



ANDERSEN ANDRE CONSULTING ENGINEERS, INC.
Geotechnical Engineering
Construction Materials Testing
Environmental Consulting

AACE Proposal No. P18-1117
August 21, 2018
Revised August 23, 2018

Indian River County Engineering Department
1801 27th Street, Building 'A'
Vero Beach, Florida 32960

Attention: Mr. William Johnson, P.E.
Roadway Production Engineer

**Subject: PROPOSAL FOR CONSTRUCTION MATERIALS TESTING
CR 512 RESURFACING AND SHOULDER WIDENING
FROM MYRTLE STREET TO 125TH AVENUE
IRC PROJECT NO. 1305
FELLSMERE, INDIAN RIVER COUNTY, FLORIDA**

Dear Mr. Johnson:

Andersen Andre Consulting Engineers, Inc. (AACE) is pleased to present this proposal for construction materials testing services during the resurfacing of portions of CR512, as indicated above. The purpose of our services, as discussed further herein, will be to provide materials testing in general accordance with the project plans and technical specifications.

BACKGROUND INFORMATION

Based on our cursory review of the Contract Plans prepared for the project by Atkins North America, Inc. dated November 2017, we understand that the proposed improvements to CR512 consist of milling and resurfacing both east and west lanes of CR 512, from Myrtle Street to 125th Avenue. Additionally, a 8-foot wide stabilized shoulder will be constructed between STA 1159 and STA 1176, after which 8-foot wide shoulders will be constructed outside of both travel lanes to the project terminus at STA 1245+20. Intersections at Cypress Street and Broadway Street will be signalized, each with two (2) strain poles and span wires, and four (4) mast-arm signals will be constructed at Willow Street. Approximately 16 side streets that intersect CR 512 will result in turnout construction and extending the paved sections. Incidental drainage, sidewalk and curb-and-gutter construction is also depicted in the plans. A project duration of 180 days has been established by Indian River County (150 days to substantial completion).

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SCOPE OF SERVICES

Unless otherwise communicated to us, we anticipate that our role for the project will include the following testing elements:

1. Performing density testing for embankment, stabilized subgrade (shoulders) storm drain piping backfill, roadway turnouts and driveways, and for sidewalk and curb subgrade;
2. Performing laboratory testing of soils and base rock (e.g., Proctor and LBR sampling);
3. Performing compressive strength testing of concrete used in sidewalk, poured curb, and mast arm foundations;
4. Obtaining bulk samples of asphalt for extraction/gradation and asphalt-content testing;
5. Performing roadway coring for laboratory specific gravity testing;
6. Performing drilled shaft and anchor bolt inspections for four (4) drilled shaft foundations for mast-arm signalization;

Based upon our understanding of the project plans and our prior experience with projects similar to this one, we estimate the cost of the services will be approximately \$23,245.00. The actual cost of AACE's testing services will be a function of work actually performed in accordance with the attached unit fee schedule (in accordance with the continuing service contract between Indian River County and AACE, Contract #2014007). Contractor efficiency, methodology and changes in testing frequencies may affect the testing cost. We will notify you in advance if it appears that the cost estimate will be exceeded.

To authorize us to proceed with this project, please execute and return to us a copy of the attached Project Agreement form or a Purchase Order number. If you have any questions or if we can provide any additional information, please feel free to contact us at your convenience.

Best Regards,
ANDERSEN ANDRE CONSULTING ENGINEERS, INC.



David P. Andre, P.E.
Principal Engineer



Peter G. Andersen, P.E.
Principal Engineer



Proposed Testing Frequency

The following in-place density testing frequencies are typically employed by AACE for similar roadway projects:

Roadways and Turnouts:

- Natural Ground - 1 test performed 1 foot into natural ground per 100 lineal feet, per travel direction
- Embankment - 1 test per 100 lineal feet, per travel direction, per 12-inch lift
- Stabilized Subgrade - 1 test per 200 lineal feet, per travel direction, per 12-inch lift
- Base Course - 1 test per 100 lineal feet, per travel direction, per 6-inch lift
- Sidewalks - 1 test per 100 lineal feet, per 12-inch lift of embankment or 1 foot into natural ground
- Curb Pad Subgrade - 1 test per 100 lineal feet

Drainage:

- Structures - 1 test per 12-inch lift of backfill, from bottom of structure to top of structure. (Fill placed on all sides of structure is probed with a manual probe rod to confirm uniform compactive effort).
- Piping - 1 test per 200 lineal feet (or per backfill/open cut operation) per 12-inch lift along both sides of pipe to top-of-pipe, then every 1 foot of fill atop pipe thereafter.

Concrete Testing:

- A minimum of one set of four (4) cylinders will be made for every pour, and for each 50 cubic yards for larger pours.
- One slump test will be performed for every pour, and for each 50 cubic yards for larger pours.

Proposed Scope and Budget

Man-Hour Estimates:

Construction will have an approximate duration of approximately 5 months, working 5 days/week. While our field technician will not be needed on-site on a full-time basis for this duration, we have included limited technician man-hours to allow for periods of "standing by" during compaction, travel portal-to-portal, soil and concrete sample pick-up, etc.

- ▶ Senior Field Technician; 75 hours @ \$55.00/hr. \$4,125.00

Density Testing:

- ▶ Stabilized Shoulders - 90 tests @ \$23.00/test. \$2,070.00
- ▶ Turnout and Driveway - 60 tests @ \$23.00/test. \$1,380.00
- ▶ Drainage/Sidewalks/Curbs - 40 tests @ \$23.00/test. \$920.00

Soil Laboratory Testing:

- ▶ LBR (stabilized shoulders and misc. base rock); 8 tests @ \$295.00/test. \$2,360.00
- ▶ 5 Proctor (Moisture/Density Relationship) Tests @ \$85.00/test \$425.00

Concrete Compressive Strength Testing:

- ▶ Sidewalks, Curbing and Driveway Reconstruction:
12 sets of concrete specimens @ \$85.00/set. \$1,020.00

Roadway Coring and Asphalt Testing:

- ▶ Three (3) coring mobilizations @ \$100.00/day \$300.00
- ▶ Core machine rental; 3 days @ \$150.00/day. \$450.00
- ▶ Generator rental; 3 days @ \$50.00/day. \$150.00
- ▶ Senior Field Technician (for Roadway Coring - 2 techs required for all coring);
- 3 events x 6 hours/event @ \$55.00/hour. \$990.00
- ▶ Extraction/Gradation/Asphalt Content testing of bulk samples; 3 tests @ \$190.00/sample \$570.00
- ▶ Specific Gravity of Asphalt Cores; 9 cores (3 samples obtained for each event) @ \$35.00/core \$315.00

Drilled Shaft and Anchor Bolt Inspections and Testing:

- ▶ Senior Field Technician (Structural Steel Unit Rate)
 - Pre-Drilled Shaft Construction Meeting: 4 hours @ \$65.00/hour \$260.00
 - Drilled Shaft Inspections: 4 Shafts @ 10 hours/shaft @ \$65.00/hour \$2,600.00
 - Bolted Connections: 4 visits x 6 hours/visit @ \$65.00/hour \$1,560.00
- [NOTE: Since the contractor's proposed assembly methodology is currently unknown, we have assumed that separate technician-visits will be required for each of the four (4) anchor assemblies, and also for each of the four (4) mast-arm connections (for a total of 8 technician-visits). Further, we have assumed that a bucket truck will be available for our use. Finally, we have budgeted limited standby time during this effort in the event that MOT requires adjusting, the bucket truck is delayed, etc. However, we have assumed that all inspections will occur during normal working hours/days (M-F, 7am-5pm).

Professional/Administrative Man-hours (Engineering Consultations, Limited Progress Meetings, Reporting, etc.):

- ▶ Senior Project Engineer (kick-off, pre-con, pre-drilled shaft mtgs., etc.); 30 hours @ \$110.00/hr. . \$3,300.00
- ▶ Technical Secretary; 10 hours @ \$45.00/hr. \$450.00

Anticipated Not-to-Exceed Budget \$23,245.00

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TERMS AND CONDITIONS

- (1) For non-full time or hourly projects, a minimum of 4 density tests will need to be performed per hour, per visit to the site.
- (2) Stand-by time will be charged at \$55.00/hour per technician (\$82.50/hour for after-hours, holidays and/or weekend testing services).
- (3) We note that density testing frequencies are based on our experience with similar projects and anticipated contractor methodologies. Allowances for re-tests (from failing density tests) are not included herein.
- (4) The contractor should contact Andersen Andre Consulting Engineers, Inc. at (772) 807-9191 a minimum of 24 hours prior to any testing and 48 hours prior to weekend and evening work.
- (5) Unit rates apply to standard working days, Monday through Friday, 7:00 a.m to 6:00 p.m. Testing and hourly rates will be increased by 50% for weekend, holiday or after-hours services.
- (6) If our testing estimate for a specific work element is insufficient for that particular activity, resources from another work element can be used without prior authorization from the client as long as our total cost estimate is not exceeded. We will notify you in advance if it appears that the cost estimate presented in the attached unit fee schedule will be exceeded.
- (7) Soil sample and concrete cylinder pickup for laboratory testing (e.g., Proctor, LBR testing, compressive strength, etc.) will be billed at \$55.00/hour if not scheduled with other work.
- (8) AACE's budget is based upon the construction schedule stated herein. If this schedule changes (i.e., weekend work, evening work, or if the project takes longer than the anticipated duration), this proposal will likely require modification to include additional man-hours to accommodate such changes.
- (9) AACE's field technicians and engineers do not direct or witness the performance of any work. Neither the presence of an AACE representative on-site nor the observation and testing performed by our firm implies AACE's responsibility for defects discovered in the construction work.
- (10) AACE will not be responsible for job or site safety for this project; job site safety will be the sole responsibility of the contractor. Further, our services do not include reviewing, monitoring or reporting any aspect of the required Maintenance of Traffic (M.O.T.) that may be required for this project.
- (11) Demolition of existing strain pole foundations will be observed by others. If it is desired to have AACE confirm this scope item, we would be pleased to revise this proposal.
- (12) AACE will not have stop-work authority. Should our representatives encounter materials or workmanship that, either based on direct testing or on our experience with similar projects, does not appear to meet the engineering plans and specifications, we will notify Indian River County immediately. Results will not be relayed to the Contractor without prior consent of the County.
- (13) No FDOT density (earthwork) log book is required for this project, nor are testing results required to be entered into the FDOT's M.A.C. database.



PROFESSIONAL SERVICES AGREEMENT

AAACE Proposal No: P18-1117

Project Name: CR 512 Resurfacing and Shoulder Widening, From Myrtle Street to 125th Avenue
IRC Project No. 1305

Client: Indian River County
Attention: Mr. William Johnson, P.E.

Address: 1801 27th Street, Building 'A'
Vero Beach, Florida 32960

Client hereby requests and authorizes Andersen Andre Consulting Engineers, Inc. ("AAACE") to perform the following services:

Provide construction materials testing services during the CR512 Resurfacing Project, as described herein.

Estimated Budget:

\$23,245.00

Payment Terms:

Net 30 days from invoice date; invoices will be sent every four weeks for continued or extended projects. Interest charges, 1½% per month following the due date.

Proposal Acceptance:

By accepting this Proposal, the Terms and Conditions of this Proposal, including the Terms on this page, and Andersen Andre Consulting Engineers, Inc.'s General Conditions appearing on the reverse side of this page are incorporated herein by reference. In the event this Professional Services Agreement was received by facsimile or via email, Client hereby confirms that the above described Proposal, the Terms and Conditions of this Proposal, including the Terms on this page, and Andersen Andre Consulting Engineers, Inc.'s General Conditions have been made available and are incorporated in this agreement.

PURSUANT TO FLORIDA STATUTES SECTION 558.0035 (2013) AN INDIVIDUAL EMPLOYEE OR AGENT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.

Accepted by **CLIENT:**

Accepted for **AAACE:**

By: _____

By: 

Name: _____

Name: David P. Andre, P.E.

Title: _____

Title: Principal Engineer

Date: _____

Date: August 23, 2018

Billing Address: _____

Phone No. _____

GENERAL CONDITIONS

1 - Parties And Scope Of Work: Andersen Andre Consulting Engineers, Inc. (hereinafter referred to as "AACE") shall include said company, its individual professionals, particular division, subsidiary or affiliate performing the Work. "Work" means the specific geotechnical, analytical, testing, environmental or other service to be performed by AACE as set forth in AACE's proposal, the Client's acceptance thereof, both incorporated herein by this reference, and these General Conditions. "Client" refers to the person or business entity ordering the Work to be done by AACE. If the client is ordering the Work on behalf of another, the Client represents and warrants that the Client is the duly authorized agent of said party for the purpose of ordering and directing said Work. Further, Client shall disclose any such agency relationship to AACE in writing before the commencement of AACE's Work hereunder. Client agrees that AACE's professional duties are specifically limited to the Work as set forth in AACE's proposal. The Client assumes sole responsibility for determining whether the quantity and the nature of the Work ordered by the Client is adequate and sufficient for the Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom the Client transmits any part of AACE's Work. AACE's Work is for the exclusive use of Client, and its properly disclosed principal. In no event shall AACE have any duty or obligation to any third party. The ordering of Work from AACE shall constitute acceptance of the terms of AACE's proposal and these General Conditions.

2 - Scheduling of Work: If AACE is required to delay commencement of the work, or if, upon embarking on its work, AACE is required to stop, delay or otherwise interrupt the progress of work as a result of changes in the scope of work requested by the client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the exclusive reasonable control of AACE, additional charges will be applicable and payable by the Client.

3 - Responsibility: AACE's work shall not include determining, supervising, or implementing the means, methods, techniques, sequences or procedures of construction. AACE shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. AACE's work or failure to perform same shall not in any way excuse any contractor, subcontractor or supplier from performance of its work in accordance with the contract documents.

4 - Payment: Payment shall be due within 30 days after date of invoice. Interest at the rate of 18% per annum (or the highest rate allowable by law) from 30 days after date of invoice to date payment is received will be added to all amounts not paid within 30 days after date of invoice. All attorney fees and expenses associated with collection of past due invoices will be paid by Client.

5 - Right-of-Entry: Unless otherwise agreed, Client will furnish right-of-entry on the property for AACE to make the planned borings, surveys, and/or explorations. AACE will take reasonable precautions to minimize damage to the property caused by its equipment and sampling procedures, but the cost of restoration or damage which may result from the planned operations is not included in the contracted amount. If Client desires to restore the property to its former condition, AACE will accomplish this and add the cost to its fee.

6 - Damage to Existing Man-made Objects: It shall be the responsibility of the Owner or his duly authorized representative to disclose the presence and accurate location of all hidden or obscure man-made objects relative to field tests, sampling, or boring locations. When cautioned, advised or given data in writing that reveal the presence or potential presence of underground or overground obstructions, such as utilities, AACE will give special instructions to its field personnel. As evidenced by your acceptance of this proposal, Client agrees to defend, indemnify and save harmless AACE from all claims, suits, losses, personal injuries, death and property liability resulting from subsurface conditions or damages to subsurface structures or man made objects, owned by Client or third parties, occurring in the performance of the proposed work, whose presence and exact locations were not revealed to AACE in writing, whether such claims or damages are caused in whole or in part by AACE, and agree to reimburse AACE for expenses in connection with any such claims or suits, including reasonable attorney's fees. Client's obligation to indemnify is limited to \$1 million per occurrence, which Client agrees bears a reasonable commercial relationship to the Work undertaken by AACE. Client further agrees that these general conditions are a part of the Work's specifications or bid documents, if any.

7 - Warranty and Limitation of Liability: AACE shall perform services for Client in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of competent consultants practicing in the same or a similar locality as the project. In the event any portion of the services fails to comply with this warranty obligation and AACE is promptly notified in writing prior to one year after completion of such portion of the services, AACE will re-perform such portion of the services, or if re-performance is impracticable, AACE will refund the amount of compensation paid to AACE for such portion of the services.

This warranty is in lieu of all other warranties. No other warranty, expressed or implied, including warranties of merchantability and fitness for a particular purpose is made or intended by the proposal for consulting services, by furnishing an oral response of the findings made or by any representations made regarding the services included in this agreement. In no event shall AACE be liable for any special, indirect, incidental, or consequential loss or delay or time-related damages. The remedies set forth herein are exclusive and the total liability of consultant whether in contract, tort (including negligence whether sole or concurrent), or otherwise arising out of, connected with or resulting from the services provided pursuant to this Agreement shall not exceed the total fees paid by Client or \$50,000.00, whichever is greater. Client may, upon written request received within five days of Client's acceptance hereof, increase the limit of AACE's liability by agreeing to pay AACE an additional sum as agreed in writing prior to the commencement of AACE's services. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the greater liability involved.

For services involving or relating to pollution, it is further agreed that the Client shall indemnify and hold harmless AACE and their consultants, agents and employees from and against all claims, damages, losses and expenses, direct and indirect or consequential damages, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the performance of the work by AACE, or claims against AACE arising from the work of others. This indemnification provision extends to claims against AACE which arise out of, are related to, or are based upon, the disposal, discharge, escape, release or saturation of vapors, fumes, acids, alkalis, toxic chemicals, liquids, gases or any other material, irritant, contaminant or pollutant in or into the atmosphere or on, onto, upon, in or into the surface or subsurface. Client's obligation to indemnify is limited to \$1 million per occurrence, which Client agrees bears a reasonable commercial relationship to the Work undertaken by AACE. Client further agrees that these general conditions are a part of the Work's specifications or bid documents, if any.

8 - Sampling or Testing Location: Unless specifically stated to the contrary, the fees included in this proposal do not include costs associated with professional land surveying of the site or the accurate horizontal and vertical locations of tests. Field tests or boring locations described in our report or shown on our sketches are based on specific information furnished to us by others or estimates made in the field by our technicians. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated in the report.

9 - Sample Handling and Retention : Generally test samples or specimens are consumed and/or substantially altered during the conduct of tests and AACE, at its sole discretion, will dispose (subject to the following) of any remaining residue immediately upon completion of test unless required in writing by the Client to store or otherwise handle the samples. (a) NON HAZARDOUS SAMPLES: At Client's written request, AACE will maintain preservable test samples and specimens or the residue therefrom for thirty (30) days after submission of AACE's report to Client free of storage charges. After the initial 30 days and upon written request, AACE will retain test specimens or samples for a mutually acceptable storage charge and period of time. (b) HAZARDOUS OR POTENTIALLY HAZARDOUS SAMPLES: In the event that samples contain substances or constituents hazardous or detrimental to human health, safety or the environment as defined by federal, state or local statutes, regulations, or ordinances ("Hazardous Substances" and "Hazardous Constituents", respectively), AACE will, after completion of testing and at Client's expense: (i) return such samples to Client; (ii) using a manifest signed by Client as generator, will have such samples transported to a location selected by Client for final disposal. Client agrees to pay all costs associated with the storage, transport, and disposal of such samples. Client recognizes and agrees that AACE is acting as a bailee and at no time does AACE assume title of said waste.

10 - Discovery of Unanticipated Hazardous Materials: Hazardous materials or certain types of hazardous materials may exist at a site where there is no reason to believe they could or should be present. AACE and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. AACE and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for AACE to take immediate measures to protect health and safety. AACE agrees to notify Client as soon as practicable should unanticipated hazardous materials or suspected hazardous materials be encountered. Client encourages AACE to take any and all measures that, in AACE's professional opinion, are justified to preserve and protect the health and safety of AACE's personnel and the public. Client agrees to compensate AACE for the additional cost of working to protect employees' and the public's health and safety. In addition, Client waives any claim against AACE, and agrees to defend, indemnify and save AACE harmless from any claim or liability for injury or loss arising from AACE's discovery of unanticipated hazardous materials or suspected hazardous materials. Client also agrees to compensate AACE for any time spent and expenses incurred by AACE in defense of any such claim, with such compensation to be based upon AACE's prevailing fee schedule and expense reimbursement policy relative to recovery of direct project costs.

11 - Joint and Several Liability: The concept of joint and several liability is basically this: When two or more parties are considered responsible for causing injury or damage, any one of the parties may be made to provide compensation for as much as 100% of the damages assessed. When applied to hazardous materials projects, it is possible that the concept of joint and several liability could be construed to make AACE partly or wholly responsible for damages created directly or indirectly by the hazardous materials. Client agrees that it would be unfair for AACE to be exposed to such an action, because AACE had nothing whatsoever to do with the creation of the hazardous condition. Accordingly, Client waives any claim against AACE, and agrees to defend, indemnify and save AACE harmless from any claim or liability for injury or loss arising from application of a joint and several liability concept that would, in any manner, hold or seek to hold AACE responsible for creating a hazardous condition or permitting one to exist. Client also agrees to compensate AACE for any time spent and expenses incurred by AACE in defense of any such claim, with such compensation to be based upon AACE's prevailing fee schedule and expense reimbursement policy relative to recovery of direct project costs.

12 - Legal Jurisdiction: The parties agree that any actions brought to enforce any provision of this Agreement shall only be brought in a court of competent jurisdiction located in St. Lucie County, Florida. All causes of action arising out of AACE's Work shall be deemed to have accrued and the applicable statutes of limitation shall commence to run not later than either the date of substantial completion of the Work for acts or failures to act occurring prior to substantial completion, or the date of issuance of final payment for acts or failures to act occurring after substantial completion of the Work.

13 - Force Majeure: AACE shall not be held responsible for any delay or failure in performance of any part of this Agreement to the extent such delay or failure is caused by fire, flood, explosion, war, strike, embargo, government requirement, civil or military authority, acts of God, act or omission of subcontractors, carriers, client or other similar causes beyond its control.