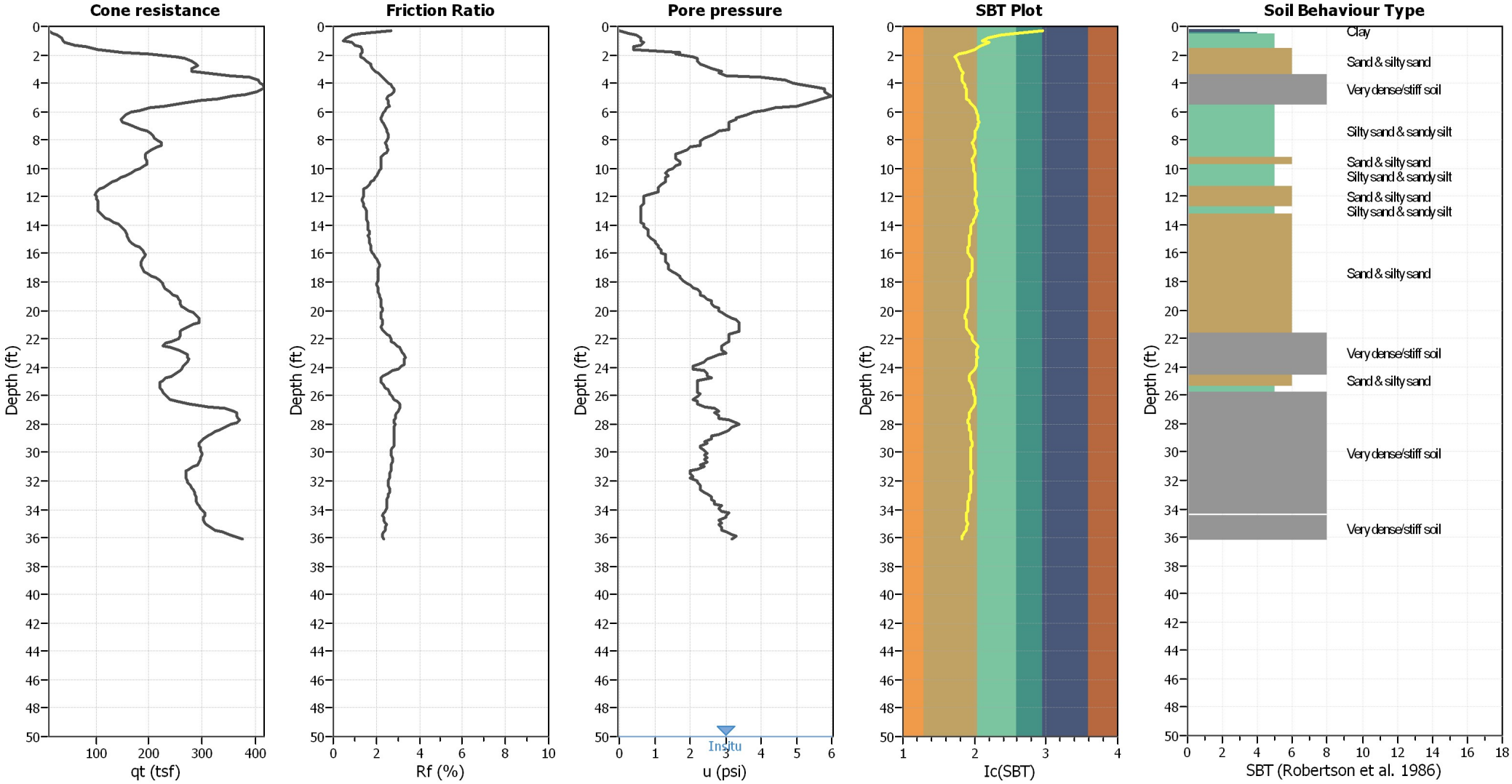






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



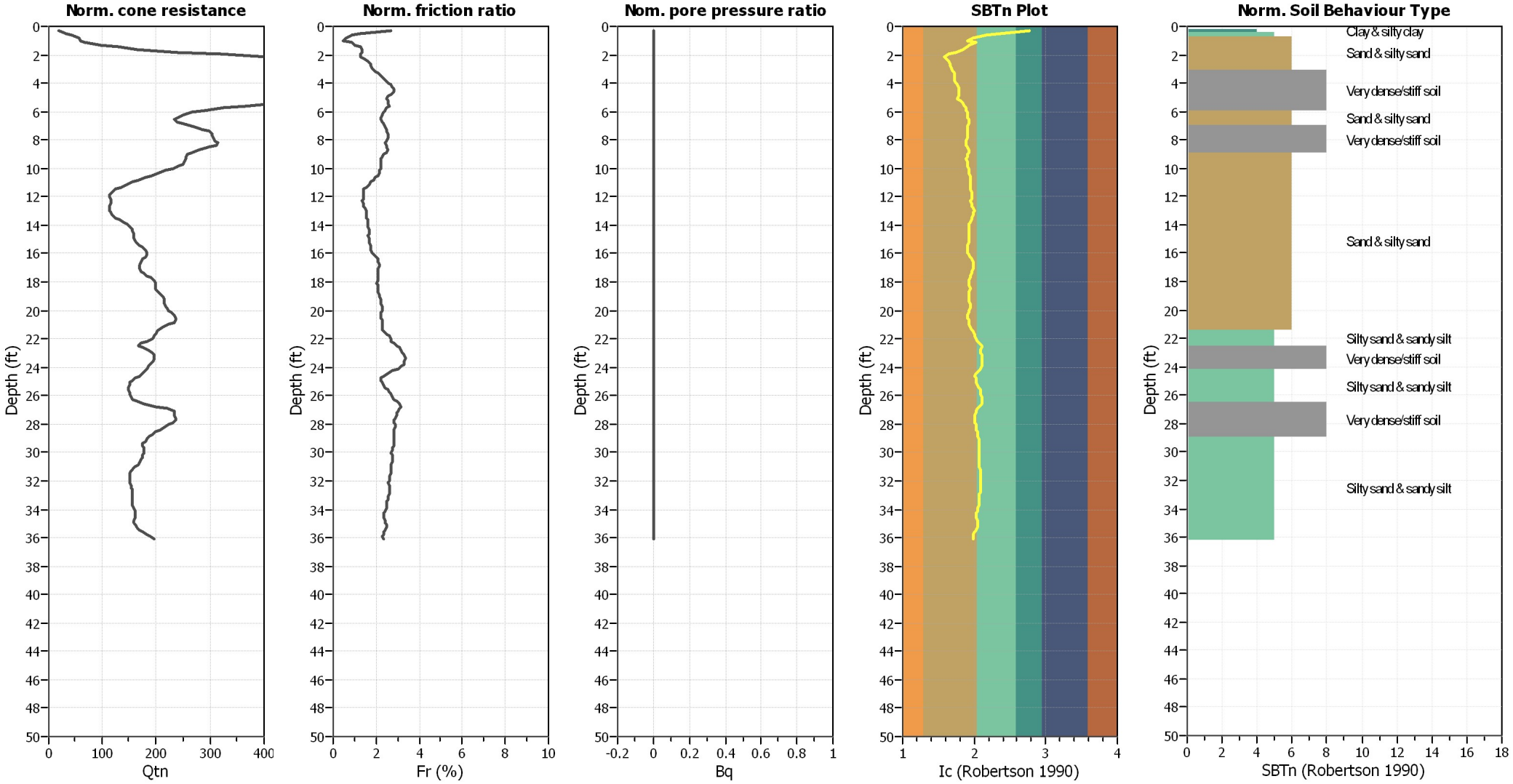
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Berlogar, Stevens & Associates
5587 Sunol Boulevard
Pleasanton, California

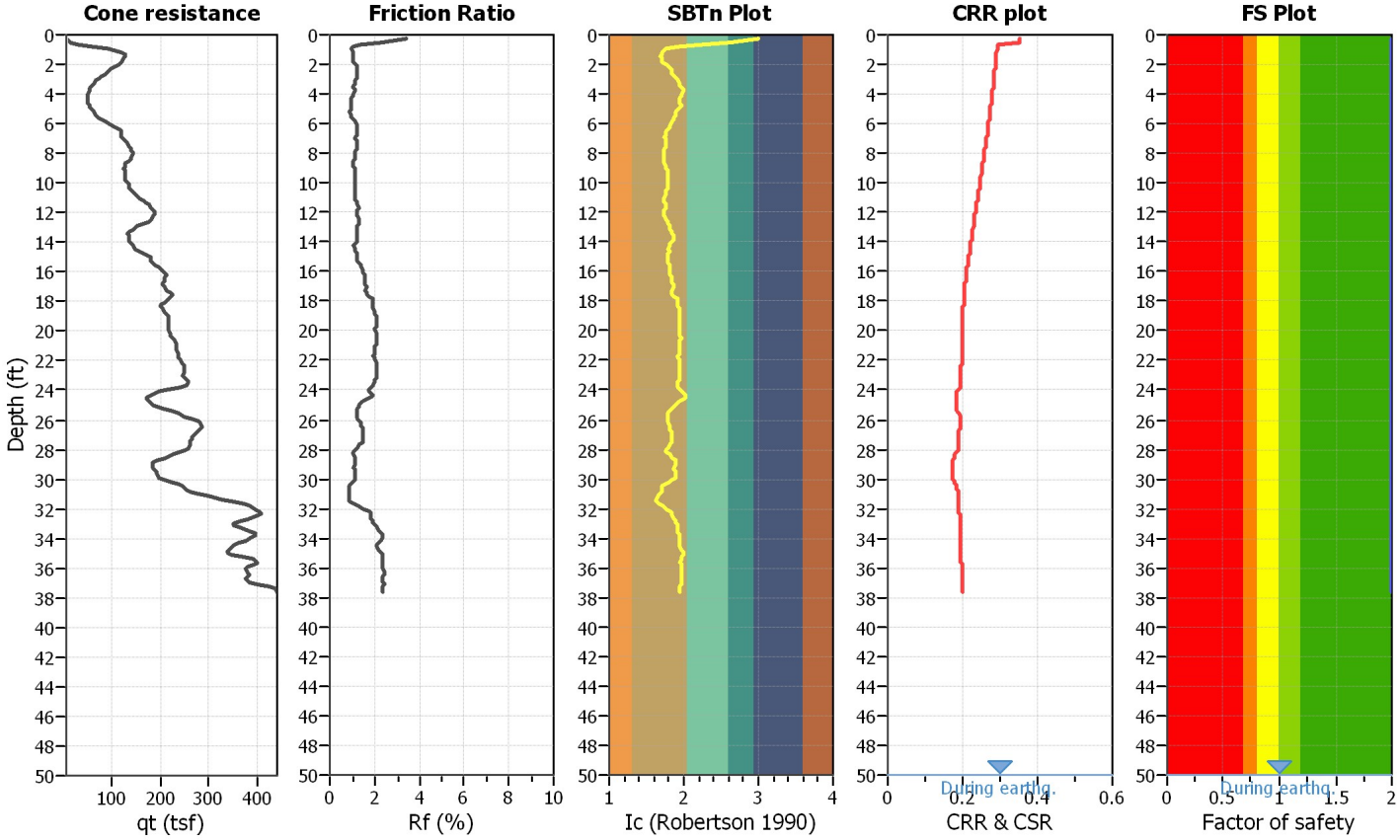
LIQUEFACTION ANALYSIS REPORT

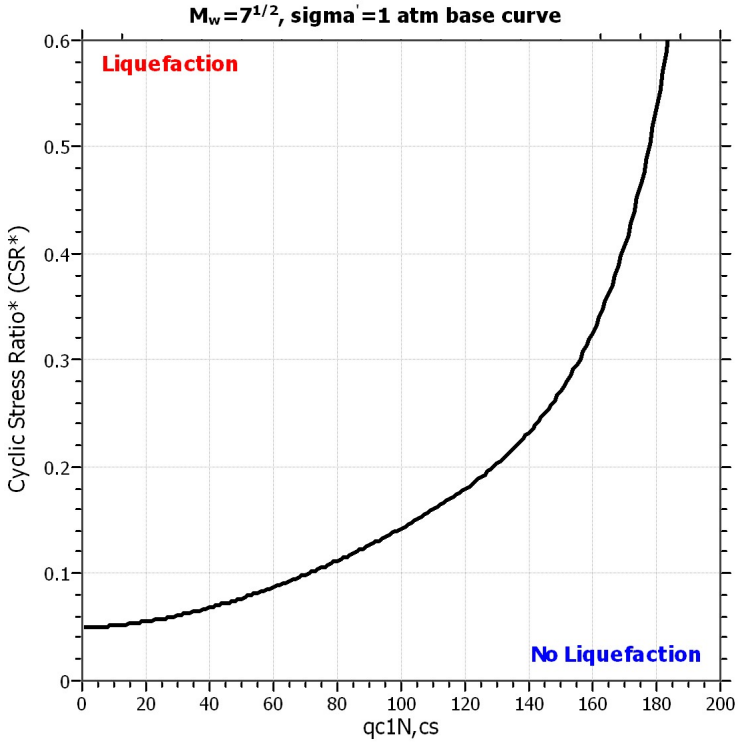
Project title : Campus Town **Location : Seaside, CA**

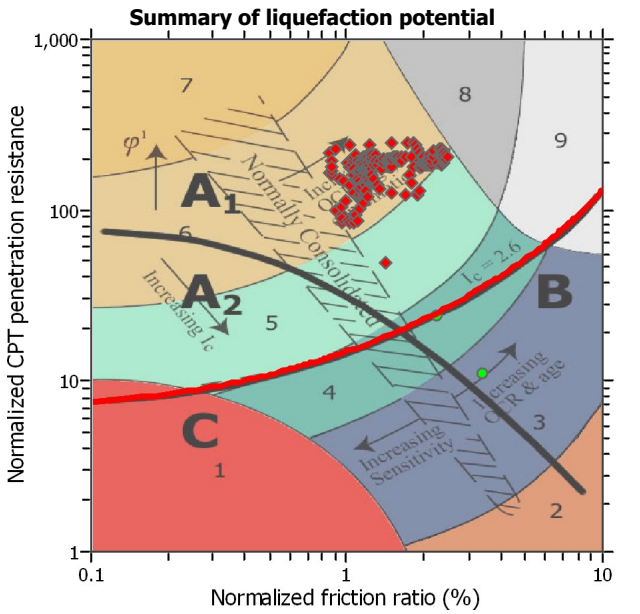
CPT file : CPT-02

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

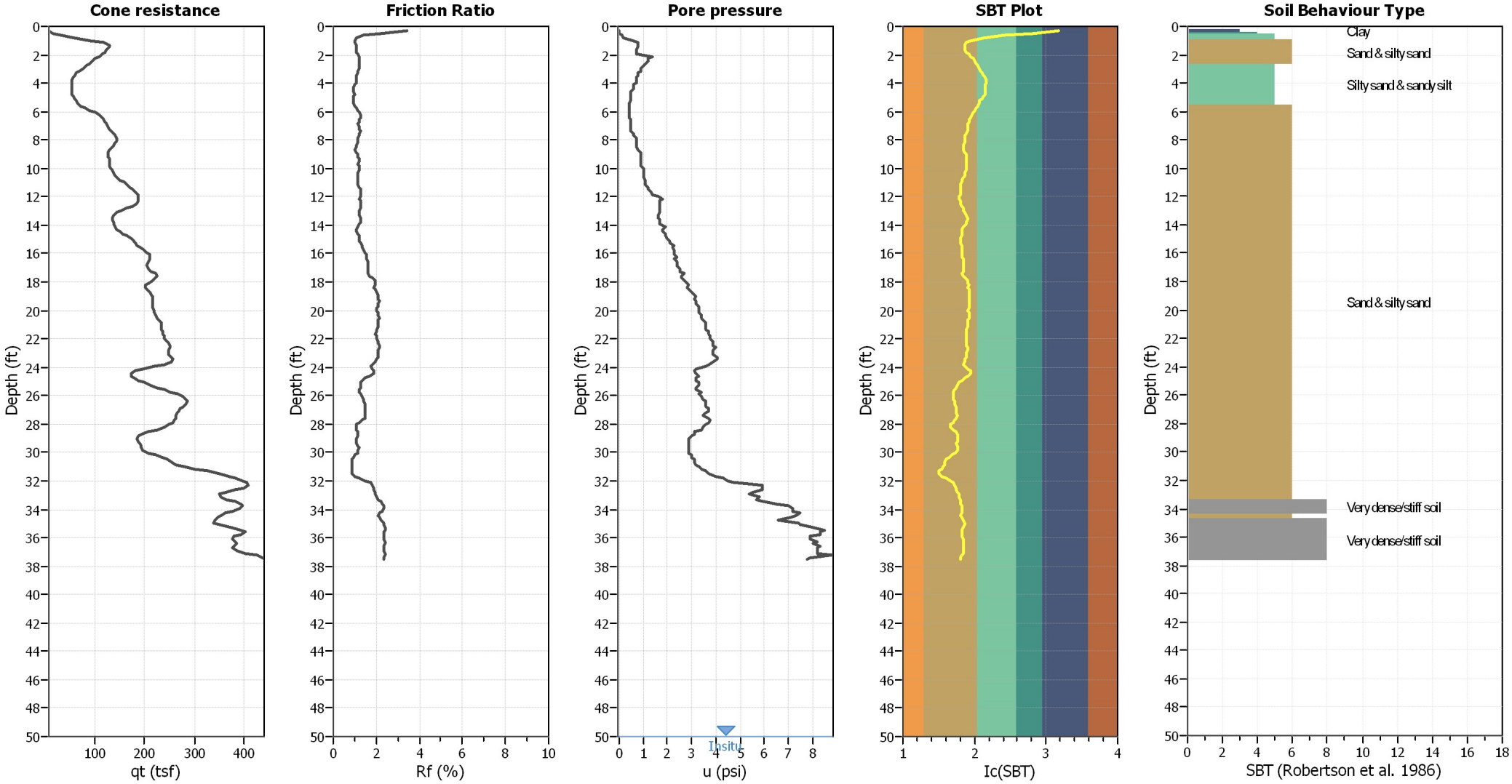






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



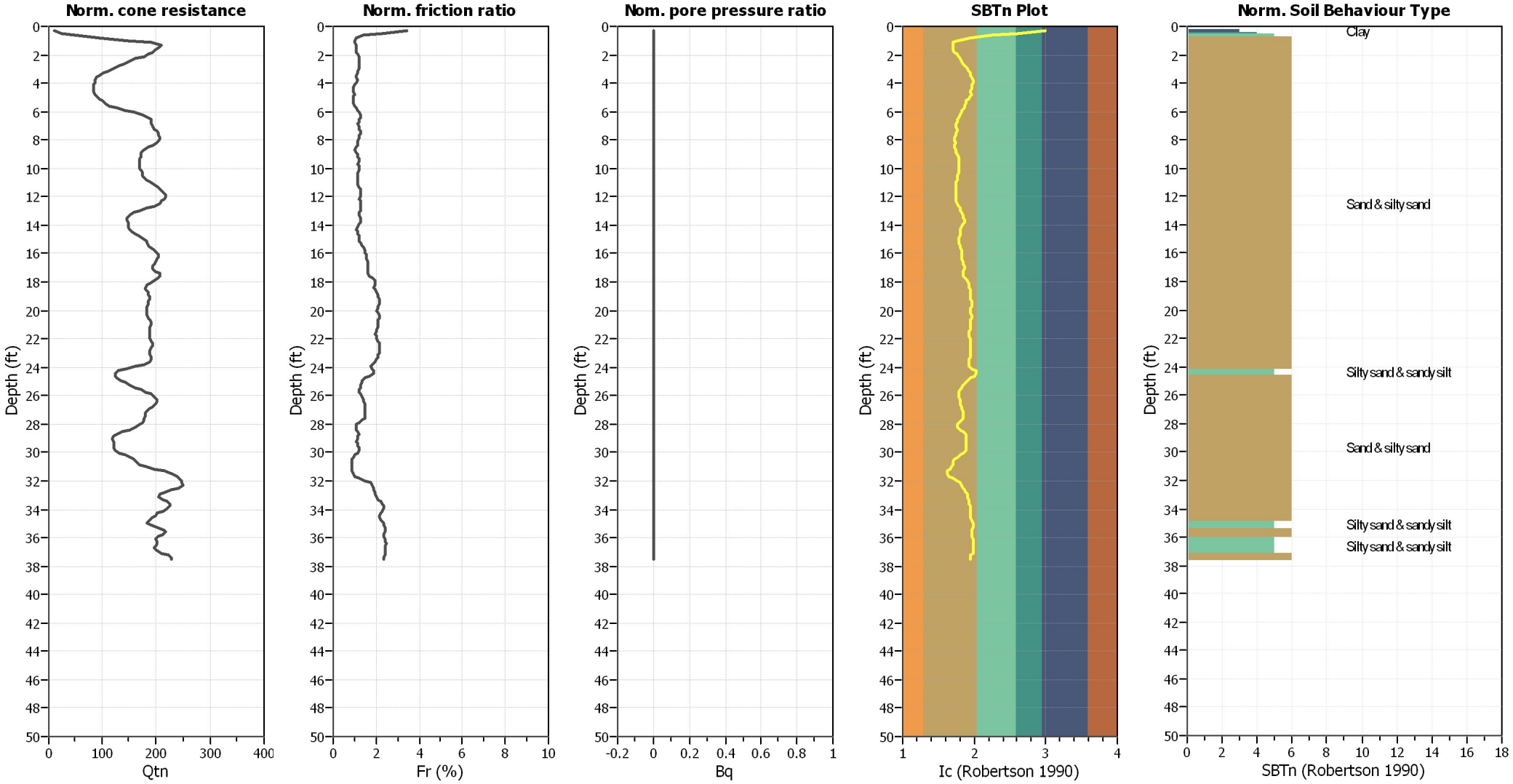
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Berlogar, Stevens & Associates
5587 Sunol Boulevard
Pleasanton, California

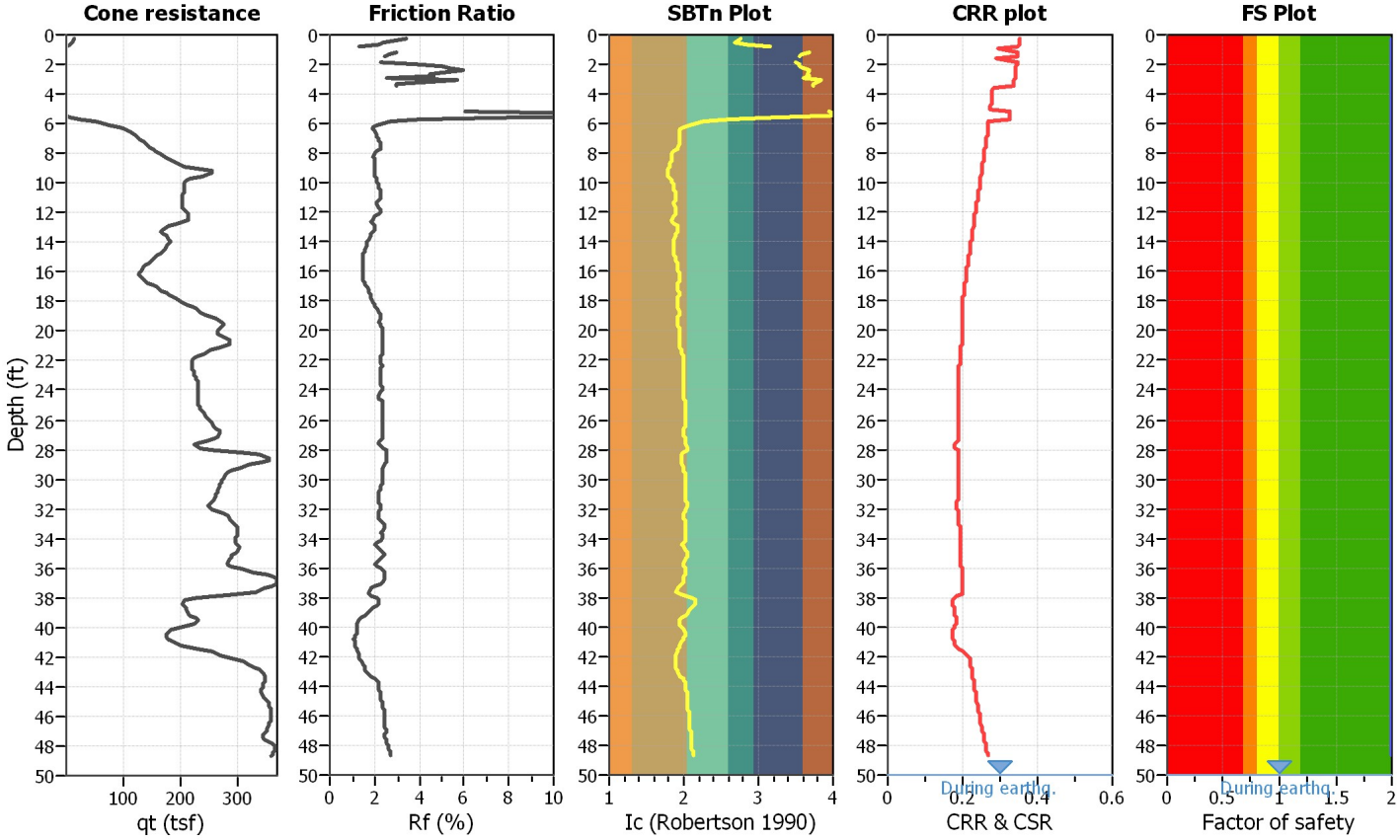
LIQUEFACTION ANALYSIS REPORT

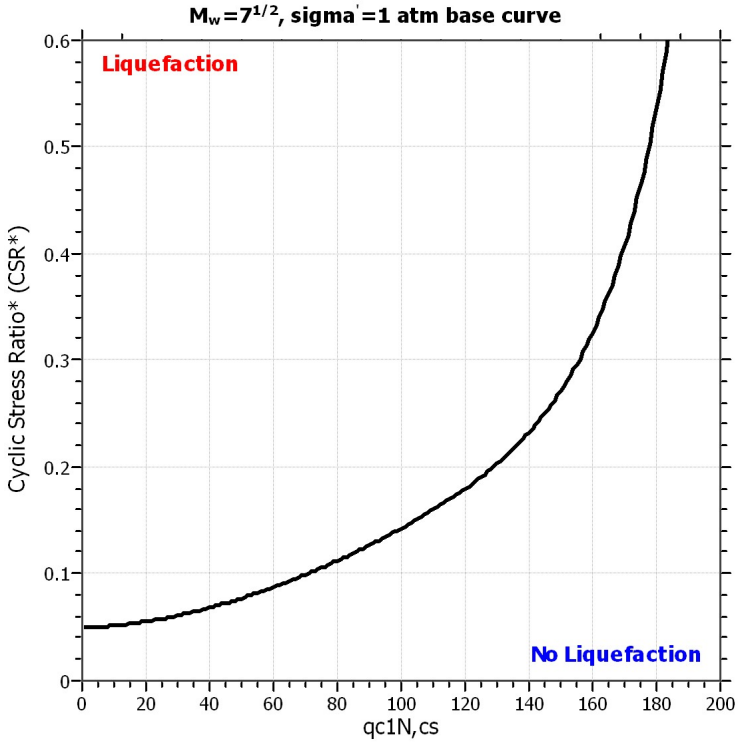
Project title : Campus Town **Location : Seaside, CA**

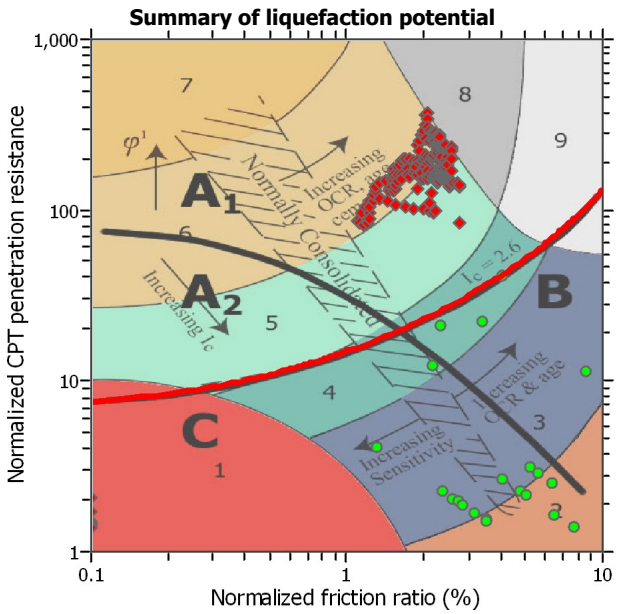
CPT file : CPT-03

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

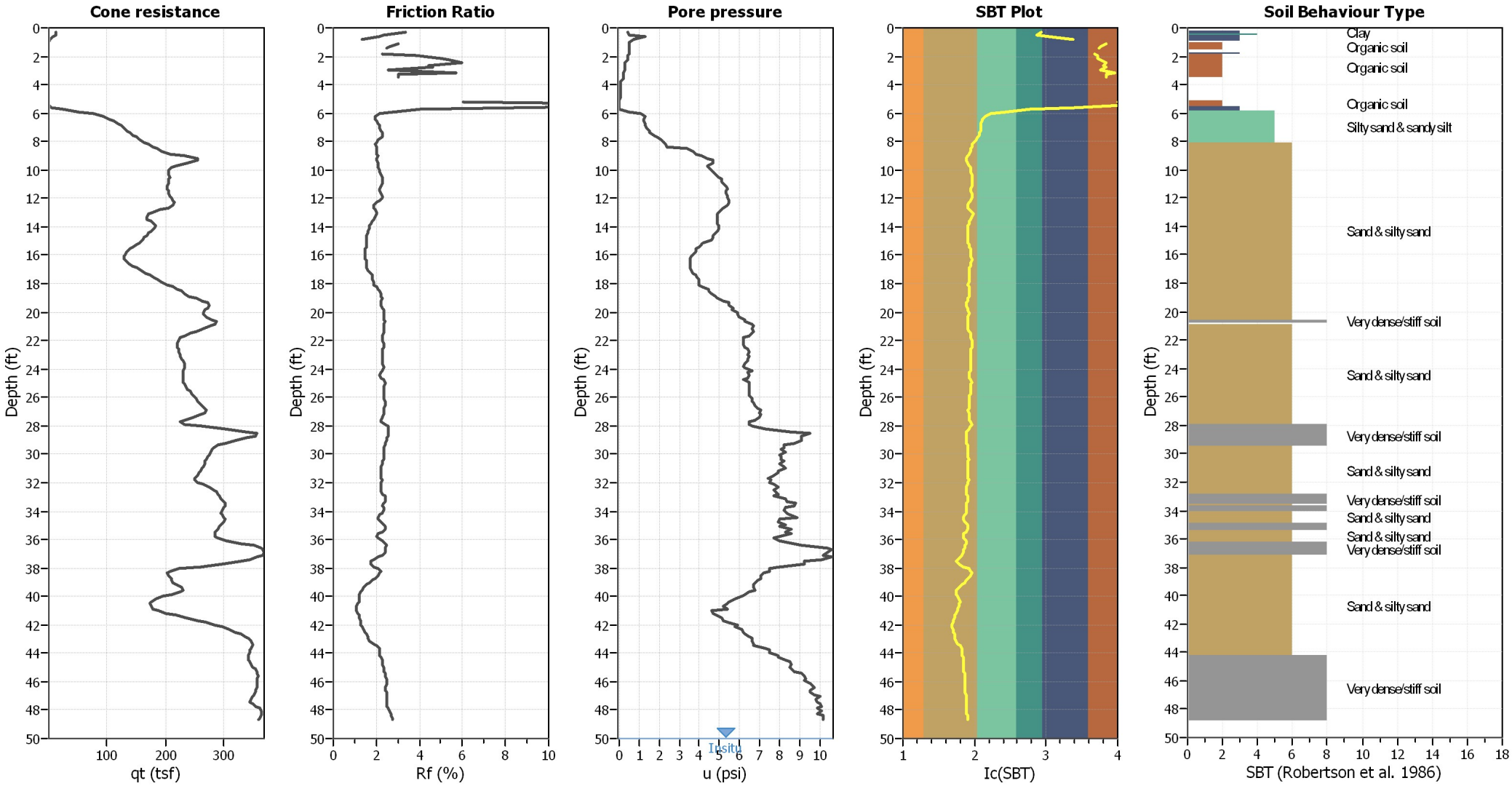






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



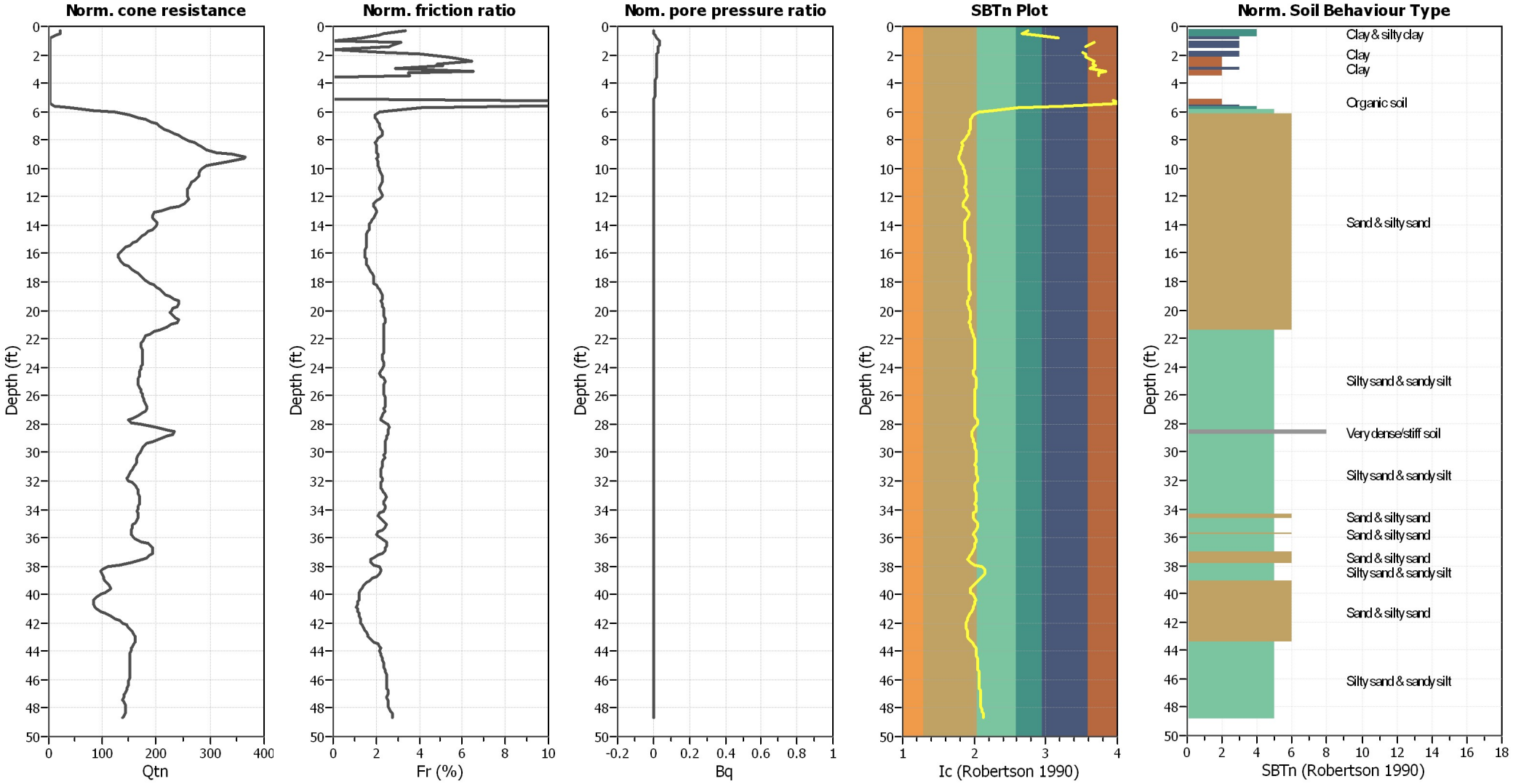
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Berlogar, Stevens & Associates
5587 Sunol Boulevard
Pleasanton, California

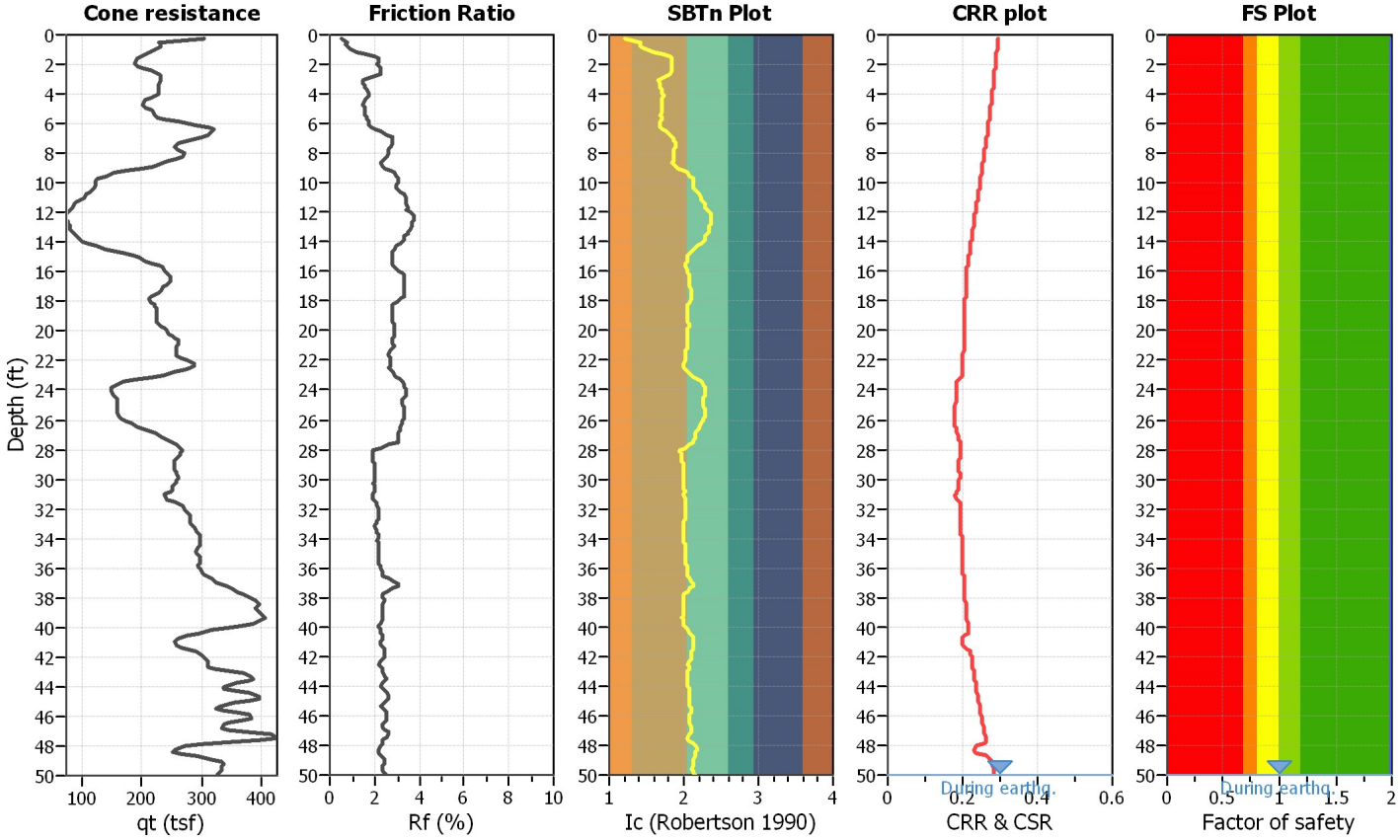
LIQUEFACTION ANALYSIS REPORT

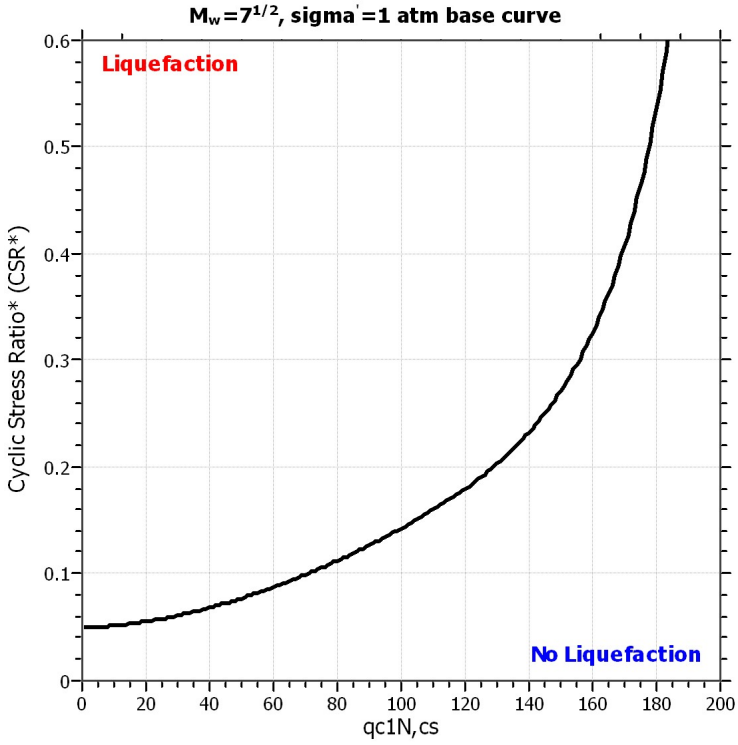
Project title : Campus Town **Location : Seaside, CA**

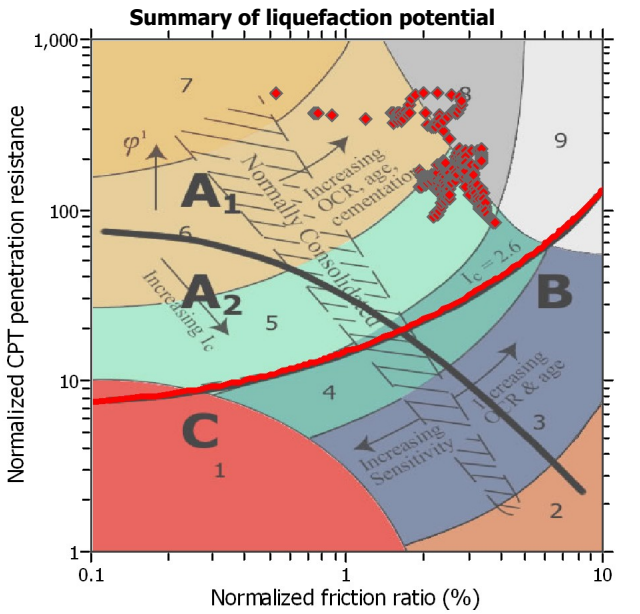
CPT file : CPT-04

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

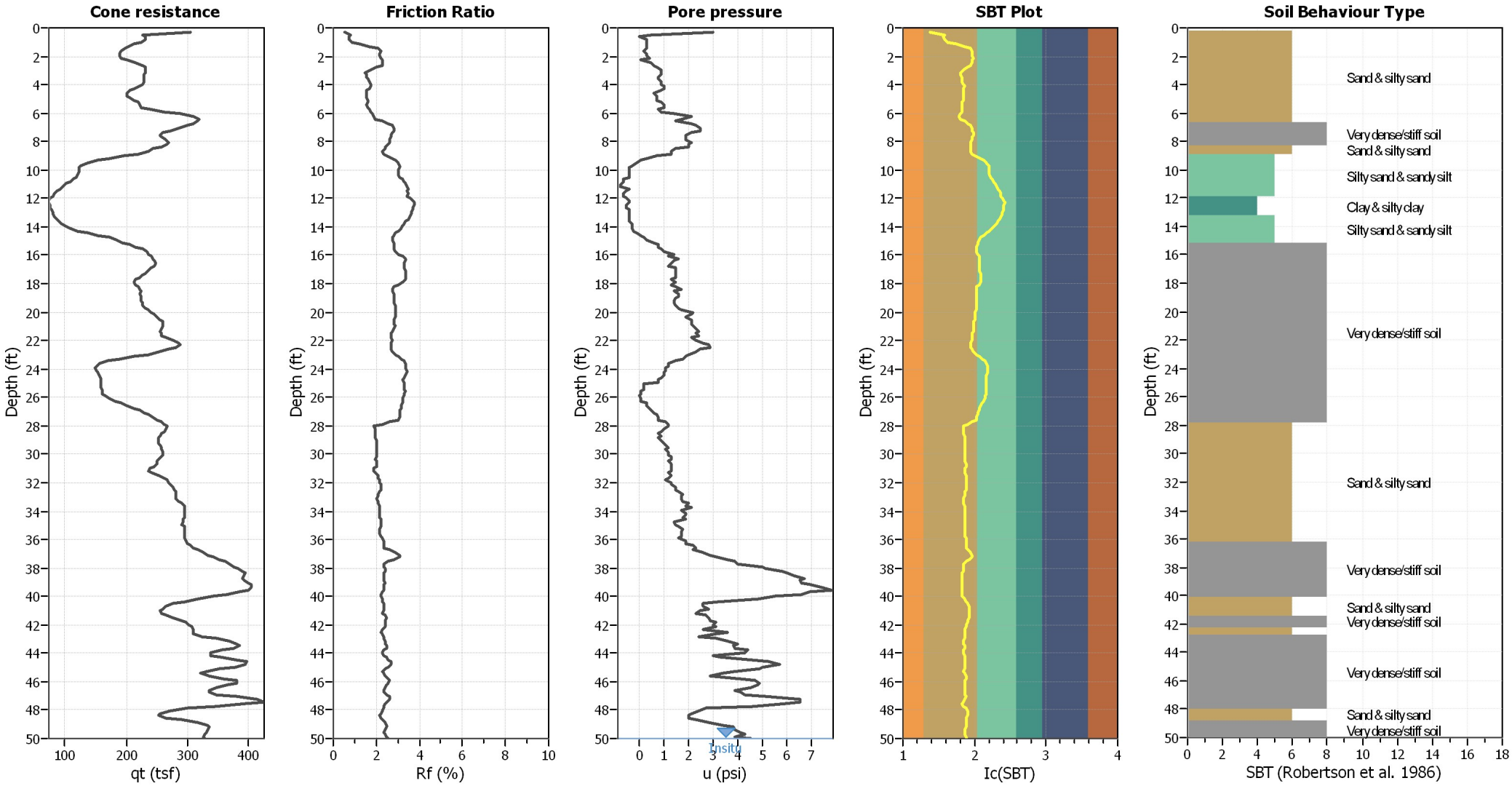






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



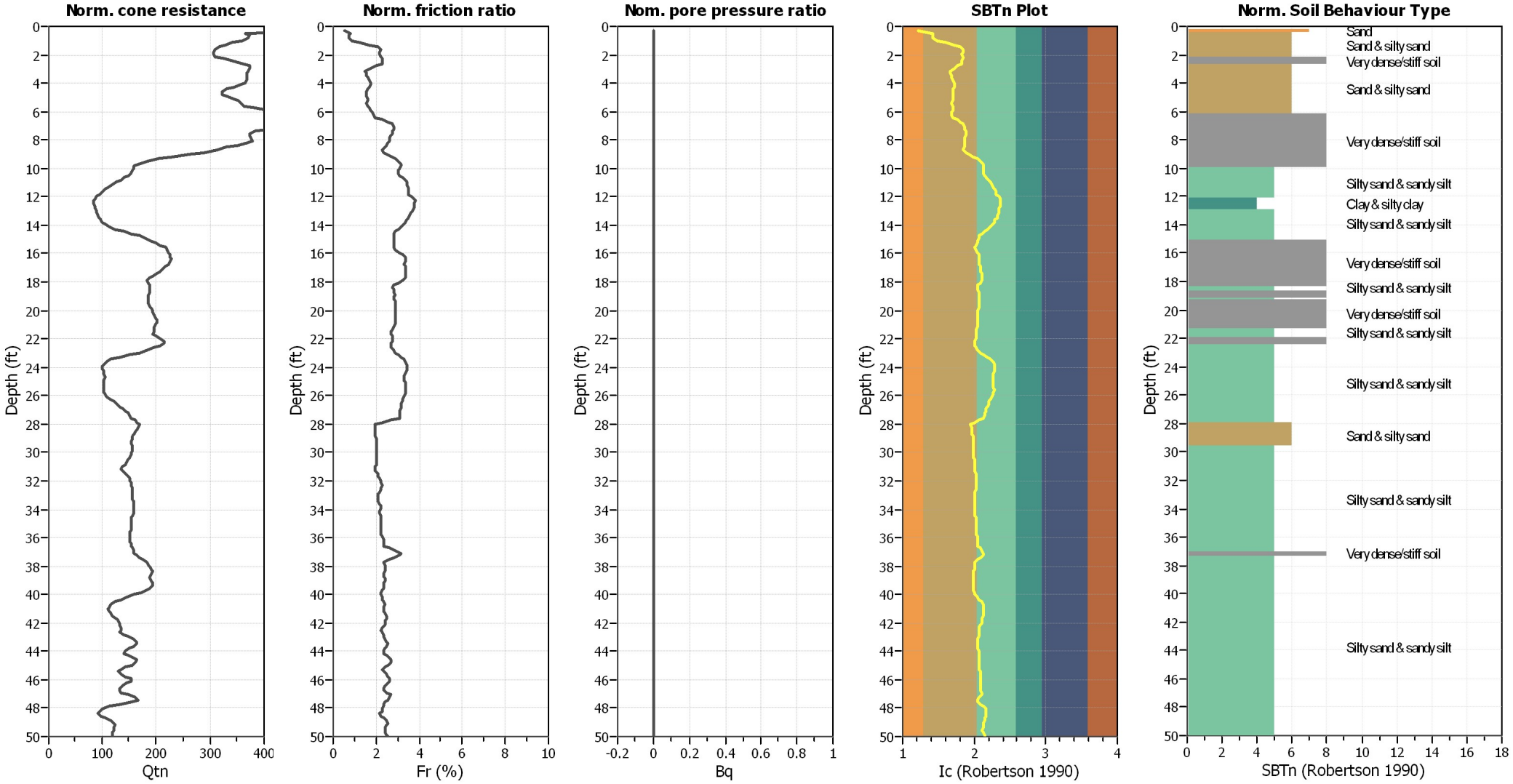
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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5587 Sunol Boulevard
Pleasanton, California

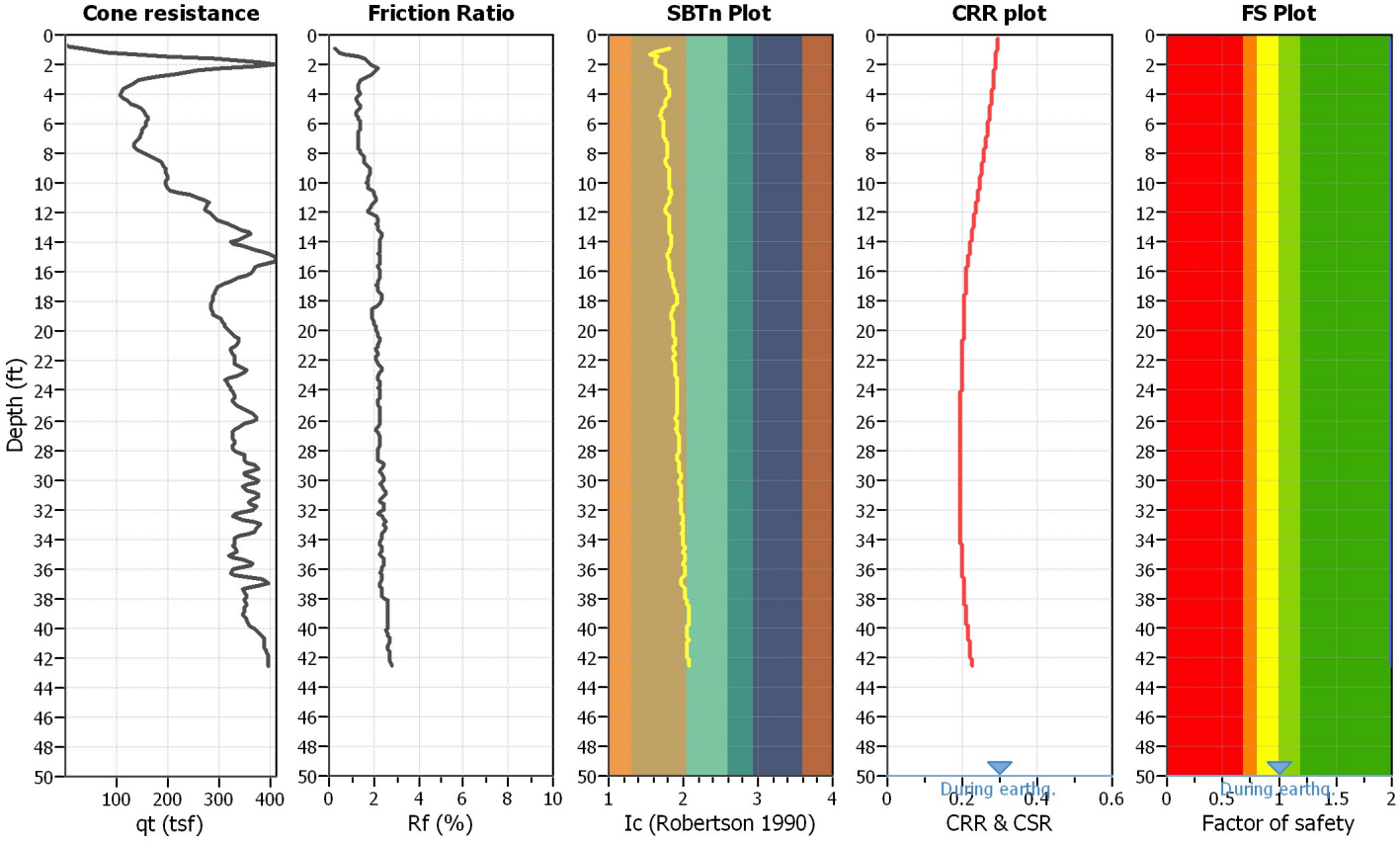
LIQUEFACTION ANALYSIS REPORT

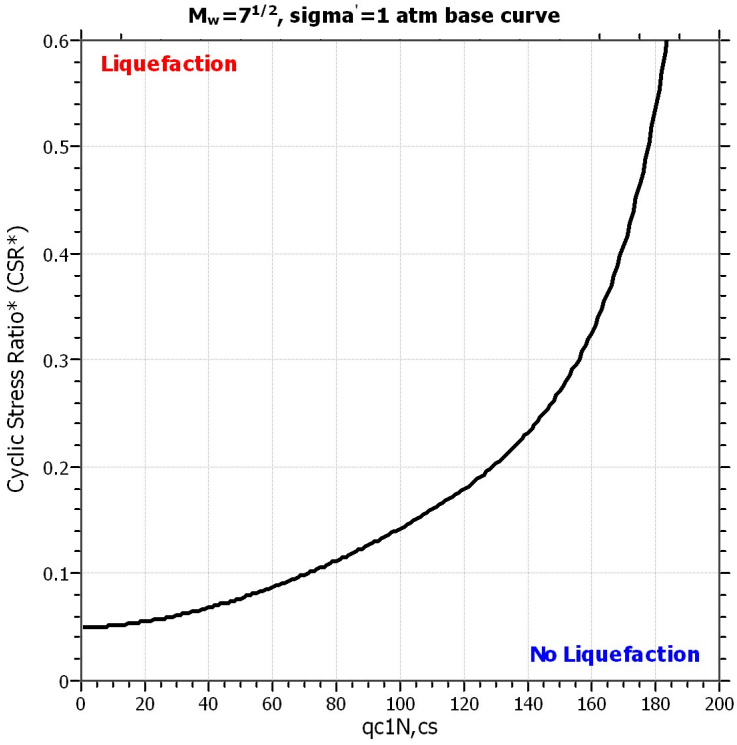
Project title : Campus Town **Location : Seaside, CA**

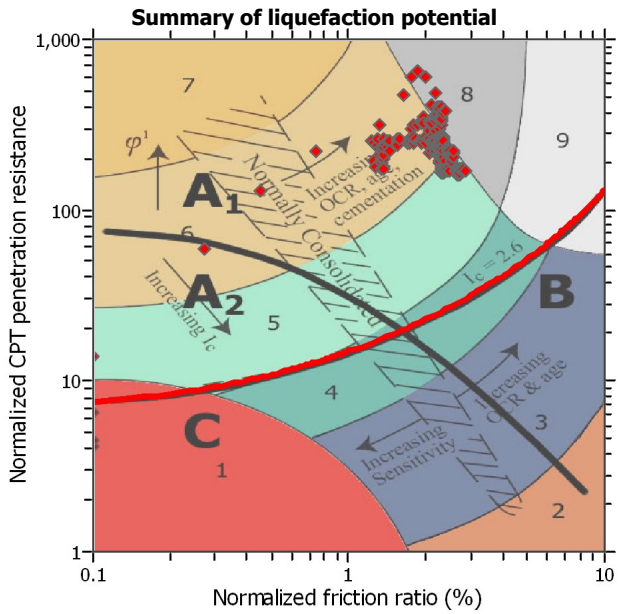
CPT file : CPT-05

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

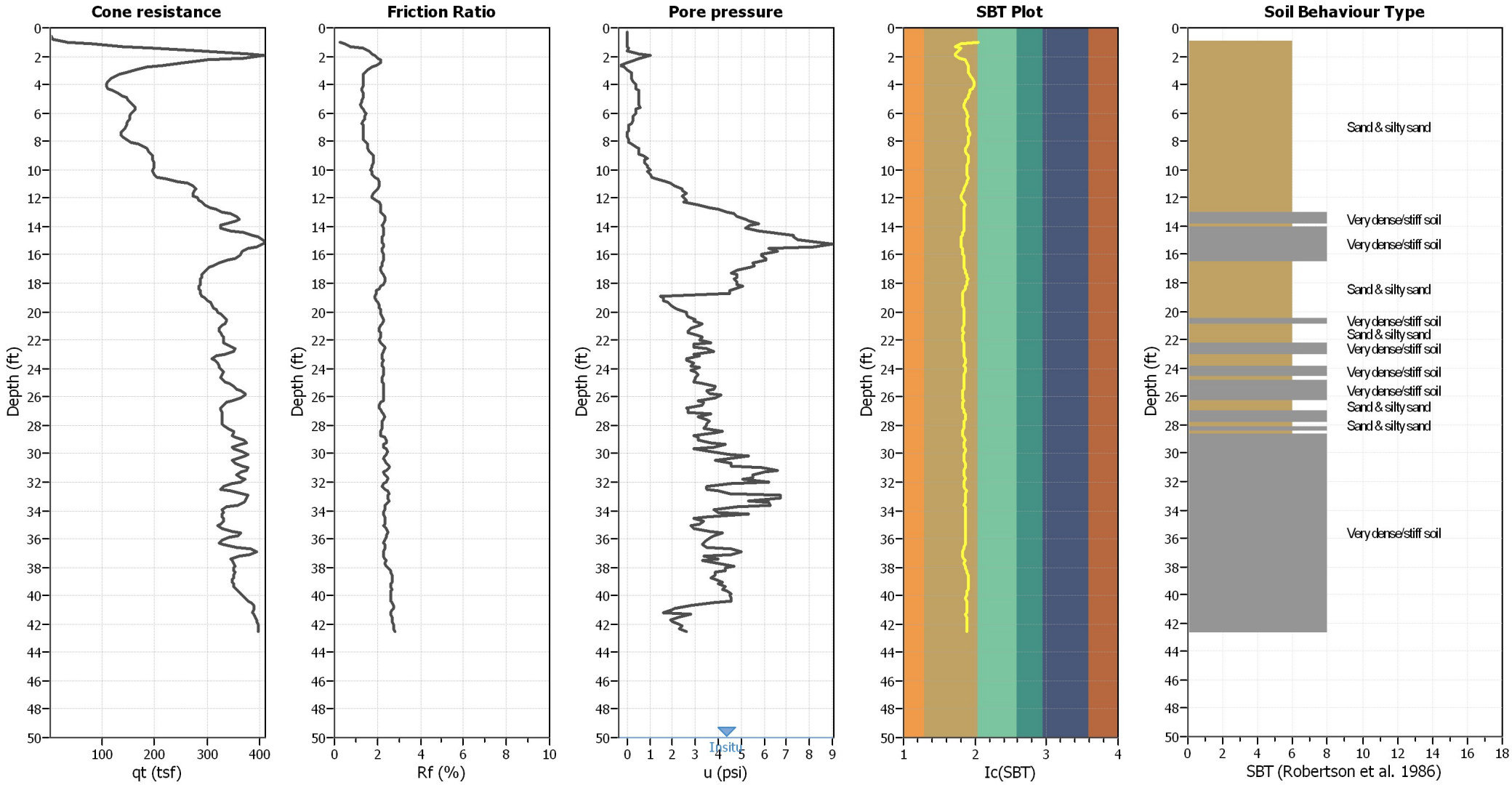






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



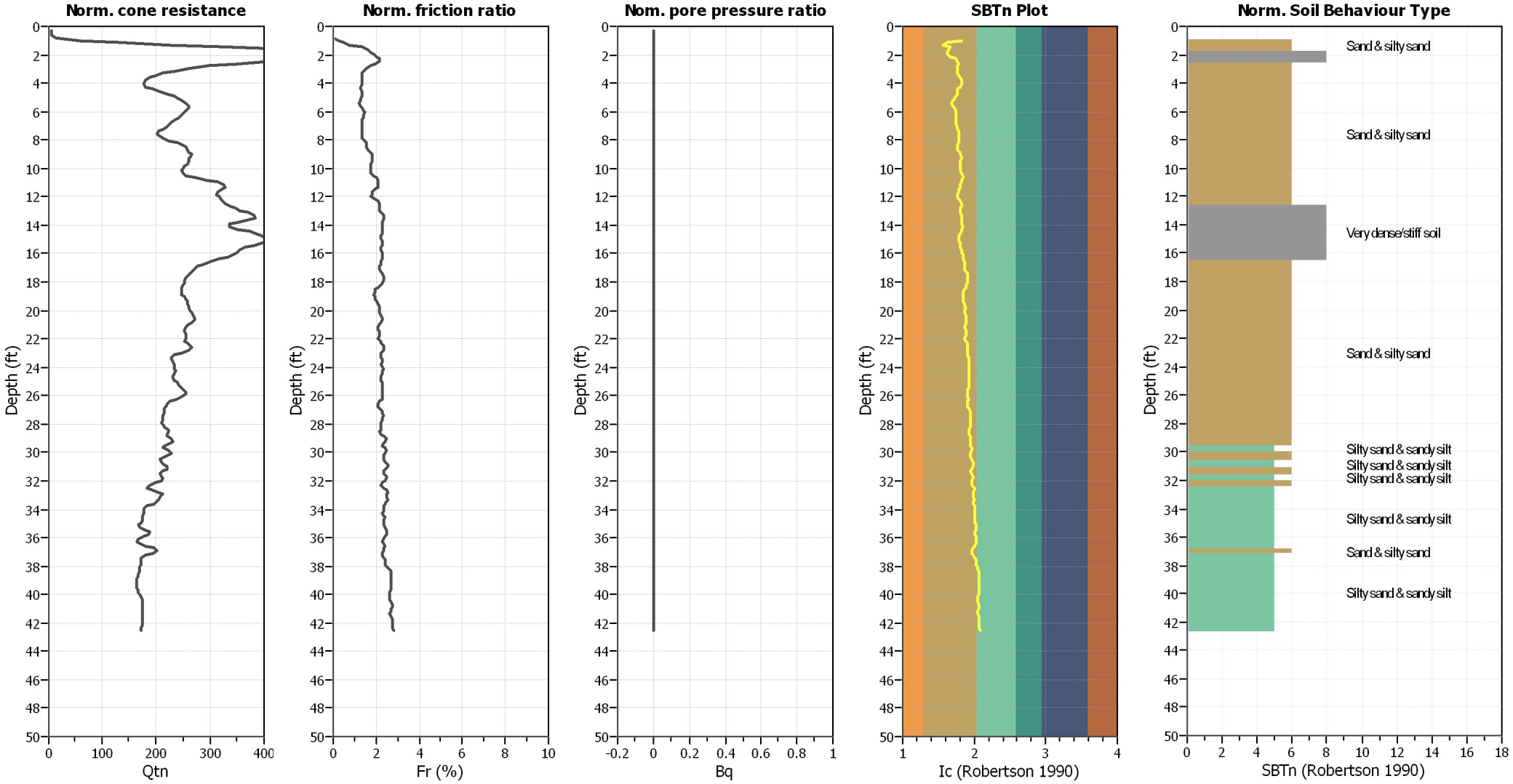
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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Pleasanton, California

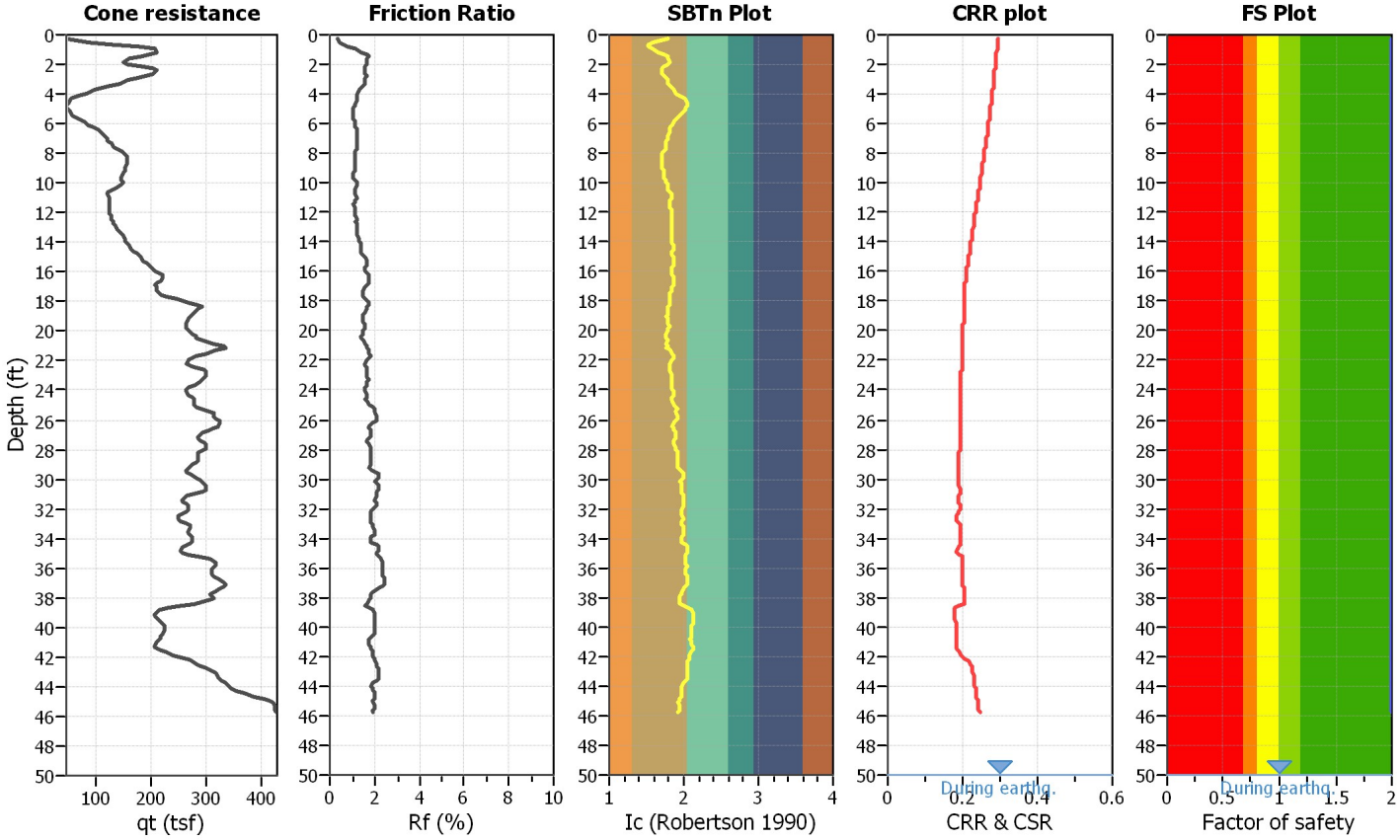
LIQUEFACTION ANALYSIS REPORT

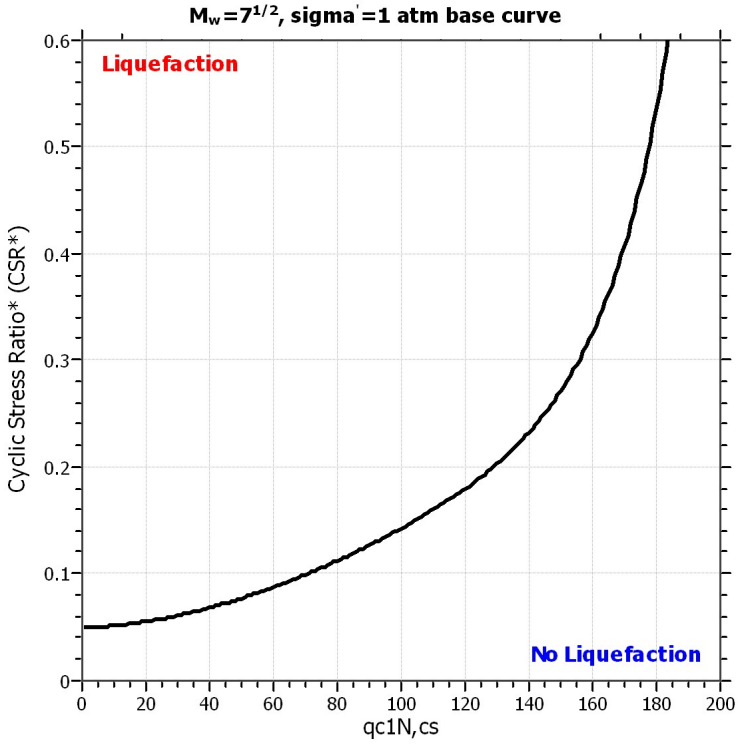
Project title : Campus Town **Location : Seaside, CA**

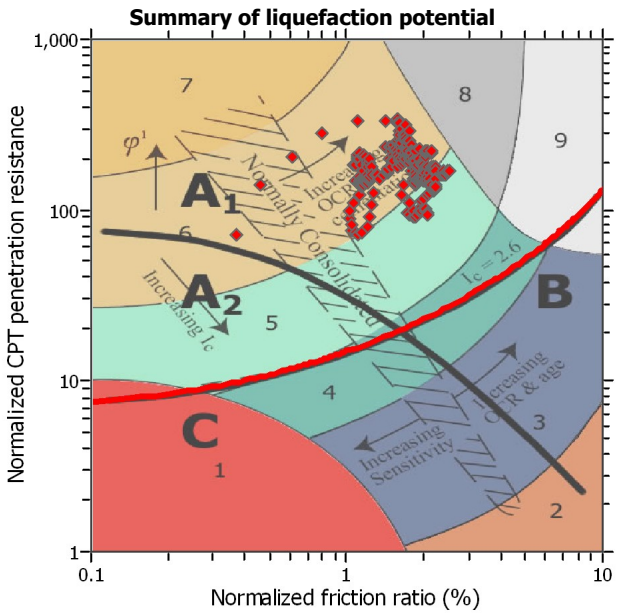
CPT file : CPT-06

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

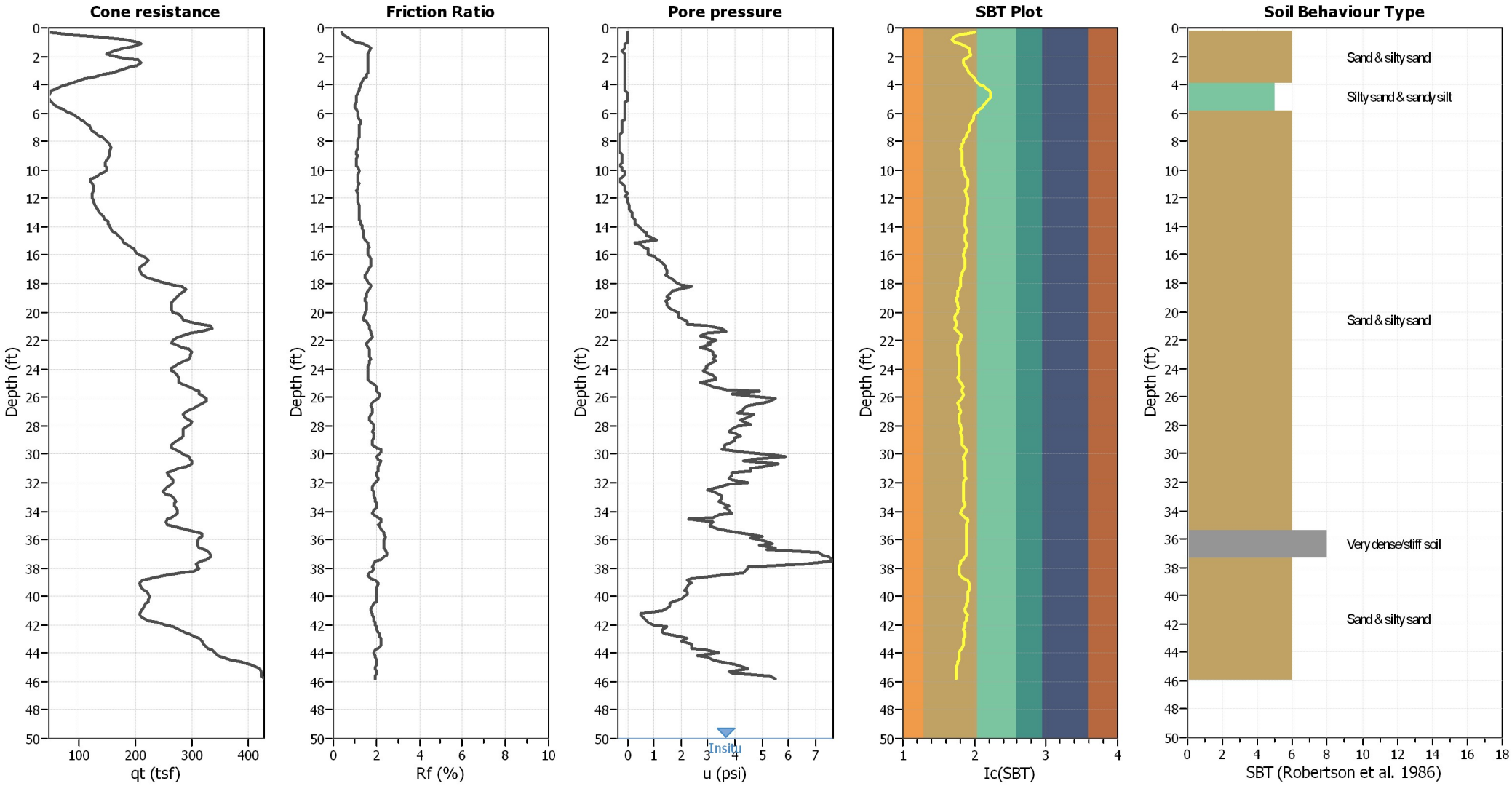






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



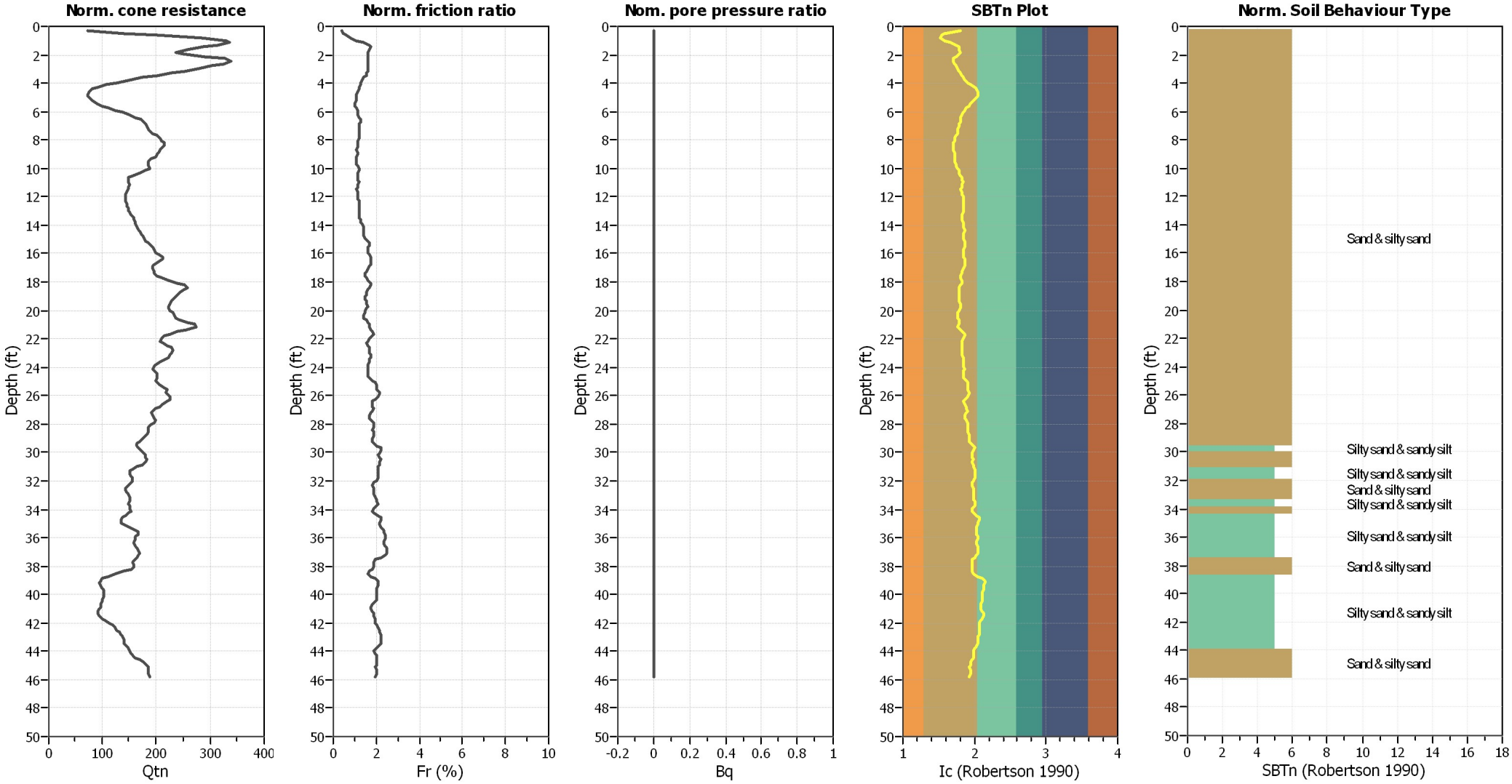
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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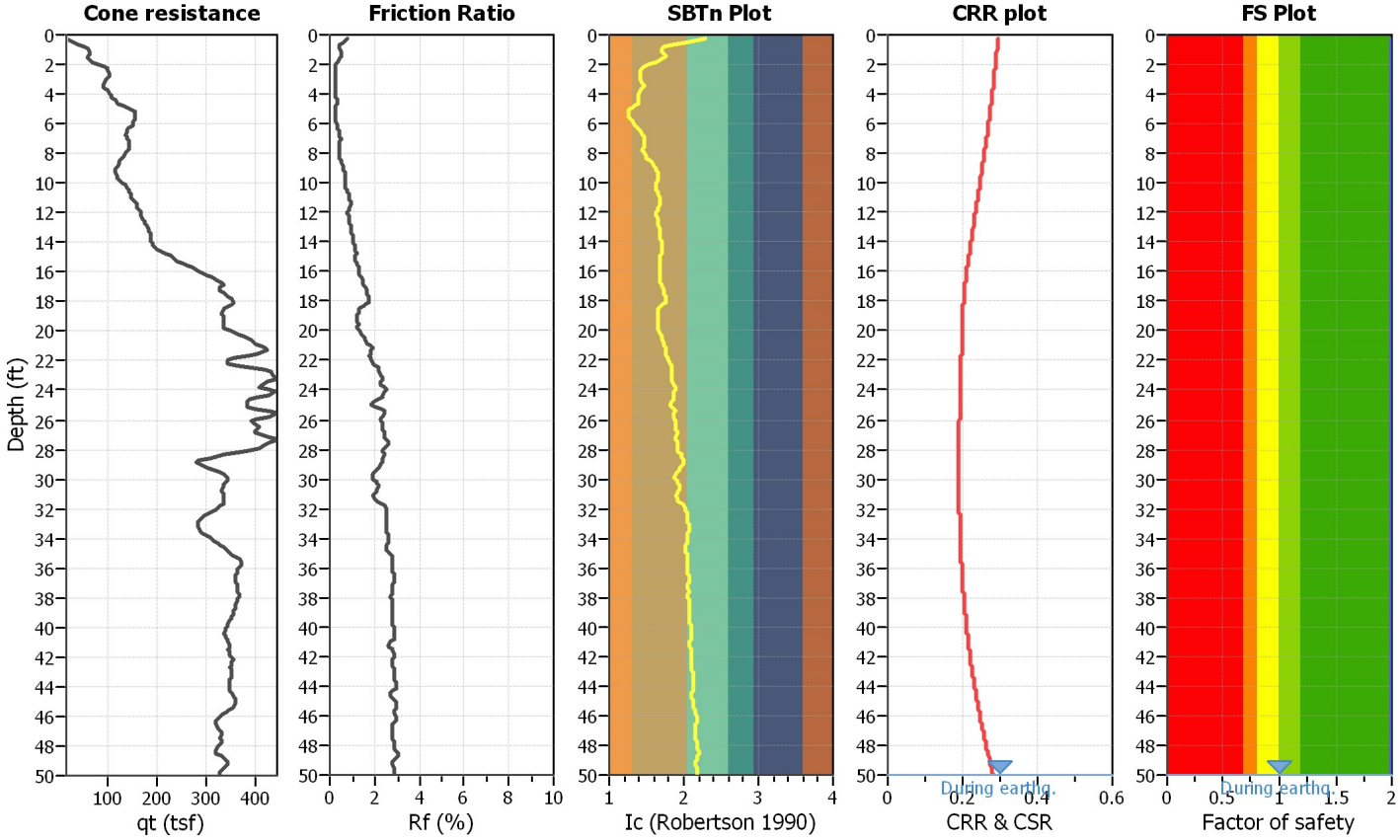
LIQUEFACTION ANALYSIS REPORT

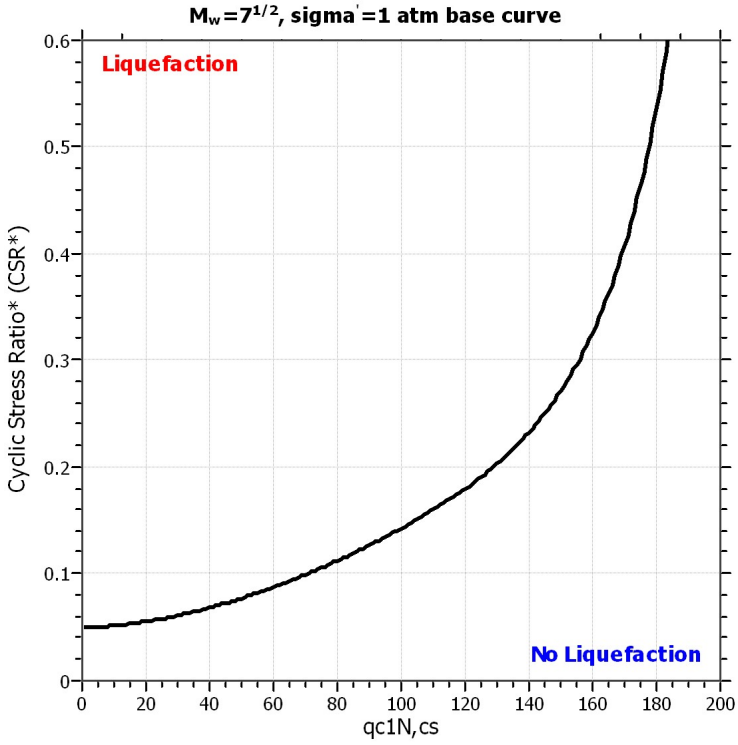
Project title : Campus Town **Location : Seaside, CA**

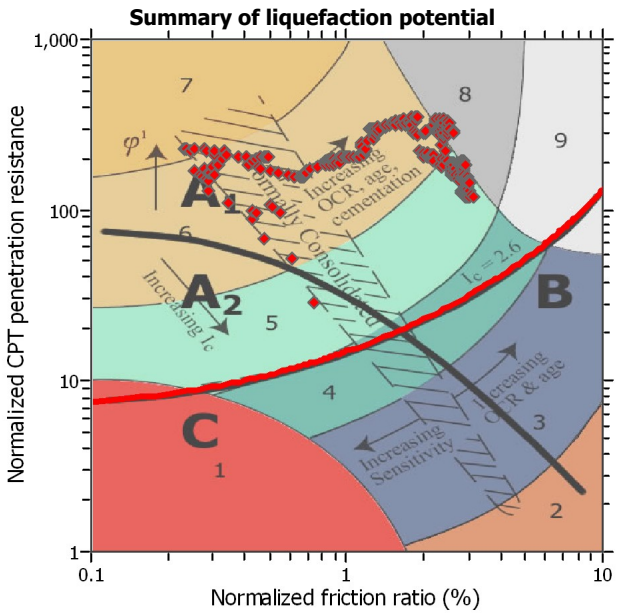
CPT file : CPT-07

Input parameters and analysis data

Analysis method:	I&B (2008)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sand & Clay
Fines correction method:	I&B (2008)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.68	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

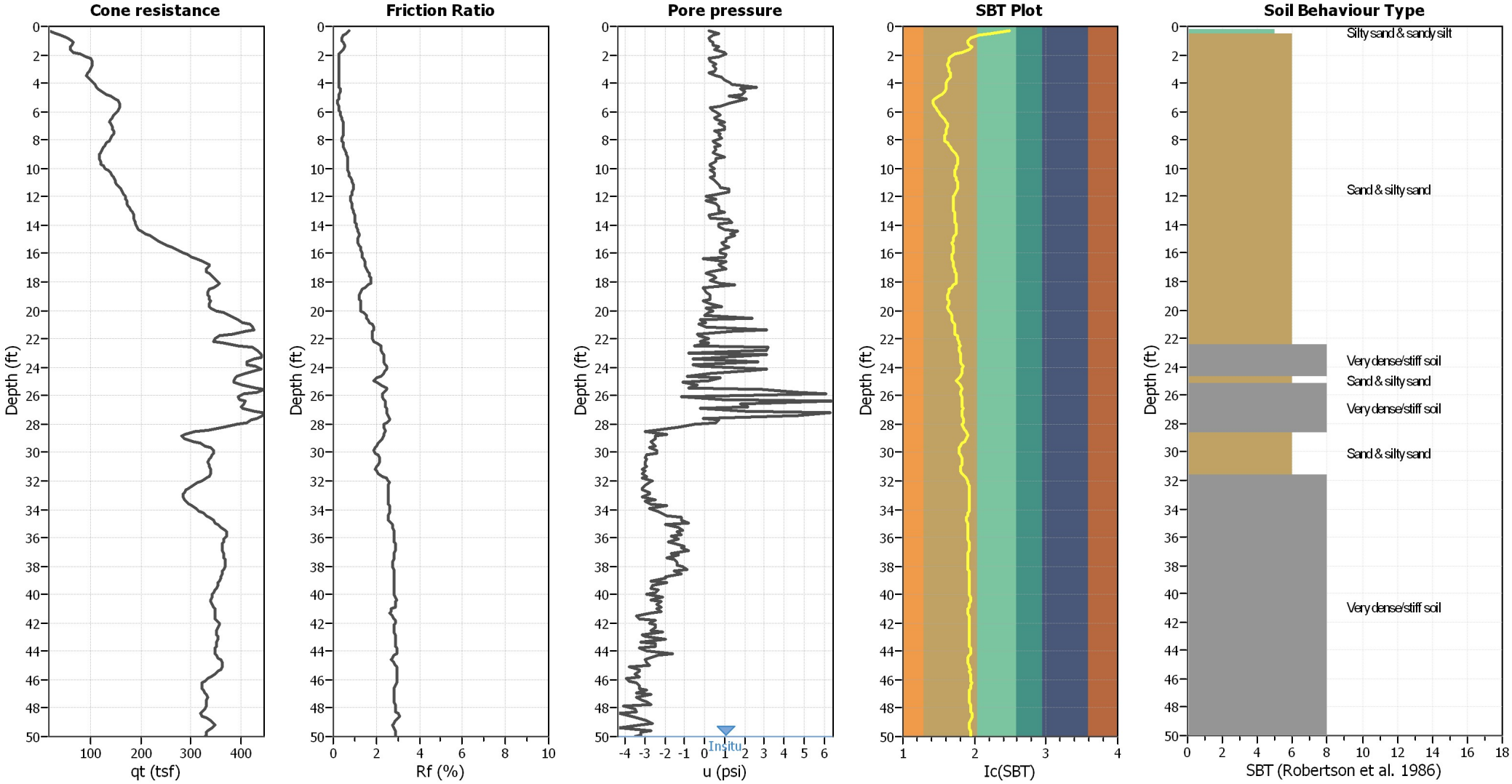






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



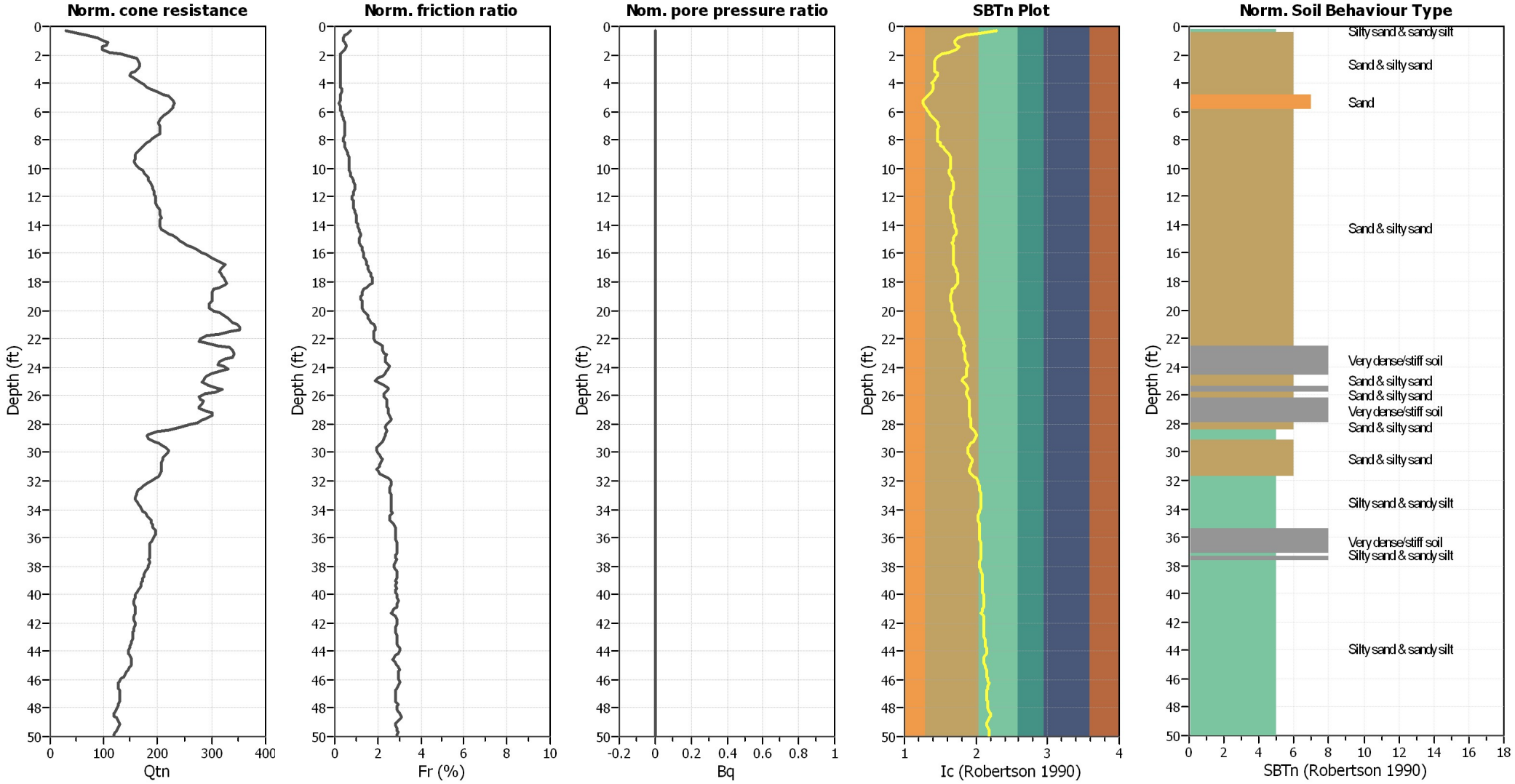
Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	I&B (2008)	Depth to GWT (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	I&B (2008)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.68	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sand & Clay
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

APPENDIX B

BORING LOG

Berlogar Stevens & Associates
5587 Sunol Boulevard
Pleasanton, CA 94566

BORING NUMBER B-1

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 175 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand, iceplant rootlets	175	0		18					
		170	5							
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand				34					
		165	10							
					43					
		160	15							
					36					

Bottom of borehole at 16.5 feet.

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BORING NUMBER B-2

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 225 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand, iceplant rootlets	225	0							
		220	5							
SM	SILTY SAND, light to medium gray-brown, moist, dense, fine-to medium-grained sand			X	49					
SM	SILTY SAND, light gray-brown dry to moist, medium dense, fine-to medium-grained sand	215	10	X	18					
	below 13 feet, interbedded thin streaks of medium gray-brown SILTY SAND, medium dense to dense, fine-to medium-grained sand	210	15	X	37					
		205	20							

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Pleasanton, CA 94566

BORING NUMBER B-2

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		205	20							
SM	SILTY SAND, light gray-brown dry to moist, medium dense, fine-to medium-grained sand *(continued)*				28					

Bottom of borehole at 21.5 feet.

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BORING NUMBER B-3

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 247 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler
Standard Penetration Test

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand	245	0							
			5		34					
		240								
SM	SILTY SAND, medium gray-brown, dry to moist, dense, fine-to medium-grained sand (hardpan)		10		48					
		235			42					
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-grained sand		15		25					
		230								
			20							

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Pleasanton, CA 94566

BORING NUMBER B-3

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
			20							
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-grained sand *(continued)*				36					

Bottom of borehole at 21.5 feet.

Berlogar Stevens & Associates
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Pleasanton, CA 94566

BORING NUMBER B-4

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 320 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler
Standard Penetration Test

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to coarse-grained sand	320	0							
		315	5							
SM	SILTY SAND, mottled light and medium gray-brown, dry to moist, medium dense, fine-to medium-grained sand				18					
		310	10							
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand				32					
		305	15							
SM	SILTY SAND, mottled light and medium gray-brown, dry to moist, medium dense, fine-to medium-grained sand				36					
					34					
		300	20							

(Continued Next Page)

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Pleasanton, CA 94566

BORING NUMBER B-4

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		300	20							
SM	SILTY SAND, mottled light and medium gray-brown, dry to moist, medium dense, fine-to medium-grained sand *(continued)*				52					
					41					

Bottom of borehole at 23.0 feet.

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BORING NUMBER B-5

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 310 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand	310	0							
SM	SILTY SAND, light to medium gray-brown, moist, medium dense, fine-to medium-grained sand	305	5		30					
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand	300	10		34					
		295	15		41					
		290	20							

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Pleasanton, CA 94566

BORING NUMBER B-5

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		290	20							
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand *(continued)*				43					

Bottom of borehole at 21.5 feet.

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BORING NUMBER B-6

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 275 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler
Standard Penetration Test

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand	275	0							
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand	270	5							
				Modified California Sampler	40					
		265	10							
SM	SILTY SAND, mottled light and medium gray-brown, moist, medium dense, fine-to medium-grained sand			Modified California Sampler	17					
				Standard Penetration Test	16					
		260	15							
				Modified California Sampler	15					
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand	255	20							

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BORING NUMBER B-6

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		255	20							
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand *(continued)*				36					

Bottom of borehole at 21.5 feet.

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BORING NUMBER B-7

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 250 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
SM	SILTY SAND, gray-brown, dry to moist, medium dense, fine-to medium-grained sand	250	0							
					20					
SM	SILTY SAND, light gray-brown, dry to moist, loose, fine-to medium-grained sand	245	5							
					9					
SM	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand, limonite stains	240	10							
					17					
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand	235	15							
					32					
		230	20							

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BORING NUMBER B-7

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		230	20							
SM	SILTY SAND, light gray-brown, dry to moist, medium dense, fine-to medium-grained sand *(continued)*				41					

Bottom of borehole at 21.5 feet.

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BORING NUMBER B-8

CLIENT KB Bakewell Seaside Ventures II, LLC
PROJECT NAME Surplus II - Seaside
PROJECT NUMBER 3961.100
PROJECT LOCATION Seaside, CA
DATE STARTED 6/4/18 **COMPLETED** 6/4/18
GROUND ELEVATION 200 ft **LOGGED BY** ROV
DRILLING CONTRACTOR Britton
GROUNDWATER: **No Groundwater Encountered**
DRILLING METHOD Hollow Stem Auger 2.5" I.D. Split Barrel
NOTES

Modified California Sampler

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
ML	SILTY SAND, medium to dark gray-brown, dry, moist, loose, fine-to medium-grained sand	200	0							
					12					
		195	5							
					12					
		190	10							
ML	SILTY SAND, mottled light and medium gray-brown, moist, loose to medium dense, fine-to medium-grained sand				14					
		185	15							
ML	SILTY SAND, light gray-brown, moist, loose, fine-to medium-grained sand				10					
		180	20							

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BORING NUMBER B-8

CLIENT KB Bakewell Seaside Ventures II, LLC **PROJECT NAME** Surplus II - Seaside

PROJECT NUMBER 3961.100 **PROJECT LOCATION** Seaside, CA

USCS	MATERIAL DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	SAMPLER	BLOW COUNT	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTICITY INDEX	FINES CONTENT PASSING #200
		180	20							
ML	SILTY SAND, light gray-brown, moist, medium dense, fine-to medium-grained sand				32					

Bottom of borehole at 21.5 feet.

APPENDIX C

INFILTRATION TEST DATA

Project: Surplus II - Seaside (Campus Town)
Project No.: 3961.100
Test Location: Site 1 - First Street & Lightfighter Drive
Date: 07/05/18

			Area				Area
Inner Rin	Inner Dia. (in.):	12.00	**0.785**	Outer Ring:	Inner Dia. (in.):	23.94	3.126
	Outer Dia. (in.):	12.06	0.793				**2.333**

			Inner Ring				Outer Ring			
Start (Time)	End (Time)	Elapsed Time (min.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)
1:55	2:10	15	0.000	1.335	0.089	10.9	0.000	5.823	0.388	16.0
2:10	2:25	15	1.335	2.896	0.104	12.8	5.823	11.685	0.391	16.1
2:25	2:40	15	2.896	4.429	0.102	12.5	11.685	17.744	0.404	16.7
2:40	2:55	15	4.429	5.949	0.101	12.4	17.744	23.622	0.392	16.2
2:55	3:26	31	5.949	8.821	0.093	11.4	23.622	34.741	0.359	14.8
3:26	3:56	30	8.821	11.577	0.092	11.3	34.741	45.665	0.364	15.0
3:56	4:26	30	11.577	14.239	0.089	10.9	45.665	56.255	0.353	14.6

Project: Surplus II - Seaside (Campus Town)
Project No.: 3961.100
Test Location: Site 2 - Lightfighter Drive & General Jim Moore Blvd
Date: 07/06/18

			Area				Area
Inner Rin	Inner Dia. (in.):	12.00	**0.785**	Outer Ring:	Inner Dia. (in.):	23.94	3.126
	Outer Dia. (in.):	12.06	0.793				**2.333**

			Inner Ring				Outer Ring			
Start (Time)	End (Time)	Elapsed Time (min.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)
9:10	9:25	15	0.000	1.739	0.116	14.2	0.000	6.817	0.454	18.8
9:25	9:40	15	1.739	3.679	0.129	15.9	6.817	14.64	0.522	21.5
9:40	9:55	15	3.679	5.984	0.154	18.8	14.64	22.493	0.524	21.6
9:55	10:10	15	5.984	7.853	0.125	15.3	22.493	29.388	0.460	19.0
10:10	10:40	30	7.853	11.872	0.134	16.4	29.388	44.324	0.498	20.5
10:40	11:10	30	11.872	15.894	0.134	16.4	44.324	59.191	0.496	20.4
11:10	11:40	30	15.894	19.555	0.122	15.0	59.191	74.008	0.494	20.4
11:40	12:10	30	19.555	23.994	0.148	18.1	74.008	88.361	0.478	19.7

Project: Surplus II - Seaside (Campus Town)
Project No.: 3961.100
Test Location: Site 3 - General Jim Moore Blvd
Date: 07/09/18

			Area					Area
Inner Rin	Inner Dia. (in.):	12.00	**0.785**	Outer Ring:	Inner Dia. (in.):	23.94	3.126
	Outer Dia. (in.):	12.06	0.793				**2.333**

			Inner Ring				Outer Ring			
Start (Time)	End (Time)	Elapsed Time (min.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)
8:36	8:51	15	0.000	1.48	0.099	12.1	0.000	9.708	0.647	26.7
8:51	9:06	15	1.48	4.059	0.172	21.1	9.708	19.582	0.658	27.2
9:06	9:21	15	4.059	6.759	0.180	22.1	19.582	28.957	0.625	25.8
9:21	9:36	15	6.759	9.357	0.173	21.2	28.957	38.26	0.620	25.6
9:36	10:06	30	9.357	14.605	0.175	21.4	38.26	56.827	0.619	25.5
10:06	10:36	30	14.605	19.707	0.170	20.8	56.827	74.566	0.591	24.4
10:36	11:06	30	19.707	24.800	0.170	20.8	74.566	91.965	0.580	23.9
11:06	11:37	31	24.800	29.79	0.161	19.7	91.965	108.35	0.529	21.8
11:37	12:07	30	29.79	34.778	0.166	20.4	108.35	124.46	0.537	22.2

Project: Surplus II - Seaside (Campus Town)
Project No.: 3961.100
Test Location: Site 4 - Colonel Durham Street & 6TH Avenue
Date: 07/09/18

			Area					Area
Inner Rin	Inner Dia. (in.):	12.00	**0.785**	Outer Ring:	Inner Dia. (in.):	23.94	3.126
	Outer Dia. (in.):	12.06	0.793				**2.333**

			Inner Ring				Outer Ring			
Start (Time)	End (Time)	Elapsed Time (min.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)	Cumm. Gal. Meter at Start	Cumm. Gal. Meter at End	gal./min	Infiltration (inch/hr.)
2:50	3:05	15	0.000	1.269	0.085	10.4	0.000	5.275	0.352	14.5
3:05	3:20	15	1.269	2.438	0.078	9.6	5.275	10.051	0.318	13.1
3:20	3:35	15	2.438	3.59	0.077	9.4	10.051	14.54	0.299	12.3
3:35	3:50	15	3.59	4.68	0.073	8.9	14.54	19.173	0.309	12.7
3:50	4:20	30	4.68	6.86	0.073	8.9	19.173	28.005	0.294	12.1
4:20	4:50	30	6.86	9.009	0.072	8.8	28.005	36.303	0.277	11.4
4:50	5:20	30	9.009	11.203	0.073	9.0	36.303	44.023	0.257	10.6
5:20	5:50	30	11.203	13.160	0.065	8.0	44.023	51.385	0.245	10.1