

WORK ORDER No. 2 FOR PROFESSIONAL SERVICES

TO: A.D.A. Engineering, Inc.
8550 NW 33 Street, Suite 202
Doral, FL 33122
Phone: (305) 551-4608

DATE: June 15, 2018

The City of Doral authorizes the firm of A.D.A. Engineering, Inc. to provide geotechnical services during the construction of the City of Doral Glades Park. The scope of services includes, but is not limited to, construction materials engineering and testing services as listed on the proposal. The work should be performed in accordance with the contract provisions contained in the Continuing Professional Services Final Agreement between ADA Engineering, and the City of Doral dated January 30, 2018, and the attached Proposal dated June 15, 2018 and submitted by your firm for the above referenced project.

SCOPE OF SERVICES AND SCEHDULE:

The scope of the project will be as described in the attached proposal from A.D.A. Engineering, Inc. The schedule of the work to be provided is 6 months from NTP. The performance of services associated with this Work Order will be executed on a lump sum basis with a not to exceed amount of \$14,863.20.

You are required by the Continuing Service Agreement to begin work subsequent to the execution of this Work Order, or as directed otherwise. If you fail to begin work subsequent to the execution of this Work Order, the City of Doral will be entitled to disqualify the Proposal, and revoke the award.

This Work Order incorporates the terms and conditions set forth in the Continuing Services Agreement dated January 30, 2018 between the parties as though fully set forth herein. In the event that any terms or conditions of this Work Order conflict with the Continuing Services Agreement, the provisions of this specific Work Order shall prevail and apply

Work Order is not binding until the City of Doral agrees and approves this Work Order.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in three (3) counterparts, each of which shall, without proof or accounting for the other counterpart be deemed an original Contract.

CONSULTANT: A.D.A. Engineering, Inc.

WITNESSES:

SEAL:

BY: [Signature]
NAME: Alex Vazquez
TITLE: Vice President

1. [Signature]
2. [Signature]

OWNER: City of Doral
BY: [Signature]
NAME: Edward Rojas
TITLE: City Manager

AUTHENTICATION:
BY: [Signature]
NAME: Connie Diaz
TITLE: City Clerk



APPROVED AS TO FORM AND
LEGAL SUFFICIENCY FOR THE SOLE USE
OF THE CITY OF DORAL:

BY: [Signature]
NAME: WEISS, SEROTA, HELFMAN, COLE &
BIERMAN, PL
TITLE: City Attorney



Corporate Office
8550 NW 33rd Street, Suite 202
Doral, Florida 33122
T 305.551.4608
F 305.551.8977
www.adaengineering.com

June 15, 2018

Eugene Collings-Bonfill, P.E., P.S.M., CFM
PMP Chief of Engineering
City of Doral
8401 NW 53 Terrace
Doral, FL 33166

Reference: WORK ORDER NO 2. GLADES PARK GEOTECHNICAL TESTING

Dear Mr. Collings:

Per your request, A.D.A. Engineering, Inc. (ADA) is pleased to provide the services identified below for the project entitled Glades Park Geotechnical Testing for the City of Doral (City), in accordance with City of Doral Continuing Professional Services Final Agreement January 30, 2018. The following sections outline the scope of work, schedule of work (time performance), and compensation associated with this work order.

I. SCOPE OF WORK

ADA will retain Terracon to provide all the necessarily geotechnical testing in accordance with the attached proposal, budget estimate and scope of services provided by Terracon. As part of this work order, ADA will not attend any meetings, performed any field inspections, or perform any field testing. All field activities, testing and reporting will be performed by Terracon.

As part of this work order, ADA review and process all invoices from Terracon.

II. SCHEDULE OF WORK – TIME OF PERFORMANCE

Work will be completed within six (6) from notice to proceed and in accordance with the construction schedule.

III. COMPENSATION

ADA will be compensated on a lump sum basis \$14,863.20 for performing the work detailed in the Scope of Work. The fee breakdown between ADA and Terracon are as follows:

Terracon	\$13,512.00 (See attached scope and fee proposal from Terracon)
ADA	\$1,351.20 (Management fee)

City of Doral
Work Order No 2. Glades Park Geotechnical Testing
Page 2 of 2

We look forward to assisting the City on this important project assignment. If you have any questions or need additional information, please do not hesitate to contact Alberto Argudin or me at (305) 551-4608.

Sincerely,

A.D.A. ENGINEERING, INC.



Alex Vazquez, PE, CFM
Vice President/Project Manager

Enclosures:

Terracon Proposal

June 14, 2018

A.D.A. Engineering, Inc.
8550 NW 33 Street, Suite 202
Doral, Florida 33122

Attention: Mr. Alex Vazquez, PE, CFM
Vice President

Subject: Proposal Letter for Construction Materials Engineering and Testing (CMET)
Glades Park
City of Doral, Florida

Terracon Proposal No. PH8181042

Dear Mr. Vazquez:

Terracon Consultants, Inc. (**Terracon**) appreciates the opportunity to submit this proposal to provide Construction Materials Engineering and Testing (CMET) Services at the above referenced project located in the City of Doral, Florida.

Construction of the new Glades Park will include a Nature Building and a Restroom Building, Basketball and Tennis Courts, concrete and asphalt walkways. The buildings consist of cast-in-place concrete and reinforced masonry walls supported on shallow foundations and a slab-on-grade. At this time, we have been requested to submit a scope of services and budget estimate to perform construction materials testing services only.

Attached to this letter is our scope of services (Exhibit A) and a budget estimate (Exhibit B). The scope of services was prepared in accordance with the information provided to us by Mr. Jorge Hernandez from the city's Parks Department and Mr. Eugene Collins-Bonfill, PE, Chief of Engineering, with the city's Public Works Department. In addition to the scope requested by Mr. Hernandez, Terracon was provided with a set of construction drawings prepared by CPZ Architects, with latest revision dated 01-26-18.

A. REPORTING

Documentation is critical to the success of any testing services. The quality of our testing and inspection work is only valuable if the field personnel keep proper documentation of their visual observations, direct measurements/tests, photographic documentation, and field notes; the



information is properly reviewed by a Professional Engineer; and the information is distributed to the Owner/Design/Construction team timely.

Terracon created its Construction Materials Engineering and Lab Management System (CMELMS) to manage the data that will be created. This system allows the project team to easily track, manage and distribute field and laboratory reports in real time and quickly sort through the information to consult on critical issues. Technicians/Inspectors are scheduled, costs and budgets are tracked and daily progress is communicated to keep owners and the design/construction team informed every step of the way.

With CMELMS our goals are simple. We will deliver:

- Written notification of deviations within 24 hours
- Field reports in no more than five business days from when field services were provided (typically 1 to 2 days)
- Laboratory reports in no more than two business days from when the laboratory services were completed (typically 0 to 1 day)

If tests/inspections made indicate non-compliance with the contract documents or referenced specifications, we will promptly notify the contractor personnel so corrective action can be taken and documented. Failing tests or non-conformance items (deviations) are immediately relayed to the designated parties, and draft reports are available at the end of each day. The test results and inspection information are quickly entered into the system and formal reports are produced. Failing tests and project deviations are easily tracked in a tabular Project Deviation Log which is distributed to all appropriate parties when deviations are reported.

B. SAFETY

At Terracon, we all have a personal commitment to everyone going home safely each and every day. Incident and Injury-Free (**IIF**) is about care and concern for people. Safety is held as a core value as well as an operational priority. We are proud that our safety initiatives have resulted in a **2016 EMR of 0.82 and just recently announced 2017 EMR of 0.71.**

As a supplement to Terracon's safety culture, each employee receives safety training specific to the job function and/or project assigned through one-on-one discussions, morning safety conference calls or web-based training seminars. Safety is a primary focus of our monthly department meetings where each meeting includes discussion of a safety topic. Our field staff in the construction services group has attended the **OSHA 10-hour Construction Safety Training**. A copy of their certification can be provided upon request.

IIF is not just something we do; it's part of everything we do.

C. SCHEDULING

Our innovative system that includes Microsoft Office Outlook and our proprietary Construction Materials Engineering Laboratory Management System (CMELMS™) software will be used for scheduling and tracking work tasks for our field personnel. Scheduling should not be coordinated through our field personnel but through our laboratory manager/dispatcher.

Our services will be performed on an as-requested basis with scheduling by the contractor or his designated personnel. We request our services be scheduled a minimum of one working day in advance. We request a notice of two working days prior to the commencement of each category of activities. We will endeavor to schedule services on lesser notice, but may not always be able to meet the desired project schedule.

All requests for services should be submitted to our local Miami Lakes office phone (305) 820-1997, **between 7:30am and 4:30pm, Monday through Friday. Messages left on the scheduling line outside of these hours on weekdays or on Saturday, Sunday and Holidays will be received the next business day.**

Terracon will not be responsible for scheduling our services and will not be responsible for tests/inspections that are not performed due to a failure to schedule our services on the project or any resulting damage.

D. AUTHORIZATION

As members of your team of consultants with the City of Doral, ADA will use Terracon a Work Order to proceed with our scope of services. Please initial and incorporate the attached documents to your Work Order when submitting it to us.

Respectfully submitted,

Terracon Consultants, Inc.



Rodolfo "Rudy" Gonzembach, PE / SI
Construction Services Manager



Hugo E. Soto, PE
Principal

Attachments: **Exhibit A** – Scope of Services
Exhibit B - Budget Estimate for CMET

EXHIBIT A – SCOPE OF SERVICES

CONSTRUCTION MATERIALS ENGINEERING AND TESTING (CMET) SERVICES

I. – SOILS

Nature and Restroom Buildings Shallow Foundations & Slabs on Grade; Basketball and Tennis Courts and Concrete and Asphalt Walkways

- Provide engineering technicians at the project site to collect representative samples of the exposed soils and transport them to our laboratory for testing.
- In our laboratory we will perform moisture-density relationship tests (Proctors) on representative samples of the natural/existing fill soils per each visually different material type.
- We will also perform laboratory grain size analyses and Wash through No. 200 Sieve for soil classification of each visually different material type.
- Perform soil in-place field density tests on the bottom of footing (BOF) and or slab on grade surfaces at the frequency indicated in the geotechnical engineering report.

II. - CAST-IN-PLACE CONCRETE

Concrete Sampling & Testing

- Provide engineering technicians on site to sample the fresh concrete delivered on site, perform field tests such as slump and temperature.
- Our technicians will cast sets of five (4" x 8") compressive strength test cylinders for each 50 cubic yards or fraction thereof per mix cast each day.
- On the following work-day of the pour, we will pick up and transport the cylinders to our laboratory for curing and testing.
- Perform laboratory curing and compressive strength testing of cylindrical concrete specimens. Tests will be performed: 1 @ 3-days, 1 @ 7-days, 2 @ 28-days and 1 held as reserve cylinder.



Exhibit B - Budget Estimate

Construction Materials Engineering and Testing Services (CMET)

GLADES PARK - City of Doral, Florida

Terracon Proposal No. PH8181041

June 15, 2018

Phase Name	Test Frequency	Estimated Quantity	Unit	Unit Cost	Amount
I. Field Services					
SOILS					
Engineering technicians at the project site to collect bulk samples of existing or imported fill soils and transport them to our laboratory for testing.	Estimate 4 trips, 1 for the Nature Building, 1 for the Restroom Building, 2 for the Base and Subgrade courses under the parking pavement section; minimum charge 2 hrs per trip	8	Hr.	\$50.00	\$400.00
Perform moisture-density relationship tests (Modified Proctor) on soil samples in accordance with ASTM D-1557.	Estimate 4 tests	4	Ea.	\$135.00	\$540.00
Perform grain size analysis and soil classification on soil samples.	Estimate 4 tests	4	Ea.	\$65.00	\$260.00
Perform Wash thru Sieve No. 200 Tests in Accordance with ASTM D-117	Estimate 4 tests	4	Ea.	\$35.00	\$140.00
Perform Limerock Bearing Ratio (LBR) Tests in accordance with Florida Method FM 5-515	Estimate 2 tests, 1 on the subgrade and 1 on the base materials under paved areas.	2	Ea.	\$325.00	\$650.00
Engineering technicians at the project site, equipped with a nuclear gauge to perform in-place density tests of backfill material over the new storm drainage system.	Estimate 80 tests, 1 for each 100 lf of pipe or fraction thereof, or 1 per section of pipe between catch basin structures per 12-inch lifts. We estimate not more than 2 feet of fill above pipes. Minimum charge 4 tests per trip	80	Ea.	\$26.50	\$2,120.00
Engineering technicians at the project site, equipped with a nuclear gauge to perform in-place density tests of base material under the basketball court and the tennis courts.	Estimate 8 tests total, 3 under basketball court and 5 under tennis courts. Minimum charge 4 tests per trip	8	Ea.	\$26.50	\$212.00
Engineering technicians at the project site, equipped with a nuclear gauge to perform in-place density tests of the roadbed material under the concrete and asphalt walkways.	Estimate 10 tests total, 5 under concrete and 5 under asphalt walkways. Minimum charge 4 tests per trip	10	Ea.	\$26.50	\$265.00
CONCRETE					
Engineering technician at the project site to sample fresh concrete, perform field tests such as temperature and slump, and cast sets of five 4"x8" cylinders for compressive strength testing. According to the structural notes on Sheet S-001, 1 cylinder tested at 3-days, 1 at 7-days, 2 at 28-days and 1 held in reserve.	We estimate a total of 21 trips; at Restroom Building 1 at footings, 1 at SOG, 1 for columns and 1 for beams. At Nature Building 3 for footings, 3 for SOG and dumpster enclosure area, 3 for columns and 3 for beams; 2 trips for concrete walkways and 3 for sidewalk and parking stalls. Minimum charge 3 hours per trip.	63	Hr.	\$50.00	\$3,150.00
Engineering Technicians at the project site to pick-up cylinders cast on the previous work day and transport them to our Miami Lakes laboratory for compressive strength testing. <u><i>This charge will apply when not concurrent with other on site activities.</i></u>	Estimate 21 trips and minimum charge of 2 hours per trip.	42	Hr.	\$45.00	\$1,890.00
Moist curing and compressive strength testing of concrete cylinders.	Estimate 21 sets of 5 cylinders	105	Ea	\$15.00	\$1,575.00



Exhibit B - Budget Estimate

Construction Materials Engineering and Testing Services (CMET)

GLADES PARK - City of Doral, Florida

Terracon Proposal No. PH8181041

June 15, 2018

Phase Name	Test Frequency	Estimated Quantity	Unit	Unit Cost	Amount
Sub-Total CMET Laboratory Services					\$11,202.00
III. PROFESSIONAL & ADMINISTRATIVE SERVICES					
Professional Engineer (review, sign and seal test reports)	Estimate 12 hours	12	Hr.	\$120.00	\$1,440.00
Project manager to coordinate field and laboratory activities	Estimate 12 hours	12	Hr.	\$50.00	\$600.00
Administrative Assistant / Clerical Services	Estimate 6 hours	6	Hr.	\$45.00	\$270.00
Sub-Total Professional & Administrative Services:					\$2,310.00
Total CMET Estimate:					\$13,512.00

Notes:

1. This Cost Estimate is based on our review of the contract documents provided and our experience with similar projects. We do not have control over the contractor's construction practices, schedules or inclement weather. Therefore, actual quantities may vary from our estimated quantities.
2. Overtime rate will apply for work conducted before 7:30 am or after 4:30 pm during business days, or excess of 40 hours per week, Saturday, Sunday or company holidays at 1.5 times applicable normal unit hourly rate for the engineering technician.
3. This Cost Estimate does not include the cost of any *stand-by time* or *re-testing* that may be required if the work is incomplete or is found to be in non-compliance with established standards at the time of our initial inspection.
4. Cancellation without prior notice will be invoiced at the applicable Engineering Technician's hourly rate.
5. Engineering Technician time is portal to portal.