



Leighton Consulting, Inc.

A Leighton Group Company

October 11, 2021
(Revised November 16, 2021)

Proposal No. IR21-510

Carson Reclamation Authority
701 East Carson Street
Carson, CA 90745

Attention: Mr. John Raymond

**Subject: Revised Proposal for Geotechnical Engineering Services
District at South Bay
Cells 3, 4 and 5 Development
20400 South Main Street
City of Carson, California**

INTRODUCTION

Leighton Consulting, Inc. (Leighton) is pleased to present this revised proposal to provide geotechnical engineering services for the subject project. This proposal has been revised to include an additional 10% discount to our professional rates. This proposal is based on discussions with you and review of the *Concept Grading Plan, District at South Bay Cells 3, 4, 5 Development, City of Carson* prepared by Michael Baker International, dated May 10, 2021. We understand the current concept design is subject to further refinement and may change, although not significantly. We have reviewed existing data and proposed an encompassing exploration to provide sufficient coverage of the site should the current concept change. This approach is tailored at limiting the need to perform additional exploration once/if the design changes.

This is solely a scope and fee proposal. We are familiar with the site soil, landfill and groundwater conditions at the project site having performed prior studies at the former Cal Compact Landfill and during earthwork construction and foundation installation specifically in Cell 2. Upon request we can send you our project-specific qualifications as we have been Geotechnical Engineer of Record (GEOR) for the entire re-development of the Cal Compact landfill since 2008.

This proposal includes a description of the proposed project, our proposed scope of services, a schedule, and a fee estimate; and has been tailored to meet the needs of the project and fulfill your requirements. However, should the outlined services not meet your expectations of the assignment, we would appreciate the opportunity to discuss your concerns and make adjustments, as necessary. All onsite activity including subsurface explorations and foundation installations are under the control of the Department of Toxic Substance Control (DTSC), requiring detailed work plans and health and safety plans be submitted to DTSC for review and approval prior to any work being conducted onsite.

PROJECT INFORMATION

The project site, the former Cal Compact Landfill, is located at 20400 South Main Street in the City of Carson, California. The site is bounded on the west by South Main Street, on the north by West Del Amo Boulevard, on the east by Interstate 405, and on the southwest and south by existing residential developments (across the Torrance Lateral Channel). The project site was previously operated as a Class 2 landfill between 1958 and 1965. Refuse was placed in multiple cells separated by haul roads. Recently, extensive grading, including installation of utility infrastructure and driven pile foundations have been performed to shape the ground surface as part of the Los Angeles Premium Outlets (LAPO) re-development of landfill cell 2.

We understand that the currently proposed project consists of re-developing former landfill cells 3, 4, and 5 with the construction of seven new warehouse buildings each containing office space and perimeter paved parking with approximate dimensions and floor space as follows:

- Building A – roughly 370-foot by 510-foot, 188,700 square feet;
- Building B – roughly 380-foot by 270-foot, 102,600 square feet;
- Building C – roughly 720-foot by 460-foot, 331,200 square feet;
- Building D – roughly 1100-foot by 460-foot, 506,000 square feet;
- Building E – roughly 440-foot by 770-foot, 338,800 square feet;
- Building F – roughly 360-foot by 640-foot, 230,400 square feet;
- Park – 14 buildings including café, retail, drive-thru restaurants, and restrooms totaling approximately 37, square feet

Additional improvements include driveways, utility infrastructure, and a roughly 11-acre park located in the southeast corner of the site. Based on our recent correspondence, we understand the concept design footprint could/may change and therefore our

exploration approach is aimed at providing adequate coverage across Cells 3, 4 and 5 should the design change from what is currently proposed.

GEOTECHNICAL CHALLENGES AND LEIGHTON ADVANTAGE

The project site has unique geotechnical challenges that require extensive analysis for proper foundation design and to procure grading and building permits from the City of Carson and the County of Los Angeles. Fortunately, Leighton has developed cost-effective solutions based on detailed analytical modeling that have been approved by the reviewing agencies and proofed in the field during foundation (driven pile) installation in landfill Cell 2.

Due to the presence of landfill refuse below the site, the site will be classified as Seismic Site Class F requiring an updated site-specific ground motion study and site response modelling in compliance with the current 2019 California Building Code (CBC). In addition, modeling of pile/refuse/soil interaction will be required to validate reliance on refuse and undocumented fill for lateral pile support. Without this analysis the City of Carson and County of Los Angeles will require that pile foundation design neglect any support derived from refuse and cover fill, which will make it difficult to accommodate anticipated seismic loading. Leighton has successfully modeled pile foundation in refuse and ground response of landfills to seismic loading to obtain approvals from the City of Carson and County of Los Angeles.

In addition, a detailed estimate of refuse settlement rates will be required for proper design of paved surfaces at the site. Leighton has previously developed detailed settlement models for the adjacent Cell 2 which will be updated to account for increased seismic loading per current building code (CBC, 2019).

SCOPE OF WORK

We will perform document review, subsurface explorations, laboratory testing, and engineering analyses to develop geotechnical design recommendations for the proposed warehouse project as currently conceived. Because the project site is a former landfill, we will prepare a project-specific work plan and update our health and safety plan (WP/HASP) for the site for submittal to DTSC and receive approval prior to commencing our exploration program.

Leighton's anticipated scope of work consists of the following:

- Review available documents with pertinent geotechnical information for site and surrounding slopes.
- Coordination with Carson Reclamation Authority (CRA), RE Solutions, Faring, Michael Baker International (MBI), and EKI.
- Coordinate submittal to DTSC of the WP/HASP with other members of the design team.
- Finalize the WP/HASP for subsurface explorations to the DTSC to obtain required permits. We assume any permits will be provided to Leighton at no cost.
- Subsurface exploration to determine the nature and stratigraphy of the subsurface soils, landfill, and alluvium contact; and to obtain undisturbed and bulk samples for geotechnical laboratory testing.
- Geotechnical laboratory testing of soil samples for determination of the physical soil properties.
- Engineering evaluation of the geotechnical data to develop recommendations for design.
- Preparation of a geotechnical report summarizing the data collected and presenting our findings and design recommendations.

The methodology to perform the required tasks is presented in the following sections.

Document Review and Coordination

We will review available documents with pertinent geotechnical information on the project site in our in-house library, published in the literature, and available from the project team. This process has been started in support of this proposal.

Subsurface Explorations

The primary objective of the proposed subsurface exploration program is to better delineate the bottom of refuse below the planned buildings in all areas of Cells 3, 4 and 5. Foundation pile length is directly correlated to the depth of refuse. The proposed explorations will enable us to minimize pile lengths.

Permitting and Utility Clearance

Before starting our exploration program, we will also conduct a field reconnaissance to further observe site conditions, determine access for heavy equipment and mark the locations of our planned explorations. As required by the state of California, we will also notify Underground Service Alert of the locations of our planned explorations prior to drilling. We anticipate obtaining a Los Angeles County Well Permit prior to performing our subsurface investigation.

We will attempt to avoid utilities; however, despite reasonable efforts to avoid damages, there are inherent risks to utilities from drilling. To reduce these risks, we will review utility plans provided to us for utility conflicts. We cannot assume responsibility for the inherent risks if the utilities are not accurately mapped on plans made available to us. Our proposal does not include costs or other provisions for utility repairs.

Subsurface Exploration Program

We propose to explore the site to identify the depth to alluvium at locations shown on the attached Plate 1, *Proposed Boring Location Map* by drilling twenty nine (29) continuous core and hollow-stem auger borings to a target depth of 90 feet or at least 30 feet below the bottom of refuse. Our representative will be working under the direct supervision of Carl Kim, senior principal geotechnical engineer and Joe Roe principal engineering geologist, and the engineering staff will log the subsurface conditions encountered, including the contacts between soil cover, landfill refuse, and natural alluvium, and will obtain undisturbed samples for laboratory inspection and testing. The field work will be monitored by our health and safety coordinator.

We will conduct all drilling and sampling in general accordance with applicable ASTM standards. We will perform standard penetration tests (SPTs) within the natural soils in the boring. We will also obtain bulk samples of the upper soils. We will provide notification to all laboratories and personnel handling samples collected from the site of the possible presence of hazardous substances.

We will transport all samples to our laboratory where they will be examined by an engineer and visually classified according to the Unified Soil Classification System (USCS). When working with samples, laboratory personnel will comply with the level of protection described in the Health and Safety Plan (HASP). Upon unsealing the samples, laboratory personnel will monitor each sample with a photoionization detector (PID). When samples are not being tested, they will be stored in a secured ventilated area. Upon completion

of testing, the samples will be returned to the site for proper disposal onsite by the site owner.

As a safety precaution, we will provide immediate screening of the samples and cuttings with a PID for the presence of volatile organics. We will also monitor for combustible gas, oxygen, and hydrogen sulfide as outlined in our HASP.

The casing and hollow-stem auger will remain in the drilled hole during the entire duration of drilling. At the completion of drilling, while removing the casing and hollow-stem auger, the exposed portion of the borehole will be sealed from the upper portion by grouting from the bottom up. The level of the grout will follow directly behind the auger as it is raised. In this way, the potential for downward migration of contaminants will be minimized. All of the borings will be grouted in this manner with cement bentonite grout or hydrated bentonite chips.

We assume that a level graded pad will be constructed prior to our exploration to allow a full-size truck mounted drill rig to access the location safely, or we may need to use a limited access track mounted rig. Access feasibility will be determined during the site walk and boring markout.

Disposal of Cuttings

The cuttings and samples will be handled and identified in accordance with the California Code of Regulations, Title 22 (22 CCR), Division 4.5, Section 66261-4 (d). Cuttings from borings will be transported to and stored in roll-off bins in a preapproved staging area determined by the owner and held until determination is made as to their method of disposal. Decontamination fluids will be stored in 55-gallon drums and transported to the staging area and held.

Based on our prior experience, the DTSC may approve of disposal of soil cuttings onsite, which will eliminate soil disposal costs. If the cuttings are to be disposed of offsite the following tests will be performed:

- Title 22 Metals by EPA Method 6010B/7471,
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M,
- Semi-Volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (SVOCs/PAHs) by EPA Method 8270C,
- Organochlorine Pesticides (OCPs) by EPA Method 8081B,
- Soil and Waste pH by EPA Method 9045D, and
- Volatile Organic Compounds by EPA Method 8260B (VOCs).

The material will be transported by a qualified and permitted waste hauler and disposed of at a proper receiving facility. For budgeting purposes, we assume the investigation derived waste (IDW) will be considered non-RCRA hazardous waste and will not exceed a total of 39 tons. Should additional IDW be generated beyond what is anticipated, additional disposal charges will apply.

Drilling decontamination fluids will be stored in 55-gallon drums as described above until testing is performed. The following tests will be performed for drilling fluids:

- Title 22 Metals by EPA Method 6010B/7471,
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M,
- Semi-Volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (SVOCs/PAHs) by EPA Method 8270C,
- Organochlorine Pesticides (OCPs) by EPA Method 8081B,
- Soil and Waste pH by EPA Method 9045D, and
- Volatile Organic Compounds by EPA Method 8260B (VOCs).

Please note that an increased or decreased analytical sampling program for waste disposal activities may be required by the DTSC based upon their review of the WP/HASP.

Our proposal includes estimated costs for the analytical sampling, testing, and disposal described above.

Decontamination Procedures

For safety purposes, the site will be divided into three specific zones on the basis of contamination potential: Zone 1 – Exclusion Zone; Zone 2 – Contamination Reduction Zone; and Zone 3 – Support Zone.

The **Exclusion Zone** is the area of the most suspect environmental contamination and presents the greatest potential for worker exposure. Personnel entering the area must wear the mandated level of protection.

The **Support Zone** serves as a clean control area and covers all area outside of the Contamination Reduction Zone. It is the location where administrative and support functions will be performed to keep the field operations running smoothly. All vehicles will remain in this area except those which support the activities in the Exclusion Zone.

The **Contamination Reduction Zone** serves as a transition area between the Exclusion Zone and the Support Zone. Decontamination facilities for personnel and any vehicles or heavy equipment exiting the Exclusion Zone are located in the Contamination Reduction Zone. All areas will be defined and marked as appropriate.

All personnel will be required to complete appropriate decontamination procedures in a manner that is responsive to actual site conditions prior to leaving the site. A decontamination area will be set up at an appropriate site location. Wash tubs containing an appropriate decontamination solution and soft-bristle brushes will be used to decontaminate reusable personal protective clothing and boots. Following the decontamination solution washing, equipment will be rinsed at least once prior to use of the appropriate decontamination solution.

Decontamination and rinse solutions will be disposed of in DOT 17H rated drums which are properly labeled and secured onsite at the staging area pending receipt of analytical results. Drums will also be provided for all disposable clothing. Disposable clothing will be placed in drums, and then discarded accordingly. Each individual shall conduct proper personal hygiene, which includes washing any exposed skin prior to eating, drinking, or leaving the site. Smoking is not allowed onsite.

We will decontaminate all drilling and sampling equipment at the site after drilling operations are complete. The augers will be steam cleaned, and the sampling equipment will be washed with TSP phosphate-free soap.

Prior to leaving the site, heavy equipment or vehicles which have entered the Exclusion Zone will be cleaned of gross contamination. Heavy equipment or vehicles will also be thoroughly decontaminated at a decontamination station set up for the decontamination of heavy equipment and vehicles.

Geophysical Surveys

Based on the information available at this time, to obtain sufficient data for our updated seismic evaluation of the existing landfill, we estimate four arrays to determine Vs30 for subsurface material velocity for use in seismic site calls determination and ground motion studies.

Geotechnical Laboratory Testing

Our engineer will select samples for laboratory testing to determine the pertinent static physical characteristics of the soils. The data obtained will be used in the necessary engineering analyses. The laboratory tests may include but not be limited to:

- In-place moisture content and dry density determination tests for each undisturbed sample;
- Atterberg Limits and Expansion Index tests for plasticity determination and soil classification;
- Sieve analyses for grain-size distribution and soil classification;
- Direct shear tests on undisturbed samples and, if appropriate, on remolded samples to determine the shear strength of the materials;
- Consolidation tests to determine the compressibility of the materials;
- Compaction tests for use in preparing earthwork recommendations; and
- Chemical testing to evaluate the corrosion potential of the subsurface materials at the site.

ENGINEERING ANALYSIS

Liquefaction Evaluation

The California Building Code requires that the geotechnical report for the site include an evaluation of the potential for liquefaction and soil strength loss at the site during a design basis earthquake. Based on current practices in geotechnical engineering, the presence of liquefiable soils within a depth of 50 feet below ground surface with a water table above 50 feet will have adverse structural effects on the building. Portions of the project site are within areas mapped by the State of California as having the potential for liquefaction. We will evaluate the liquefaction potential using available data and data generated during the exploration program.

Geologic Seismic Hazards Evaluation

We will perform geologic seismic hazards evaluation to define the geologic environment and evaluate geologic and seismic hazards that may affect the site. The study will address the potential for primary earthquake hazards (ground shaking and surface rupture) and secondary seismic effects (seismic settlement, lurching and seiches)

impacting the site. This process is being performed as part of the current desktop study and will be analyzed and integrated into the design report.

Ground Motion Study

Site specific response spectra will be developed for the Maximum Considered Earthquake (MCE) ground motions having a 2% probability of being exceeded in 50 years and the design basis earthquake (DBE) having a 10% probability of being exceeded in 50 years in conformance with the 2019 California Building Code (CBC).

REPORTING

The results of our subsurface explorations and laboratory tests will be evaluated and compared with the results presented in prior investigation reports (*References*). We will prepare a geotechnical report summarizing the data collected and analyzed in order to present our design recommendations. The report will include:

- Results of the subsurface explorations and laboratory tests, with a description of the soil and groundwater conditions encountered, and a discussion regarding similarities and differences (if any) between the current and prior investigations.
- Results of liquefaction potential of the soils underlying the site;
- Results of the geologic seismic hazards evaluation to satisfy the requirements of Title 24 of the California Code of Regulations and guidelines outlined by the California Geological Survey (CGS).
- Results of the ground motion study to provide response spectra for design of the buildings and foundations at the site.
- Results of the seismic response evaluation of the existing landfill.
- Recommendations for design of new foundations and walls below grade, floor slabs and paving support and for earthwork.
- Recommendations for design of deep foundations to be used for support of the warehouse structures including allowable increases for wind or seismic loads.
- Estimated settlements for the anticipated loadings.
- Determination of the applicable site coefficients and seismic zonation based on the 2019 CBC.
- Recommendations regarding frictional and passive values for resistance of lateral forces.

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- Recommendations for design of retaining walls and walls below grade.
 - Recommendations for temporary shoring as needed.
 - Recommendations for floor slab support.
 - Recommendations for corrosion protection of ferrous material and concrete in contact with site soils.
 - Recommendations for design of asphalt concrete and Portland cement concrete paving.
 - Recommendations for earthwork including site preparation, excavation, and the placing of any required fill.

The following graphics will be included in our report:

- A plot plan showing the location of the proposed structure and the locations of our exploratory borings coupled with pertinent data from past exploration (past data deemed applicable are those that penetrated landfill into alluvium).
- A geologic section showing the subsurface geologic materials and the geologic structure relative to the proposed construction.
- A log of the borings depicting the changes encountered in the soil strata by elevation and depth below ground surface together with a description and classification of each soil stratum. The depth to groundwater will also be indicated if encountered (anticipated to be encountered).
- Plots and tables presenting the results of the laboratory tests.

SCHEDULE

We estimate that we can begin our explorations within two weeks of receiving approval of our WP/HASP from DTSC. Field Exploration is conservatively expected to take twenty nine (29) drill rig days. The geophysical exploration using seismic arrays is expected to take two days onsite. We can provide a written report within five to six weeks of the completion of our subsurface explorations, depending upon our backlog at the time this proposal is authorized.

FEES

The fee for our services will be based on our *2018 Professional Fee Schedule* with a 19% discount; on a not to exceed time-and-materials basis. Our standard subcontractor and outside cost mark-up of 18% has been reduced to 10% for this project. The estimated fee is broken down in the following table based on Prevailing Wage rates:

Table 1 - Geotechnical Fees Prevailing Wage-Basic Scope

Task Description	Estimated Fee
Boring Markout, Background Research, Field Preparation and Permitting	\$3,457.00
Coordination with RES/CRA/MBI/Faring/and EKI	\$4,501.00
Work plan and Health and Safety Plan preparation	\$1,458.00
Geotechnical and Geophysical Exploration Leighton Field Costs (31 days-29 borings and 2 days geophysical exploration)	\$86,160.00
Geotechnical Laboratory Costs	\$12,140.00
Engineering Analysis-Seismic Evaluation, Liquefaction Analyses and Ground Motion Study	\$27,306.00
Final Reporting-Design Level for County Submittal	\$20,255.00
Subtotal	\$155,277.00
Prevailing Wage Outside Costs plus 10% Markup	
Drilling Subcontractor: Continuous Core and Hollow Stem 29 borings-29 days (includes fork-lift and hopper to transport cuttings)	\$183,675.00
Geophysical Study-Seismic Velocities (Vs30)	\$2,604.00
Analytical and Soil Disposal (Includes roll-off bins)	\$18,196.00
Air Monitoring Equipment Rental	\$1,210.00
Permits Los Angeles County Department of Public Health	\$1,650.00
Subtotal	\$207,335.00
Grand Total	\$362,612.00

Per your request we have included the following fee breakdown for additional borings beyond the originally proposed 29 hollow-stem auger borings. These supplemental fees assume the additional borings will be performed within the same mobilization as the original 29 borings and if the drill rig must be remobilized, additional mobilization fees will apply. These supplementary fees **do not** include costs for additional IDW disposal

beyond the 39 tons estimated for the base exploration. Additional disposal fees may apply dependent on the total volume of IDW generated during exploration.

Table 2 - Geotechnical Fees Prevailing Wage per Additional Boring

Task Description	Estimated Fee
Geotechnical Exploration Leighton Field Costs (2-member team per day - assume 1 boring per day)	\$2,851
Prevailing Wage Outside Costs plus 10% Markup	
Drilling Subcontractor: Continuous Core and Hollow Stem 29 borings - 29 days (includes fork-lift and hopper to transport cuttings)	\$5,128
Grand Total per Additional Boring	\$7,979

The fee for the subsurface explorations shown in the tables above should be considered as a rough estimate because of the nature of the subsurface materials and possible subsurface obstructions. Some explorations may not need to achieve the average target depth of 90 feet, while other borings may be advanced beyond our target 90 feet. Therefore, based on this approach we have assumed one boring can be achieved per day. We will make every reasonable attempt to advance as many explorations per day as a function of subsurface conditions encountered. We may encounter impenetrable materials or materials that will bind around the auger that may require abandonment and relocation of borings. We suggest an optional contingency of approximately 15 percent of the total fee estimate to attempt to address these extra costs that may be incurred.

If the soil cuttings cannot be disposed onsite and the materials tested are deemed hazardous then our fee does not include disposal of RCRA hazardous materials. If the soil cuttings and fluids are found to be RCRA hazardous, the offsite disposal fees quoted in the tables above could be as high as \$25 per linear foot of drilling, depending on the level of contamination encountered. The estimated fee for offsite disposal of cuttings and fluids is an assumed allowance and not 100% committed dollars. Should onsite cutting/soil management be allowed by the DTSC, then only incidental charges associated with temporary onsite containerization and movement will be billed to Carson Reclamation Authority, i.e. actual effort and subcontractor cost expended.

The fee estimate will be valid for a period of 90 days from the date of this proposal. Our fee does not include additional services or work requested by you or your other consultants, or by the controlling public agencies during the review process.

The fees stated in this proposal have been made based on the following assumptions:

- The project is subject to prevailing wage requirements. Should prevailing wage not be applicable the above listed cost can be adjusted to reflect the change in rates.
- The site does not contain unmapped private underground utilities.
- Drilling requires two personnel, one to log the borings and the other for air monitoring for driller safety.
- The site plans for which this proposal may be subject to change; and

The assumption that the field exploration program will be performed during normal work hours.

TERMS AND CONDITIONS

We understand that the scope and tasks for this project are subject to California Prevailing Wage Laws. We propose to perform the above referenced scope of similar Terms and Conditions of the previously approved contract by and between RE Solutions, LLC and Leighton Consulting, Inc; incorporating terms and conditions from the Environmental Remediation and Development Management Agreement, dated July 26, 2017 by and between Carson Reclamation Authority and RE Solutions, LLC. A copy of this agreement is attached for ease of reference. Please provide us with your proposed contract for this project.

CLOSURE

Should you have any questions regarding this proposal, please do not hesitate to call our office. Leighton appreciates this opportunity to serve your geotechnical needs.

Respectfully submitted,

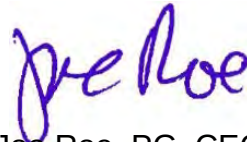
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EMH/JAR/CCK/lr

Attachments: References
Plate 1 – *Proposed Boring Location Map*
2018 Discounted Professional Fee Schedule
Drilling Subcontractor Estimates
Prior Contract with RES

Distribution: (1) Addressee

References

REFERENCES

- Leighton Consulting, Inc., 2007, Assumption of Responsibilities as Geotechnical Engineer of Record and Verification of Validity of Existing Report, Proposed Avalon at South Bay Development, 20400 Main Street, Carson, California, Prepared for the Department of Toxic Substances Control, Project No. 602050-001, dated October 31, 2007.
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_____, 2010b, Addendum No. 7 to Revised Geotechnical Report – Review of Foundation Drawings, Proposed Service Yard for Boulevards at South Bay Development, 20400 Main Street, Carson, California, Prepared for Carson Marketplace, LLC, Project No. 602050-007, dated February 5, 2010.

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_____, 2010d, Revised Addendum No. 8 to Revised Geotechnical Report – Review of Sanitary Sewer Plans in Tract No. 68889 PC No. 08-02 CRSN and Storm Drain Plans in Tract No. 68889 MTD 1825, dated May 28, 2010, Boulevards at South Bay Development, 20400 Main Street, Carson, California, Prepared for Carson Marketplace, LLC, Project No. 602050-008, dated June 4, 2010.

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Plans in Tract No. 68889 MTD 1825, dated May 28, 2010, Boulevards at South Bay Development, 20400 Main Street, Carson, California, Prepared for Carson Marketplace, LLC, Project No. 602050-008, dated July 29, 2010.

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- _____, 2011, Supplement to Addendum No. 12 to Revised Geotechnical Report – Response to County of Los Angeles Department of Public Works Geotechnical and Materials Engineering Division Geologic and Soils Engineering Review Sheets, Review of Retaining Walls for Tract 6889, Lenardo Depression and Lenardo Panhandle, The Boulevards at South Bay Development, 20400 Main Street, Carson, California, Prepared for Carson Marketplace, LLC, Project No. 602050-010, dated January 27, 2011.
- _____, 2017a, Addendum No. 13 to Revised Geotechnical Report –Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soultions, LLC, Project No. 11785.001, dated November 17, 2017.
- _____, 2017b, Addendum No. 14 to Revised Geotechnical Report, Refuse Settlement Analysis Update, The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Project Number 11785.001, dated November 10, 2017 (Revised December 20, 2017).

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- _____, 2018a, Supplement 1 to Addendum No. 13 to Revised Geotechnical Report – Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.001, dated February 20, 2018.
- _____, 2018b, Supplement 2 to Addendum No. 13 to Revised Geotechnical Report – Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.001, dated February 21, 2018.
- _____, 2018c, Addendum No. 15 to Revised Geotechnical Report –Foundation Recommendations for Site Improvements, Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.002, dated November 16, 2018.
- _____, 2019a, Addendum No. 16 to Revised Geotechnical Report –Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.002, Revised dated September 6, 2019.
- _____, 2019b, Addendum No. 17 to Revised Geotechnical Report – Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.004, dated January 17, 2019.
- _____, 2019c, Supplement to Addendum No. 17 to Revised Geotechnical Report – Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.004, dated April 5, 2019.
- _____, 2019d, Revised Supplement to Addendum No. 17 to Revised Geotechnical Report – Fashion Outlets L.A. (FOLA), The District at South Bay (Formerly The Boulevards at South Bay Development), 20400 Main Street, Carson, California, Prepared for RE Soutions, LLC, Project No. 11785.004, revised dated April 26, 2019.

Plate 1 – *Proposed Boring Location Map*

FF ±14'
| ABOVE PROPOSED

2018 Discounted Professional Fee Schedule



2018 PROFESSIONAL FEE SCHEDULE

CLASSIFICATION

Technician I	77
Technician II / Special Inspector	89
Senior Technician / Senior Special Inspector	99
Prevailing Wage (field soils / materials tester) *	125
Prevailing Wage (Special Inspector) *	131
Prevailing Wage (Source Inspector, NDT and soil remediation O&M)*	135
System Operation & Maintenance (O&M) Specialist	126
Non Destructive Testing (NDT)	135
Deputy Inspector	99
Field / Laboratory Supervisor	131
Source Inspector	122
City of Los Angeles Deputy Building (including Grading) Inspector	140

* See Prevailing Wages in Terms and Conditions

CLASSIFICATION

Project Administrator/Word Processor/Dispatcher	72
Information Specialist	99
CAD Operator	113
GIS Specialist	126
GIS Analyst	149
Staff Engineer / Geologist / Scientist	135
Senior Staff Engineer / Geologist / Scientist / ASMR	144
Operations / Laboratory Manager	162
Project Engineer / Geologist / Scientist	162
Senior Project Engineer / Geologist / Scientist / SMR	180
Associate	198
Principal	216
Senior Principal	261

GEOTECHNICAL LABORATORY TESTING

METHOD

\$/TEST

CLASSIFICATION & INDEX PROPERTIES

Photograph of sample	10
Moisture content (ASTM D2216)	20
Moisture & density (ASTM D2937) ring samples	30
Moisture & density (ASTM D2937) Shelby tube or cutting	40
Atterberg limits (ASTM D4318) 3 points:	150
- Single point, non-plastic	85
- Atterberg limits (organic ASTM D2487 / D4318)	180
- Visual classification as non-plastic (ASTM D2488)	10
Particle size:	
- Sieve only 1½ inch to #200, (AASHTO T27/ASTM C136/ASTM D6913/CTM 202)	135
- Large sieve 6 inch to #200 (AASHTO T27/ASTM C136/ASTM D6913/CTM 202)	175
- Hydrometer only (ASTM D422)	110
- Sieve + hydrometer (≤3 inch sieve, ASTM D422)	185
- Percent passing #200 sieve, wash only (ASTM D1140)	70
Specific gravity and absorption of fine aggregate (AASHTO T84/ASTM C128/ASTM D854/CTM 207)	125
Specific gravity and absorption of coarse aggregate (AASHTO T85/ASTM C127/CTM 206)	100
- Total porosity - on Shelby tube sample (calculated from density & specific gravity)	165
- Total porosity - on other sample	155
Shrinkage limits (wax method, ASTM D4943)	126
Pinhole dispersion (ASTM D4647)	210
Dispersive characteristics (double hydrometer ASTM D4221)	90
As-received moisture & density (chunk/carved samples)	60
Sand Equivalent (AASHTO T176/ASTM D2419/CTM 217)	105

COMPACTION & PAVEMENT SUBGRADE TESTS

Standard Proctor compaction, (ASTM D698) 4 points:	
- 4 inch diameter mold (Methods A & B)	160
- 6 inch diameter mold (Method C)	215
Modified Proctor compaction (ASTM D1557) 4 points:	
- 4 inch diameter mold (Methods A & B)	220
- 6 inch diameter mold (Method C)	245
Check point (per point)	65
Relative compaction of untreated/treated soils/aggregates (CTM 216)	250
Relative density (0.1 ft mold, ASTM D4253, D4254)	235

METHOD

\$/TEST

California Bearing Ratio (CBR, ASTM D1883):	
- 3 point	500
- 1 point	185
R-Value (AASHTO T190/ASTM D2844/CTM 301) untreated soils/aggregates	310
R-Value (AASHTO T190/ASTM D2844/CTM 301) lime or cement treated soils/aggregates	340
SOIL CHEMISTRY & CORROSIVITY	
pH Method A (ASTM D4972 or CTM 643)	45
Electrical resistivity – single point – as received moisture	45
Minimum resistivity 3 moisture content points (ASTM G187/CTM 643)	90
pH + minimum resistivity (CTM 643)	130
Sulfate content - gravimetric (CTM 417 B Part II)	70
Sulfate screen (Hach®)	30
Chloride content (AASHTO T291/CTM 422)	70
Corrosion suite: minimum resistivity, sulfate, chloride, pH (CTM 643)	245
Organic matter content (ASTM D2974)	65

SHEAR STRENGTH

Pocket penetrometer	15
Direct shear (ASTM D3080, mod., 3 points):	
- Consolidated undrained - 0.05 inch/min (CU)	285
- Consolidated drained - <0.05 inch/min (CD)	345
- Residual shear EM 1110-2-1906-IXA (price per each additional pass after shear)	50
Remolding or hand trimming of specimens (3 points)	90
Oriented or block hand trimming (per hour)	65
Single point shear	105
Torsional shear (ASTM D6467 / ASTM D7608)	820

CONSOLIDATION & EXPANSION/SWELL TESTS

Consolidation (ASTM D2435):	195
- Each additional time curve	45
- Each additional load/unload w/o time reading	40
Expansion Index (EI, ASTM D4829)	130
Swell/collapse – Method A (ASTM D4546-A, up to 10 load/unloads w/o time curves)	290
Single load swell/collapse - Method B (ASTM D4546-B, seat, load & inundate only)	105

METHOD	\$/TEST	METHOD	\$/TEST
TRIAXIAL TESTS		HYDRAULIC CONDUCTIVITY TESTS	
Unconfined compression strength of cohesive soil (with stress/strain plot, ASTM D2166)	135	Triaxial permeability in flexible-wall permeameter with backpressure saturation at one effective stress (EPA 9100/ASTM D5084, falling head Method C):	310
Unconsolidated undrained triaxial compression test on cohesive soils (USACE Q test, ASTM D2850, per confining stress)	170	- Each additional effective stress	120
Consolidated undrained triaxial compression test for cohesive soils, (ASTM D4767, CU, USACE R-bar test) with back pressure saturation & pore water pressure measurement (per confining stress)	375	- Hand trimming of soil samples for horizontal K	60
Consolidated drained triaxial compression test (CD, USACE S test), with volume change measurement. Price per soil type below EM 1110-2-1906(X):		Remolding of test specimens	65
- Sand or silty sand soils (per confining stress)	375	Permeability of granular soils (ASTM D2434)	135
- Silt or clayey sand soils (per confining stress)	500	Soil suction (filter paper method, ASTM D5298)	400
- Clay soils (per confining stress)	705		
- Three-stage triaxial (sand or silty sand soils)	655		
- Three-stage triaxial (silt or clayey sand soils)	875		
- Three-stage triaxial (clay soils)	1,235		
Remolding of test specimens	65		

CONSTRUCTION MATERIALS LABORATORY TESTING

METHOD	\$/TEST	METHOD	\$/TEST
CONCRETE STRENGTH CHARACTERISTICS		AGGREGATE PROPERTIES	
Concrete cylinders compression (ASTM C39) (6" x 12")	25	Bulk density and voids in aggregates (AASHTO T19/ASTM C29/CTM 212)	50
Concrete cylinders compression (ASTM C39) (4" x 8")	22	Organic impurities in fine aggregate sand (AASHTO T21/ASTM C40/CTM 213)	60
Compression, concrete or masonry cores (testing only) ≤6 inch (ASTM C42)	40	LA Rattler-smaller coarse aggregate <1.5" (AASHTO T96/ASTM C131/CTM 211)	200
Trimming concrete cores (per core)	20	LA Rattler-larger coarse aggregate 1-3" (AASHTO T96/ASTM C535/CTM 211)	250
Flexural strength of concrete (simple beam-3rd pt. loading, ASTM C78/CTM 523)	85	Apparent specific gravity of fine aggregate (AASHTO T84/ASTM C128/CTM 208)	130
Flexural strength of concrete (simple beam-center pt. loading, ASTM C293/CTM 523)	85	Clay lumps, friable particles (AASHTO T112/ASTM C142)	175
Non shrink grout cubes (2 inch, ASTM C109/C1107)	25	Durability Index (AASHTO T210/ASTM D3744/CTM 229)	200
Drying shrinkage - four readings, up to 90 days, 3 bars (ASTM C157)	400	Moisture content of aggregates by oven drying (AASHTO T255/ASTM C566/CTM 226)	40
Length of drilled concrete cores (CTM 531)	40	Uncompacted void content of fine aggregate (AASHTO T304/ASTM C1252/CTM 234)	130
HOT MIX ASPHALT (HMA)		Percent of crushed particles (AASHTO T335/ASTM D5821/CTM 205)	135
Resistance of compacted HMA to moisture-induced damage (AASHTO T283/CTM 371)	2,100	Flat & elongated particles in coarse aggregate (ASTM D4791/CTM 235)	215
Hamburg Wheel, 4 briquettes (modified) (AASHTO T324)	900	Cleanliness value of coarse aggregate (CTM 227)	210
Superpave gyratory compaction (AASHTO T312/ASTM D6925)	350	Soundness, magnesium (AASHTO T104/ASTM C88/CTM 214)	225
Extraction by ignition oven, percent asphalt (AASHTO T308/ASTM D6307/CTM 382)	150	Soundness, sodium (AASHTO T104/ASTM C88/CTM 214)	650
Ignition oven correction/correlation values (AASHTO T308/ASTM D6307/CTM 382)	1,350		
Extraction by centrifuge, percent asphalt (ASTM D2172)	150	MASONRY	
Gradation of extracted aggregate (AASHTO T30/ASTM D5444/CTM 202)	135	Mortar cylinders (2" by 4", ASTM C780)	25
Stabilometer, S-Value (ASTM D1560/CTM 366)	265	Grout prisms (3" by 6", ASTM C1019)	25
Bituminous mixture preparation (AASHTO R30/CTM 304)	80	Masonry cores compression, ≤6" diameter (testing only, ASTM C42)	40
Moisture content of HMA (AASHTO T329/ASTM D6037/CTM 370)	60	CMU compression to size 8" x 8" x 16" (3 required, ASTM C140)	45
Bulk specific gravity of compacted HMA, molded specimen or cores, uncoated (AASHTO T166/ASTM D2726/CTM 308)	50	CMU moisture content, absorption & unit weight (6 required, ASTM C140)	40
Bulk specific gravity of compacted HMA, molded specimen or cores, paraffin-coated (AASHTO T275/ASTM D1188/CTM 308)	55	CMU linear drying shrinkage (ASTM C426)	175
Maximum density - Hveem (CTM 308)	200	CMU grouted prisms (compression test ≤8" x 8" x 16", ASTM C1314)	180
Theoretical maximum density and specific gravity of HMA (AASHTO T209/ASTM D2041/CTM 309)	130	CMU grouted prisms (compression test > 8" x 8" x 16", ASTM C1314)	250
Thickness or height of compacted bituminous paving mixture specimens (ASTM D3549)	40	Masonry core-shear, Title 24 (test only)	70
Rubberized asphalt (add to above rates)	+ 25%	BRICK	
		Compression (cost for each, 5 required, ASTM C67)	40

METHOD	\$/TEST	METHOD	\$/TEST
REINFORCING STEEL		SPRAY APPLIED FIREPROOFING	
Rebar tensile test up to ≤ No. 10 bars (ASTM A370)	45	Unit weight (density, ASTM E605)	60
Rebar tensile test > No. 10 bars ≤ No. 17, (ASTM A370)	100	BEARING PADS/PLATES AND JOINT SEAL	
Rebar bend test, up to ≤ No. 10 bars (ASTM A370)	45	Elastomeric Bearing Pads (Caltrans SS 51-3)	990
Rebar bend test > No. 10 bars ≤ No. 17, (ASTM A370)	150	Elastomeric Bearing Pad with Hardness and Compression Tests (Caltrans SS 51-3)	1230
Epoxy coated rebar/dowel film thickness (coating) test (ASTM A775)	45	Type A Joint Seals (Caltrans SS 51-2)	1620
Epoxy coated rebar/dowel continuity (Holiday) test (ASTM A775)	65	Type B Joint Seals (Caltrans SS 51-2)	1530
Epoxy coated rebar flexibility/bend test, up to No. 11 (ASTM A775)	45	Bearing Plates (A536)	720
Tensile strength, ≤100,000 pounds axial load (ASTM A370)	45	STREET LIGHTS/SIGNALS	
Prestressing wire, tension (ASTM A416)	150	100W HPS Lighting (Caltrans RSS 86)	1296
Sample preparation (cutting)	50	SAMPLE TRANSPORT	
Resistance Butt-Welded Hoops/Bars, up to No. 10 (CTM 670)	180	Pick-up & delivery (weekdays, per trip, <50 mile radius from Leighton office)	90
Post-Tensioned Bars (ASTM A772)	420		

EQUIPMENT, SUPPLIES & MATERIALS

	\$/UNIT		\$/UNIT
1/4 inch Grab plates	5 each	Manometer	25 day
1/4 inch Tubing (bonded)	0.55 foot	Mileage (IRS Allowable)	0.545 mile
1/4 inch Tubing (single)	0.35 foot	Moisture test kit (excludes labor to perform test, ASTM E1907)	60 test
3/8 inch Tubing, clear vinyl	0.55 foot	Nuclear moisture and density gauge	88 day
4-Gas meter (RKI Eagle or similar)/GEM 2000	130 day	Pachometer	25 day
Air flow meter and purge pump (200 cc/min)	50 day	Particulate Monitor	125 day
Box of 24 soil drive-sample rings	120 box	pH/Conductivity/Temperature meter	55 day
Brass sample tubes	10 each	Photo-Ionization Detector (PID)	120 day
Caution tape (1000-foot roll)	20 each	Pump, Typhoon 2 or 4 stage	50 day
Combination lock or padlock	11 each	QED bladder pump w/QED control box	160 day
Compressed air tank and regulator	50 day	Resistivity field meter & pins	50 day
Concrete coring machine (≤6-inch-dia)	150 day	Slip / threaded cap, 2-inch or 4-inch diameter, PVC Schedule 40	15 each
Consumables (gloves, rope, soap, tape, etc.)	35 day	Slope inclinometer	200 day
Core sample boxes	11 each	Soil sampling T-handle (Encore)	10 day
Crack monitor	25 each	Soil sampling tripod	35 day
Cutoff saws, reciprocating, electric (Sawzall®)	75 day	Stainless steel bailer	40 day
Disposable bailers	12 each	Submersible pump, 10 gpm, high powered Grunfos 2-inch with controller	160 day
Disposable bladders	10 each	Submersible pump/transfer pump, 10-25 gpm	50 day
Dissolved oxygen meter	45 day	Support service truck usage (well installation, etc.)	200 day
DOT 55-gallon containment drum with lid	65 each	Survey/fence stakes	8 each
Double-ring infiltrometer	125 day	Tedlar® bags	18 each
Dual-stage interface probe	80 day	Traffic cones (≤25)/barricades (single lane)	50 day
Dynamic Cone Penetrometer	400 day	Turbidity meter	70 day
Generator, portable gasoline fueled, 3,500 watts	90 day	Tyvek® suit (each)	18 each
Global Positioning System/Laser Range Finder	80 day	Vapor sampling box	55 day
Hand auger set	90 day	Vehicle usage (carrying equipment)	20 hour
HDPE safety fence (≤100 feet)	40 roll	VelociCalc	35 day
Horiba U-51 water quality meter	135 day	Visqueen (20 x 100 feet)	100 roll
Light tower (towable vertical mast)	150 day	Water level indicator (electronic well sounder) <300 feet deep well	60 day
Magnehelic gauge	15 day	ZIPLEVEL®	15 day

Other specialized geotechnical and environmental testing & monitoring equipment are available, and priced per site

TERMS & CONDITIONS

- **Expiration:** This fee schedule is effective through December 31, 2018 after which remaining work will be billed at then-current rates.
- **Proposal Expiration:** Proposals are valid for at least 30 days, subject to change after 30 days; unless otherwise stated in the attached proposal.
- **Prevailing Wages:** Our fees for prevailing wage work based upon California prevailing wage laws and wage determinations.
- **Overtime:** Overtime for field personnel will be charged at 1.5 times basic hourly rates when exceeding 8 hours up to 12 hours per 24 hour interval, and 2 times basic hourly rates when exceeding 12 hours in 24 hours or on Sunday, and 3 times basic hourly rates on California official holidays.
- **Expert Witness Time:** Expert witness deposition and testimony will be charged at 2 times hourly rates listed on the previous pages, with a minimum charge of four hours per day.
- **Minimum Field Hourly Charges:** For Field Technicians, Special Inspectors or any on-site (field) materials testing services:
 4 hours: 4-hour minimum charge up to the first four hours of work
 8 hours: 8-hour minimum charge for over four hours of work, up to eight hours.
 Project time accrued includes portal to portal travel time.
- **Outside Direct Costs:** Heavy equipment, subcontractor fees and expenses, project-specific permits and/or licenses, project-specific supplemental insurance, travel, subsistence, project-specific parking charges, shipping, reproduction, and other reimbursable expenses will be invoiced at cost plus 10%, unless billed directly to and paid by client.
- **Insurance & Limitation of Liability:** These rates are predicated on standard insurance coverage and a limit of Leighton's liability equal to our total fees for a given project.
- **Invoicing:** Invoices are rendered monthly, payable upon receipt in United States dollars. A service charge of 1½-percent per month will be charged for late payment.
- **Client Disclosures:** Client agrees to provide all information in Client's possession about actual or possible presence of buried utilities and hazardous materials on the project site, prior to fieldwork, and agrees to reimburse Leighton for all costs related to unanticipated discovery of utilities and/or hazardous materials. Client is also responsible for providing safe and legal access to the project site for all Leighton field personnel.
- **Earth Material Samples:** Quoted testing unit rates are for soil and/or rock (earth) samples free of hazardous materials. Additional costs will accrue beyond these standard testing unit rates for handling, testing and/or disposing of soil and/or rock containing hazardous materials. Hazardous materials will be returned to the site or the site owner's designated representative at additional cost not included in listed unit rates. Standard turn-around time for geotechnical-laboratory test results is 10 working days. Samples will be stored for 2 months, after which they will be discarded. Prior documented notification is required if samples need to be stored for a longer time. A monthly storage fee of \$10 per bag and \$5 per sleeve or tube will be applied. Quoted unit rates are only for earth materials sampled in the United States. There may be additional cost for handling imported samples.
- **Construction Material Samples:** After all designated 28-day breaks for a given sample set meet specified compressive or other client-designated strength, all "hold" cylinders or specimens will be automatically disposed of, unless specified in writing prior to the 28-day break. All other construction materials will be disposed of after completion of testing and reporting

Drilling Subcontractor Estimates



GREGG DRILLING LLC

Environmental, Geotechnical, and Marine Site Investigation Services
 2726 Walnut Ave., Signal Hill, CA 90755 Ph.: (562)427-6899 Fax: (562)427-3314

Client: Leighton Date: Wednesday, October 20, 2021
 Contact: Eric Holliday E-mail: eholliday@leightongroup.com
 Phone: 949/681-4252 Fax:
 Project: Former Cal Compact landfill, Carson

Scope 1: Drill and sample 26 soil borings to 90' bgs

- Utilizing our Marl M12 or CME 95 standard hollow stem drill rig
- Hand auger each location to 5-ft bgs
- Continuous sample through the upper refuse to 60' bgs
- Obtain samples every 5' from 60' to 90' bgs alternating SPT & Cal mod samples
- Client will provide sample rings & caps
- Backfill each location with native material or cement/bentonite grout
- Patch surface
- Provide a forklift & hopper to transport cuttings to a client provided roll - off bin
- We have estimated 1 boring per day.
- Drilling in refuse can be difficult depending on the type of trash. If we encounter wood or paper or metal - we may not be able to drill through it.

Item	Description of Services	Unit Cost	Units	Qty.	Total
1	Drill rig daily rate - portal to portal up to 10 hours/day	\$3,500.00	Day	26	91,000.00
2	Premium time over 10 hours day	\$350.00	hour	0	0.00
3	Prevailing wage surcharge - 3 man crew	\$195.00	hour	260	50,700.00
4	Support truck / decon trailer rental	\$250.00	Day	26	6,500.00
5	2" x 6" rings & caps	\$8.00	Each	0	0.00
6	2 1/2" x 1" Rings & canister sets	\$25.00	Each	0	0.00
7	5-ft Acetate liners - if needed for upper 60'	\$35.00	Each	0	0.00
8	Cardboard core boxes - hold 6' to 7' of soil	\$25.00	Each	0	0.00
9	Backfill & patch borings	\$7.00	Foot	2340	16,380.00
10	55-gallon DOT drums - valid for 15 days	\$65.00	Each	0	0.00
11	Forklift delivery & pick up	\$500.00	Each	1	500.00
	Forklift & hopper rental	\$250.00	Day	26	6,500.00
12	Concrete cores or saw cut - by Sub @ cost + 15%	\$195.00	hour	0	0.00
13	Sales tax estimate	\$50.00	Each	1	50.00

Sub-Total \$171,630.00

Assumptions:

- Work will be performed under OSHA 1910.120 "Level D" safety protection
- Daily Rate is based on Monday through Friday workdays
- Site accessible for equipment, Site is secure-No security required
- No third party billing
- Project is NOT subject to California Prevailing wages
- Project is NOT subject to Davis-Bacon (DBA) or Service Contract Act (SCA) rates
- Project is NOT subject to any Project Labor Agreements (PLA)
- Gregg is a non-union specialty drilling contractor
- A \$1000.00 Cancellation fee will be charged for cancellations with 48-hrs of confirmed scheduled start

Notes:

- Federal Projects - Gregg is a Small Disadvantaged Business (SDB)
- California Public Utilities Commission (CPUC) - Gregg is a Minority Business Enterprise (MBE)
- Gregg is an Alaska Native Corporation (ANC) owned business
- Gregg is also a Small Business for various local entities within the State of California

The project will be billed at the unit rates presented in this proposal multiplied by the actual number of units required to complete the work. Client will be responsible for obtaining all permits and traffic control necessary to complete the work, providing access to the drill site, providing an on-site water source and for manifesting and disposal of all investigation derived waste. The above prices are valid for 60 days of date herein; after 60 days all proposals are subject to review/modification. A minimum callout will be charged for projects under and up to 5-hrs per day including travel + materials and sur-charges. A cancellation fee will be charged for cancellations within 48-hrs of confirmed start date, including delays due to weather or site access. Client will be charged repair or replacement cost for all equipment damaged or lost due to adverse site conditions. In the event of downhole tool loss (breakage of rods, samplers, instrumented tooling, etc.), client will be responsible for costs associated with recovery efforts.

Utilities:

Each client by the act of retaining Gregg Drilling to provide services described above, also accepts the responsibility for locating and marking all drilling locations and for contacting Underground Service Alert/DIG ALERT and opening a DIG ALERT TICKET a minimum of 3 and a maximum of 14 days prior to drilling. This number shall be submitted to Gregg Drilling in order for Gregg to obtain a ticket a minimum of 72 hours prior to work commencement. Gregg Drilling shall not be held liable for any damage to underground utilities.

Payment Terms:

The preceding costs represent our best estimate for the tasks as we understand them. Client will be invoiced following completion of the work; all bills are due and payable in full within 30 days of the date of the invoice. Invoices not paid within 30 days will be subject to a 1.5% per month finance charge. For clients with existing Master Service Agreements (MSA) payment terms will be in accordance with the MSA. Please note Gregg Drilling will not accept "Pay When Paid" payment terms. Please sign and e-mail back a copy of this proposal and the attached Work Agreement to indicate acceptance of the proposal and conditions. Please do not hesitate to call if you have any questions or need any additional information.

Gregg Drilling LLC

Joanna McKeehan

Joanna McKeehan
Project Manager

Leighton

Signature: _____

Name/Title: _____



ABC Liovin Drilling, Inc.

1180 East Burnett Street, Signal Hill, CA 90755
Phone: 562-981-8575 Fax: 562-981-9594
<http://www.abcdrilling.com>
California Contractor C-57 License No. 422904



CA SBE #22141

Quote # 42899

FAX

Attn: Eric Holliday

To: Leighton and Associates

From: Bill Borgo Jr

Fax: 949-250-1114

7 Pages Including This Page

Phone: 949-681-4252

Date: Tuesday, October 19, 2021

Re: Revised Quote - Cal Compact Landfill 20400 South Main Street Carson, CA 90745

Dear Eric,

Please review the attached quotation. If you have any questions please feel free to give me a call at (562) 981-8575. Please make sure to sign and date the bottom of every page and email or fax (562-981-9594) back to us. Our California SBE certification is included on the last page. I have also included some commonly requested license numbers below. Thank you for the opportunity to quote.

Bill Borgo Jr

NAICS Code 237110

SIC Code 1781

CAGE (SAM.gov) Code 1MKD3

Dun Bradstreet (DUNS) # 113122436

C-57 CA Contractors License # 422904 (expires 9/30 of even numbered years)

C-23 NV Contractors License # 0081445 (expires 7/31 of even numbered years)

FEIN Federal Employer ID # 33-0498383

CA EIN California Employer ID # 427 4680 0

CA FTB Corporation # 1700939

CA DGS Small Business Enterprise SBE # 22141

CA DIR Public Works Contractor Registration # 1000002851

CA DMV Motor Carrier Permit (MCP) # 0102659

Riverside County Well Drillers Registration # PI0000009

San Bernardino County Well Drillers Registration # 145

City of Los Angeles Business License 0002117126-0001-3

City of San Diego Business License B2013050136

City of Oceanside Business License BL-1251621



ABC Liovin Drilling, Inc.

1180 East Burnett Street, Signal Hill, CA 90755
 Phone: 562-981-8575 Fax: 562-981-9594
<http://www.abcdrilling.com>
 California Contractor C-57 License No. 422904



CA SBE #22141

QUOTE

Quote # 42899

Leighton and Associates

17781 Cowan
 Irvine CA 92614

ATTENTION: Eric Holliday
PHONE: 949-681-4252
PHONE 2
FAX 949-250-1114
PAGER:
CELL: 949-282-3654
HOME PHONE:
FAX 2:

JOB LOCATION:

Cal Compact Landfill
 20400 South Main Street
 Carson CA 90745

QUOTE DATE:

Thursday, October 14, 2021

Revised:

Tuesday, October 19, 2021

Qty:	Unit	Description or Item	Unit Price:	TOTAL
1	Each	Mob/demob - CME 85 truck mounted drill rig with crew - per call out	\$650.00	\$650.00
25	Each	Daily crew travel - per trip	\$200.00	\$5,000.00
26	Day	CME 85 truck mounted drill rig with 3 man crew Set up rig, move between holes, hand auger upper 5 ft as required & site clean up. Drill, sample continuously and every 5 ft & backfill with cement bentonite grout twenty-four (24) soil borings to approximately 90 feet or auger refusal through native material and trash. Geotechnical drilling - run rod & 140 lbs auto hammer as required. Place drill cuttings & trash into client provided roll off bins for transportation & disposal by client. *Cost includes drill rig & 3 man crew on site up to 8.5 hours or less*	\$2,800.00	\$72,800.00
?	Day	CME 85 truck mounted drill rig with 2 man crew Set up rig, move between holes, hand auger upper 5 ft as required & site clean up. Drill, sample continuously and every 5 ft & backfill with cement bentonite grout twenty-four (24) soil borings to approximately 90 feet or auger refusal through native material and trash. Geotechnical drilling - run rod & 140 lbs auto hammer as required. Place drill cuttings & trash into client provided roll off bins for transportation & disposal by client. *Cost includes drill rig & 2 man crew on site up to 8.5 hours or less*	\$2,275.00	?
864	Bag	Portland cement, bentonite gel, bentonite chips, ac patch, sand, pea gravel, ready mix concrete	\$16.00	\$13,824.00
20	Bag	Rapid set concrete	\$25.00	\$500.00
24	Each	DOT drums for fluids (estimate)	\$58.00	\$1,392.00
26	Day	Support truck	\$225.00	\$5,850.00
15	Day	Generator and blower fan for ventilation as required	\$175.00	\$2,625.00
1	Each	Forklift & hopper- delivery and pick up	\$400.00	\$400.00
26	Day	Forklift & hopper	\$225.00	\$5,850.00
?	Each	Brass sample rings with canisters - 2.5" x 1" long	\$25.00	?
?	Each	Stainless steel sample tubes with caps - 2.5" x 6" long	\$7.00	?



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8	Each	4 1/4" ID auger bit wear and repair	\$175.00	\$1,400.00
665	Hour	Prevailing wage surcharge - per man per hour	\$60.00	\$39,900.00
16	Hour	Premium time over 8.5 hrs on site - per man per hour	\$175.00	\$2,800.00
?	Day	Level "C" protection - per man per day	\$200.00	?
?	Each	Portable restroom	\$600.00	?

Estimated total cost to complete this project:

\$152,991.00

Signature & Date of Acceptance

Estimated total time required to complete this project:

26 Days



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QUOTE

Quote # 42899

Thank you for the opportunity to quote. We look forward to working with you on this project. Please note that prices reflect the footage quoted. If for any reason the actual total footage drilled is less than the quantity originally quoted, then prices may change to reflect the decreased footage. If you have any questions concerning this quotation, please feel free to call.
Sincerely,

Bill Borgo Jr

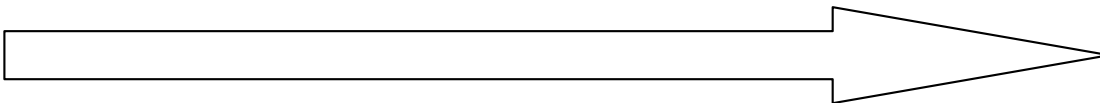
Assumptions

- 1) Site specific health and safety plan with on site monitoring - supplied by client
- 2) All drilling locations are at least 20 feet away from above ground utility lines
- 3) AC hot patch services if required - supplied by client
- 4) Concrete coring/saw cutting if required - supplied by client
- 5) Portable restroom or restroom facilities as required - supplied by client
- 6) There is a \$1500.00 cancellation fee for projects cancelled less than 48 hours from scheduled start time.
- 7) ABC Liovin Drilling is not responsible for damaging or repairing any sidewalk panels, sprinkler lines, grass, etc. while gaining access to and from drilling locations
- 8) Secure staging area for drill rig, support equipment, drums and materials - supplied by client
- 9) Client will survey and mark locations, call dig alert and add ABC Drilling to the Dig Alert Ticket at least 72 hours prior to start of field work
- 10) ABC Drilling is a non-union specialty drilling contractor
- 11) Site access for large truck mounted equipment - supplied by client
- 12) Work hours are Monday thru Friday from approximately 7:00 am to 4:00 pm
- 13) Prevailing wages are included in the estimated project total.
- 14) Actual project cost is based upon actual units consumed
- 15) Water source/supply for project - supplied by ABC Liovin Drilling
- 16) Traffic control equipment and permits if required - supplied by client
- 17) Los Angeles County boring permits as required - supplied by client
- 18) Transportation and disposal of all drill cuttings, trash and fluids - supplied by client
- 19) Proposal subject to rig and crew availability

I understand and agree to all of the above assumptions as well as the dollar amounts on the preceding page:

Signature and Date

Please also read and sign the Terms and Conditions on the following page





ABC Liovin Drilling, Inc.

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QUOTE

Quote # 42899

Terms And Conditions

- 1) There is no retainage.
- 2) The quoted prices are good for 30 days from the original quote date. The prices are no longer valid after 30 days. If the project is to start 30 days after the original quote then a new quote needs to be done.
- 3) If at anytime ABC Liovin Drilling is mobilized to a drill site, and for any reason, condition, or circumstance, we are at the job site for less than four hours there will be a four hour minimum charge portal to portal.
- 4) Standby time and refusal are billable items.
- 5) Your firm is responsible for damaged equipment due to adverse drilling conditions if the operator advises to stop due to encountering these conditions and is told to continue.
- 6) Before any job can be scheduled, this form must be signed and faxed back to ABC Liovin Drilling.
- 7) ABC Liovin Drilling's Terms are net 30 days with weekly invoicing, unless otherwise agreed to in advance in writing. Any Balances that are past due and will become subject to a finance Charge of up to 24.0% Per annum. If it becomes necessary to instigate collection proceedings, client will be responsible for all Collection costs, this may include attorney fees, court costs, process servers, or any other person or company ABC Liovin deems necessary to employ or contract in its efforts to collect. And secure payment. For all intents and purposes this will be considered a legal and binding contract between ABC Liovin Drilling and the company listed on the title page. It is also considered that this agreement was executed in the city of Signal Hill, State of California.
- 8) If bedrock, cobbles, flowing sands, or other adverse drilling conditions are encountered, drilling will be continued on a time and materials basis, or terminated at the discretion of ABC LIOVIN DRILLING.
- 9) Your firm is responsible for:
 - a) Obtaining any well or site specific permits
 - b) Locating and clearly marking any underground installations or utilities.
 - c) Obtaining access to the site for a normal truck mounted drill rig with no overhead wires within 20 Ft. of the holes. ABC LIOVIN DRILLING SHALL NOT BE RESPONSIBLE for any damages to underground improvements not clearly and accurately marked.
 - d) Your firm is responsible for providing a source of water on site.

Please indicate your acceptance of this quotation

Signature and Date

Printed Name and Title of person signing above

This project is to be scheduled for

Date and Time

Please Fax back prior to job start date so that the job can be scheduled.



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QUOTE

Quote # 42899

WAIVER OF HAND AUGERING/ AIR KNIFING REQUIREMENTS

It is ABC Liovin Drilling, Inc's policy to clear borings using either hand augers or air knifing to a depth of at least 5 feet below ground surface (bgs) prior to advancing the borings. By signing this document, Client specifically waives this requirement.

In addition, Client expressly agrees that, in the event any underground utilities or other structures, materials or items are encountered from 0 to 5 feet bgs, Client assumes all responsibility for any damage to such utilities, structures, materials or items.

Client further agrees to indemnify and save harmless ABC Liovin Drilling, Inc from any and all costs, expenses, damages, charges, claims, demands or liabilities whatsoever, arising from any damage to underground utilities, structure, materials or items occurring between 0 to 5 feet.

By signing this document, Client Representative warrants and represents that he or she has express authority to bind Client to this document.

Client: _____

Client Representative: _____

Project Location: _____

Project Dates: _____

Signature: _____

Date: _____



ABC LIOVIN

ABC Liovin Drilling, Inc.

1180 East Burnett Street, Signal Hill, CA 90755
Phone: 562-981-8575 Fax: 562-981-9594
<http://www.abcdrilling.com>
California Contractor C-57 License No. 422904



CA SBE #22141

QUOTE

Quote # 42899

Supplier Profile

Page 1 of 1

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To verify most current certification status go to: <https://www.caleprocure.ca.gov>



Office of Small Business & DVBE Services

Certification ID: 22141

Legal Business Name:

ABC LIOVIN DRILLING INC

Doing Business As (DBA) Name 1:

ABC LIOVIN DRILLING INC

Doing Business As (DBA) Name 2:

Address:

1180 EAST BURNETT ST
SIGNAL HILL
CA 90755

Email Address:

eric@abcdrilling.com

Business Web Page:

<http://www.abcdrilling.com>

Business Phone Number:

562/981-8575

Business Fax Number:

562/981-9594

Business Types:

Construction

Certification Type	Status	From	To
SB	Approved	01/29/2020	01/31/2022

Stay informed! KEEP YOUR CERTIFICATION PROFILE UPDATED!

-LOG IN at [CaleProcure.CA.GOV](https://www.caleprocure.ca.gov)

Questions?

Email: OSDSHELP@DGS.CA.GOV

Call OSDS Main Number: 916-375-4940

707 3rd Street, 1-400, West Sacramento, CA 95605

<https://caleprocure.ca.gov/pages/SupplierProfile/supplier-profile-print.html>

8/12/2020

Martini Drilling Corp.
 12141 Mariners Way Garden Grove CA 92843
 Cell (714) 715-2715 FAX (714) 373-6322

Leighton Consulting
 17881 Cowan St
 Irvine CA 92714

JOB LOCATION:
 20400 S Main Street
 Carson Ca

ATTENTION: Joe Roe
 949-250-1421 ex
 Job

QUOTATION **Revised**
 6-May-20 01-Oct-21
 FAX No. 213-892-1563

	Unit	Description or Item	Unit Price	TOTAL
		PW Rate With BobCat		
26	Day	Travel, Drill Core (26) 90ft borings Sample 5ft Runs and some Cal Mod As Needed	\$4,500.00	\$117,000.00
?	Hour	Overtime Over 8hr Work Onsite	\$701.25	?
26	Day	Service Truck Decon & Equipment	\$850.00	\$22,100.00
2340	Foot	Grout Well Portland Mix	\$10.00	\$23,400.00
13	Each	Dot Drums (13) Water	\$80.00	\$1,040.00
?	Each	Bentonite Chips	\$40.00	?
?	Each	Concrete Patch	\$40.00	?
1	Lump	Bobcat rental (1) Month Plus Fuel	\$3,600.00	\$3,600.00
6	Week	Certify Payroll, Admin, Training Fee & Tracker	\$268.00	\$1,608.00
?	Hour	Standby Time	\$467.50	?

Est **Total** **\$168,748.00**
Estimated total time required to complete this project: 26 Days

Please note that prices reflect the footage quoted above. If for any reason the actual total footage drilled is less than the quantity originally quoted, then prices may change to reflect the decreased footage. If you have any questions concerning this quotation, please feel free to call.
 Sincerely,

Darin Martini

Assumptions

- 1) Client is responsible for clearing utilities and site access.
- 2) Water is available on site.
- 3) There are no work hour restrictions.
- 4) Only 8 hours will be spent on site.
- 5) Prices are good for drilling on weekdays. Weekend drilling is an additional charge.
- 6) **This is a prevailing wage job.**
- 7) **Client is responsible for disposing of all soil cuttings, and water.**
- 8) Client will provide health and safety plan.
- 9) Client will communicate all change orders and scheduling with Darin Martini.
- 10) Client will communicate all environmental concerns and levels of contamination prior to commencing drilling every day.
- 11) Client is responsible for informing field employees of levels of contamination at all times using a OVA or PID.
- 12) Drilling under level C, B, or A conditions are an additional cost.
- 13) All drilling locations are at least 20 ft away from above ground utility lines.

Prior Contract with RES

**AGREEMENT FOR CONTRACT SERVICES
BETWEEN RE | SOLUTIONS, LLC AND
LEIGHTON CONSULTING, INC.**

THIS AGREEMENT FOR CONTRACT SERVICES (herein "Agreement") is made and entered into this 28th day of August, 2017 by and between RE | SOLUTIONS, LLC, a Colorado limited liability company ("RES") and LEIGHTON CONSULTING, INC., a California corporation ("Consultant"). RES and Consultant are sometimes hereinafter individually referred to as "Party" and hereinafter collectively referred to as the "Parties."

The Parties hereto acknowledge and agree that this Agreement is entered into pursuant to RES' obligations set forth in that Environmental Remediation and Development Management Agreement dated as of July 26, 2017 by and between Carson Reclamation Authority ("CRA") and RES (the "CRA Development Agreement") respecting that certain 157-acre parcel of real property owned by CRA, located at 20300 Main Street, Carson, California, and commonly known as the former Cal Compact Landfill. 20400 Main St.

NOW, THEREFORE, the Parties hereto agree as follows: SM

1. SERVICES OF CONSULTANT

1.1 Scope of Services. In compliance with all of the terms and conditions of this Agreement, the Consultant shall perform the work or services set forth in the "Scope of Services" attached hereto as Exhibit "A" and incorporated herein by reference. Consultant warrants that it has the experience and ability to perform all work and services required hereunder and that it shall diligently perform such work and services in a professional and satisfactory manner.

1.2 Compliance With Law. All work and services rendered hereunder shall be provided in accordance with all ordinances, resolutions, statutes, rules, and regulations of the City of Carson ("City") and any Federal, State or local governmental agency of competent jurisdiction.

1.3 Licenses, Permits, Fees and Assessments. Consultant shall obtain at its sole cost and expense such licenses, permits, and approvals as may be required by law for the performance of the services required by the Agreement.

1.4 Special Requirements. Additional terms and conditions of this Agreement, if any, which are made a part hereof are set forth in the "Special Requirements" attached hereto as Exhibit "B" and incorporated herein by this reference. In the event of a conflict between the provisions of Exhibit "B" and any other provisions of this Agreement, the provisions of Exhibit "B" shall govern.

2. COMPENSATION

2.1 Contract Sum. For the services rendered pursuant to this Agreement, Consultant shall be compensated in accordance with the "Schedule of Compensation" attached

hereto as Exhibit "C" and incorporated herein by this reference, but not exceeding the maximum contract amount of **Ninety Four Thousand Five Hundred Dollars (\$94,500)** ("Contract Sum").

2.2 Invoices. Each month Consultant shall furnish to RES an original invoice for all work performed and expenses incurred during the preceding month in a form approved by RES. By submitting an invoice for payment under this Agreement, Consultant is certifying compliance with all provisions of the Agreement. The invoice shall detail charges for all necessary and actual expenses by the following categories: labor (by sub-category), travel, materials, equipment, supplies, and subcontractor contracts. Subcontractor charges shall also be detailed by such categories. Consultant shall not invoice RES for any duplicate services performed by more than one person.

RES and CRA shall independently review each invoice submitted by Consultant to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. Except as to any charges for work performed or expenses incurred by Consultant which are disputed by RES or CRA as provided in Article 7, RES will use its best efforts to cause Consultant to be paid within sixty (60) days of receipt of Consultant's correct and undisputed invoice; however, Consultant acknowledges and agrees that due to RES' cost reimbursement arrangement with the CRA, RES cannot guarantee that payment will occur within this time period. In the event any charges or expenses are disputed by RES, the original invoice shall be returned by RES to Consultant for correction and resubmission. Review and payment by RES of any invoice provided by the Consultant shall not constitute a waiver of any rights or remedies provided herein or any applicable law.

2.3 Additional Services. RES shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond that specified in the Scope of Services or make changes by altering, adding to or deducting from said work. No such extra work may be undertaken unless a written order is first given by the RES Contract Officer to the Consultant, incorporating therein any adjustment in (i) the Contract Sum for the actual cost of the extra work, and/or (ii) the time to perform this Agreement, which said adjustments are subject to the written approval of the Consultant. Any increase in the Contract Sum must be approved by RES. No claim for an increase in the Contract Sum or time for performance shall be valid unless the procedures established in this Section are followed.

3. PERFORMANCE SCHEDULE

3.1 Time of Essence. Time is of the essence in the performance of this Agreement.

3.2 Schedule of Performance. Consultant shall commence the services pursuant to this Agreement upon receipt of a written notice to proceed and shall perform all services within the time period(s) established in the "Schedule of Performance" attached hereto as Exhibit "D" and incorporated herein by this reference. When requested by the Consultant, extensions to the time period(s) specified in the Schedule of Performance must be approved in writing by RES.

3.3 Force Majeure. The time period(s) specified in the Schedule of Performance for performance of the services rendered pursuant to this Agreement shall be extended because of any delays due to unforeseeable causes beyond the control and without the

fault or negligence of the Consultant, including, but not restricted to, acts of God or of the public enemy, unusually severe weather, fires, earthquakes, floods, epidemics, quarantine restrictions, riots, strikes, freight embargoes, wars, litigation, and/or acts of any governmental agency, if the Consultant shall within ten (10) days of the commencement of such delay notify the Contract Officer in writing of the causes of the delay. The Contract Officer shall ascertain the facts and the extent of delay, and extend the time for performing the services for the period of the enforced delay when and if in the judgment of the Contract Officer such delay is justified. The Contract Officer's determination shall be final and conclusive upon the parties to this Agreement. In no event shall Consultant be entitled to recover damages against RES for any delay in the performance of this Agreement, however caused, Consultant's sole remedy being extension of the Agreement pursuant to this Section.

3.4 Term. Unless earlier terminated in accordance with Article 7 of this Agreement, this Agreement shall continue in full force and effect until completion of the services but not exceeding one (1) year from the date hereof, except as otherwise provided in the Schedule of Performance (Exhibit "D").

4. COORDINATION OF WORK

4.1 Representative of Consultant. Carl Kim is hereby designated as being the representative of Consultant authorized to act on its behalf with respect to the work and services specified herein and make all decisions in connection therewith. All personnel of Consultant and any authorized agents shall be under the exclusive direction of the representative of Consultant. Consultant shall utilize only competent personnel to perform services pursuant to this Agreement. Consultant shall make every reasonable effort to maintain the stability and continuity of Consultant's staff and subcontractors, and shall keep RES informed of any changes.

4.2 Contract Officer. **Stuart L. Miner, RES Principal** or such person as may be designated by RES is hereby designated as being the representative RES authorized to act in its behalf with respect to the work and services specified herein and to make all decisions in connection therewith ("Contract Officer").

4.3 Prohibition Against Subcontracting or Assignment. Consultant shall not contract with any entity to perform in whole or in part the work or services required hereunder without the express written approval of RES. Neither this Agreement nor any interest herein may be assigned or transferred, voluntarily or by operation of law, without the prior written approval of RES. Any such prohibited assignment or transfer shall be void.

4.4 Independent Consultant. Neither RES nor any of its employees shall have any control over the manner, mode or means by which Consultant, its agents or employees, perform the services required herein, except as otherwise set forth. Consultant shall perform all services required herein as an independent contractor of RES with only such obligations as are consistent with that role. Consultant shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of RES, or that it is a member of a joint enterprise with RES.

5. INSURANCE AND INDEMNIFICATION

5.1 Insurance Coverages. The Consultant shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to RES, during the entire term of this Agreement including any extension thereof, the following policies of insurance which shall cover all officers, employees and agents of RES, CRA, City and City's affiliated agencies:

(a) Commercial General Liability Insurance (Occurrence Form CG0001 or equivalent). A policy of comprehensive general liability insurance written on a per occurrence basis for bodily injury, personal injury and property damage. The policy of insurance shall be in an amount not less than \$1,000,000.00 per occurrence or if a general aggregate limit is used, either the general aggregate limit shall apply separately to this contract/location, or the general aggregate limit shall be twice the occurrence limit.

(b) Worker's Compensation Insurance. A policy of worker's compensation insurance in such amount as will fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for the Consultant against any loss, claim or damage arising from any injuries or occupational diseases occurring to any worker employed by or any persons retained by the Consultant in the course of carrying out the work or services contemplated in this Agreement.

(c) Automotive Insurance (Form CA 0001 (Ed 1/87) including "any auto" and endorsement CA 0025 or equivalent). A policy of comprehensive automobile liability insurance written on a per occurrence for bodily injury and property damage in an amount not less than either (i) bodily injury liability limits of \$100,000 per person and \$300,000 per occurrence and property damage liability limits of \$150,000 per occurrence or (ii) combined single limit liability of \$1,000,000. Said policy shall include coverage for owned, non-owned, leased, hired cars, and any other automobile.

(d) Professional Liability. Professional liability insurance appropriate to the Consultant's profession and containing limits of liability of no less than \$1,000,000 per occurrence and in the aggregate. This coverage may be written on a "claims made" basis, and must include coverage for contractual liability. The professional liability insurance required by this Agreement must be endorsed to be applicable to claims based upon, arising out of or related to services performed under this Agreement. The insurance must be maintained for at least 5 consecutive years following the completion of Consultant's services or the termination of this Agreement. During this additional 5-year period, Consultant shall annually and upon request of RES submit written evidence of this continuous coverage.

(e) Additional Insurance. Policies of such other insurance, as may be required in the Special Requirements in Exhibit "B".

(f) Subcontractors. Consultant shall include all subcontractors as insureds under its policies or shall furnish separate certificates and certified endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

5.2 General Insurance Requirements.

Unless otherwise approved in writing by RES, all of the above policies of insurance shall be primary insurance and shall name RES, CRA, City and its affiliated agencies and their respective officers, employees and agents as additional insureds and any insurance maintained by RES, CRA, or City and their respective officers, employees or agents may apply in excess of, and not contribute with Consultant's insurance. The insurer is deemed hereof to waive all rights of subrogation and contribution it may have against RES, CRA, the City and its affiliated agencies, their respective officers, employees and agents and insurers. The insurance policy must specify that where the primary insured does not satisfy the self-insured retention, any additional insured may satisfy the self-insured retention. All of said policies of insurance shall provide that said insurance may not be amended or cancelled by the insurer or any party hereto without providing thirty (30) days prior written notice by certified mail return receipt requested to RES and CRA. In the event any of said policies of insurance are cancelled, the Consultant shall, prior to the cancellation date, submit new evidence of insurance in conformance with this Section 5.1 to the Contract Officer. No work or services under this Agreement shall commence until the Consultant has provided RES with Certificates of Insurance, additional insured endorsement forms or appropriate insurance binders evidencing the above insurance coverages and said Certificates of Insurance or binders are approved by RES. RES reserves the right to inspect complete, certified copies of and endorsement to all required insurance policies at any time. Any failure to comply with the reporting or other provisions of the policies including breaches or warranties shall not affect coverage provided to RES.

The insurance required by this Agreement shall be satisfactory only if issued by companies qualified to do business in California, rated "A" or better in the most recent edition of Best Rating Guide, The Key Rating Guide or in the Federal Register, and only if they are of a financial category Class VII or better, unless such requirements are waived in writing by RES due to unique circumstances.

5.3 Indemnification. To the full extent permitted by law, Consultant agrees to indemnify, defend and hold harmless RES, CRA, City and its affiliated agencies, and their respective officers, employees and agents ("Indemnified Parties") against, and will hold and save them and each of them harmless from, any and all actions, either judicial, administrative, arbitration or regulatory claims, damages to persons or property, losses, costs, penalties, obligations, errors, omissions or liabilities whether actual or threatened (herein "claims or liabilities") that may be asserted or claimed by any person, firm or entity arising out of or in connection with the negligent performance of the work, operations or activities provided herein of Consultant, its officers, employees, agents, subcontractors, invitees, or any individual or entity for which Consultant is legally liable ("indemnitors"), or arising from Consultant's or indemnitors' reckless or willful misconduct, or arising from Consultant's or indemnitors' negligent performance of or failure to perform any term, provision, covenant or condition of this Agreement, except claims or liabilities occurring as a result of Indemnified Parties' sole negligence or willful acts or omissions. The indemnity obligation shall be binding on successors and assigns of Consultant and shall survive termination of this Agreement.

6. RECORDS, REPORTS, AND RELEASE OF INFORMATION

6.1 Records. Consultant shall keep, and require subcontractors to keep, such ledgers, books of accounts, invoices, vouchers, canceled checks, reports, studies or other documents relating to the disbursements charged to RES and services performed hereunder (the

“books and records”), as shall be necessary to perform the services required by this Agreement and enable the Contract Officer to evaluate the performance of such services and shall keep such records for a period of three years following completion of the services hereunder. The Contract Officer shall have full and free access to such books and records at all times during normal business hours of Consultant, including the right to inspect, copy, audit and make records and transcripts from such records.

6.2 Reports. Consultant shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the services required by this Agreement or as the Contract Officer shall require.

6.3 Confidentiality and Release of Information.

(a) All information gained or work product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than RES without prior written authorization from the Contract Officer.

(b) Consultant shall not, without prior written authorization from the Contract Officer or unless requested by RES’ Legal Counsel, voluntarily provide documents, declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Agreement. Response to a subpoena or court order shall not be considered “voluntary” provided Consultant gives RES notice of such court order or subpoena.

(c) If Consultant provides any information or work product in violation of this Agreement, then RES shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorney’s fees, caused by or incurred as a result of Consultant’s conduct.

(d) Consultant shall promptly notify RES should Consultant be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the work performed thereunder. RES retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with RES and to provide RES with the opportunity to review any response to discovery requests provided by Consultant.

6.4 Ownership of Documents. All studies, surveys, data, notes, computer files, reports, records, drawings, specifications, maps, designs, photographs, documents and other materials (the “documents and materials”) prepared by Consultant in the performance of this Agreement shall be the property of RES and shall be delivered to RES upon request of the Contract Officer or upon the termination of this Agreement, and Consultant shall have no claim for further employment or additional compensation as a result of the exercise by RES of its full rights of ownership use, reuse, or assignment of the documents and materials hereunder. Moreover, Consultant with respect to any documents and materials that may qualify as “works made for hire” as defined in 17 U.S.C. § 101, such documents and materials are hereby deemed “works made for hire” for RES.

7. ENFORCEMENT OF AGREEMENT AND TERMINATION

7.1 California Law. This Agreement shall be interpreted, construed and governed both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Los Angeles, State of California. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, in the County of Los Angeles, State of California.

7.2 Legal Action. In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain declaratory or injunctive relief, or to obtain any other remedy consistent with the purposes of this Agreement. Notwithstanding any contrary provision herein, Consultant shall file a statutory claim pursuant to Government Code Sections 905 et. seq. and 910 et. seq., in order to pursue any legal action against the CRA or the City and City's affiliated agencies or any of their respective officers directors, shareholders, members, partners and employees under this Agreement.

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

7.3 Termination Prior to Expiration of Term.

(a) RES Termination Rights.

(i) RES may terminate this Agreement for cause for the following reasons: (i) Consultant is determined to have materially failed to comply with applicable laws in performance of the Services; (ii) Consultant materially fails to perform or otherwise breaches its obligations under this Agreement; (iii) Consultant declares bankruptcy or is involuntarily subjected to bankruptcy proceedings; (iv) Consultant subcontracts, or assigns or transfers its rights under this Agreement in violation of Section 4.3; or (v) any act or omission of Consultant or its subcontractors under this Agreement that directly or proximately causes the occurrence and continuance of an Event of Default by RES under the CRA Development Agreement. For purposes of this Agreement, an "Event of Default" is as defined in the CRA Development Agreement dated July 26, 2017. In order to terminate this Agreement for cause, RES must provide Consultant with written notice of its intent to terminate. In the event RES initiates termination of this Agreement for cause, RES shall not have any obligation or duty to continue compensating Consultant for any work performed after the date of default. Consultant shall have thirty (30) days to cure or commence to cure the default, but may be extended with RES' written consent, if circumstances warrant (which consent shall not be unreasonably withheld). During the period of time that Consultant is in default, RES shall hold all invoices and shall, when the default is cured, proceed with payment on the invoices. If, after expiration of notice, cure period, and extensions, if any, Consultant does not cure the default, RES may take necessary steps to terminate this Agreement under this Article.

(ii) RES may terminate this Agreement for convenience for any reason or no reason whatsoever at any time by delivering at least thirty (30) days advance written notice to Consultant. Upon receipt of any notice of termination for convenience, Consultant shall immediately cease all Services hereunder except such as may be specifically approved and directed by RES in accordance with Section 7.5. If such termination for convenience occurs, RES shall pay to Consultant all amounts actually due and owing for Services performed through the date of termination but not exceeding the compensation provided therefore in Exhibit "C" (Schedule of Compensation), offset by any damages directly caused by Consultant's breach of its obligations under the Agreement prior to the date of termination, if any, and by any amounts in dispute as of the date of termination in connection with the Services performed. No cure period shall apply with respect to a termination for convenience.

(b) Consultant's Termination Rights. Consultant may terminate this Agreement for cause if RES unreasonably fails to make justified payments to Consultant for Services authorized and performed by Consultant in accordance with the terms of this Agreement. In order to terminate this Agreement for cause, Consultant must provide RES with written notice of its intent to terminate. RES shall have thirty (30) days in which to cure or commence to cure the alleged default, but may be extended with Consultant's written consent, if circumstances warrant (which consent shall not be unreasonably withheld). If, after expiration of such notice, cure period, and extensions, if any, such termination occurs, RES shall pay to Consultant all amounts actually due and owing for Services authorized and performed through the date of termination but not exceeding the compensation provided therefore in Exhibit "C" (Schedule of Compensation), offset by any damages directly caused by Consultant's breach of its obligations under the Agreement prior to the date of termination, if any, and by any amounts in dispute as of the date of termination in connection with the Services performed.

7.4 Termination for Default of Consultant. If termination is due to the failure of the Consultant to fulfill its obligations under this Agreement, RES may, after compliance with the provisions of Section 7.3(a)(i), take over the work and prosecute the same to completion by contract or otherwise, and the Consultant shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated (provided that RES shall use reasonable efforts to mitigate such damages), and RES may withhold any payments to the Consultant for the purpose of set-off or partial payment of the amounts owed RES as previously stated.

7.5 Transfer Upon Termination. Upon any termination or the expiration of this Agreement, RES may, at its sole discretion, within sixty (60) days of the date of termination or expiration (the "Consultant Transfer Period") designate a replacement or substitute consultant to replace Consultant and to complete the Services. Consultant shall continue to diligently perform the Services and comply with the terms of this Agreement until the end of the Consultant Transfer Period or such earlier date prescribed by RES by written notice to Consultant. During or after the Consultant Transfer Period, Consultant shall, immediately upon the request of RES execute any and all agreements, documents or materials requested by RES to assign or transfer to the new consultant all of Consultant's right, title and interest in and to all materials, contracts, subcontracts, processes, and other documents necessary to complete the Services (collectively, the "Consultant Transfer"). Consultant hereby grants to RES its full and complete power-of-attorney, which shall be deemed to be coupled with an interest, for the purpose of completing and effectuating the Consultant Transfer. Upon the completion of the Consultant Transfer, this

Agreement shall be terminated and shall be null and void, except for those provisions that expressly survive termination.

8. MISCELLANEOUS

8.1 Covenant Against Discrimination. Consultant covenants that, by and for itself, its heirs, executors, assigns and all persons claiming under or through them, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, sex, gender, sexual orientation, marital status, national origin, ancestry, or other protected class in the performance of this Agreement. Consultant shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, sex, gender, sexual orientation, marital status, national origin, ancestry, or other protected class

8.2 Non-liability of RES Officers and Employees. No officer or employee of RES shall be personally liable to the Consultant, or any successor in interest, in the event of any default or breach by RES or for any amount, which may become due to the Consultant or to its successor, or for breach of any obligation of the terms of this Agreement.

8.3 Notice. Any notice, demand, request, document, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by prepaid, first-class mail, in the case of RES, to the attention of the Contract Officer (with her/his name and title), RE | SOLUTIONS, LLC, 2880 Bryant Street, Denver, Colorado 80212; in the case of CRA, to the attention of the Executive Director c/o City of Carson, 701 E. Carson Street, Carson, California 90745; and in the case of the Consultant, to the person(s) at the address designated on the execution page of this Agreement. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated at the time personally delivered or in seventy-two (72) hours from the time of mailing if mailed as provided in this Section.

8.4 Integration; Amendment. It is understood that there are no oral agreements between the parties hereto affecting this Agreement and this Agreement supersedes and cancels any and all previous negotiations, arrangements, agreements and understandings, if any, between the parties, and none shall be used to interpret this Agreement. This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

8.5 Severability. In the event that part of this Agreement shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining portions of this Agreement which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder unless the invalid provision is so material that its invalidity deprives either party of the basic benefit of their bargain or renders this Agreement meaningless.

8.6 Waiver. No delay or omission in the exercise of any right or remedy by non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. A party's consent to or approval of any act by the other party requiring the party's consent or approval shall not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in

writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.7 Attorneys' Fees. If either party to this Agreement is required to initiate or defend or made a party to any action or proceeding in any way connected with this Agreement, the prevailing party in such action or proceeding, in addition to any other relief which any be granted, whether legal or equitable, shall be entitled to reasonable attorney's fees, whether or not the matter proceeds to judgment.

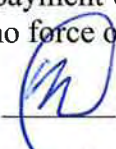
8.8 Interpretation.

The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction which might otherwise apply.

8.9 Counterparts.

This Agreement may be executed in counterparts, each of which shall be deemed to be an original, and such counterparts shall constitute one and the same instrument.

8.10 Warranty & Representation of Non-Collusion. No official, officer, or employee of RES, CRA, City or its affiliated agencies has any financial interest, direct or indirect, in this Agreement, nor shall any official, officer, or employee of RES, CRA, City or its affiliated agencies participate in any decision relating to this Agreement which may affect his/her financial interest or the financial interest of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any State or municipal statute or regulation. The determination of "financial interest" shall be consistent with State law and shall not include interests found to be "remote" or "noninterests" pursuant to Government Code Sections 1091 or 1091.5. Consultant warrants and represents that it has not paid or given, and will not pay or give, to any third party including, but not limited to, any RES, CRA, City or its affiliated agencies official, officer, or employee, any money, consideration, or other thing of value as a result or consequence of obtaining or being awarded any agreement. Consultant further warrants and represents that (s)he/it has not engaged in any act(s), omission(s), or other conduct or collusion that would result in the payment of any money, consideration, or other thing of value to any third party including, but not limited to, any RES, CRA, City or its affiliated agencies official, officer, or employee, as a result of consequence of obtaining or being awarded any agreement. Consultant is aware of and understands that any such act(s), omission(s) or other conduct resulting in such payment of money, consideration, or other thing of value will render this Agreement void and of no force or effect.

Consultant's Authorized Initials 

8.11 Unauthorized Aliens. Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C.A. § 1101, et seq., as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by this Agreement, and should the any liability or sanctions be imposed against RES, CRA, City or City's affiliated agencies for such use of unauthorized aliens,

Consultant hereby agrees to and shall reimburse RES, CRA, City and City's affiliated agencies, as applicable, for the cost of all such liabilities or sanctions imposed, together with any and all costs, including attorneys' fees, incurred by RES or CRA, as applicable.

8.12 Assignment and CRA Third-Party Beneficiary. In connection with the CRA Development Agreement, RES and CRA entered into a Collateral Assignment of Project Documents dated as of July 26, 2017 (the "Assignment") pursuant to which RES assigned to CRA all of its respective right, title and interest in and to this Agreement in order to secure RES's obligations under the CRA Development Agreement. Consultant acknowledges and consents to the Assignment and agrees to execute and deliver the acknowledgement and consent attached hereto as Exhibit "E" and made a part hereof (the "Consent"). CRA shall be a third-party beneficiary of this Agreement and may, but is not obligated to enforce the terms hereof subject to the terms and conditions of the Consent.

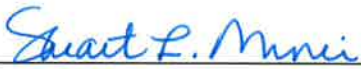
8.13 Corporate Authority. The persons executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound. This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the parties.

[Signatures on the following page.]

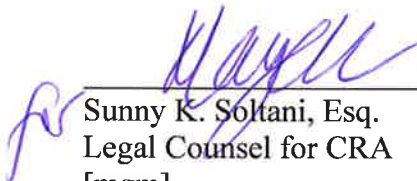
IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first-above written.

“RES”:

RE | SOLUTIONS, LLC, a Colorado limited liability company


Name: STUART L. MINER
Title: MEMBER

APPROVED AS TO FORM:
ALESHIRE & WYNDER, LLP


Sunny K. Soltani, Esq.
Legal Counsel for CRA
[mgm]

“CONSULTANT”:

LEIGHTON CONSULTING, INC., a California corporation

By: 
Name: Kris Lutton
Title: Sr. Vice President

By: 
Name: Terrance M. Brown
Title: CEO
Address: 17781 Cowan
Irvine, California 92614-6009

Two corporate officer signatures required when Consultant is a corporation, with one signature required from each of the following groups: 1) Chairman of the Board, President or any Vice President; and 2) Secretary, any Assistant Secretary, Chief Financial Officer or any Assistant Treasurer. CONSULTANT'S SIGNATURES SHALL BE DULY NOTARIZED, AND APPROPRIATE ATTESTATIONS SHALL BE INCLUDED AS MAY BE REQUIRED BY THE BYLAWS, ARTICLES OF INCORPORATION, OR OTHER RULES OR REGULATIONS APPLICABLE TO CONSULTANT'S BUSINESS ENTITY.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

STATE OF CALIFORNIA

COUNTY OF ORANGE

On 8/23/17, 2017 before me, Deborah C. Delaney Notary Public personally appeared Kris R. Lutton, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Deborah C. Delaney



OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

☐
☐

INDIVIDUAL
CORPORATE OFFICER

TITLE(S)

☐
☐

PARTNER(S) ☐ LIMITED
GENERAL

☐
☐
☐
☐

ATTORNEY-IN-FACT
TRUSTEE(S)
GUARDIAN/CONSERVATOR
OTHER

DESCRIPTION OF ATTACHED DOCUMENT

TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER IS REPRESENTING:

(NAME OF PERSON(S) OR ENTITY(IES))

SIGNER(S) OTHER THAN NAMED ABOVE

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

STATE OF CALIFORNIA

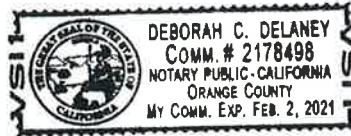
COUNTY OF ORANGE

On 8/23/17, 2017 before me, Deborah C. Delaney, Notary Public personally appeared Terrance M. Brennan, proved to me on the basis of satisfactory evidence to be the person ~~(s)~~ whose name ~~(s)~~ is ~~are~~ subscribed to the within instrument and acknowledged to me that he ~~she/they~~ executed the same in his ~~her/their~~ authorized capacity ~~(ies)~~, and that by his ~~her/their~~ signature ~~(s)~~ on the instrument the person ~~(s)~~, or the entity upon behalf of which the person ~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Deborah C. Delaney



OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- ☐
☐

INDIVIDUAL
CORPORATE OFFICER

TITLE(S)

- ☐
☐

PARTNER(S) ☐ LIMITED
☐ GENERAL

- ☐
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ATTORNEY-IN-FACT
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GUARDIAN/CONSERVATOR
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SIGNER IS REPRESENTING:

(NAME OF PERSON(S) OR ENTITY(IES))

SIGNER(S) OTHER THAN NAMED ABOVE

EXHIBIT "A"

SCOPE OF SERVICES

I. Consultant will perform the following Services:

A. PHASE 1: includes but is not limited to document review and engineering analyses to develop geotechnical design recommendations for the proposed development. Consultant's anticipated scope of work for Phase 1 consists of the following:

1. Document Review. Review available documents with pertinent geotechnical information on the project site in Consultant's in-house library, published in the literature, and available from the project team. Coordinate with other members of the design team, specifically the environmental consultant of record to verify that the planned grading and foundations remain compatible with the environmental mitigation system. Substantial on-call consultation to respond to inquiries from other members of the design team is anticipated. Budget hours for this task: 40 hours.

2. Liquefaction Evaluation. The current California Building Code requires that the geotechnical report for a site includes an evaluation of the potential for liquefaction and soil strength loss at the site during a design basis earthquake. Based on current practices in geotechnical engineering, the presence of liquefiable soils within a depth of 50 feet beneath a building site, with the water table above the 50-foot depth, will have adverse structural effects on the building, and the evaluation of the liquefaction potential becomes more critical. Portions of the project site are within areas mapped by the State of California as having a potential for liquefaction. Consultant shall evaluate the potential for liquefaction at the project site based on available published data and on Consultant's subsurface findings.

3. Geologic-Seismic Hazards Evaluation. Perform a geologic-seismic hazards evaluation to define the geologic environment and evaluate geologic-seismic hazards that may affect the site. Using available geologic data, Consultant shall develop information on the general geologic and groundwater conditions beneath the site and the locations of nearby active and potentially active faults. The study will address the potential for primary earthquake hazards (ground shaking and surface rupture) and secondary earthquake hazards (seismic settlement, seiches, and lurching) impacting the site. The evaluation will also discuss the impact of landsliding, flooding, and subsidence hazards.

4. Slope Stability Evaluation. Review the site characterization performed to date by Consultant and others, including the lateral extent of debris. Evaluate the potential for slope instability including earthquake-induced landsliding for the proposed grading and ground shaping at the site.

5. Ground Motion Study. Site-specific response spectra will be developed for the Maximum Considered Earthquake (MCE) ground motions having a 2%

probability of being exceeded in 50 years and the Design Earthquake (DE) having a 10% probability of being exceeded in 50 years.

First, Consultant shall perform a Probabilistic Seismic Hazard Analysis (PSHA) to obtain the "outcropping" ground motions for the natural materials beneath the landfill. A PSHA analysis can take into account all known earthquake sources, and, given the seismicity recurrence characteristics of each source, the chance of an earthquake of a given size occurring anywhere on the source may be determined for any specified period of time. Using ground motion attenuation relationships, the PSHA analysis can then estimate the expected ground motions for the different earthquake events; the PSHA analysis will then integrate the effects of all the earthquakes of different sizes, occurring at different sources at different probabilities of occurrence, to provide an estimate of probability of exceeding different levels of ground motion at a site during a specified period of time.

Next, Consultant shall convolve the ground motions to the ground surface using one-dimensional dynamic analysis. For the material properties used in the analysis, Consultant will use the results of the SASW measurements, and using estimates of other dynamic properties of the landfill materials using results from other landfills in the published literature. The convolution of the ground motions will require the development of three postulated time histories that represent the outcropping ground motion of the natural materials. The time-histories will be adjusted to match the outcropping response spectra.

The response spectra will be computed for the site for the two levels of risk specified for a structural damping ratio of 5 of critical damping.

6. Seismic Evaluation. Using the results of the expected site response obtained from the ground motion study discussed above, Consultant shall evaluate the expected magnitude and variation of earthquake-induced horizontal displacements at the surface of the landfill during the Design Earthquake (DE) to aid in the design of the landfill liner system and building protection system. In addition, Consultant shall evaluate the expected magnitude of displacements at the ground surface of the haul roads (natural soils) separating the refuse cells during the DE.

7. Engineering Analysis and Report. The results of Consultant's previous subsurface explorations and laboratory tests will be evaluated and engineering analyses will be performed to develop recommendations for design of foundations and walls below grade, for floor slab and paving support, for temporary shoring and for earthwork. Consultant shall prepare a geotechnical report summarizing the data collected and presenting Consultant's design recommendations. The report shall include:

a. Results of the subsurface explorations and laboratory tests, with a description of the soil and groundwater conditions encountered, and a discussion regarding similarities and differences (if any) between the current and prior investigations;

b. Results of the liquefaction evaluation;

- c. Results of the geologic-seismic hazards evaluation;
- d. Results of the ground motion study;
- e. Results of the seismic evaluation;
- f. Recommendations for design of foundations to be used for support of the new buildings, including allowable increases for wind or seismic loads;
- g. Estimated settlements for the anticipated loadings;
- h. A determination of the applicable site coefficient and seismic zonation based on the current California Building Code;
- i. Recommendations regarding frictional and passive values for the resistance of lateral forces;
- j. Recommendations for design of walls below grade and retaining walls;
- k. Recommendations for design of temporary shoring, if required;
- l. Recommendations for floor slab support;
- m. Recommendations for design of asphalt and portland cement concrete paving; and
- n. Recommendations for earthwork, including site preparation, excavation, and the placing of any required compacted fill.

The following graphics shall be included in the report:

- 1. A plot plan showing the location of the proposed structures relative to adjacent streets and existing structures and the locations of Consultant's exploratory borings;
- 2. Appropriate geologic maps showing local geologic conditions including the location of nearby faults;
- 3. A geologic section showing the subsurface geologic materials and the geologic structure relative to the proposed construction;
- 4. A log of each exploratory boring depicting the changes encountered in the soil strata by elevation and depth below ground surface together with a description and classification of each soil stratum. The depth to groundwater will also be indicated; and
- 5. Plots and tables presenting the results of the laboratory tests.

B. PHASE 2: includes but is not limited to performing document review, subsurface explorations, laboratory testing, and engineering analyses to develop geotechnical design recommendations for the proposed development. Because the project site is a former landfill, Consultant shall develop a work plan and a health and safety plan (WP/HSP) for submittal to DTSC and receive approval prior to commencing Consultant's exploration program. Upon completion of engineering analyses, Consultant shall provide you with a written report presenting Consultant's findings. The report shall also summarize Consultant's recommendations for design of new foundations and walls below grade, for floor slab and paving support, for temporary shoring, and for earthwork. In addition, Consultant's report shall present the results of seismic evaluation of the existing landfill and of Consultant's ground motion study. The anticipated scope of work for Phase 2 consists of the following:

1. Document Review and Coordination. Consultant shall review available documents with pertinent geotechnical information on the project site in Consultant's in-house library, published in the literature, and available from the project team. If the County of Los Angeles requests that additional exploration be performed, Consultant shall coordinate with other members of the design team, specifically the environmental consultant of record on Consultant's draft WP/HSP before submittal to DTSC. Consultant shall discuss and review the WP/HSP for consistency with prior similar documents for the project prior to official submittal. Substantial on-call consultation to respond to inquiries from other members of the design team is anticipated. Consultant has budgeted an additional 20 hours for this task.

2. Subsurface Exploration.

a. Permitting and Utility Clearance. Before starting the exploration program, Consultant shall also conduct a field reconnaissance to further observe site conditions and mark the locations of Consultant's planned explorations. As required by the state of California, Consultant shall also notify Underground Service Alert of the locations of Consultant's planned explorations prior to drilling. Consultant does not anticipate requiring permits from the City of Carson or from the County of Los Angeles. Consultant shall attempt to avoid utilities; however, despite reasonable efforts to avoid damages, there are inherent risks to utilities from drilling. To reduce these risks, Consultant shall review utility plans provided to Consultant for utility conflicts. Consultant cannot assume responsibility for the inherent risks if the utilities are not accurately mapped on plans made available to us. Consultant's proposal does not include costs or other provisions for utility repairs.

b. Exploration Program. Consultant proposes to explore the site by drilling 4 borings to a target depth of 75 feet. The borings shall be drilled under the observation of a Leighton representative. Consultant's representative will be working under the direct supervision of a qualified geotechnical engineer and will log the subsurface conditions encountered, including the contacts between soil cover, debris, and natural soil, and will obtain undisturbed samples for laboratory inspection and testing.

The field work will be monitored by Consultant's health and safety coordinator. Consultant shall conduct all drilling and sampling in general accordance with applicable ASTM standards. Consultant shall perform standard penetration tests (SPTs) within the natural soils in several of the borings. Consultant shall also obtain bulk samples of the upper soils. Consultant shall provide notification to all laboratories and personnel handling samples collected from the site of the possible presence of hazardous substances. Consultant shall transport all samples to Consultant's laboratory where they will be examined by an engineer and visually classified according to the Unified Soil Classification System (USCS). When working with samples, laboratory personnel will comply with the level of protection described in the HSP. Upon unsealing the samples, laboratory personnel will monitor each sample with a photoionization detector (PID). When samples are not being tested, they will be stored in a secured area. Upon completion of testing, the samples will be returned to the site for proper disposal onsite by the site owner. The casing and hollow-stem auger will remain in the drilled hole during the entire duration of drilling. At the completion of drilling, while removing the casing and hollow-stem auger, the exposed portion of the borehole will be sealed from the upper portion by grouting from the bottom up. The level of the grout will follow directly behind the auger as it is raised. In this way, the potential for downward migration of contaminants will be minimized. All of the borings will be grouted in this manner with cement bentonite grout or hydrated bentonite chips. The assessment of site environmental conditions or determining the presence of contaminants in the soil and groundwater of the site is beyond the scope of this investigation.

c. Geophysical Surveys. Based on the information available at this time, to obtain sufficient data for Consultant's updated seismic evaluation of the existing landfill, Consultant estimates two arrays of spectral analysis of surface wave (SASW) soundings will be required. The SASW soundings will provide shear wave velocity profiles for use in Consultant's analyses described in a following section.

d. Disposal of Cuttings. As a safety precaution, Consultant shall provide immediate screening of the samples and cuttings with a PID for the presence of volatile organics. Consultant shall also monitor for combustible gas, oxygen, and hydrogen sulfide as outlined in Consultant's HSP. The cuttings and samples will be handled and identified in accordance with the California Code of Regulations, Title 22 (22 CCR), Division 4.5, Section 66261-4 (d). Cuttings from borings will be stored in two roll-off metal bins, transported to the staging area and held until determination is made as to their method of disposal. Decontamination fluids will be stored in roll-off bins or a baker tank and transported to the staging area and held. Based on Consultant's prior experience, the DTSC may approve disposal of soil cuttings onsite, which will eliminate disposal costs. If the cuttings are to be disposed offsite, the following tests will be performed: Title 22 Metals, EPA Methods 8015M, 8270C (SVOC), 8270C (PAH), 8080, 9045, 8100, and 8260. The material will be transported by a qualified and permitted hauler. Drilling decontamination fluids will be stored in roll-off bins as described above until testing is performed. The following tests will be performed for drilling fluids: Title 22 Metals, EPA Methods 8015M, 8270C (SVOC), 8270C (PAH), 8080, 9045, 8100, and 8260. Consultant shall perform at least one series of tests for each roll off bin or baker tank containing the drilling decontamination fluids. The material will be transported by a

qualified and permitted hauler. Please note that an increased or decreased analytical sampling program for waste disposal activities may be required by the DTSC based upon their review of the WP/HSP.

e. Decontamination Procedures. For safety purposes, the site will be divided into three specific zones on the basis of contamination potential: Zone 1 – Exclusion Zone; Zone 2 – Contamination Reduction Zone; and Zone 3 – Support Zone. The Exclusion Zone is the area of the most suspect environmental contamination and presents the greatest potential for worker exposure. Personnel entering the area must wear the mandated level of protection. The Support Zone serves as a clean control area and covers all area outside of the Contamination Reduction Zone. It is the location where administrative and support functions will be performed to keep the field operations running smoothly. All vehicles will remain in this area except those which support the activities in the Exclusion Zone. The Contamination Reduction Zone serves as a transition area between the Exclusion Zone and the Support Zone. Decontamination facilities for personnel and any vehicles or heavy equipment exiting the Exclusion Zone are located in the Contamination Reduction Zone. All areas will be defined and marked as appropriate. All personnel will be required to complete appropriate decontamination procedures in a manner that is responsive to actual site conditions prior to leaving the site. A decontamination area will be set up at an appropriate site location. Wash tubs containing an appropriate decontamination solution and soft-bristle brushes will be used to decontaminate reusable personal protective clothing and boots. Following the decontamination solution washing, equipment will be rinsed at least once prior to use of the appropriate decontamination solution. Decontamination and rinse solutions will be disposed of in DOT 17H rated drums which are properly labeled and secured onsite at the staging area pending receipt of analytical results. Drums will also be provided for all disposable clothing. Disposable clothing will be placed in drums, and then discarded accordingly. Each individual shall conduct proper personal hygiene, which includes washing any exposed skin prior to eating, drinking, smoking, or leaving the site. Consultant shall decontaminate all drilling and sampling equipment that comes in contact with the potentially contaminated material at the site prior to drilling in uncontaminated material. The augers will be steam cleaned, and the sampling equipment will be washed with TSP phosphate-free soap, and triple rinsed between borings. Prior to leaving the site, heavy equipment or vehicles which have entered the Exclusion Zone will be cleaned of gross contamination. Heavy equipment or vehicles will also be thoroughly decontaminated at a decontamination station set up for the decontamination of heavy equipment and vehicles.

3. Geotechnical Laboratory Testing. Consultant's engineer will select samples for laboratory testing to determine the pertinent static physical characteristics of the soils. The data obtained will be used in the necessary engineering analyses. The laboratory tests may include:

a. In-place moisture content and dry density determination tests for each undisturbed sample;

- b. Atterberg Limits and Expansion Index tests for plasticity determination and soil classification;
- c. Sieve analyses for grain-size distribution and soil classification;
- d. Direct shear tests on undisturbed samples and, if appropriate, on remolded samples to determine the shear strength of the materials;
- e. Consolidation tests to determine the compressibility of the materials;
- f. Compaction tests for use in preparing earthwork recommendations;
- g. Stabilometer (R-value) tests for use in developing paving recommendations;
- h. Organic content; and
- i. Chemical testing to evaluate the corrosion potential of the subsurface materials at the site.

4. Engineering Analysis and Report. The results of Consultant's subsurface explorations and laboratory tests will be evaluated and compared with the results presented in prior referenced investigation reports, and engineering analyses will be performed to develop recommendations for design of foundations and walls below grade, for floor slab and paving support, for temporary shoring and for earthwork. Consultant shall prepare a geotechnical report summarizing the data collected and presenting Consultant's design recommendations. The report will include:

- a. Results of the subsurface explorations and laboratory tests, with a description of the soil and groundwater conditions encountered, and a discussion regarding similarities and differences (if any) between the current and prior investigations;
- b. Results of the updated liquefaction evaluation;
- c. Results of the updated geologic-seismic hazards evaluation;
- d. Results of the updated ground motion study;
- e. Results of the updated seismic evaluation;
- f. Recommendations for design of foundations to be used for support of the new buildings, including allowable increases for wind or seismic loads;
- g. Estimated settlements for the anticipated loadings;
- h. A determination of the applicable site coefficient and seismic zonation based on the current California Building Code;

- i. Recommendations regarding frictional and passive values for the resistance of lateral forces;
- j. Recommendations for design of walls below grade and retaining walls;
- k. Recommendations for design of temporary shoring, if required;
- l. Recommendations for floor slab support;
- m. Recommendations for design of asphalt and portland cement concrete paving; and
- n. Recommendations for earthwork, including site preparation, excavation, and the placing of any required compacted fill.

The following graphics will be included in Consultant's report:

- 1. A plot plan showing the location of the proposed structures relative to adjacent streets and existing structures and the locations of Consultant's exploratory borings;
- 2. Appropriate geologic maps showing local geologic conditions including the location of nearby faults;
- 3. A geologic section showing the subsurface geologic materials and the geologic structure relative to the proposed construction;
- 4. A log of each exploratory boring depicting the changes encountered in the soil strata by elevation and depth below ground surface together with a description and classification of each soil stratum. The depth to groundwater will also be indicated; and
- 5. Plots and tables presenting the results of the laboratory tests.

II. As part of the Services, Consultant will prepare and deliver the following tangible work products to RES:

- A. Preliminary Geotechnical Report.
- B. Exploration Work Plan and Health and Safety Plan.
- C. Final Geotechnical Report.

III. In addition to the requirements of Section 6.2, during performance of the Services, Consultant will keep RES updated of the status of performance by delivering the following status reports:

- A. Monthly account of completed tasks as part of the monthly invoices.

- IV. All work product is subject to review and acceptance by RES, and must be revised by the Consultant without additional charge to RES until found satisfactory and accepted by RES.**
- V. Consultant will utilize the following personnel to accomplish the Services: [PLEASE ADD JOB TITLES]**
- A.** Carl Kim, Senior Principal Engineer
 - B.** Joe Roe, Principal Geologist
 - C.** Jeff Pflueger, Associate Geologist
 - D.** Sierra Michaelson, Staff Geologist
 - E.** Eric Holliday, Senior Geologist
 - F.** Buu Tran, CAD Operator
 - G.** Lynne Rees, Project Administrator
 - H.** Gina Velarde, Word Processor
 - I.** Sreekar Pulijala, Senior Project Engineer
 - J.** Ed Che, Senior Project Engineer
 - K.** James Ward, Laboratory Manager
 - L.** Jeff Johnson, Project Engineer
 - M.** Meredith Church, Associate Geologist
 - N.** Brynn McCullough, Associate Geologist
 - O.** Mark Withrow, Project Engineer
 - P.** John Heartle, Associate Engineer

EXHIBIT "B"

SPECIAL REQUIREMENTS (Superseding Contract Boilerplate)

(new text is shown in *bold italics* and deleted text is indicated in ~~strikethrough~~)

I. Section 1.1 is hereby modified as follows:

"1.1 Scope of Services. In compliance with all of the terms and conditions of this Agreement, the Consultant shall perform the work or services set forth in the "Scope of Services" attached hereto as Exhibit "A" and incorporated herein by reference. Consultant ~~warrants~~ *represents* that it has the experience and ability to perform all work and services required hereunder and that it shall diligently perform such work and services in a professional and satisfactory manner."

II. Section 1.2 is hereby modified as follows:

"1.2 Compliance With Law. All work and services rendered hereunder shall be provided in accordance with ~~all~~ *applicable* ordinances, resolutions, statutes, rules, and regulations of the City of Carson ("City") and any Federal, State or local governmental agency of competent jurisdiction."

III. Section 2.2 is hereby modified as follows:

"2.2 Invoices. Each month Consultant shall furnish to RES an original invoice for all work performed and expenses incurred during the preceding month in a form approved by RES. By submitting an invoice for payment under this Agreement, Consultant is certifying compliance with all provisions of the Agreement. The invoice shall detail charges for all necessary and actual expenses by the following categories: labor (by sub-category), travel, materials, equipment, supplies, and subcontractor contracts. Subcontractor charges shall also be detailed by such categories. Consultant shall not invoice RES for any duplicate services performed by more than one person.

RES and CRA shall independently review each invoice submitted by Consultant to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. Except as to any charges for work performed or expenses incurred by Consultant which are disputed by RES or CRA as provided in Article 7, RES will use its best efforts to cause Consultant to be paid within sixty (60) days of receipt of Consultant's correct and undisputed invoice; however, Consultant acknowledges and agrees that due to RES' cost reimbursement arrangement with the CRA, RES cannot guarantee that payment will occur within this time period. *In any event, payment to Consultant shall not exceed 120 calendar days of receipt of Consultant's correct and undisputed invoice by RES.* In the event any charges or expenses are disputed by RES, the original invoice shall be returned by RES to Consultant for correction and resubmission. Review and payment by RES of any invoice provided by the Consultant shall not constitute a waiver of any rights or remedies provided herein or any applicable law."

IV. Section 3.1 is hereby modified as follows:

“3.1 Time of Essence. Time is of the essence in the performance of this Agreement. *However, RES recognizes that Consultant’s performance must be governed by the professional practices utilized by similarly situated first rate geotechnical engineering firms in California.*”

V. Section 5.1 paragraph (f) is hereby modified as follows:

“(f) Subcontractors. *All of Consultant’s subcontractors shall include—*~~all subcontractors as insureds under its policies or shall furnish separate certificates and certified endorsements for each subcontractor.~~ All coverages for subcontractors shall be subject to all of the requirements stated herein, *including expressly, the obligation to name Consultant, RES and CRA, City and its affiliated agencies and their respective officers, and employees, as additional insureds on the policies listed above, with the exception of Professional Liability and Worker’s Compensation.*”

VI. Section 5.2 is hereby modified as follows:

“5.2 General Insurance Requirements.

Unless otherwise approved in writing by RES, all of the above policies of insurance, *except Worker’s Compensation and Professional Liability coverage*, shall be primary insurance and shall name RES, CRA, City and its affiliated agencies and their respective officers, employees and agents as additional insureds and any insurance maintained by RES, CRA, or City and their respective officers, employees or agents may apply in excess of, and not contribute with Consultant’s insurance. The insurer is deemed hereof to waive all rights of subrogation and contribution it may have against RES, CRA, the City and its affiliated agencies, their respective officers, employees and agents and insurers. The insurance policy must specify that where the primary insured does not satisfy the self-insured retention, any additional insured may satisfy the self-insured retention. All of said policies of insurance shall provide that said insurance may not be amended or cancelled by the insurer or any party hereto without providing thirty (30) days prior written notice by certified mail return receipt requested to RES and CRA. In the event any of said policies of insurance are cancelled, the Consultant shall, prior to the cancellation date, submit new evidence of insurance in conformance with this Section 5.1 to the Contract Officer. No work or services under this Agreement shall commence until the Consultant has provided RES with Certificates of Insurance, additional insured endorsement forms or appropriate insurance binders evidencing the above insurance coverages and said Certificates of Insurance or binders are approved by RES. RES reserves the right to inspect complete, certified copies of and endorsement to all required insurance policies at any time. Any failure to comply with the reporting or other provisions of the policies including breaches or warranties shall not affect coverage provided to RES.

The insurance required by this Agreement shall be satisfactory only if issued by companies qualified to do business in California, rated “A” or better in the most recent edition of Best Rating Guide, The Key Rating Guide or in the Federal Register, and only if they are of a

financial category Class VII or better, unless such requirements are waived in writing by RES due to unique circumstances.”

VII. Section 6.4 is hereby modified as follows:

“6.4 Ownership of Documents. All studies, surveys, data, notes, computer files, reports, records, drawings, specifications, maps, designs, photographs, documents and other materials (the “documents and materials”) prepared by Consultant in the performance of this Agreement shall be the property of RES *upon the full payment for same* and shall be delivered to RES upon request of the Contract Officer or upon the termination of this Agreement, and Consultant shall have no claim for further employment or additional compensation as a result of the exercise by RES of its full rights of ownership use, reuse, or assignment of the documents and materials hereunder. Moreover, Consultant with respect to any documents and materials that may qualify as “works made for hire” as defined in 17 U.S.C. § 101, such documents and materials are hereby deemed “works made for hire” for RES.”

VIII. Section 8.2 is hereby modified as follows:

“8.2 Non-liability of RES Officers and Employees. No officer or employee of RES *or Consultant* shall be personally liable to ~~the Consultant~~ *each other*, or any successor in interest, in the event of any default or breach by RES or for any amount, which may become due to the Consultant *or RES* or to its successor, or for breach of any obligation of the terms of this Agreement.”

EXHIBIT "C"

SCHEDULE OF COMPENSATION

I. Consultant shall perform the following Services at the following rates:

	RATE	TIME	SUB- BUDGET
A. Phase 1 total:	\$47,000	3 weeks	
Document review and coordination			\$11,000
Liquefaction Evaluation			\$3,000
Geologic-Seismic Hazards Evaluation			\$4,500
Slope Stability Evaluation			\$7,500
Ground Motion Study			\$4,500
Seismic Evaluation			\$4,500
Engineering Analyses and Report			\$12,000
B. Phase 2 total:	\$47,500	8 weeks	
Document review and coordination			\$5,500
Subsurface Explorations and Geophysical Surveys (incl. \$12,000 for outside services)			\$20,000
Offsite Disposal of Cuttings and Fluids (incl. \$3,000 for outside services)			\$4,000
Geotechnical Laboratory Testing			\$6,000
Liquefaction Evaluation (update)			\$750
Geologic-Seismic Hazards Evaluation (update)			\$750

Slope Stability Evaluation (update)		\$1,500
Ground Motion Study (update)		\$1,500
Seismic Evaluation (update)		\$1,500
Engineering Analyses and Report	<u>\$94,500</u>	\$6,000

GRAND TOTAL:

NOTE:

The fee for the subsurface explorations shown in the table above should be considered as a rough estimate because of the nature of the subsurface materials. We may encounter impenetrable materials or materials that will bind around the auger that may require abandonment and relocation of borings. We suggest an optional contingency of approximately 5 to 10 percent of the total fee estimate to attempt to address these extra costs that may be incurred.

Our fee does not include disposal of hazardous materials. If the soil cuttings and fluids are found to be hazardous, the offsite disposal fees quoted in the tables above could be as high as \$25 per linear foot of drilling, depending on the level of contamination encountered. The estimated fee for offsite disposal of cuttings and fluids is an assumed allowance and not 100% committed dollars. Should onsite cutting/soil management be allowed by the DTSC, then only incidental charges associated with temporary onsite containerization and movement will be billed to Macerich. Only the actual effort and subcontractor cost expended will be billed to Macerich.

The fees stated in this proposal have been made based on the following assumptions: (i) the site does not contain unmapped private underground utilities;(ii) the site plans for which this proposal was based remain applicable; and (iii) the assumption that the field exploration program will be performed during normal work hours.

- II. A retention of ten percent (10%) shall be held from each payment as a contract retention to be paid as a part of the final payment upon satisfactory completion of services.**
- III. Within the budgeted amounts for each Task, and with the approval of the Contract Officer, funds may be shifted from one Task subbudget to another so long as the Contract Sum is not exceeded per Section 2.1, unless Additional Services are approved per Section 2.3.**
- IV. RES will compensate Consultant for the Services performed upon submission of a valid invoice, in accordance with Section 2.2. Each invoice is to include:**

- A. Line items for all the work performed, the number of hours worked, and the hourly rate.
 - B. Line items for all materials and equipment properly charged to the Services.
 - C. Line items for all other approved reimbursable expenses claimed, with supporting documentation.
 - D. Line items for all approved subcontractor labor, supplies, equipment, materials, and travel properly charged to the Services.
- V. **The total compensation for the Services shall not exceed \$94,500, as provided in Section 2.1 of this Agreement.**

EXHIBIT "D"

SCHEDULE OF PERFORMANCE

- I. Consultant shall perform all Services timely in accordance with the following schedule:**

		<u>Days to Perform</u>	<u>Deadline Date</u>
A.	Phase 1	3 consecutive weeks	no later than 21 calendar days from Agreement date
B.	Phase 2	8-10 weeks	no later than 56 calendar days from completion of subsurface explorations; subsurface explorations shall begin no later than 14 days of receiving approval of the WP/HSP from DTSC.

- II. Consultant shall deliver the following tangible work products to RES by the following dates.**

- A.** Preliminary Geotechnical Report within 3 weeks of authorization to proceed with Phase 1.
- B.** Exploration Work Plan and Health and Safety Plan within 2 weeks of authorization to proceed with Phase 2.
- C.** Final Geotechnical Report within 8 weeks of completion of field exploration.

- III. The Contract Officer may approve extensions for performance of the Services in accordance with Section 3.2.**

EXHIBIT "E"

ACKNOWLEDGMENT AND CONSENT OF CONSULTANT

8 / 28, 2017

Carson Reclamation Authority
City of Carson, California
701 E. Carson Street
Carson, CA 90745

Attention: John S. Raymond
Director of Community Development

Ladies and Gentlemen:

The undersigned ("Consultant") has executed an agreement (the "Consultant Contract") dated August 28, between Consultant and RE Solutions, LLC (the "Company") pursuant to which Consultant has agreed to perform the services set forth in the Consultant Contract for the project located in the City of Carson, California, and known as the former Cal Compact Landfill (the "Project") and more fully described in the Consultant Contract.

Consultant understands that the Carson Reclamation Authority ("CRA") and the Company entered into an Environmental Remediation and Property Management Agreement dated as of July 26, 2017 (the "CRA Development Agreement"); and that the Company has assigned to CRA all of its right, title and interest in and to the Consultant Contract pursuant to a certain Collateral Assignment of Project Documents, dated as of July 26, 2017 (the "Assignment"), in order to secure its obligations under the CRA Development Agreement.

Intending to be legally bound hereby, Consultant hereby covenants, represents and warrants, and agrees as follows:

1. Consultant (a) consents to the Assignment, and (b) agrees that if CRA gives notice to Consultant that the Company is in default under the CRA Development Agreement or that the CRA Development Agreement has been terminated, Consultant shall, at CRA's request, and notwithstanding any default by the Company under the Consultant Contract, continue performance on CRA's behalf under the Consultant Contract in accordance with the terms thereof; provided, that CRA pay for services provided to CRA from and after such request, in accordance with the payment terms of the Consultant Contract. Consultant understands that CRA has no obligation to exercise CRA's rights under the Assignment.

2. In the event that CRA requests Consultant continue performance on CRA's behalf as set forth in paragraph 1 above, Consultant shall attorn to CRA and recognize CRA as the counter-party under the Consultant Contract, and the Consultant Contract shall continue in full force and effect as a direct contract between CRA and Consultant for the full term thereof; provided, however, that CRA shall not be:

- (i) liable for any act or omission of Company (including omission of payment);
- (ii) subject to any offsets or defenses which Consultant might have against Company; or
- (iii) bound by any amendment or modification of the Consultant Contract not consented to in writing by CRA.

3. Consultant represents and warrants that the Consultant Contract is in full force and effect, and neither the Company nor Consultant is in default thereunder.

4. Consultant shall not, without CRA's prior written consent, agree to the amendment or modification of the Consultant Contract, except with respect to modifications or change orders which have been approved in accordance with the CRA Development Agreement, and further agrees that it will not terminate the Consultant Contract or cease to perform its work thereunder for any reason, including but not limited to the Company's failure to make payments to the Consultant, without first giving written notice to CRA of such intention at least thirty (30) days before taking such action.

5. Consultant acknowledges and agrees that it is not entitled to rely upon the provisions of the CRA Development Agreement and it is not a third party beneficiary thereof.

6. Consultant agrees that CRA shall have no obligations or liability to Consultant under the Consultant Contract or this letter unless and until CRA gives notice to Consultant pursuant to paragraph 1 hereof and only thereafter to the extent that Consultant performs under the Consultant Contract on CRA's behalf.

7. Consultant shall not assign its rights or obligations under the Consultant Contract without CRA's prior written consent, which may be withheld in CRA's sole discretion.

8. Consultant hereby covenants and agrees that in the event any of the payments under the CRA Development Agreement are disbursed directly to Consultant, it will receive and hold any such proceeds as a trust fund for the purpose of paying the costs of the labor, equipment and supplies used in performing the services for the Project and will apply these same first to payment of such costs before using any part thereof for any other purposes.

9. Consultant covenants and agrees that upon CRA's request it shall furnish to CRA a current list of all persons or firms with whom Consultant has entered into subcontracts or other agreements relating to the performance of work or furnishing of materials in connection with the Project, together with a statement as to the status of each of such subcontracts or agreements and the respective amounts, if any, owed by Consultant thereunder.

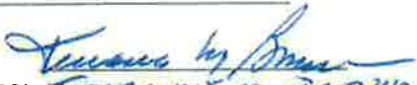
10. The officer executing this instrument on behalf of Consultant hereby personally certifies that he or she is authorized to do so.

11. Consultant represents and warrants that it has full authority under all applicable state and local laws and regulations to perform its obligations under the Consultant Contract in accordance with the terms thereof.

12. This letter shall be binding upon Consultant and its successors and permitted assigns and shall inure to the benefit of CRA and its successors and assigns.

[Signature page follows]

Very truly yours,
LEIGHTON CONSULTING, INC.,
a California corporation

By: 
Name: TERENCE M. BICKNER
Title: CFO