



**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

Fiscal Years	2026	2027	2028	2029	2030
Capital Expenditures	\$4,880,670	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
<b>NET FISCAL IMPACT</b>	<b>\$4,880,670</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>
# ADDITIONAL FTE					
POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-

Is Item Included in Current Budget? Yes  No   
 Is this item using Federal Funds? Yes  No   
 Is this item using State Funds? Yes  No

Budget Account No:

Fund 3500 Dept 361 Unit 2030 Object 6505

Recommended Sources of Funds/Summary of Fiscal Impact:

Transportation Improvmt Fund/  
 CR 880 Martin Luther King to SR 80

Brief Description: New project contract

New Contract

• Basic Services	\$2,211,506.22
• Reimbursable	\$1,464,463.22
• Optional Services	\$ 779,700.27
<b>Total New Contract</b>	<b>\$4,455,669.71</b>

Estimated Staff Costs

• Roadway Production	\$ 350,000.00
• Roadway Production: Right-of-Way	\$ 25,000.00
• Survey	\$ 25,000.00
• Traffic	\$ 25,000.00
<b>Total Staff Costs</b>	<b>\$ 425,000.00</b>

Fiscal Impact \$4,880,669.71

C. Departmental Fiscal Review: Danay Randsburg

**III. REVIEW COMMENTS**

**A. OFMB Fiscal and/or Contract Dev. and Control Comments?**

Lisa Math 3/3/2026  
 OFMB  
 GA 3/3  
 VS 3/3

Kevin Zwick 3/19/26  
 Contract Dev. and Control 26.3.9.26

**B. Approved as to Form and Legal Sufficiency:**

[Signature] 3/11/26  
 Assistant County Attorney

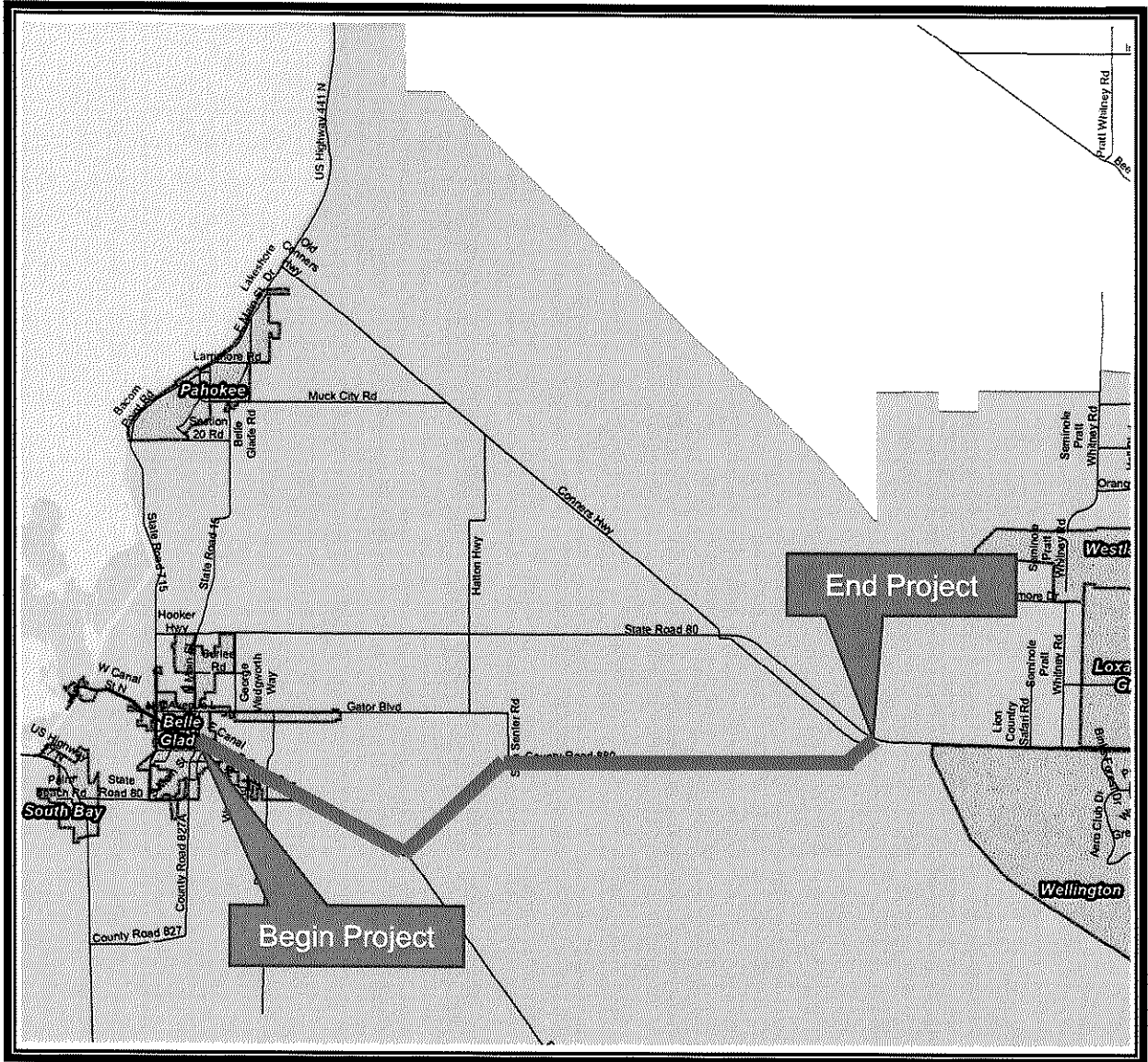
**C. Other Department Review:**

\_\_\_\_\_  
 Department Director

This summary is not to be used as a basis for payment.

**CR 880 FROM DR. MARTIN LUTHER KING JR. BOULEVARD TO SR 80**

**PROJECT NUMBER 2024504**



**LOCATION MAP**

**ATTACHMENT 1**

**CONTRACT FOR PROFESSIONAL SERVICES  
BY AND BETWEEN PALM BEACH COUNTY  
AND HSQ GROUP, LLC FOR**

**CR 880 FROM DR. MARTIN LUTHER KING JR. BOULEVARD TO SR 80  
PROJECT # 2024502**

This Contract for CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80 (PROJECT) is made as of \_\_\_\_\_ (CONTRACT), by and between Palm Beach County, a political subdivision of the State of Florida, by and through its Board of County Commissioners (COUNTY) and HSQ Group, LLC, a Florida Limited Liability Company (CONSULTANT) whose Federal ID is 20-2052928 (individually Party and collectively Parties).

The COUNTY intends to have the CONSULTANT study CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80 for the PROJECT.

In consideration of the mutual promises contained herein, the COUNTY and the CONSULTANT agree as follows:

The following Exhibits are attached to and made a part of this CONTRACT.

**Exhibit A** - Scope of Work including Work Schedule

**Exhibit B** - Fee Schedule

**Exhibit C** – Affirmative Procurement Initiatives for Professional Services Contracts

**Exhibit D** – OSBD Schedules 1 and 2

**Exhibit E** – Human Trafficking Affidavit

**Exhibit F** – Project History

**ARTICLE 1 - SERVICES**

**1.1 GENERAL** - The CONSULTANT'S responsibility under this CONTRACT is to provide professional/consultation services in the area of civil engineering study and design, as more specifically set forth in the Scope of Work detailed in **Exhibit A**.

**1.1.1** The COUNTY'S representative/liaison during the performance of this CONTRACT shall be Morton L. Rose, P.E., telephone no. (561) 684-4150. This person shall have complete

authority to transmit instructions, receive information, interpret and define the COUNTY policies and decisions with respect to the CONSULTANT'S services for the PROJECT.

**1.1.2** The CONSULTANT'S representative/liaison during the performance of this CONTRACT shall be Nour Shehadeh, telephone no. (561) 392-0221x103.

**1.2 - BASIC SERVICES** - The CONSULTANT shall prepare all plans in accordance with Palm Beach County Thoroughfare Design Procedures, current standards adopted by the Americans with Disabilities Act (ADA), American Association of State Highway and Transportation Officials (AASHTO), the Florida Department of Transportation Manual of Uniform Minimum Standards, and all other applicable professional and technical standards. Plans shall be based on the North American Datum of 1983 (NAD 83) 1990 Adjustment and the North American Vertical Datum of 1988 (NAVD 88). Plans shall be accurate, legible, complete in design, drawn to scale, and shall be suitable for bidding purposes, unless otherwise stated in **Exhibit A**.

**1.2.1** The CONSULTANT has, during the selection and negotiation process which has preceded this CONTRACT, represented to the COUNTY that the CONSULTANT is possessed of that level of skill, knowledge, experience and expertise that is commensurate with engineering firms of national repute in the areas of practice required for this PROJECT. The CONSULTANT acknowledges that the COUNTY has relied on the CONSULTANT'S representations of skill, knowledge, experience and expertise. By executing this CONTRACT, the CONSULTANT agrees that the CONSULTANT will exercise that degree of care, knowledge, skill and ability as other engineering firms possessing the degree of skill, knowledge, experience and expertise which the CONSULTANT has claimed. The CONSULTANT shall perform such duties as may be assigned without neglect. The CONSULTANT covenants with the COUNTY to cooperate with the COUNTY and to utilize the CONSULTANT'S skill, efforts and judgment commensurate with engineering firms of national repute in the areas of practice required for this PROJECT. The CONSULTANT agrees to perform each assignment in an efficient and economical manner consistent with the COUNTY'S interests and consistent with the COUNTY'S stated objectives and recognized professional engineering standards.

**1.2.2** Prior to commencement of study/design, the CONSULTANT shall become familiar with the needs of COUNTY Microstation standards, obtain any seed or Microstation files, CADD standards, and standard sheets so that Microstation deliverables can be utilized by the COUNTY. CONSULTANT shall submit electronic files (in Microstation compatible format and Adobe PDF format) of the study/design, survey, and any related data used for the PROJECT, with the final document(s) submittal, or when otherwise directed by COUNTY.

**1.2.3** The CONSULTANT shall provide to the COUNTY all cost summaries/estimates and Summary of Pay Items in an electronic file (as requested). The CONSULTANT shall

apply descriptions to the pay items as called out in the COUNTY'S Standard Nomenclature listing, which is available on the following website <http://discover.pbcgov.org/engineering/roadwayproduction/Pages/CCNA.aspx>.

Since CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s)' methods of determining prices, or over competitive bidding or market conditions, the CONSULTANT'S opinions of probable construction cost provided for herein are to be made on the basis of the CONSULTANT'S experience and qualifications and represent the CONSULTANT'S best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but the CONSULTANT cannot and does not guarantee that proposals, bids or construction costs will not vary from opinions of probable cost prepared by the CONSULTANT. If prior to the Bidding or Negotiating Phase, the COUNTY wishes greater assurance as to construction costs, the COUNTY shall employ an independent cost estimator.

**1.3 – REIMBURSABLE SERVICES** – These services shall be listed in the Fee Schedule, **Exhibit B** and will include such fixed cost items as permit fees, reprographics fees, and certain subconsultant fees as negotiated.

**1.4 – OPTIONAL SERVICES – REQUIRING AUTHORIZATION IN ADVANCE** If authorized in writing by the COUNTY'S authorized representative, the CONSULTANT shall furnish or obtain from others Optional Services. These services shall be listed in the Fee Schedule, **Exhibit B** and will include such items as post design services, contingent services and certain subconsultant fees as negotiated. These will be paid for by the COUNTY, only when specifically authorized and in accordance with Article 3 of this CONTRACT.

**1.5 - SUPPLEMENTAL SERVICES– REQUIRING AUTHORIZATION IN ADVANCE -** If authorized in writing by the COUNTY'S authorized representative, the CONSULTANT shall furnish or obtain from others services of the types listed below in paragraphs 1.5.1 through 1.5.9 inclusive. These services are not included as part of Basic Services except to the extent provided otherwise in the Fee Schedule, **Exhibit B**. These will be paid for by the COUNTY, only when specifically authorized and in accordance with Article 3 of this CONTRACT.

**1.5.1** Preparation of applications and supporting documents for governmental grants, loans or advances in connection with the PROJECT.

**1.5.2** Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by the COUNTY.

**1.5.3** Services resulting from significant changes in the general scope, extent or character of the PROJECT including, but not limited to:

- change in PROJECT size

- change in PROJECT complexity!
  - change in the COUNTY'S schedule
  - change in the character of construction
  - change in the method of financing
  - revising previously accepted studies, reports, design documents or contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents, or are due to any other causes beyond the CONSULTANT'S control
- 1.5.4 Preparing documents for alternate bids requested by the COUNTY for contractor(s) work which is not executed or documents for out-of-sequence work.
- 1.5.5 Furnishing the services of a special consultant for any services not covered in **Exhibit A**.
- 1.5.6 Services during out-of-town travel required of the CONSULTANT other than visits to the site or the COUNTY'S office as required by Section 1.2 of Article 1 of this CONTRACT.
- 1.5.7 Assistance in connection with a bid protest, rebidding or renegotiating a contract for construction, materials, equipment or services.
- 1.5.8 Preparing to serve or serving as a consultant or witness for the COUNTY in any litigation or other legal proceeding involving the PROJECT.
- 1.5.9 Additional services in connection with the PROJECT, including services which are to be furnished by the COUNTY in accordance with Section 1.4 of this CONTRACT, and services not otherwise provided for in this CONTRACT.

**1.6 - COUNTY'S RESPONSIBILITY** - The COUNTY shall do the following in a timely manner so as not to delay the services of the CONSULTANT.

- 1.6.1 Provide all criteria and full information as to the COUNTY'S requirements for the PROJECT, including study/design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations; and furnish copies of all design and construction standards which the COUNTY will require to be included in the drawings and specifications.
- 1.6.2 Assist the CONSULTANT by providing all available information pertinent to the PROJECT including previous reports and any other data relative to study/design or construction of the PROJECT.
- 1.6.3 Furnish deliverables to the CONSULTANT if any are listed in **Exhibit A**.
- 1.6.4 Arrange for access to and make all provisions for the CONSULTANT to enter upon public and private property as reasonably required for the CONSULTANT to perform services under this CONTRACT.

- 1.6.5 Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by the CONSULTANT, obtain advice of an attorney, insurance counselor and other consultants as the COUNTY deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of the CONSULTANT.
- 1.6.6 Furnish approvals and permits from all governmental authorities having jurisdiction over the PROJECT and such approvals and consents from others as may be necessary for completion of the PROJECT.
- 1.6.7 Providing such legal, accounting, independent cost estimating and insurance counseling services as may be required for the PROJECT, and such auditing service as COUNTY may require to ascertain how or for what purpose any contractor has used the monies paid to him.
- 1.6.8 Attend the pre-bid conference, bid opening, preconstruction conference, construction progress and other job related meetings and substantial completion inspections and final payment inspections.
- 1.6.9 Give reasonable notice to the CONSULTANT whenever the COUNTY observes or otherwise becomes aware of any development that affects the scope or timing of the CONSULTANT'S services, or any defect or non-conformance in the work of any contractor.
- 1.6.10 Furnish, or direct the CONSULTANT to provide, Optional or Supplemental Services pursuant to Sections 1.4 and 1.5 of this CONTRACT as required.

## **ARTICLE 2 - SCHEDULE**

**2.1 – NOTICE TO PROCEED** - The COUNTY will issue a written Notice to Proceed to the CONSULTANT within sixty (60) days of CONTRACT execution by the COUNTY. The CONSULTANT will immediately commence work on the PROJECT and all schedule dates shall be determined from the date of the Notice to Proceed. Final completion of all work under this CONTRACT shall be in accordance with the Schedule, as shown in **Exhibit A**, or as otherwise approved in writing by the COUNTY.

**2.2 – DELIVERABLES** - Deliverables shall be defined as progress reports, prepared maps, bid documents, completed drawings, specific reports, work plans, documentation of meetings attended, assessment study reports, analysis reports, summary reports, recommendation reports and related draft reports and verifiable deliverables. Deliverables shall be provided to the COUNTY in accordance with the schedule set forth in **Exhibit A**.

**ARTICLE 3 - PAYMENTS TO CONSULTANT** – Amount: - The total amount to be paid by the COUNTY under this CONTRACT for all services and materials including, if applicable, out of pocket expenses (specified in paragraph 3.3 below) shall not exceed a total contract amount of **four million four hundred fifty five thousand six hundred sixty nine dollars and seventy one cents (\$4,455,669.71)**. The CONSULTANT shall notify the COUNTY’S representative in writing when 90% of the not to exceed amount has been reached. The CONSULTANT will bill the COUNTY on a monthly basis, no later than the 15<sup>th</sup> of the following month or as otherwise provided, at the amounts set forth in **Exhibit B** for services rendered toward the completion of the Scope of Work. Where incremental billings for partially completed items are permitted, the total billings shall not exceed the estimated percentage of completion as of the billing date. Should this CONTRACT have approved subconsultant(s), the CONSULTANT shall pay the subconsultant(s) within ten (10) business days of receipt of payment from the COUNTY.

**3.1 – CONTRACT MULTIPLIER** – The Contract Multiplier for this CONTRACT is **2.81**. Salary costs times the Contract Multiplier for services rendered by principals and employees assigned to the PROJECT plus all reimbursable expenses shall be utilized in computing fees. Contract Multiplier is defined in Palm Beach County Policy and Procedure Manual CW-F-066.

**3.2 - BASIC SERVICES** - The COUNTY will pay the CONSULTANT the lump sum of **two million two hundred eleven thousand five hundred six dollars and twenty two cents (\$2,211,506.22)** for completion of the Basic Services set forth in **Exhibit A** and **Exhibit B**.

**3.3 - REIMBURSABLE OUT-OF-POCKET EXPENSES** - Reimbursable Out-of-pocket expenses will be reimbursed up to an amount not to exceed **one million four hundred sixty four thousand four hundred sixty three dollars and twenty two cents (\$1,464,463.22)**, and in accordance with the list of the types and amounts of expenditures eligible for reimbursement as set forth in **Exhibit B**.

**3.3.1** All requests for payment of out-of-pocket expenses eligible for reimbursement under the terms of this CONTRACT shall include copies of paid receipts, invoices, or other documentation acceptable to the Palm Beach County Financial Management and Budget Department. Such documentation shall be sufficient to establish that the expense was incurred and necessary in the performance of the Scope of Work described in this CONTRACT. Any travel, per diem, mileage, meals, or lodging expenses which may be reimbursable under the terms of this CONTRACT will be paid in accordance with the rates and conditions set forth in Section 112.061, Florida Statutes.

**3.3.2** Reimbursable Expenses shall mean the expenses of soils testing, printing and similar PROJECT related items when authorized by the COUNTY, in accordance with law.

### **3.4 - OPTIONAL SERVICES**

The COUNTY will pay the CONSULTANT for completion of the Optional Services set forth in **Exhibit A** and **Exhibit B** when the provision of each service is specifically authorized in writing by the COUNTY. These expenses will not exceed **seven hundred seventy nine thousand seven hundred dollars and twenty seven cents (\$779,700.27)** without additional authorization from the COUNTY.

**3.5 – SUPPLEMENTAL SERVICES** - Additional services and reimbursable expenses authorizations shall be issued in accordance with COUNTY policies and procedures.

**3.5.1** Services rendered by the CONSULTANT'S principals and employees as consultants or witnesses in any litigation, arbitration or other legal or administrative proceeding in accordance with Section 1.5.8 of this CONTRACT shall be at the rate of **\$800.00** per day or any portion thereof (but compensation for time spent in preparing to appear in any such litigation, arbitration or proceeding will be on the basis provided in Section 3.1 of Article 3 of this CONTRACT).

**3.6 – INVOICES** - Invoices received from the CONSULTANT pursuant to this CONTRACT will be reviewed and approved by the COUNTY'S representative, to verify that services have been rendered in conformity with the CONTRACT. Approved invoices will then be sent to the Finance Department for payment. Invoices will normally be paid within thirty (30) days following the COUNTY representative's approval.

**3.6.1** Progress reports and/or payment invoices shall be submitted monthly by the CONSULTANT. Payments to the CONSULTANT shall be in proportion to the percentage of engineering services approved and accepted by the COUNTY based on said lump sum fee until 90% of the Basic Services are completed. There will be no additional payments until all Services, including permits, but with the exception of any Optional Services, are completed and accepted by the COUNTY.

**3.6.2** Final Invoice: In order for both Parties herein to close their books and records, the CONSULTANT will clearly state "final invoice" on the CONSULTANT'S final/last invoice to the COUNTY. This shall constitute CONSULTANT'S certification that all services have been properly performed and all charges and costs have been invoiced to the COUNTY. Any other charges not properly included on this final invoice are waived by the CONSULTANT.

**3.6.3** Upon satisfactory completion of all Services, including permits, described in this CONTRACT and approval and acceptance of the plans by the COUNTY, full payment for all completed Services provided will be made, and the CONTRACT will be closed. If the CONTRACT has an authorization for Post Design Services the CONTRACT will remain open until all Post Design Services (if applicable) are complete.

- 3.6.4 Final payment shall be due and payable to the CONSULTANT upon satisfactory completion, approval and acceptance by the COUNTY, of all the Services described in this CONTRACT, including Post Design Services.
- 3.6.5 Due to the nature of the work flow and the small size of expected projects to be performed by the CONSULTANT, the COUNTY recognizes that the purpose of withholding retainage may not be applicable for all projects and the COUNTY may waive the requirement upon written request from the CONSULTANT.
- 3.6.6 Contract Closeout Period: CONSULTANT shall submit any pending invoice(s) and/or report(s), along with any required documents, to the COUNTY within forty-five (45) business days after the termination or expiration of the contract in order to close-out the contract (Closeout Period). These invoice(s) and/or report(s), including but not limited to vendor performance report(s), shall reflect work required and completed during the contract term. The COUNTY shall deem invoices received during and prior to the expiration of the Closeout Period as final billing for goods and services provided under the contract. CONSULTANT's failure to submit pending invoices during the Closeout Period shall serve as an admission that no pending invoices remain. Nothing herein shall limit the COUNTY's discretion to make the final determination whether payment may be made to CONSULTANT after the expiration or termination of the contract.

### **3.7 - OTHER PROVISIONS CONCERNING PAYMENTS**

- 3.7.1 If this CONTRACT is terminated prior to its completion other than due to default on the part of the CONSULTANT, the CONSULTANT shall be paid for Basic Services called for under Section 1 an amount equal to the percentage complete at the time of termination, times the lump sum fee stated in Article 3 of this CONTRACT. Further, the CONSULTANT shall be paid for the completed portion of reimbursable and optional services authorized under Article 3 of this CONTRACT, in accordance with Section 3.3 and 3.4 of this CONTRACT.
- 3.7.2 Records of the CONSULTANT'S Salary Costs pertinent to the CONSULTANT'S compensation under this CONTRACT will be kept in accordance with generally accepted accounting practices. Copies will be made available to the COUNTY on request prior to final payment for the CONSULTANT'S services.
- 3.7.3 The Salary Costs used as a basis for payment shall mean the salaries and wages paid to principals and employees engaged on the PROJECT. Time spent on this PROJECT by stenographers, typists and clerk skills shall not be charged to the PROJECT nor shall any fringe benefits such as social security contributions, unemployment, excise and payroll taxes, workman's compensation, etc., be included in the Salary Costs.
- 3.7.4 VSS Registration Required: In order to do business with Palm Beach County, the CONSULTANT is required to create a Vendor Registration Account OR activate an

existing Vendor Registration Account through the Purchasing Department's Vendor Self Service (VSS) system, which can be accessed at

<https://pbcvssp.co.palm-beach.fl.us/webapp/vssp/AltSelfService>

If CONSULTANT intends to use sub-consultants, CONSULTANT must also ensure that all sub-consultants are registered as consultants in VSS. All subcontractor agreements must include a contractual provision requiring that the sub-consultant register in VSS. COUNTY will not finalize a contract award until the COUNTY has verified that the CONSULTANT and all of its sub-consultants are registered in VSS.

#### **ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE**

4.1 Signature of this CONTRACT by the CONSULTANT shall also act as the execution of a truth-in-negotiation certificate certifying that the wage rates, over-head charges, and other costs used to determine the compensation provided for in this CONTRACT are accurate, complete and current as of the date of the CONTRACT and no higher than those charged the CONSULTANT'S most favored customer for the same or substantially similar service.

4.2 The said rates and costs shall be adjusted to exclude any significant sums should the COUNTY determine that the rates and costs were increased due to inaccurate, incomplete or noncurrent wage rates or due to inaccurate representations of fees paid to outside consultants. The COUNTY shall exercise its rights under this Article 4 of this CONTRACT within three (3) years following final payment.

**ARTICLE 5 – TERMINATION** - This CONTRACT may be terminated by the CONSULTANT upon sixty (60) days' prior written notice to the COUNTY in the event of substantial failure by the COUNTY to perform in accordance with the terms of this CONTRACT through no fault of the CONSULTANT. It may also be terminated, in whole or in part, by the COUNTY, with cause upon five (5) business days written notice to the CONSULTANT or without cause upon ten (10) business days written notice to the CONSULTANT. Unless the CONSULTANT is in breach of this CONTRACT, the CONSULTANT shall be paid for services rendered to the COUNTY'S satisfaction through the date of termination. After receipt of a Termination Notice, except as otherwise directed by the COUNTY, in writing, the CONSULTANT shall:

- A. Stop work on the date and to the extent specified.
- B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.

- C. Transfer all work in process, completed work, and other materials related to the terminated work to the COUNTY.
- D. Continue and complete all parts of the work that have not been terminated.

## **ARTICLE 6 - PERSONNEL**

- 6.1 The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this CONTRACT. Such personnel shall not be employees of or have any contractual relationship with the COUNTY.
- 6.2 All of the services required herein under shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and, if required, authorized or permitted under state and local law to perform such services.
- 6.3 Any changes or substitutions in the CONSULTANT'S key personnel, as may be listed in **Exhibit B**, must be made known to the COUNTY'S representative and written approval must be granted by the COUNTY'S representative before said change or substitution can become effective.
- 6.4 The CONSULTANT warrants that all services shall be performed by skilled and competent personnel to the highest professional standards in the field.
- 6.5 All of the CONSULTANT'S personnel (and all Subcontractors), while on County premises, will comply with all COUNTY requirements governing conduct, safety and security.
- 6.6 During the term of this CONTRACT, the COUNTY may require professional services that are the same or similar to those described in this CONTRACT. The COUNTY may, at its sole discretion, obtain said services in accordance with the State of Florida Consultants Competitive Negotiation Act. If the COUNTY so elects, it is mutually understood that the relationship between the CONSULTANT and the COUNTY under this CONTRACT shall be considered as neither barring the CONSULTANT from, nor granting special consideration to the CONSULTANT, in participating in the selection process for a consultant to provide such additional services.

## **ARTICLE 7 - SUBCONTRACTING**

- 7.1 The COUNTY reserves the right to accept the use of a subconsultant or to reject the selection of a particular subconsultant and to inspect all facilities of any subcontractors in order to make a determination as to the capability of the subconsultant to perform properly under this CONTRACT. The CONSULTANT is encouraged to seek additional small business enterprises for

participation in subcontracting opportunities. If the CONSULTANT uses any subconsultants on this CONTRACT the following provisions of this Article shall apply:

**7.2** If a subconsultant fails to perform or make progress, as required by this CONTRACT, and it is necessary to replace the subconsultant to complete the work in a timely fashion, the CONSULTANT shall promptly do so, subject to acceptance of the new subconsultant by the COUNTY.

**7.3** It is the policy of the COUNTY that all segments of its business population including, but not limited to, small, local owned businesses, have an equitable opportunity to participate in the COUNTY'S procurement process, prime contract and subcontract opportunities. In pursuance of that policy, the COUNTY adopted an Equal Business Opportunity (EBO) Ordinance which is codified in Sections 2-80.20 through 2-80.30 (as may be amended) of the Palm Beach County Code. The EBO Ordinance sets forth the COUNTY'S requirements for the EBO program, and is incorporated herein and made part of this CONTRACT. Non-compliance with the EBO Ordinance must be corrected within fifteen (15) days of notice of non-compliance. Failure to comply with the EBO Ordinance may result in any of the following penalties:

- Suspension of CONTRACT;
- Withholding of funds;
- Termination of the CONTRACT based upon a material breach of contract pertaining to the EBO Program compliance;
- Suspension or debarment of CONSULTANT from eligibility for providing goods or services to the COUNTY for a period not to exceed three (3) years; and
- Liquidated damages equal to the difference in dollar value of small business enterprise (SBE) participation as committed to in the CONTRACT, and the dollar value of SBE participation as actually achieved.

**7.4** The CONSULTANT must adhere to the Affirmative Procurement Initiatives (APIs) as incorporated herein as **Exhibit C**, including the Request for Proposals (RFP), and the specifications set forth in CONSULTANT'S response, which are both incorporated herein by reference. Failure to comply with this Article 7 is a material breach of this CONTRACT.

- i. CONSULTANT shall report all subconsultant payment information on SBD forms 3a and 4, or as otherwise required by EBO, and, when the EBO portal is available, input subconsultant payment information directly into the COUNTY'S contract management system.

CONSULTANT shall pay subconsultants undisputed amounts within ten (10) days after COUNTY pays the CONSULTANT. In the event of a disputed invoice, the

CONSULTANT shall send the subconsultant(s) and COUNTY a written notice of the dispute within five (5) days after receipt of the subject invoice.

- ii. CONSULTANT must notify the Office of Small Business Development (SBD) of changes in SBE utilization and get prior approval for any substitutions.

7.5 The CONSULTANT agrees to pay its subconsultants in compliance with the Florida Prompt Payment Act. In the event CONSULTANT fails to comply with payment(s) to its subconsultants in accordance with the Florida Prompt Payment Act, CONSULTANT shall be subject to any and all penalties and sanctions available under the terms of the EBO Program, its contract with the COUNTY, or any other applicable law.

7.6 The Office of SBD has the right to review CONSULTANT'S records and interview subconsultants.

### **ARTICLE 8 - FEDERAL AND STATE TAX**

8.1 The COUNTY is exempt from payment of Florida State Sales and Use Taxes. The COUNTY will sign an exemption certificate submitted by the CONSULTANT. The CONSULTANT shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the COUNTY, nor is the CONSULTANT authorized to use the COUNTY'S Tax Exemption Number in securing such materials.

8.2 The CONSULTANT shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this CONTRACT.

### **ARTICLE 9 - AVAILABILITY OF FUNDS**

9.1 The COUNTY'S performance and obligation to pay under this CONTRACT for subsequent fiscal years are contingent upon annual appropriations for its purpose by the Board of County Commissioners.

### **ARTICLE 10 - INSURANCE**

10.1 The CONSULTANT shall maintain at its sole expense, in force and effect at all times during the term of this CONTRACT, insurance coverage and limits (including endorsements) as described herein. Failure to maintain at least the required insurance shall be considered default of the CONTRACT. The requirements contained herein, as well as COUNTY'S review or acceptance of insurance maintained by CONSULTANT, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by CONSULTANT under the CONTRACT. CONSULTANT agrees to notify the COUNTY at least ten (10) days prior to cancellation, non-

renewal or material change to the required insurance coverage. Where the policy allows, coverage shall apply on a primary and non-contributory basis.

**10.2 Commercial General Liability** - CONSULTANT shall maintain Commercial General Liability at a limit of liability not less than \$500,000 combined single limit for bodily injury and property damage each occurrence. Coverage shall not contain any endorsement(s) excluding Contractual Liability or Cross Liability.

**Additional Insured Endorsement:** The Commercial General Liability policy shall be endorsed to include, "Palm Beach County Board of County Commissioners, a Political Subdivision of the State of Florida, its Officers, Employees, and Agents" as an Additional Insured. A copy of the endorsement shall be provided to COUNTY upon request.

**10.3 Workers' Compensation Insurance & Employer's Liability** - CONSULTANT shall maintain Workers' Compensation & Employer's Liability in accordance with Chapter 440 of the Florida Statutes.

**10.4 Professional Liability** - CONSULTANT shall maintain Professional Liability, or equivalent Errors & Omissions Liability, at a limit of liability not less than \$1,000,000 each occurrence, and \$2,000,000 per aggregate. When a self-insured retention (SIR) or deductible exceeds \$10,000, COUNTY reserves the right, but not the obligation, to review and request a copy of CONSULTANT's most recent annual report or audited financial statement. For policies written on a "claims-made" basis, CONSULTANT warrants the Retroactive Date equals or precedes the effective date of this CONTRACT. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced, or any other event triggering the right to purchase a Supplement Extended Reporting Period (SERP) during the term of this CONTRACT, CONSULTANT shall purchase a SERP with a minimum reporting period not less than three (3) years after the expiration of the CONTRACT term. The requirement to purchase a SERP shall not relieve the CONSULTANT of the obligation to provide replacement coverage. The Certificate of Insurance providing evidence of the purchase of this coverage shall clearly indicate whether coverage is provided on an "occurrence" or "claims-made" form. If coverage is provided on a "claims-made" form the Certificate of Insurance must also clearly indicate the "retroactive date" of coverage.

**10.5 Waiver of Subrogation** - Except where prohibited by law, CONSULTANT hereby waives any and all rights of Subrogation against the COUNTY, its officers, employees and agents for each required policy except Professional Liability. When required by the insurer, or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement, then CONSULTANT shall notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of

Subrogation requirement shall not apply to any policy that includes a condition to the policy specifically prohibiting such an endorsement or voids coverage should CONSULTANT enter into such an agreement on a pre-loss basis.

**10.6 Certificates of Insurance** - On execution of this CONTRACT, renewal, within forty-eight (48) hours of a request by COUNTY, and upon expiration of any of the required coverage throughout the term of this CONTRACT, the CONSULTANT shall deliver to the COUNTY or COUNTY'S designated representative a signed Certificate(s) of Insurance evidencing that all types and minimum limits of insurance coverage required by this CONTRACT have been obtained and are in force and effect. Certificates shall be issued to:

Palm Beach County Board of County Commissioners

and may be addressed:

c/o Engineering Department / Roadway Production  
2300 N. Jog Road 3rd Floor West  
West Palm Beach, FL 33411

Using the address as indicated in the "Notices" article or another address on agreement of the parties.

**10.7 Right to Revise or Reject** - COUNTY, by and through its Risk Management Department in cooperation with the contracting/monitoring department, reserves the right to review, modify, reject, or accept any required policies of insurance, including limits, coverage, or endorsements.

**10.8 Unmanned Aircraft Systems** - CONSULTANT shall maintain Unmanned Aircraft Systems (UAS) insurance, if UAS are used in the performance of this CONTRACT, at a limit of liability not less than \$1,000,000 each occurrence, and \$2,000,000 per aggregate. Coverage shall include property damage, injury to persons, personal injury (including invasion of privacy), medical expenses, premises liability, and war perils such as damage sustained from a malicious act. This coverage shall not contain any endorsement(s) excluding Contractual Liability or Cross Liability.

**ARTICLE 11 – INDEMNIFICATION** - CONSULTANT shall indemnify and hold harmless COUNTY, and its officers and employees, from liabilities, damages losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of CONSULTANT and other persons employed or utilized by the CONSULTANT in the performance of the CONTRACT.

**ARTICLE 12 - SUCCESSORS AND ASSIGNS** - The COUNTY and the CONSULTANT each binds itself and its partners, successors, executors, administrators and assigns to the other party and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this CONTRACT. Except as above, neither the COUNTY nor the CONSULTANT shall assign, sublet, convey or transfer its interest in this CONTRACT without the prior written consent of the other.

**ARTICLE 13 - REMEDIES** - This CONTRACT shall be governed by the laws of the State of Florida. Any legal action necessary to enforce the CONTRACT will be held in a court of competent jurisdiction located in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity, by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

13.1 No provision of this CONTRACT is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person or entity not a party to this CONTRACT, including but not limited to any citizen or employees of the COUNTY and/or CONSULTANT.

**ARTICLE 14 - CONFLICT OF INTEREST** - The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Chapter 112, Part III, Florida Statutes, and the Palm Beach County Code of Ethics. The CONSULTANT further represents that no person having any such conflict of interest shall be employed for said performance of services.

14.1 The CONSULTANT shall promptly notify the COUNTY'S representative, in writing, by certified mail, of all potential conflicts of interest of any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT'S judgement or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the COUNTY as to whether the association, interest or circumstance would, in the opinion of the COUNTY, constitute a conflict of interest if entered into by the CONSULTANT. The COUNTY agrees to notify the CONSULTANT of its opinion by certified mail within thirty (30) days of receipt of notification by the CONSULTANT. If, in the opinion of the COUNTY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the COUNTY shall so state in the notification and the CONSULTANT shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict of interest with

respect to services provided to the COUNTY by the CONSULTANT under the terms of this CONTRACT.

**ARTICLE 15 - EXCUSABLE DELAYS** - The CONSULTANT shall not be considered in default by reason of any failure in performance if such failure arises out of causes reasonably beyond the control of the CONSULTANT or its subcontractors and without their fault or negligence. Such causes include, but are not limited to, acts of God, force majeure, natural or public health emergencies, labor disputes, freight embargoes, and abnormally severe and unusual weather conditions.

**15.1** Upon the CONSULTANT'S request, the COUNTY shall consider the facts and extent of any failure to perform the work and, if the CONSULTANT'S failure to perform was without it or its subcontractors fault or negligence, the Contract Schedule and/or any other affected provision of this CONTRACT shall be revised accordingly, subject to the COUNTY'S rights to change, terminate, or stop any or all of the work at any time.

**ARTICLE 16 - ARREARS** - The CONSULTANT shall not pledge the COUNTY'S credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgement, lien, or any form of indebtedness. The CONSULTANT further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this CONTRACT.

**ARTICLE 17 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS**

**17.1** The CONSULTANT shall deliver to the COUNTY'S representative for approval and acceptance, and before being eligible for final payment of any amounts due, all documents and materials prepared by and for the COUNTY under this CONTRACT.

**17.2** To the extent allowed by Chapter 119, Florida Statutes, all written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the COUNTY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the COUNTY'S prior written consent unless required by a lawful court order. All drawings, maps, sketches, programs, data base, reports and other data developed, or purchased, under this CONTRACT for or at the COUNTY'S expense shall be and remain the COUNTY'S property and may be reproduced and reused at the discretion of the COUNTY.

**17.3** All covenants, agreements, representations and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this CONTRACT and the consummation of the transactions contemplated hereby.

17.4 Notwithstanding any other provision in this CONTRACT, all documents, records, reports and any other materials produced hereunder shall be subject to disclosure, inspection and audit, pursuant to the Palm Beach County Office of the Inspector General, Palm Beach County Code, Sections 2-421 - 2 440, as amended.

17.5 Upon completion and acceptance of the final work, the CONSULTANT shall furnish to the COUNTY the original drawings, field notes and all documents and materials prepared by and for the COUNTY under this CONTRACT. The CONSULTANT may keep a reproducible set of the original drawings and shall keep all other data collected during the provision of the services. The COUNTY may, at its expense, obtain copies of any data which the CONSULTANT has accumulated in the process of providing the services on this PROJECT'S tasks. Any reuse without written verification or adaptation by the CONSULTANT for the specific purpose intended will be at the COUNTY'S sole risk and without liability or legal exposure to the CONSULTANT.

17.6 All written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the COUNTY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the COUNTY'S prior written consent unless required by a lawful order. All drawings, maps, sketches, programs, data base, reports and other data developed or purchased under this CONTRACT at the COUNTY'S expense shall be, and remain, the COUNTY'S property, and may be reproduced and reused at the discretion of the COUNTY.

17.7 The COUNTY and the CONSULTANT shall comply with the provisions of Chapter 119, Florida Statutes (Public Records Law).

17.8 All covenants, agreements, representations and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this CONTRACT and the consummation of the transactions contemplated hereby.

17.9 - **Reuse of Documents** - Notwithstanding any breach of this CONTRACT by either Party nor the status of payment to the CONSULTANT, nor the COUNTY'S exercise of its rights of termination, it is hereby agreed between the Parties that copies of any and all property, work product, documentation, reports, computer systems and software, schedules, graphs, outlines, books, manuals, logs, files, deliverables, photographs, videos, tape recordings or data relating to this PROJECT which have been created as a part of the CONSULTANT'S services, or authorized by the COUNTY as a reimbursable expense, whether generated directly by the CONSULTANT, or by or in conjunction or consultation with any other party whether or not a party to this CONTRACT, whether or not in privity of contract with the COUNTY or CONSULTANT, and wherever located shall be the property of the COUNTY.

## **ARTICLE 18 - INDEPENDENT CONTRACTOR RELATIONSHIP**

**18.1** The CONSULTANT is, and shall be, in the performance of all work services and activities under this CONTRACT, an Independent Contractor, and not an employee, agent, or servant of the COUNTY. All persons engaged in any of the work or services performed pursuant to this CONTRACT shall at all times, and in all places, be subject to the CONSULTANT'S sole direction, supervision, and control. The CONSULTANT shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONSULTANT'S relationship and the relationship of its employees to the COUNTY shall be that of an Independent Contractor and not as employees or agents of the COUNTY.

**18.2** The CONSULTANT does not have the power or authority to bind the COUNTY in any promise, agreement or representation.

**ARTICLE 19 - CONTINGENT FEES** - The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this CONTRACT and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this CONTRACT.

### **ARTICLE 20 - ACCESS AND AUDITS**

**20.1** The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least five (5) years after completion or termination of this CONTRACT. The COUNTY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT'S place of business.

**20.2** Palm Beach County has established the Office of the Inspector General in Palm Beach County Code, Section 2-421 - 2-440, as may be amended. The Inspector General's authority includes but is not limited to the power to review past, present and proposed COUNTY contracts, transactions, accounts and records, to require the production of records, and to audit, investigate, monitor, and inspect the activities of the CONSULTANT, its officers, agents, employees, and lobbyists in order to ensure compliance with contract requirements and detect corruption and fraud.

**20.3** Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach County Code, Section 2-421 - 2-440, and punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

### **ARTICLE 21 - NONDISCRIMINATION**

**21.1** The COUNTY is committed to assuring equal opportunity in the award of contracts and complies with all laws prohibiting discrimination. Pursuant to Palm Beach County Resolution R2025-0748, as may be amended, the CONSULTANT warrants and represents that throughout the term of the CONTRACT, including any renewals thereof, if applicable, all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, familial status, sexual orientation, or genetic information. Failure to meet this requirement shall be considered default of the CONTRACT.

**21.2** As a condition of entering into this CONTRACT, the CONSULTANT represents and warrants that it will comply with the COUNTY'S Commercial Nondiscrimination Policy as described in Resolution R2025-0748, as amended. As part of such compliance, the CONSULTANT shall not discriminate on the basis of race, color, national origin, religion, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or genetic information in the solicitation, selection, hiring or commercial treatment of subcontractors, vendors, suppliers, or commercial customers, nor shall the CONSULTANT retaliate against any person for reporting instances of such discrimination. The CONSULTANT shall provide equal opportunity for subcontractors, vendors and suppliers to participate in all of its public sector and private sector subcontracting and supply opportunities, provided that nothing contained in this clause shall prohibit or limit otherwise lawful efforts to remedy the effects of discrimination. The CONSULTANT understands and agrees that a material violation of this clause shall be considered a material breach of this CONTRACT and may result in termination of this CONTRACT, disqualification or debarment of the company from participating in COUNTY contracts, or other sanctions. This clause is not enforceable by or for the benefit of, and creates no obligation to, any third party.

**CONSULTANT shall include this language in its subcontracts.**

**ARTICLE 22 - AUTHORITY TO PRACTICE** - The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business, and that it will at all times conduct its business activities in a reputable manner. Proof of such licenses and approvals shall be submitted to the COUNTY'S representative upon request.

**ARTICLE 23 - SEVERABILITY** - If any term or provision of this CONTRACT, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this CONTRACT, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this CONTRACT shall be deemed valid and enforceable to the extent permitted by law.

**ARTICLE 24 - PUBLIC ENTITY CRIMES** - As provided in Florida Statutes (F.S.) 287.132-133, by entering into this CONTRACT or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133(3)(a).

**ARTICLE 25 - MODIFICATIONS OF WORK** - The COUNTY reserves the right to make changes in Scope of Work, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the COUNTY'S notification of a contemplated change, the CONSULTANT shall, in writing: (1) provide a detailed estimate for the increase or decrease in cost due to the contemplated change, (2) notify the COUNTY of any estimated change in the completion date, and (3) advise the COUNTY if the contemplated change shall affect the CONSULTANT'S ability to meet the completion dates or schedules of this CONTRACT.

**25.1** If the COUNTY so instructs in writing, the CONSULTANT shall suspend work on that portion of the Scope of Work affected by a contemplated change, pending the COUNTY'S decision to proceed with the change.

**25.2** If the COUNTY elects to make the change, the COUNTY shall initiate a Contract Amendment and the CONSULTANT shall not commence work on any such change until such written amendment is signed by the CONSULTANT and approved and executed on behalf of the COUNTY.

**ARTICLE 26 - NOTICE** - All notices required in this CONTRACT shall be sent by certified mail, return receipt requested, hand delivery or other delivery service requiring signed acceptance.

**26.1** If sent to the COUNTY, notices shall be addressed to:

Morton L. Rose, P.E.  
Palm Beach County Engineering Department  
2300 N. Jog Road Room 3W-33  
West Palm Beach, FL 33411

With copy to:

Yelizaveta B. Herman  
Palm Beach County Attorney's Office  
301 North Olive Avenue  
West Palm Beach, FL 33401

**26.2** If sent to the CONSULTANT, notices shall be addressed to:

Nour Shehadeh, P.E.

HSQ Group, LLC  
1001 Yamato Road, Suite 105  
Boca Raton, FL 33431

**ARTICLE 27 - ENTIRETY OF CONTRACTUAL AGREEMENT** - The COUNTY and the CONSULTANT agree that this CONTRACT sets forth the entire agreement between the Parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this CONTRACT may be added to, modified, superseded or otherwise altered, except by written instrument executed by the Parties hereto in accordance with Article 25 of this CONTRACT.

**ARTICLE 28 - CRIMINAL HISTORY RECORDS CHECK**

**28.1** The CONSULTANT, CONSULTANT'S employees, subcontractors of CONSULTANT and employees of subcontractors shall comply with Palm Beach County Code, Section 2-371 - 2-377, the Palm Beach County Criminal History Records Check Ordinance (Ordinance), for unescorted access to critical facilities (Critical Facilities) or criminal justice information facilities (CJI Facilities) as identified in Resolutions R2013-1470, R2015-0572 and R2024-0549, as amended. The CONSULTANT is solely responsible for the financial, schedule, and/or staffing implications of this Ordinance. Further, the CONSULTANT acknowledges that its CONTRACT price includes any and all direct or indirect costs associated with compliance with this Ordinance, except for the applicable FDLE/FBI fees that shall be paid by the COUNTY.

**28.2** This CONTRACT may include sites and/or buildings which have been designated as either Critical Facilities or CJI Facilities pursuant to the Ordinance and above referenced Resolutions, as amended. COUNTY staff representing the COUNTY department will contact the CONSULTANT and provide specific instructions for meeting the requirements of this Ordinance. Individuals passing the background check will be issued a badge. The CONSULTANT shall make every effort to collect the badges of its employees and its subcontractors' employees upon conclusion of the CONTRACT and return them to the COUNTY. If the CONSULTANT or its subcontractor(s) terminates an employee who has been issued a badge, the CONSULTANT must notify the COUNTY within two (2) hours. At the time of termination, the CONSULTANT shall retrieve the badge and shall return it to the COUNTY in a timely manner.

**28.3** The COUNTY reserves the right to suspend the CONSULTANT if the CONSULTANT 1) does not comply with the requirements of County Code Section 2-371 - 2-377, as amended; 2) does not contact the COUNTY regarding a terminated CONSULTANT employee or subcontractor employee within the stated time; or 3) fails to make a good faith effort in attempting to comply with the badge retrieval policy.

**ARTICLE 29 - REGULATIONS; LICENSING REQUIREMENTS** - The CONSULTANT shall comply with all laws, ordinances and regulations applicable to the services contemplated herein, to include those applicable to conflict of interest and collusion. CONSULTANT is presumed to be familiar with all federal, state and local laws, ordinances, codes and regulations that may in any way affect the services offered.

**ARTICLE 30 - SCRUTINIZED COMPANIES**

**30.1** As provided in F.S. 287.135, by entering into this CONTRACT or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies that boycott Israel List, or is engaged in a boycott of Israel, pursuant to F.S. 215.4725. Pursuant to F.S. 287.135(3)(b), if CONSULTANT is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel, this CONTRACT may be terminated at the option of the COUNTY.

**30.2** When contract value is greater than \$1 million: As provided in F.S. 287.135, by entering into this CONTRACT or performing any work in furtherance hereof, the CONSULTANT certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the Scrutinized Companies With Activities in Sudan List or Scrutinized Companies With Activities in The Iran Petroleum Energy Sector List created pursuant to F.S. 215.473 or is engaged in business operations in Cuba or Syria.

**30.3** If the COUNTY determines, using credible information available to the public, that a false certification has been submitted by CONSULTANT, this CONTRACT may be terminated and a civil penalty equal to the greater of \$2 million or twice the amount of this CONTRACT shall be imposed, pursuant to F.S. 287.135. Said certification must also be submitted at the time of CONTRACT renewal, if applicable.

**ARTICLE 31 - PUBLIC RECORDS**

**31.1** Notwithstanding anything contained herein, as provided under Section 119.0701, F.S., if the CONSULTANT: (i) provides a service; and (ii) acts on behalf of the COUNTY as provided under Section 119.011(2) F.S., the CONSULTANT shall comply with the requirements of Section 119.0701, Florida Statutes, as it may be amended from time to time. The CONSULTANT is specifically required to:

- A. Keep and maintain public records required by the COUNTY to perform services as provided under this CONTRACT.
- B. Upon request from the COUNTY'S Custodian of Public Records, provide the COUNTY with a copy of the requested records or allow the records to be inspected or copied within

a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. The CONSULTANT further agrees that all fees, charges and expenses shall be determined in accordance with Palm Beach County PPM CW-F-002, Fees Associated with Public Records Requests, as it may be amended or replaced from time to time.

- C. Ensure that public records that are exempt, or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the CONTRACT, if the CONSULTANT does not transfer the records to the public agency.
- D. Upon completion of the CONTRACT the CONSULTANT shall transfer, at no cost to the COUNTY, all public records in possession of the CONSULTANT unless notified by COUNTY'S representative/liaison, on behalf of the COUNTY'S Custodian of Public Records, to keep and maintain public records required by the COUNTY to perform the service. If the CONSULTANT transfers all public records to the COUNTY upon completion of the CONTRACT, the CONSULTANT shall destroy any duplicate public records that are exempt, or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the CONTRACT, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically by the CONSULTANT must be provided to COUNTY, upon request of the COUNTY'S Custodian of Public Records, in a format that is compatible with the information technology systems of COUNTY, at no cost to COUNTY.

**31.2** Failure of the CONSULTANT to comply with the requirements of this article shall be a material breach of this CONTRACT. COUNTY shall have the right to exercise any and all remedies available to it, including but not limited to, the right to terminate for cause. CONSULTANT acknowledges that it has familiarized itself with the requirements of Chapter 119, F.S., and other requirements of state law applicable to public records not specifically set forth herein.

**31.3 IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, PLEASE CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT**

**RECORDS REQUEST  
PALM BEACH COUNTY PUBLIC AFFAIRS DEPT.  
301 N. OLIVE AVENUE  
WEST PALM BEACH, FL 33401**

**BY E-MAIL AT RECORDSREQUEST@PBC.GOV  
OR BY TELEPHONE AT 561-355-6680**

**ARTICLE 32 – COUNTERPARTS** - This CONTRACT, including the exhibits referenced herein, may be executed in one or more counterparts, all of which shall constitute collectively but one and the same CONTRACT. The COUNTY may execute the CONTRACT through electronic or manual means. CONSULTANT shall execute by manual means only, unless the COUNTY provides otherwise.

**ARTICLE 33 - E-VERIFY - EMPLOYMENT ELIGIBILITY** – CONSULTANT warrants and represents that it is in compliance with section 448.095, Florida Statutes, as may be amended, and that it: (1) is registered with the E-Verify System (E-Verify.gov), and uses the E-Verify System to electronically verify the employment eligibility of all newly hired workers; and (2) has verified that all of CONSULTANT's subconsultants performing the duties and obligations of this CONTRACT are registered with the E-Verify System, and use the E-Verify System to electronically verify the employment eligibility of all newly hired workers.

CONSULTANT shall obtain from each of its subconsultants an affidavit stating that the subconsultant does not employ, contract with, or subcontract with an Unauthorized Alien, as that term is defined in section 448.095(1)(k), Florida Statutes, as may be amended. CONSULTANT shall maintain a copy of any such affidavit from a subconsultant for, at a minimum, the duration

of the subcontract and any extension thereof. This provision shall not supersede any provision of this CONTRACT which requires a longer retention period.

COUNTY shall terminate this CONTRACT if it has a good faith belief that CONSULTANT has knowingly violated Section 448.09(1), Florida Statutes, as may be amended. If COUNTY has a good faith belief that CONSULTANT's subconsultant has knowingly violated section 448.09(1), Florida Statutes, as may be amended, COUNTY shall notify CONSULTANT to terminate its contract with the subconsultant and CONSULTANT shall immediately terminate its contract with the subconsultant. If COUNTY terminates this CONTRACT pursuant to the above, CONSULTANT shall be barred from being awarded a future contract by COUNTY for a period of one (1) year from the date on which this CONTRACT was terminated. In the event of such contract termination, CONSULTANT shall also be liable for any additional costs incurred by COUNTY as a result of the termination.

### **ARTICLE 34 - DISCLOSURE OF FOREIGN GIFTS AND CONTRACTS WITH FOREIGN COUNTRIES OF CONCERN**

Pursuant to F.S. 286.101, as may be amended, by entering into this CONTRACT or performing any work in furtherance thereof, the CONSULTANT certifies that it has disclosed any current or prior interest of, any contract with, or any grant or gift received from a foreign country of concern where such interest, contract, or grant or gift has a value of \$50,000 or more and such interest existed at any time or such contract or grant or gift was received or in force at any time during the previous five (5) years.

### **ARTICLE 35 – HUMAN TRAFFICKING AFFIDAVIT**

CONSULTANT warrants and represents that it does not use coercion for labor or services as defined in section 787.06, Florida Statutes. CONSULTANT has executed Exhibit E, Nongovernmental Entity Human Trafficking Affidavit, which is attached hereto and incorporated herein by reference.

**ARTICLE 36 – ADDITIONAL REPORTING** - The COUNTY requires the CONSULTANT to track during the CONTRACT, and report at the end of the CONTRACT, the county of residence of the CONSULTANT'S employees and its subconsultants' employees. CONSULTANT agrees to prepare and provide the required report with its request for final payment.

**ARTICLE 37 – WAIVER OF JURY TRIAL** - The Parties hereby waive any rights either of them may have to a jury trial in any litigation arising out of or related to this CONTRACT and agree that they shall not elect a trial by jury. The Parties hereto have separately, knowingly

and voluntarily given this waiver of right to trial by jury with the benefit of competent legal counsel.

**ARTICLE 38 – LAW AND VENUE; REMEDIES** - This Contract shall be governed by the laws of the State of Florida. Any legal action necessary to enforce the Contract will be held in a court of competent jurisdiction located in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity, by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

IN WITNESS WHEREOF, the Board of County Commissioners of Palm Beach County, Florida, has made and executed this CONTRACT for the PROJECT, on behalf of the COUNTY, and CONSULTANT has hereunto set its hand the day and year above written.

**COUNTY:**

APPROVED AS TO TERMS  
AND CONDITIONS

By: 

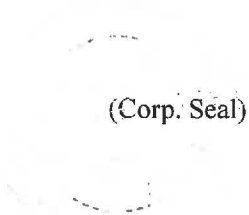
Morton L. Rose, P.E.  
Director of Roadway Production

**CONSULTANT:**

HSQ Group, LLC



Jay Huebner, Managing Member

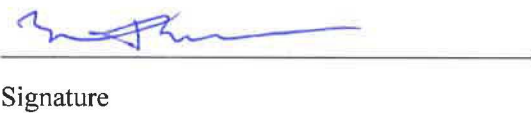


(Corp. Seal)

**ATTEST WITNESS:**

  
Signature

BethAnn Shay  
Name (type or print)

  
Signature

Zachary Todd  
Name (type or print)

{SIGNATURE PAGES CONTINUED}

**ATTEST:**

Michael A. Caruso  
Clerk of the Circuit Court & Comptroller

**COUNTY:**

**Palm Beach County**, a Political Subdivision of the  
State of Florida, by and through its Board of County  
Commissioners

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Sara Baxter, Mayor

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY

(Seal)

By: \_\_\_\_\_  
Yelizaveta B. Herman  
Assistant County Attorney



OK MA  
2-24-26  
Exhibit A  
Page 1 of 5

**HSQ GROUP, LLC**  
**Engineers and Planners**

1001 Yamato Road • Boca Raton, Florida 33431, Suite 105 • Phone (561) 392-0221 hsqgroupinc.com

5/19/2025  
9/18/2025  
1/13/2026  
2/17/2026

**SCOPE OF SERVICES**

**CR 880**

**From Dr. Martin Luther King Jr. Blvd. to S.R. 80**  
**Palm Beach County Project No. 2024504**

**Project Description:**

HSQ Group, LLC (HSQ) will provide engineering and surveying services for the preparation of a geotechnical engineering analysis and feasibility study for the improvement of CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80. The total project length from station 11+00 to station 996+00 is 18.65 miles. Project exception areas that will be excluded from the geotechnical study are shown in the location map, next page is 1.19 miles. Therefore, the net geotechnical testing length is 17.46 miles. However, survey length is the same as the geotechnical length plus the area between sta 150+00 to 160+00. Total survey length is 17.65 miles.

**Project Purpose and goals:**

CR 880 is a major connector in the western part of Palm Beach County that connects the city of Belle Glade and surrounding areas like the farms and sugar cane fields to the rest of the county. It gets very busy during the sugar cane harvesting season. The existing road has many pavement settlements that hinders the movement of vehicles and farm products to the eastern part of the county and beyond. CR 880 was built on weak soil that has been experiencing settlement over the years. The purpose and goals of this project are:

- Conduct a geotechnical investigation to better understand the issue of settlement and recommend sound engineering solutions to mitigate for settlement and to improve the rideability of the road.
- Widen the existing road away from the canal that runs parallel to CR 880 by providing adequate setback from the canal and adequate shoulders to enhance the safety of the road.

**Project Scope of Services:**

The scope of services for the project consists of the preparation of a geotechnical engineering study for the widening of the roadway and the rehabilitation of the existing pavement. The existing roadway has severe sections of pavement deterioration and failures of the pavement structure due primarily to the poor underlying muck soil conditions. A geotechnical boring and testing program will be conducted to investigate the existing on-site soil conditions and to provide recommendations and cost estimates for the rehabilitation and widening of the roadway.

A master plan depicting the roadway alignment, the proposed pavement widening and rehabilitation areas, and the existing right of way conditions will be prepared. The existing right of way lines will be shown on the master plan based on information provided by the survey sub consultants.

The master plan will be used to identify and document the location of the soil borings and to serve as a guideline for the future improvement of the roadway. Major drainage features such as culverts, stormwater control structures, and bridge crossings will be identified on the Master Plan. The roadway typical section for the project will generally consist of a two-lane undivided roadway with single 12-foot wide travel

Scope of Services  
CR 880  
From Dr. Martin Luther King Jr Blvd. to S.R. 80

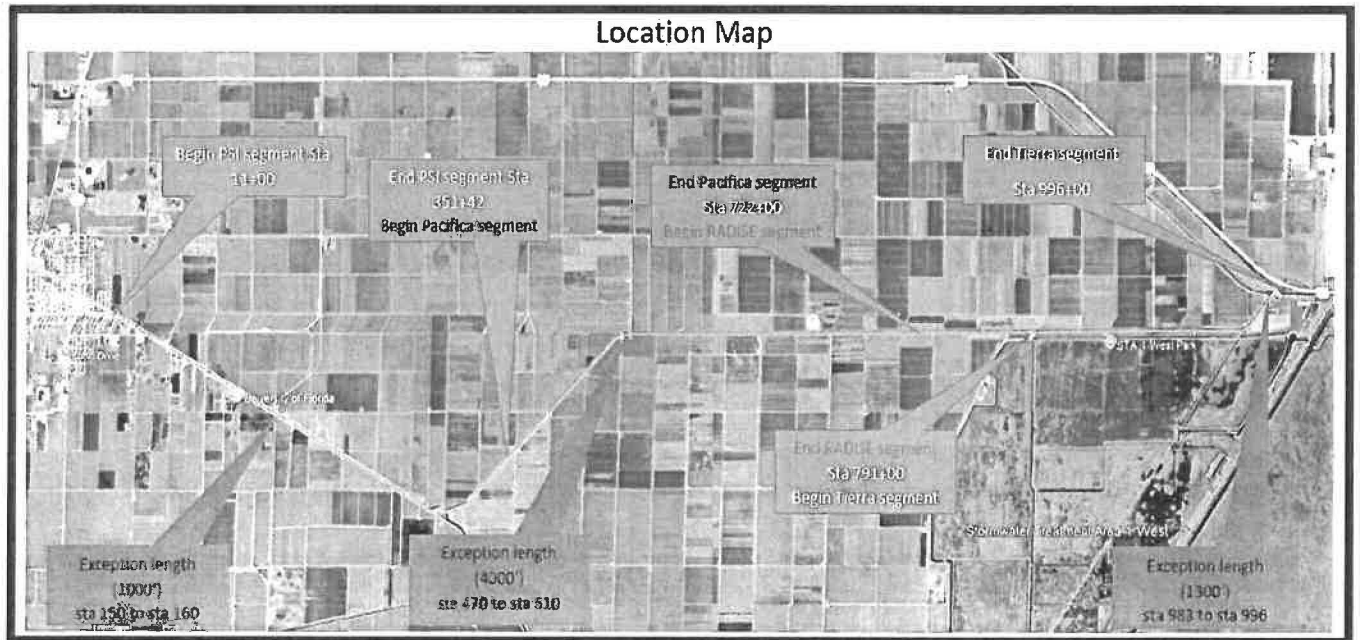
**HSQ GROUP, LLC**  
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lanes and 8-foot wide shoulders consisting of 5-foot wide paved shoulders and 3-foot wide stabilized shoulders in each direction. Guardrail will be located on the north side of the roadway adjacent to the SFWMD L-14 and L-13 canals. The location of the guardrail from the top of bank will be based on the Florida Design Manual (FDM section 215.3.2)

**Geotechnical Engineering:**

Geotechnical engineering services will be provided by Pacifica Engineering Services, Tierra South Florida, Radise International, and PSI. The geotechnical engineering services will be divided into four segments based on the percentage of work committed for each sub as shown below



1. For the initial testing and evaluation purposes, each geotechnical subconsultant will be responsible for the initial field and laboratory testing services for their assigned segment.
2. Each geotechnical subconsultant will share their field and laboratory testing results with other geotechnical subconsultants.
3. Reports will be prepared by the various geotechnical subconsultants summarizing the *findings of the entire project* and providing recommendations for the roadway widening and rehabilitation for *the entire project*.
4. The completed reports will then be assembled and distributed to all of the subconsultants for their review, comments, and discussion with the entire geotechnical consultant team. After the review,

Scope of Services  
Ck 880

From D: Martin Luther King Jr. Blvd to S.E. 80

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HSQ team will meet to discuss the comments and resolve any disagreements, if any, concerning the methods of solving the roadway issues.

5. Following the review of the reports by the team members, a Final Geotechnical Summary Report (FGSR) will be prepared by HSQ Group. The final report will provide a summary of the recommendations of the geotechnical studies with an executive summary of all segments. The summary will include a scoring methodology for each alternative with recommendation for the best alternative for given roadway segments.

In addition to the FGSR, HSQ Group will prepare a Preliminary Engineering Report that will include the following elements:

1. Identify related design criteria.
2. Establish roadway typical section (s).
3. Prepare Master plan to identify impacts
4. List of project potential issues and potential solutions.
5. Identify right of way limits between PBC and SFWMD.
6. Discussion of MOT and related issues during construction
7. General safety review, i.e. crashes.
8. Identify existing utilities and possible impact.
9. Impact on existing culverts, bridges, swales and control structures.
10. Identify permitting agencies and list of requirements.
11. Probable Construction cost estimates for each alternative.
12. Resilience design requirements.
13. Brief description of local agricultural operations and identifying planting and harvesting seasons.
14. Identification of potential environmental concerns such as impacts to wetlands and contaminated sites. The environmental review will be limited to a desktop review.
15. Rail Road crossing and potential impact.
16. Guardrail evaluation and location vs. access to the canals, side streets and drainage control gates that are operated by SFWMD.

**Master Plan Preparation:**

The roadway alignment master plan with aerial background will be prepared in 11" x 17" format in accordance with the approved typical sections. The master plan will show the existing right of way, typical section and roadway horizontal alignment. The master plan will be utilized to identify pavement widening areas for the use of the geotechnical subconsultants.

HSQ will collect and compile the previously done soil borings within the exception areas as discussed above. HSQ will rely on record drawings, available cadd files and contacting and coordinating with the Geotechnical companies who did it. Collected information will be shown on the master plan sheets as much as possible. Soil borings logs if available will also be part of the master plan set for the exception areas.

Scope of Service  
CR 886

From: Martin Luther King Jr. Blvd. to S.R. 80



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The master plan will consist of the following sheets:

- 1- Cover sheet.
- 2- General notes particular to the master plan development.
- 3- Typical sections.
- 4- Plan sheets at 1"=100' with location of soil boring shown.
- 5- Cross sections at 1000' interval
- 6- Summary of geotechnical boring logs as provided by sub consultants.

**Survey Services:**

Survey services will be provided by Ritzel-Mason and Zeman Consulting Group as detailed in the attached scope of services.

**Utility Coordination:**

HSQ will assist Palm Beach County in the utility coordination effort as follows:

1. Contact applicable Utility Agency Owners (UAO) to request markup plans identifying the location of existing utility facilities.
2. Prepare a utility cadd drawings based on UAO markups for inclusion in the master plans.
3. Evaluate the potential impacts of the proposed roadway widening and reconstruction on existing utilities and provide recommendations on resolving potential utility conflicts.

**Environmental services:**

Environmental services will be provide by GOAL Associates as optional services as details in the attached scope of services.

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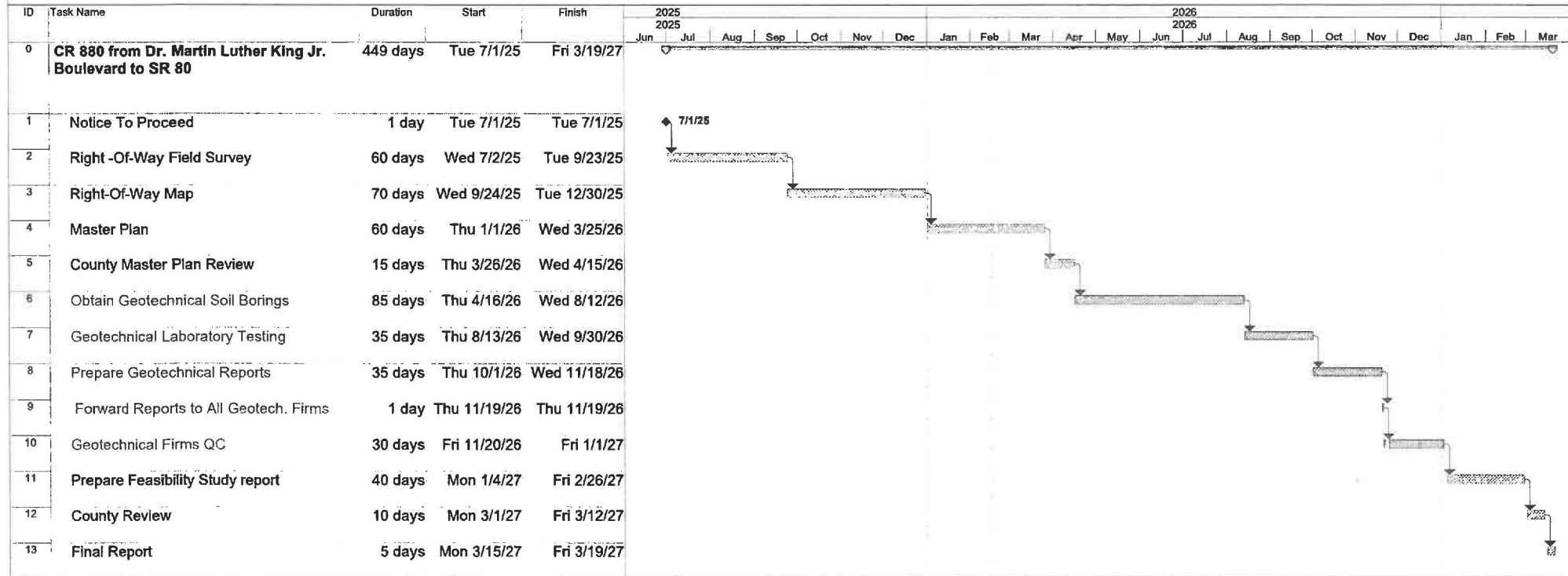
Scope of Services  
CR 880

From Dr. Martin Luther King Jr. Blvd. to S.R. 80

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## CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Project # 2024504



Project: CR 880 from Dr. Martin Luther Date: Mon 2/16/26	Task		Project Summary		Inactive Task		Duration-only		Finish-only	
	Split		External Tasks		Inactive Milestone		Manual Summary Rollup		Progress	
	Milestone		External Milestone		Inactive Summary		Manual Summary		Deadline	
	Summary		Inactive Task		Manual Task		Start-only			

Estimate of Work Effort and Cost

Name of Project: CR 880 from MARTIN LUTHER KING JR. TO SR 80  
PBC Project Number: 2024504

Consultant Name: HSQ Group, LLC  
Consultant Number: VC0000016826  
Date: 2/16/2026

Task Description	Total Staff Hours	Staff Categories								Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal Engineer	Senior Engineer	Project Manager	Project Engineer	Engineer Intern	Senior Surveyor	Surveyor	Survey Technician			
<b>BASIC SERVICES (prime)</b>		\$95.00	\$84.00	\$79.00	\$65.00	\$42.00						
4. Roadway Analysis	1672.00	418.00	418.00	502.00	334.00	0.00				1672	\$136,190.00	\$ 81.45
5. Roadway Plans	1307.00	65.00	196.00	262.00	392.00	392.00				1307	\$85,281.00	\$ 65.25
7. Utilities	121.00	0.00	12.00	24.00	24.00	61.00				121	\$7,026.00	\$ 58.07
8. HSQ Management	1304	1043.0	261.0	0.0	0.0	0.0				1304	\$121,009.00	\$ 92.80
<b>Total Staff Hours (Basic Services)</b>	<b>4404.0</b>	<b>1526.0</b>	<b>887.0</b>	<b>788.0</b>	<b>750.0</b>	<b>453.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>4404.0</b>		
<b>Total Staff Cost (Basic Services)</b>		<b>\$144,970.00</b>	<b>\$74,508.00</b>	<b>\$62,252.00</b>	<b>\$48,750.00</b>	<b>\$19,026.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$349,506.00</b>	<b>\$ 79.36</b>
<b>OPTIONAL SERVICES (prime)</b>										0.0	\$0.00	#DIV/0!
<b>Total Staff Hours (Optional Services)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>#DIV/0!</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$0.00</b>	<b>#DIV/0!</b>

EBO SBE Calculation for this Fee Summary	SBE \$	Non-SBE \$
Prime (HSQ Group, LLC)		\$982,111.86
Goal Associates, Inc	\$132,912.06	
Geotechnical (Pacifica Engineering Services, LLC)	\$1,155,708.28	
Geotechnical (Tierra South Florida, Inc.)		\$389,579.00
Geotechnical (RADISE International, L.C.)		\$416,992.04
Geotechnical (Intertek-PSI)		\$1,017,765.90
Survey (Zeman Consulting Group, Inc.)	\$180,232.32	
Survey (Ritzel-Mason, Inc.)	\$180,368.25	
<b>Totals</b>	<b>\$1,649,220.91</b>	<b>\$2,806,448.80</b>

SBE % Achieved 37.01%  
SBE % Committed 37.00%

Basic Services:	
Salary Related Costs:	\$349,506.00
Contract Multiplier	2.81
Salary Related Costs:	\$982,111.86
<b>Subtotal Basic Services (Prime Firm):</b>	<b>\$982,111.86</b>
Geotechnical (Pacifica Engineering Services, LLC)	\$375,641.40
Geotechnical (Tierra South Florida, Inc.)	\$116,730.00
Geotechnical (RADISE International, L.C.)	\$127,130.82
Geotechnical (Intertek-PSI)	\$252,168.57
Survey (Zeman Consulting Group, Inc.)	\$178,658.07
Survey (Ritzel-Mason, Inc.)	\$179,065.50
<b>Subtotal Basic Services (Subconsultants):</b>	<b>\$1,229,394.36</b>
<b>Basic Services Total:</b>	<b>\$2,211,506.22</b>

Reimbursables:	
Geotechnical (Pacifica Engineering Services, LLC)	\$533,536.00
Geotechnical (Tierra South Florida, Inc.)	\$272,849.00
Geotechnical (RADISE International, L.C.)	\$242,142.92
Geotechnical (Intertek-PSI)	\$415,935.30
<b>Reimbursables Total:</b>	<b>\$1,464,463.22</b>

Optional Services:	
Goal Associates, Inc	\$132,912.06
Geotechnical (Pacifica Engineering Services, Inc.)	\$112,739.38
Geotechnical (Radise)	\$20,037.30
Geotechnical (Intertek-PSI)	\$150,419.03
Survey (Zeman Consulting Group, Inc.)	\$1,574.25
Survey (Ritzel-Mason, Inc.)	\$1,302.75
<b>Optional Services Total</b>	<b>\$418,984.77</b>

Optional Reimbursables:	
Geotechnical (Pacifica Engineering Services, LLC)	\$133,791.50
Geotechnical (RADISE International, L.C.)	\$27,681.00
Geotechnical (Intertek-PSI)	\$199,243.00
<b>Optional Reimbursables Total:</b>	<b>\$360,715.50</b>

**Grand Total Estimated Fees: \$4,455,669.71**

**Project Activity 4: Roadway Analysis**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.1	Typical Section	EA	1	8	8	one typical will be prepared for the entire project with variation of widths beyond the pavement area
4.2	Incorporate the exception project length into the master plan.	LS	1	120	120	The exception lengths of the project is 1.19 miles. HSQ will compile the master plan base map for the exception length from available information such as existing roadway plans, survey and rasters.
4.3	Evaluate impact on Rail Road crossing and side streets	LS	1	24	24	estimated 24 +/- side streets and farm land driveways/connection plus one RR crossing and one SFWMD gated control structure
4.4	Master Plan / soil boring locations	LS	1	800	800	horizontal alignment, showing rasters in the background. FDOT rasters will be used. Master plan will show the location of the soil borings as obtained by the subs
4.5	Management and Coordination with subs					This project is coordination intensive for 4 geotechnical subs + 2 survey subs + one traffic sub. This task will be based on 10% of the final negotiated amount of all subs
4.6	Guardrail evaluation	EA	12	2	24	evaluate GR setback and any potential GR opening along the project especially for farm land (11 locations)
4.7	Prepare Final geotechnical summary report	LS	1	240	240	Final Geotechnical Summary Report (FGSR) will be prepared by HSQ Group. The final report will provide a summary of the recommendations of the geotechnical studies with an executive summary of all segments. The summary will include a scoring methodology for each alternative with recommendation for the best alternative for given roadway segments.
4.8	Prepare preliminary engineering report	LS	1	120	120	see scope for details of what is included
4.9	HSQ will collect and compile the previously done soil borings within the exception areas	LS	1	60	60	HSQ will rely on record drawings, available cadd files and contacting and coordinating with the Geotechnical companies who did it. Collected information will be shown on the master plan sheets as much as possible. Soil borings logs if available will also be part of the master plan set for the exception areas.
4.10	Field reviews	EA	5	16	80	review, during the collection of field data, special meeting i.e consolidation test sites and before final submittal to the county
4.11	Meetings with the county	EA	2	8	16	2 PEOPLE
4.12	Quantities	LS	1	120	120	prepare roadway quantities based on the master plan level details ( including earthwork (the project length including exception segment is 18.65 miles)
4.13	Cost Estimate	EA	1	60	60	the cost estimate will include geotechnical cost estimate for the various options. All costs will be compiled in one master cost estimate for the projects
<b>4. Roadway Analysis Total</b>					<b>1672</b>	

**Project Activity 5: Roadway Plans**

Task No.	Task	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Cover Sheet	Sheet	1	4	4	
5.2	Summary of Pay Items and pay items	Sheet	1	16	16	A list of pay items will be prepared and shown on the quantities sheet
5.3	Typical Sections and typical section details	Sheet	1	8	8	
5.4	General Notes	Sheet	1	8	8	
5.5	Project Layout	Sheet	1	8	8	this will be used as a key sheet for the entire project
5.6	Cross section	EA	98	4	392	cross section at 1000' will be drawn by hand since no DTM will not be available (18.65 miles x 5280)/1000 = 98
5.7	Plan Sheet	Sheet	70	12	840	1"=100' scale. The plan sheets to include pavement marking for illustration purposes
5.8	Summary of Geotechnical boring logs	LS	1	31	31	as provided by the subs to be incorporated into the master plan set
5.15	Stormwater Pollution Plans	Sheet		5	0	
<b>5. Roadway Plans Total</b>					<b>1307</b>	

**Project Activity 7: Utilities**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Identify Existing Utility Agency Owner(s)	LS	1	2	2	
7.2	initial Utility Contact plans	LS	1	60	60	
7.3	Collect and Review Utility Markup Plans / create dgn	LS	1	59	59	
<b>7. Utilities Total</b>					<b>121</b>	

**Project Activity 8: HSQ Management**

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
	<b>HSQ Management</b>					
	Kickoff meeting with all subs	LS	1	5	5	
	Manage the log maps with all subs for location of borings	LS	1	180	180	including survey of borings
	progress meetings on bi-weekley bases with all subs including mtg minutes	LS	1	720	720	(15 months x 4 mtg per monthr month x 2 people x 6hrs)
	field reviews with subs and field visits	LS	1	375	375	
	progress meetings with the county for update	EA	4	6	24	FOR 2 PEOPLE
<b>8. HSQ Management Total</b>					<b>1304</b>	



February 12, 2026

Nour Shehadeh, PE  
HSQ Group, LLC  
1001 Yamato Road, Suite 105  
Boca Raton, Florida 33431

Ritzel-Mason, Inc.

5330 Van Buren Road  
Delray Beach, FL 33484

Phone: 786.472.0358

[www.ritzel-mason.com](http://www.ritzel-mason.com)

**Subject:** Fee Proposal for Surveying Services

**Project:** 2024504 – County Road 880 from Dr. Martin Luther King Jr. Blvd. to State Road 80

Dear Mr. Shehadeh:

Ritzel-Mason appreciates the opportunity to prepare this fee proposal for providing specific purpose / right of way services on the above referenced project. Ritzel-Mason is registered and licensed in the state of Florida. This letter will serve as our official scope of services and is accompanied by the included fee estimate. Ritzel-Mason has been requested by the Client to provide right-of-way mapping and other surveying services.

**Project Limits:** The total limits of our investigation will include County Road 880 from baseline station 510+00 to 983+00 (approximately 8.95 miles).

**Scope of Basic Services:** Ritzel-Mason proposed **Specific Purpose Survey / Right of Way Survey** as described below:

Existing horizontal and vertical control will be recovered. New control will not be set.

A Specific Purpose / Right of Way Survey will be prepared and will meet and be certified to the applicable portions of the Standards of Practice as set forth in the Florida Board of Professional Surveyors and Mappers in rule 5J-17.050-0.52, Florida Administrative Code, pursuant to Chapter 472.027, Florida Statutes and this Appendix C and D of the Palm Beach County Roadway Design Procedures (January 2019), codes, rules and Statutes governing Surveying and Mapping. 11"x17" sheets at 1"=100' scale will be prepared with two (2) panels per page.

Road right of way package provided by the County will be reviewed and processed. Recovered control will be shown on the survey.

This will not be a "Right of Way Map"

2024504 County Road 880

February 12, 2026



Ritzel-Mason proposes **Cross Sections** as described below:

- 1000-foot interval cross sections will be shown on the survey, from right-of-way to right-of-way including pavement edges, centerline, swales, ditches, guardrails, top of banks and edge of water. The cross sections will be extended to include the bottom of water up to the centerline of the canal. Cross sections will be obtained solely from VRS RTK GPS equipment.
- Hydrone dual beam sonar equipment will be utilized for bottom of water data collection. Dual beam sonar will collect the first return (top of silt) and second return (bottom of silt). Manual silt truing will be obtained every 2000 feet and compared to dual beam data. Both elevations will be shown on the survey.
- Cross section data will be legible on 100-scale drawings. Leaders will be used.

Ritzel-Mason proposes **Drainage services** as described below:

Ritzel-Mason will locate (horizontal and vertical) drainage structures, water control structures and culverts including rims/tops, inverts, pipe sizes, materials. Structures will be obtained solely from VRS RTK GPS equipment.

Ritzel-Mason proposes **Settlement Plate Testing** as described below:

Ritzel-Mason will monitor 8 sites of settlement plates to record the incremental vertical settlement of the soil over time. Ritzel-Mason will coordinate with the geotechnical engineer during the testing period. The survey will be done as follows:

- A total of 8 sites will be chosen by the geotechnical engineer.
- A crew will be at the test site for an initial set up plus every month for 12 months

Ritzel-Mason proposes **Field Consolidation Test Survey** as described below:

Ritzel-Mason will monitor the field consolidation test sites to record the incremental vertical settlement of the soil over time. Ritzel-Mason will coordinate with the geotechnical engineer during the testing period. The survey will be done as follows:

- A total of 4 sites will be chosen by the geotechnical engineer.
- A crew will be at the test site for 3 hours a day for the first 3 days, then once a week for 3 weeks for 3 hours a day.

Ritzel-Mason proposes **Geotechnical borings** as described below:

- 361 geotechnical borings will be shown on the survey including the ground/top elevation.

Ritzel-Mason proposes **right-of-way and baseline services** as described below:

Ritzel-Mason will provide right-of-way and baseline on the project limits. If a historic baseline does not exist, one will be created (established from south to north and west to east). Information will be based on readily available data such as plats, deeds, and property appraiser website. Property lines will be shown. Field monumentation will be

2024504 County Road 880

February 12, 2026



searched and located. Road right-of-way reports will be included, if provided by Palm Beach County. The County will be advised of any apparent missing right-of-way documentation or of any apparent gaps or overlaps in the right-of-way per the documents provided. State plane coordinates and ties to section corners or geodetic control points will be added at the beginning and ending of the baseline. FDOT aerial will be downloaded added to the linework.

5000-foot interval stations, PC, PI and PTs will be staked in the field with mag nails and washers or iron rod and caps. Horizontal and vertical data will be obtained on set points. This data will be shown on the survey.

Data on found points will be collected and shown on the survey.

**Deliverables (Basic Services):**

- DGN (SURVRD01.dgn) and PDF (digitally signed) of Specific Purpose / Right of Way Survey, 11"x17" sheets at 1"=100' scale
- Digitally signed Specific Purpose / Right of Way Survey
- An ASCII file of points (x,y,z)
- Set baseline points
- Field consolidation test reports
- Settle plate test reports

**Schedule for Basic Services:**

We propose to mobilize for this 10 days after receipt of this proposal is duly signed and barring weather and any unforeseen condition.

**Scope of Optional Services:** Ritzel-Mason proposed updated **Specific Purpose Survey / Right of Way Survey** as described below:

Ritzel-Mason proposes **Geotechnical borings** as described below:

- 25 geotechnical borings will be shown on the survey including the ground/top elevation.

**Deliverables (Optional Services):**

- Updated DGN (SURVRD01.dgn) and PDF (digitally signed) of Specific Purpose / Right of Way Survey, 11"x17" sheets at 1"=100' scale
- Updated Digitally signed Specific Purpose / Right of Way Survey
- Updated An ASCII file of points (x,y,z)

**Schedule for Optional Services:**

We propose to mobilize for this 10 days after receipt of this proposal is duly signed and barring weather and any unforeseen condition.

2024504 County Road 880

February 12, 2026



**Fees:** See attached spreadsheet.

**Basis:** The fees listed above are based on Ritzel-Mason's crews being able to work during the hours of 7:00am to 6:00pm and being granted access to the site. Ritzel-Mason is equipped to supply minor MOT services. Ritzel-Mason's field crews and equipment are not equipped or prepared to work in any area that possibly are, or may have been, contaminated with hazardous materials at any time. Any fee or permit requested in order to perform the work will be submitted to the client at cost.

Again, we appreciate the opportunity to provide our surveying services for HSQ Group. Please call me directly at 786.472.0358, if you have any questions or comments. We look forward to beginning work on this project upon receiving your authorization to proceed.

Sincerely,

A handwritten signature in black ink that reads "Dennis Ritzel". The signature is stylized and includes a large, sweeping flourish at the end.

Dennis Ritzel, PSM  
Director of Business Operations  
786.472.0358  
Email: [dennis@ritzel-mason.com](mailto:dennis@ritzel-mason.com)

**Estimate of Work Effort and Cost**

<b>Name of Project:</b>		<b>County Road 880</b>					<b>Consultant Name: Ritzel-Mason, Inc.</b>																		
<b>PBC Project Number:</b>		<b>2024504</b>					<b>Consultant Number: N/A</b>																		
							<b>Date: 2/12/2026</b>																		
Task Description	Total Staff Hours	Basic Services					Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task																
		Project Surveyor \$60.00	Survey-CADD Technician \$38.50	3 Man Crew SUE \$87.00	3 Man Crew Survey \$77.00	2 Man Crew Survey \$52.00																			
<b>BASIC SERVICES (Ritzel-Mason, Inc.)</b>																									
14.00	Survey - Field	569.00	20.00	24.00	0.00	525.00	0.00	569.00	\$ 42,549.00	\$ 74.78															
15.00	Survey - Plans	367.00	140.00	227.00	0.00	0.00	0.00	367.00	\$ 17,139.50	\$ 46.70															
<b>Total Staff Hours (Basic Services)</b>		<b>936.00</b>	<b>160.00</b>	<b>251.00</b>	<b>0.00</b>	<b>525.00</b>	<b>0.00</b>	<b>936.00</b>																	
<b>Total Staff Cost (Basic Services)</b>			<b>\$9,600.00</b>	<b>\$9,663.50</b>	<b>\$0.00</b>	<b>\$40,425.00</b>	<b>\$0.00</b>		<b>\$59,688.50</b>	<b>\$63.77</b>															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;"><u>Basic Services:</u></th> </tr> </thead> <tbody> <tr> <td style="width: 80%;">Basic Services (Ritzel-Mason, Inc.)</td> <td style="text-align: right;">\$59,688.50</td> </tr> <tr> <td><b>Raw Rate Basic Services Total:</b></td> <td style="text-align: right;"><b>\$ 59,688.50</b></td> </tr> <tr> <th colspan="2" style="text-align: left;"><u>Loaded Fees:</u></th> </tr> <tr> <td>Raw Rate Basic Services Total:</td> <td style="text-align: right;">59688.50</td> </tr> <tr> <td>Multiplier Rate:</td> <td style="text-align: right;">3.00</td> </tr> <tr> <td><b>Loaded Total:</b></td> <td style="text-align: right;"><b>\$ 179,065.50</b></td> </tr> <tr> <td><b>Grand Total Estimated Fees (Ritzel-Mason, Inc.):</b></td> <td style="text-align: right;"><b>\$ 179,065.50</b></td> </tr> </tbody> </table>										<u>Basic Services:</u>		Basic Services (Ritzel-Mason, Inc.)	\$59,688.50	<b>Raw Rate Basic Services Total:</b>	<b>\$ 59,688.50</b>	<u>Loaded Fees:</u>		Raw Rate Basic Services Total:	59688.50	Multiplier Rate:	3.00	<b>Loaded Total:</b>	<b>\$ 179,065.50</b>	<b>Grand Total Estimated Fees (Ritzel-Mason, Inc.):</b>	<b>\$ 179,065.50</b>
<u>Basic Services:</u>																									
Basic Services (Ritzel-Mason, Inc.)	\$59,688.50																								
<b>Raw Rate Basic Services Total:</b>	<b>\$ 59,688.50</b>																								
<u>Loaded Fees:</u>																									
Raw Rate Basic Services Total:	59688.50																								
Multiplier Rate:	3.00																								
<b>Loaded Total:</b>	<b>\$ 179,065.50</b>																								
<b>Grand Total Estimated Fees (Ritzel-Mason, Inc.):</b>	<b>\$ 179,065.50</b>																								

Project Activity 14: Survey - Field - BASIC SERVICES						
Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.1	Horizontal Project Control (HPC)					
	2-Lane Roadway	LM	0.00	8.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.2	Vertical PC / Bench Line					
	2-Lane Roadway	LM	0.00	8.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.3	Reference Points					
	2-Lane Roadway	EA	0.00	0.00	0	
	Multi-lane Roadway	EA	0.00	0.00	0	
14.4	Baseline Layout	EA	14.00	1.00	14	Stake baseline at 5000-foot intervals, PC, PT, and Pis
14.5	Section, Subdivision & Property Ties	EA	24.00	3.50	84	Locate section corners, 1/4 section corners, centerlines and property corners
14.6	Topography/DTM (3D)	LM	0.00	0.00	0	
14.7	Cross Sections	EA	48.00	1.25	60	Perform 1000-foot interval cross sections with VRS RTK GPS including dual beam sonar.
14.8	Side Street Surveys	LM	0.00	0.00	0	
14.9	SUE	EA	0.00	0.00	0	
14.10	Locates - Pothole	EA	0.00	0.00	0	
14.11	Outfall Survey	LM	0.00	0.00	0	
14.12	Drainage Survey	EA	30.00	1.00	30	Locate 30 drainage structures horizontally and vertically
14.13	Bridge Survey	EA	0.00	0.00	0	
14.14	Canal Survey	LM	0.00	0.00	0	
14.15	Channel Survey and Soundings	LS	0.00	0.00	0	
14.16	Pond Site Survey	EA	0.00	0.00	0	
14.17	Jurisdictional Line Survey	LS	0.00	0.00	0	

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.18	Tree Survey	EA	0.00	0.07	0	
14.19	Route/Corridor Survey	EA	361.00	0.25	90	Locate 361 geotech borings with VRS RTK GPS
14.20	Boundary Survey	LS	0.00	0.00	0	
14.21	Topographic Survey	LS	0.00	0.00	0	
14.22	Specific Purpose Survey	LS	0.00	0.00	0	
14.23	Hydrographic Survey	LS	0.00	0.00	0	
14.24	Field consolidation test	EA	24.00	8.00	192	Field consolidation testing for 4 site x 6
14.24	Settlement Plate test	EA	12.00	8.00	96	Settlement plate testing 8 sites x 12 months
14.26	R/W Staking					
	Parcel	EA	0.00	0.00	0	
	R/W Line	LM	0.00	0.00	0	
14.27	Meetings	EA	1.00	3.00	3	<i>Kick off meeting</i>
<b>14. Survey - Field Total</b>					<b>569</b>	

Project Activity 15: Survey Plans - BASIC SERVICES						
Task No.	Task	Units	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
15.1	Alignment	EA	1.00	18.00	18	Determine centerline of County Road 880
15.2	Section and 1/4 Section Lines	EA	28.00	0.50	14	Search and process section corners.
15.3	Subdivisions / Property Lines	EA	1.00	20.00	20	Determine property lines from monumentation and record data
15.4	Existing R/W	EA	1.00	25.00	25	Establish existing right-of-way on street and lands
15.5	Topography	Sheet	32.00	1.25	40	Show existing benchmarks, drainage, cross sections, geotech borings, sonar data
15.6	Parent Tract Properties/Existing Easements	EA	0.00	0.00	0	
15.7	Title Review	LS	1.00	40.00	40	Review and process Road RW package
15.8	Field consolidation and plate settlement reports	EA	36.00	1.00	36	Prepare field consolidation and plate settlement reports
15.9	Survey Key Sheet	Sheet	2.00	10.00	20	Prepare 2 key sheets
15.10	Survey Detail & Legend Sheet	Sheet	1.00	10.00	10	Prepare cover sheet
15.11	Reference Point Sheet	LM	0.00	0.50	0	
15.12	Project Control Sheet	Sheet	0.00	7.00	0	
15.13	Specific Purpose & Topographic Survey	Sheet	32.00	4.50	144	Prepare Specific Purpose & RW Survey - 32 panels (1"-100' @ 11x17)
15.14	Boundary Survey	EA	0.00	0.00	0	
15.15	Technical Meetings	EA	0.00	4.00	0	
<b>15. Survey Plans Total</b>					<b>367</b>	

**Estimate of Work Effort and Cost**

<b>Name of Project:</b>		<b>County Road 880</b>		<b>Consultant Name: Ritzel-Mason, Inc.</b>						
<b>PBC Project Number:</b>		<b>2024504</b>		<b>Consultant Number: N/A</b>						
				<b>10/11/2025</b>						
Task Description	Total Staff Hours	Optional Services					Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task	
		Project Surveyor	Survey-CADD Technician	3 Man Crew SUE	3 Man Crew Survey	2 Man Crew Survey				
		\$60.00	\$38.50	\$87.00	\$77.00	\$52.00				
<b>Optional SERVICES (Ritzel-Mason, Inc.)</b>										
14.00	Survey - Field	5.00	0.00	1.00	0.00	4.00	0.00	5.00	\$ 346.50	\$ 69.30
15.00	Survey - Plans	2.00	0.50	1.50	0.00	0.00	0.00	2.00	\$ 87.75	\$ 43.88
<b>Total Staff Hours (Optional Services)</b>		<b>7.00</b>	<b>0.50</b>	<b>2.50</b>	<b>0.00</b>	<b>4.00</b>	<b>0.00</b>	<b>7.00</b>		<b>\$62.04</b>
<b>Total Staff Cost (Optional Services)</b>			<b>\$30.00</b>	<b>\$96.25</b>	<b>\$0.00</b>	<b>\$308.00</b>	<b>\$0.00</b>		<b>\$434.25</b>	
<b>Optional Services:</b>										
Optional Services (Ritzel-Mason, Inc.)									\$434.25	
<b>Raw Rate Optional Services Total:</b>									<b>\$ 434.25</b>	
<b>Loaded Fees:</b>										
Raw Rate Optional Services Total:									434.25	
Multiplier Rate:									3.00	
<b>Loaded Total:</b>									<b>\$ 1,302.75</b>	
<b>Grand Total Estimated Fees (Ritzel-Mason, Inc.):</b>									<b>\$ 1,302.75</b>	

Project Activity 14: Survey - Field - OPTIONAL SERVICES						
Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.1	Horizontal Project Control (HPC)					
	2-Lane Roadway	LM	0.00	8.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.2	Vertical PC / Bench Line					
	2-Lane Roadway	LM	0.00	8.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.3	Reference Points					
	2-Lane Roadway	EA	0.00	0.00	0	
	Multi-lane Roadway	EA	0.00	0.00	0	
14.4	Baseline Layout	EA	14.00	0.00	0	
14.5	Section, Subdivision & Property Ties	EA	24.00	0.00	0	
14.6	Topography/DTM (3D)	LM	0.00	0.00	0	
14.7	Cross Sections	EA	48.00	0.00	0	
14.8	Side Street Surveys	LM	0.00	0.00	0	
14.9	SUE	EA	0.00	0.00	0	
14.10	Locates - Pothole	EA	0.00	0.00	0	
14.11	Outfall Survey	LM	0.00	0.00	0	
14.12	Drainage Survey	EA	30.00	0.00	0	
14.13	Bridge Survey	EA	0.00	0.00	0	
14.14	Canal Survey	LM	0.00	0.00	0	
14.15	Channel Survey and Soundings	LS	0.00	0.00	0	
14.16	Pond Site Survey	EA	0.00	0.00	0	
14.17	Jurisdictional Line Survey	LS	0.00	0.00	0	

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.18	Tree Survey	EA	0.00	0.07	0	
14.19	Route/Corridor Survey	EA	25.00	0.20	5	Locate 25 geotech borings with VRS RTK GPS
14.20	Boundary Survey	LS	0.00	0.00	0	
14.21	Topographic Survey	LS	0.00	0.00	0	
14.22	Specific Purpose Survey	LS	0.00	0.00	0	
14.23	Hydrographic Survey	LS	0.00	0.00	0	
14.24	Quantity Survey	LS	0.00	0.00	0	
14.25	Record/As-Built Survey	LS	0.00	0.00	0	
14.26	R/W Staking					
	Parcel	EA	0.00	0.00	0	
	R/W Line	LM	0.00	0.00	0	
14.27	Meetings	EA	1.00	0.00	0	<i>Kick off meeting</i>
<b>14. Survey - Field Total</b>					<b>5</b>	

Project Activity 15: Survey Plans - OPTIONAL SERVICES						
Task No.	Task	Units	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
15.1	Alignment	EA	1.00	0.00	0	
15.2	Section and 1/4 Section Lines	EA	28.00	0.00	0	
15.3	Subdivisions / Property Lines	EA	1.00	0.00	0	
15.4	Existing R/W	EA	1.00	0.00	0	
15.5	Topography	Sheet	32.00	0.06	2	Add 25 geotech locations to existing survey
15.6	Parent Tract Properties/Existing Easements	EA	0.00	0.00	0	
15.7	Title Review	LS	1.00	0.00	0	
15.8	Jurisdictional/Agency Lines	LM	1.00	0.00	0	
15.9	Survey Key Sheet	Sheet	2.00	0.00	0	
15.10	Survey Detail & Legend Sheet	Sheet	1.00	0.00	0	
15.11	Reference Point Sheet	LM	0.00	0.00	0	
15.12	Project Control Sheet	Sheet	0.00	0.00	0	
15.13	Specific Purpose & Topographic Survey	Sheet	32.00	0.00	0	
15.14	Boundary Survey	EA	0.00	0.00	0	
15.15	Technical Meetings	EA	0.00	0.00	0	
<b>15. Survey Plans Total</b>					<b>2</b>	

**Nour Shehadeh, PE**  
**HSQ Group, LLC**  
**1001 Yamato Road, Suite 105**  
**Boca Raton, Florida 33431**

**February 12, 2026**

**Subject: Fee Proposal for Surveying Services**

**Project: 2024504 – County Road 880 from Dr. Martin Luther King Jr. Blvd. to State Road 80.**

Dear Mr. Shehadeh:

**Zeman Consulting Group (ZCG)** appreciates the opportunity to prepare this fee proposal for providing a Specific Purpose Survey on the above-referenced project. Zeman Group is registered and licensed in the state of Florida. This letter will serve as our official scope of services and is accompanied by the included fee estimate. The Client has requested Zeman Group to provide right-of-way surveying and other surveying services.

**Project Limits:** Zeman Group's project limits will be from Sta 11+00 to Sta 470+00 = 8.70 miles.

**Scope of Basic Services:** Zeman Group proposes a Specific Purpose / Right of Way Survey that will meet and be certified to the applicable portions of the Standards of Practice as set forth in the Florida Board of Professional Surveyors and Mappers, as well as Palm Beach County Roadway Design Procedures. Existing control will be recovered (not reset), and 11"x17" sheets at 1"=100' scale will be prepared with 2 panels per page.

**Summary of Services:**

- Road right-of-way package provided by the County will be reviewed and processed.
- Recovered control will be shown on the survey.
- Perform Specific Purpose Survey of the Right-of-Way (Not a "Right of Way Map").
- 1000-foot interval cross sections will be shown on the survey, from right-of-way to right-of-way including pavement edges, centerline, swales, ditches, guardrails, top of banks and edge of water. The cross sections will be extended to include the bottom of water up to the centerline of the canal. Cross sections will be obtained solely from VRS RTK GPS equipment. Hydrone dual beam sonar equipment will be utilized for bottom of water data collection. Dual beam sonar will collect the first return (top of silt) and second return (bottom of silt). Manual silt truing will be obtained every 2000 feet and compared to dual beam data. Both elevations will be shown on the survey. Cross section data will be legible on 100-scale drawings. Leaders will be used.
- Locate (horizontal and vertical) drainage structures, water control structures and culverts including rims/tops, inverts, pipe sizes, and materials. Structures will be obtained solely from VRS RTK GPS equipment.
- Locate 336 geotechnical borings with ground or top elevation.
- 5000-foot interval stations, PC, PI, and PTs will be staked in the field with mag nails and washers or iron rod and caps.
- Data on found points will be collected and shown on the survey.
- Provide right-of-way and baseline on the project limits. If a historic baseline does not exist, one will

3970 RCA Blvd. Suite #7750  
Palm Beach Gardens, FL 33410

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be created (established from south to north and west to east). Information will be based on readily available data such as plats, deeds, and the property appraiser's website. Property lines will be shown. Field monumentation will be searched for and located. Road right-of-way reports will be included, if provided by Palm Beach County. The County will be advised of any apparent missing right-of-way documentation or of any apparent gaps or overlaps in the right-of-way per the documents provided. State plane coordinates and ties to section corners or geodetic control points will be added at the beginning and ending of the baseline. The FDOT aerial will be downloaded and added to the linework.

- Calculate and show state plane coordinates at the start/end of the baseline.
- Horizontal and vertical data will be obtained on set points. This data will be shown on the survey.
- Field Consolidation Test Survey: ZCG proposes a **Field Consolidation Test Survey** as described below:  
ZCG will monitor the field consolidation test sites to record the incremental vertical settlement of the soil over time. ZCG will coordinate with the geotechnical engineer during the testing period. The survey will be done as follows:
  - A total of 4 sites will be chosen by the geotechnical engineer.
  - A crew will be at the test site for 3 hours a day for the first 3 days, then once a week for 3 weeks for 3 hours a day.

#### **Deliverables**

- DGN (SURVRD01.dgn) and PDF (digitally signed) of Specific Purpose / Right of Way Survey, 11"x17" sheets at 1"=100' scale.
- Digitally signed Specific Purpose / Right of Way Survey.
- An ASCII file of points (x,y,z).
- Set Baseline Points.
- Field Consolidation test reports.
- Settlement Plate test reports.

#### **Scope of Optional Services:**

Geotechnical borings as described below:

- 25 additional geotechnical borings will be shown on the survey, including the ground and top elevation.

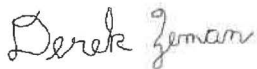
#### **Schedule for Survey Services:**

We propose to mobilize for this immediately after receipt of this proposal is duly signed and barring weather and any unforeseen conditions.

**Fees:** See attached

Thank you for the opportunity to offer a proposal as outlined above and we look forward to working with you on this project.

Sincerely,



**Derek Zeman-President  
Zeman Consulting Group**

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Project Activity 14: Survey - Field - BASIC SERVICES						
Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.1	Horizontal Project Control (HPC)					
	2-Lane Roadway	LM	0.00	0.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.2	Vertical PC / Bench Line					
	2-Lane Roadway	LM	0.00	0.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.3	Reference Points					
	2-Lane Roadway	EA	0.00	0.00	0	
	Multi-lane Roadway	EA	0.00	0.00	0	
14.4	Baseline Layout	LM	14.00	1.00	14	Stake Baseline at 5,000-foot intervals and PC's, PT's, and PI's
14.5	Section, Subdivision & Property Ties	EA	24.00	4.00	96	Locate Section Corners, 1/4 section corners, property corners as needed
14.6	Topography/DTM (3D)	LM	0.00	0.00	0.00	
14.7	Cross Sections	EA	48.00	1.50	72.00	Perform Cross Sections at 1,000-foot intervals with VRS RTK GPS including dual beam sonar.
14.8	Side Street Surveys	LM			0.00	
14.9	SUE	LM	0.00	0.00	0	
14.10	Locates - Pothole	EA	0.00	0.00	0	
14.11	Outfall Survey	LM	0.00	0.00	0	
14.12	Drainage Survey	EA	30.00	1.00	30	Locate 30+/- Drainage Structures / Outfall / Culverts
14.13	Bridge Survey	EA	0.00	0.00	0	
14.14	Canal Survey	LM	0.00	0.00	0	
14.15	Channel Survey and Soundings	LS	0.00	0.00	0	
14.16	Pond Site Survey	EA	0.00	0.00	0	
14.17	Jurisdictional Line Survey	LS	0.00	0.00	0	
14.18	Tree Survey	EA	0.00	0.10	0	

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.19	Geotech Survey	LM	336.00	0.25	84	Locate 336 Geotech Borings with VRS RTK GPS
14.20	Boundary Survey	LS	0.00	0.00	0	
14.21	Topographic Survey	LS	0.00	50.00	0	
14.22	Specific Purpose Survey	LS	0.00	0.00	0	
14.23	Hydrographic Survey	LS	0.00	0.00	0	
14.24	Field Consolidation Test Survey	LS	24.00	8.00	192	Field Consolidation Testing 4 sites X 6
14.24	Settlement Plate Test Survey	LS	12.00	8.00	96	Settlement Test Survey 8 sites X 12 months
14.26	R/W Staking					
	Parcel	EA	0.00	0.00	0	
	R/W Line	LM	0.00	0.00	0	
14.27	Meetings	EA	1.00	2.00	2	<i>Kickoff Meetings</i>
<b>14. Survey - Field Total</b>					<b>586</b>	

Project Activity 15: Survey Plans - BASIC SERVICES						
Task No.	Task	Units	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
15.1	Alignment	EA	1.00	25.00	25	Determine centerline of County Road 880
15.2	Section and 1/4 Section Lines	EA	28.00	0.60	17	Search and process section corners
15.3	Subdivisions / Property Lines	EA	1.00	20.00	20	Determine Property Lines from monumentation and record data
15.4	Existing R/W	EA	1.00	25.00	25	Establish existing ROW on street and lands
15.5	Topography	Sheet	32.00	1.00	32	show existing benchmarks, drainage, cross sections and geotech boring locations
15.6	Parent Tract Properties/Existing Easements	EA	0.00	0.00	0	
15.7	Title Review	LS	1.00	40.00	40	Review and process road right of way package
15.8	Jurisdictional/Agency Lines	LM	36.00	1.00	36	Prepare field consolidation and plate settlement reports
15.9	Survey Key Sheet	Sheet	2.00	10.00	20	Prepare 2 Key Sheets
15.10	Survey Detail & Legend Sheet	Sheet	1.00	10.00	10	Prepare Cover Sheets
15.11	Reference Point Sheet	EA	0.00	0.00	0	
15.12	Project Control Sheet	Sheet	0.00	0.00	0	
15.13	Specific Purpose & Topographic Survey	Sheet	32.00	3.90	125	Prepare Specific Purpose & Right of Way Survey-32 Panels (1"-100' @ 11"x17")
15.14	Boundary Survey	EA	0.00	0.00	0	
15.15	Technical Meetings	EA	0.00	0.00	0	
<b>15. Survey Plans Total</b>					<b>350</b>	

**Estimate of Work Effort and Cost**

Name of Project:		County Road 880 (West Half) 8.7 miles	Consultant Name:				Zeman Consulting Group	Date:		02/12/2026
PBC Project Number:		2024504	Consultant Number:				N/A			
Task Description	Total Staff Hours	Optional Services					Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task	
		Senior Surveyor	Professional Surveyor	Survey /GIS/SUE ANALYST 2	3 Person Survey Crew	3 Person SUE Crew				
		\$64.00	\$55.29	\$34.00	\$79.42	\$77.00				
<b>OPTIONAL SERVICES (Zeman Consulting Group)</b>										
14.00	Survey - Field	6.00	0.00	0.00	1.00	5.00	0.00	6.00	\$ 431.10	\$ 71.85
15.00	Survey - Plans	2.00	0.50	0.50	1.00	0.00	0.00	2.00	\$ 93.65	\$ 46.83
<b>Total Staff Hours (Optional Services)</b>		<b>8.00</b>	<b>0.50</b>	<b>0.50</b>	<b>2.00</b>	<b>5.00</b>	<b>0.00</b>	<b>8.00</b>		<b>\$65.59</b>
<b>Total Staff Cost (Optional Services)</b>			<b>\$32.00</b>	<b>\$27.65</b>	<b>\$68.00</b>	<b>\$397.10</b>	<b>\$0.00</b>		<b>\$524.75</b>	
<b>Optional Services:</b>										
Basic Services (Zeman Group)								\$	524.75	
<b>Raw Rate Basic Services Total:</b>								<b>\$</b>	<b>524.75</b>	
<b>Loaded Fees:</b>										
Raw Rate Optional Services Total:								\$	524.75	
Multiplier Rate:									3.00	
<b>Loaded Total:</b>								<b>\$</b>	<b>1,574.25</b>	
<b>Grand Total Estimated Fees (Zeman Group)</b>								<b>\$</b>	<b>1,574.25</b>	

Project Activity 14: Survey - Field-Optional Services						
Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.1	Horizontal Project Control (HPC)					
	2-Lane Roadway	LM	0.00	0.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.2	Vertical PC / Bench Line					
	2-Lane Roadway	LM	0.00	0.00	0	
	Multi-lane Roadway	LM	0.00	0.00	0	
14.3	Reference Points					
	2-Lane Roadway	EA	0.00	0.00	0	
	Multi-lane Roadway	EA	0.00	0.00	0	
14.4	Baseline Layout	LM	0.00	0.00	0	
14.5	Section, Subdivision & Property Ties	EA	0.00	0.00	0	
14.6	Topography/DTM (3D)	LM	0.00	0.00	0.00	
14.7	Cross Sections	EA	0.00	0.00	0.00	
14.8	Slide Street Surveys	LM	0.00	0.00	0.00	
14.9	SUE	LM	0.00	0.00	0	
14.10	Locates - Pothole	EA	0.00	0.00	0	
14.11	Outfall Survey	LM	0.00	0.00	0	
14.12	Drainage Survey	EA	0.00	0.00	0	
14.13	Bridge Survey	EA	0.00	0.00	0	
14.14	Canal Survey	LM	0.00	0.00	0	
14.15	Channel Survey and Soundings	LS	0.00	0.00	0	
14.16	Pond Site Survey	EA	0.00	0.00	0	
14.17	Jurisdictional Line Survey	LS	0.00	0.00	0	
14.18	Tree Survey	EA	0.00	0.10	0	

Task No.	Task	Units	No of Units	Hours/Unit	Total Hours	Comments
14.19	Geotech Survey	LM	25.00	0.25	6	Locate 25 Geotech Borings with VRS RTK GPS
14.20	Boundary Survey	LS	0.00	0.00	0	
14.21	Topographic Survey	LS	0.00	50.00	0	
14.22	Specific Purpose Survey	LS	0.00	0.00	0	
14.23	Hydrographic Survey	LS	0.00	0.00	0	
14.24	Field Consolidation Test Survey	LS	0.00	0.00	0	
14.24	Settlement Plate Test Survey	LS	0.00	0.00	0	
14.26	R/W Staking					
	Parcel	EA	0.00	0.00	0	
	R/W Line	LM	0.00	0.00	0	
14.27	Meetings	EA	0.00	0.00	0	
<b>14. Survey - Field Total</b>					<b>6</b>	

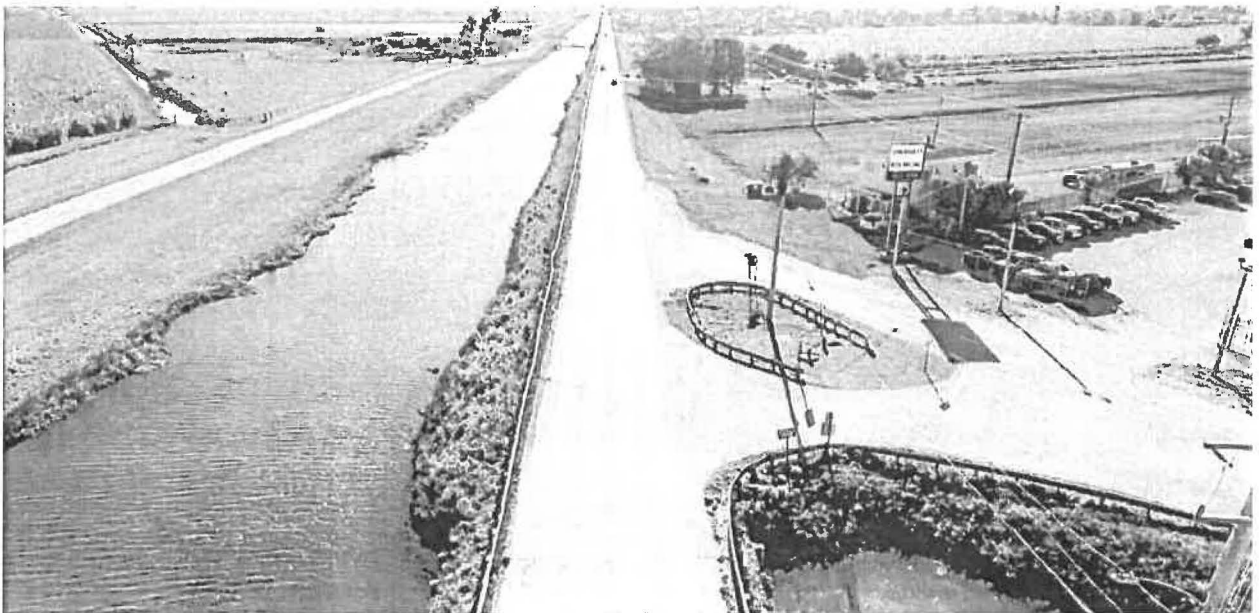
Project Activity 15: Survey Plans-Optional Services						
Task No.	Task	Units	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
15.1	Alignment	EA	0.00	0.00	0	
15.2	Section and 1/4 Section Lines	EA	0.00	0.00	0	
15.3	Subdivisions / Property Lines	EA	0.00	0.00	0	
15.4	Existing R/W	EA	0.00	0.00	0	
15.5	Topography	Sheet	32.00	0.06	2	show existing benchmarks, drainage, cross sections and geotech boring locations
15.6	Parent Tract Properties/Existing Easements	EA	0.00	0.00	0	
15.7	Title Review	LS	0.00	0.00	0	
15.8	Jurisdictional/Agency Lines	LM	0.00	1.00	0	
15.9	Survey Key Sheet	Sheet	0.00	0.00	0	
15.10	Survey Detail & Legend Sheet	Sheet	0.00	0.00	0	
15.11	Reference Point Sheet	EA	0.00	0.00	0	
15.12	Project Control Sheet	Sheet	0.00	0.00	0	
15.13	Specific Purpose & Topographic Survey	Sheet	0.00	0.00	0	
15.14	Boundary Survey	EA	0.00	0.00	0	
15.15	Technical Meetings	EA	0.00	0.00	0	
<b>15. Survey Plans Total</b>					<b>2</b>	



## **GEOTECHNICAL SCOPE OF WORK**

**CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80**

**County Project no 2024504**



**Submission Date: February 11, 2026**

**Prepared by:  
PACIFICA Engineering Services LLC  
601 N Congress Avenue, Suite 303  
Delray Beach, Florida 33445**

## INTRODUCTION

OWNER: Palm Beach County

PRIME CONSULTANT: HSQ Group, LLC

GEOTECHNICAL CONSULTANT: PACIFICA Engineering Services LLC

SEGMENT: Sta 351+42 to Sta 722+00

NAME OF PROJECT: CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80

LOCATION OF WORK: Palm Beach County, Florida

PACIFICA Engineering Services LLC. (PACIFICA) is pleased to submit this scope of work to provide geotechnical engineering services for the above-mentioned project. The purpose of the work is to obtain information regarding subsurface materials along the proposed alignments of the project to provide subsurface data necessary for geotechnical analysis and design to support the Project design. Site characterization, including interpretation of site data, selection of material characteristics and engineering properties, as well as recommended parameters to be used in valuation to support the rehabilitation and widening area. The field investigations will be conducted in accordance with FDOT's Soils and Foundations Handbook.

## GEOTECHNICAL SCOPE OF WORK

Our geotechnical scope of work for this project will consist of field exploration, specialized laboratory testing, evaluation of treatment options for muck soils and existing pavement, and preparation of engineering recommendations.

The scope is organized into the following components: General Services, Field Exploration/In-Situ Testing & Instrumentation, Laboratory Testing of Soil, FDR Mix Design Asphalt Field Testing, FDR Mix Design Asphalt Laboratory Testing, Treatment Options Evaluation, Reporting & Deliverables, Cost Evaluation & Coordination, and Quality Control.

### General Services:

- Visit the site to field stake the planned boring and test locations, and observe the existing site conditions.
  - Contact Sunshine 811 to request field location and clearance of underground utilities in the area of the boring and test locations as per Florida Statutes.
-

- Obtain a Right-of-Way (ROW) Permit from Palm Beach County and SFWMD prior to commencement of any field work activities within the County and SFWMD ROW, and implement MOT procedures (i.e. signs, cones, flaggers, etc.) for traffic control and safety purposes.
- Review readily available published topographic and soils information. This information will be obtained from the "Soil Survey of Palm Beach County, Florida" published by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS).

#### **Field Exploration / In-Situ Testing & Instrumentation:**

- **Split Spoon Testing:** Mobilize truck-mounted and track-mounted drilling rigs, and crew to the project site to perform Standard Penetration Test (SPT) soil borings to depths of 30 feet within the existing roadway and 20 feet within the widening area. The borings will be drilled using wet-rotary methods in general accordance with ASTM D 5783 "*Standard Guide for Use of Direct Rotary Drilling with Water Based Drilling Fluid*" to facilitate identification of subsurface materials and the collection of samples during the performance of the SPT. The SPT sampling will be performed continuously throughout the explored depths and will be performed in general accordance with ASTM D1586, "*Standard Method for Penetration Test and Split-Barrel Sampling of Soils*" using 1-3/8-inch diameter split-spoon sampler along with an automatic hammer. The groundwater levels will be recorded for each SPT boring performed during drilling and then the boreholes will be sealed with cement-bentonite grout and the pavement patched with cold asphalt patch where necessary. Records of materials encountered during drilling, field measured N-values and observations as well as classifications of these materials will be compiled into a boring log for each location drilled and sampled.
  - **Vane Shear:** Perform field vane shear testing in general accordance with ASTM D2573 in selected companion borings adjacent to the SPT borings. The testing procedure measures the shear resistance by utilizing a four-vane, symmetrical segment of rod inserted into a subject soil. Field vane testing shall commence within 5 minutes of insertion of the vane shear. A calibrated hand torque application and measurement apparatus rotates the vane about its axis at a relatively slow constant rate which is intended to measure the undrained shear strength ( $S_u$ ) of the soil. Both peak initial undrained and residual undrained shear strengths will be measured and recorded to assist the properties of the in-situ muck.
  - **Shelby Tube:** Undisturbed thin-walled (Shelby) tube samples will be taken at selected companion borings adjacent to the SPT borings. Undisturbed Shelby tube samples of organic soils overlying the near-surface limestone stratum will be
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obtained by pushing Shelby tubes into the soil in accordance with ASTM D1587. The samples will then be wax sealed, and carefully transported to the laboratory for testing purposes. Undisturbed samples will be tested for consolidation to determine the long term settlement characteristics of the muck.

- **Ground Water Monitoring wells:** Piezometers will be installed within the compressible layer to monitor pore water pressure changes, particularly in response to excavation, groundwater fluctuations, or rainfall events. Baseline readings will be recorded immediately after installation. Pore pressure measurements will be recorded on a weekly basis initially, with frequency adjusted based on observed changes. Monitoring will continue up to the design phase or until stabilization of readings. Collected data will be used to develop pore pressure dissipation curves. The recorded data will assist in off-site analyses for seepage management during construction and slope-stability modeling to support design evaluations. This monitoring program will ensure that subsurface water conditions are properly characterized for both short-term construction planning and long-term performance assessment.

Install standpipe piezometers. The clustered piezometers will be isolated in selected soil/rock layers within the upper 30 feet of subsurface profile. Well screens will be isolated by installation of a minimum 2 foot thick pelletized clay bentonite zone within the borehole. The annular area of the borehole above the bentonite clay seal shall be backfilled with a cement-bentonite grout to ground surface. The piezometers will be completed at the surface with an aluminum standpipe set in a concrete pad. The transducers will be installed within each piezometer to monitor the water levels. It is paired with a solar charged, battery powered data acquisition system which automatically uploads measurements to a cloud-based data management system and can be accessed at any time logging to Smart hub monitor dashboard. The transducer installation and monitoring will be performed by others within the team.

- **Dilatometer Test:** Perform Flat Plate Dilatometer Tests (DMT) at selected boring locations to obtain in-situ soil stiffness, stress history, and consolidation characteristics. The testing will be performed in general accordance with ASTM D6635 – Standard Test Method for Performing the Flat Plate Dilatometer Test in Soils.
  - **Muck Probes (Optional):** Muck probes will be performed along the proposed alignment between the soil borings within the widening area. The muck depths will be determined by manually advancing a hand held 3/8-inch diameter steel rod into the surficial soils to delineate the transition between soft soil and the underlying limestone. In practice, this method of testing provides very good judgment for soil type and thickness however, it provides no soil samples for visual classification or
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laboratory testing. For the project site, the soft surficial soils are presumed to consist of organic soils (peat) overlying limestone based on USDA soil survey mapping. The muck probes will be recorded in the field using typical logging procedures adapted for this project. Coordinates for each probe location will be obtained using a hand-held global positioning system (GPS) device.

- **Settlement Plates:** Settlement plates will be installed at 4 locations, one location per segment to monitor vertical settlement. These instruments will provide direct measurements of settlement associated with natural soil consolidation. Baseline readings will be recorded immediately after installation, followed by regular monitoring up to the design period. The collected data will be used to evaluate the magnitude and rate of settlement and verify laboratory consolidation results. Findings will assist in assessing subgrade performance and informing decisions regarding ground improvement or surcharge requirements.
- **One Dimensional Field Consolidation:** Large scale field compression load tests will be performed at 4 locations, one location per segment using a 10-foot diameter load platform with 55-gallon drums in two lifts transmitting a load to the ground close to 10 tons, to evaluate the coefficient of volume compressibility ( $mv$ ) of the muck in large scale means and correlate with lab results of one dimensional consolidation tests to better estimate any consolidation settlements due to the imposed loads from the roadway widening and heightening. Then, modeling assessment of the behavior of the existing and proposed embankment using the previously determined soil and muck consolidation properties to determine short- and long-term settlements. The benefit of this large scale field test is that more accurate compression and consolidation characteristics of the muck under real loads in the field will be accomplished as it will be with the roadway widening, covering an area much more representative than the size of a standard lab sample (2.5 inches, compared to 10 feet), meaning that settlements calculations and estimations are going to be more in line with the actual behavior of the muck in place supporting the weight of the widening, rather than relying only of the consolidation tests conducted in the lab. Assuring deformation behavior of the muck material under anticipated loads, will rely on the final design of the road widening meeting geotechnical standards and practice.

#### Laboratory Testing of Soil:

- **Soil Classification:** Visually classify the collected soil and rock samples in the field, with subsequent laboratory confirmation/QC verification of classifications using the Unified Soil Classification System (USCS) in general accordance with the visual-manual method of ASTM D2488. Assign laboratory testing of selected soil samples for index property determinations limited to moisture content, fines content, full grain
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size analysis, Atterberg limits, specific gravity, and organic content tests to assist in classifying the soils for engineering purposes (ASTM D2487). Additionally, consolidation tests will be performed on undisturbed samples to assess the engineering properties of the subsoils.

- **Triaxial Test:** Measures shear strength parameters (cohesion and friction angle) of soils under controlled stress paths. Specifically evaluates the strength parameters of the muck layers at the time of sampling, providing reliable input for assessing their stability and suitability for treatment rather than removal.
  - **Natural Moisture Test:** Determines the in-situ water content of soil samples at the time of sampling. Provides a direct measure of the moisture condition of the muck layers at sampling, which is critical for evaluating their compressibility, and potential for settlement. For sands, it helps assess whether the soils are near optimum moisture conditions for compaction characteristics.
  - **Organic Content:** Laboratory organic content tests quantify the percentage of organics. Identifies problematic muck zones with high organics that reduce strength and increase compressibility. Essential for deciding whether treatment, stabilization, or partial replacement is viable. High organic content explains why these layers are weak and subject to settlement. Identifying organic levels is critical to determine whether stabilization will be effective or if partial removal is needed. Organic content testing confirms whether soils are “clean” enough for structural use. Even small amounts of organics in granular soils can reduce density and long-term strength.
  - **Full Grain Size:** Grain size distribution separates soil fractions (gravel, sand, silt, clay) to classify soils and evaluate engineering behavior. Proper gradation improves drainage, densification, and load-bearing behavior. While not the primary test for muck, grain size analysis still shows how much silt/clay fraction is present and can be cross-checked with Atterberg limits for classification.
  - **Atterberg Limits:** Atterberg Limits (Liquid Limit, Plastic Limit, Plasticity Index) define the consistency and plasticity characteristics of fine-grained soils. For muck / cohesive soils: These parameters are essential for classification (CL, CH, OL, OH, etc.) under USCS. High plasticity indicates higher compressibility, greater settlement potential, and possible shrink–swell behavior. Since muck layers are often highly plastic with organics, this test confirms their engineering limitations and helps predict long-term performance.
  - **Passing #200 Sieve:** The #200 sieve separates particles finer than 0.075 mm (silts and clays) from the sand and gravel fractions. It quantifies fines content, which strongly influences soil classification and performance. Determines how fines influence strength, permeability, and compaction. For muck, excessive fines
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exacerbate settlement issues; for sands, limited fines can enhance binding and stability if controlled.

- **One-Dimensional Consolidation Test:** The consolidation test measures the compressibility and rate of settlement of cohesive soils when subjected to incremental vertical loading. This test is essential because muck typically undergoes significant consolidation settlement over time. The results ( $C_c$ ,  $C_r$ ,  $C_v$ , etc.) allows to estimate both the magnitude and the time rate of settlement, which are critical to deciding whether the muck can be treated in place or requires partial removal.
- **Specific Gravity:** Specific Gravity of soil solids is the ratio of the unit weight of soil solids to that of water. It's a fundamental property used in calculations of void ratio, degree of saturation, and unit weight relationships. For muck / organic soils, organic soils tend to have lower specific gravity values (typically  $< 2.40$ ), which distinguishes them from typical mineral soils ( $\sim 2.65$ – $2.75$ ). This helps identify the presence and extent of organic matter, which directly affects strength and compressibility. For sands/granular soils, specific gravity confirms the mineralogical composition (quartz-rich sands vs. heavier minerals). It is also needed for phase relationship calculations that support compaction and strength evaluations.
- **Limerock Bearing Ratio (LBR):** The LBR test measures the supporting capacity of subgrade soils and base materials under a simulated traffic load. Provides design input for pavement thickness and structural adequacy. Most applicable to sands and treated soils once stabilized.

#### **FDR Mix Design Asphalt Field Testing (OPTIONAL SERVICES):**

- **Asphalt Core (6 inch diameter):** Mobilize asphalt pavement coring equipment and perform asphalt coring using a 6-inch diamond-tipped core drill bit. Following core extraction, a hand-held power auger and a hand-operated bucket-type auger will be used to loosen the underlying base course material and clean out the borehole. Down-hole field measurements will be obtained using a surveyor's tape to document the approximate thickness and composition of the pavement and base materials encountered. Representative samples of the base course material, collected using the bucket-type auger, will be sealed in moisture-proof bags and transported to the laboratory for further evaluation.
  - **Hand Auger (5' below subbase):** Hand auger borings will be performed within the alignment to evaluate shallow subsurface conditions beneath the pavement. This approach provides a cost-effective and flexible means of evaluating subsurface conditions without the need for heavy equipment. Samples obtained from the hand auger borings will be classified and preserved for laboratory testing
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where appropriate. The information gained will be used to assess soil variability along the alignment.

#### **FDR Mix Design Asphalt Laboratory Testing (OPTIONAL SERVICES):**

- **Sieve Analysis:** Verifies the reclaimed/pulverized material's particle-size distribution. Proper gradation improves aggregate interlock, enables uniform binder dispersion, controls fines, and supports strength and durability.
- **Unconfined Compressive Strength (UCS):** Primary strength metric for cement/cementitious FDR. Binder percentage is tuned to meet a target UCS at specified cure (e.g., 7 days), supporting structural adequacy and layer coefficient assumptions.
- **Modified Proctor (Moisture–Density Relationship; ASTM D1557)** Determines Optimum Moisture Content (OMC) and Maximum Dry Density (MDD) for the FDR blend so lab specimens and field construction can be compacted to  $\geq$  specified % of MDD. Adequate compaction is essential for strength and moisture resistance.
- **Marshall Stability:** Checks the mix's load-carrying capacity and resistance to plastic deformation; helps select/verify optimum emulsion and cement content, ensuring adequate early-age and long-term stability.
- **Maximum Specific Gravity (Rice, Gmm) (for emulsion-treated FDR):** Establishes theoretical maximum density to compute air voids, verify compaction/curing, and help optimize emulsion content. This test will be performed by others.

#### **Treatment Options Evaluation:**

- The following treatment options will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
    - Constructing embankment over existing peat
    - Excavation and replacement with engineered fill
    - Geosynthetic reinforcement
    - Mass soil mixing
    - Rigid inclusions
    - Surcharge and preloading
  - The following methods for dealing with the existing pavement will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
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- Pavement coring and structural evaluation
- Base material evaluation and reuse
- Full-Depth Reclamation (FDR)
- Complete removal and replacement
- Geosynthetic reinforcement at base/subgrade Interface
- Surcharge and preloading

### **Reporting & Deliverables:**

- A Geotechnical Engineering Report will be prepared based on the findings of the field exploration, laboratory testing, and engineering evaluation. The report will include:
    - Overall site map showing the locations of all soil borings and test locations.
    - Ground water level elevations (including seasonal fluctuation).
    - Soil borings subsurface profiles showing soil classifications, depth, groundwater, and standard penetration “N values”, and soil description.
    - Locations and descriptions of any existing fill or potentially deleterious materials encountered at the site that may interfere with construction progress or structure performance.
    - Laboratory test results.
    - Pavement structure evaluation, including thicknesses and condition of asphalt and base layers.
    - Delineation of muck/organic soil extents and depths based on probes and borings.
    - Evaluation of undrained shear strength and compressibility parameters of soft soils.
    - Recommendations for muck treatment and subgrade improvement options
    - Perform canal bank slope stability analysis to evaluate short-term (construction) and long-term performance conditions.
    - Recommendations for pavement reconstruction, including base preparation and support measures.
    - Discussion of constructability considerations and long-term performance risks.
  - Compiling and sharing all boring logs, laboratory test results, and other relevant geotechnical data obtained during our investigation with the other geotechnical subconsultant firms involved in the project.
  - Geotechnical Consultant to provide the boring logs on 11”x17” sheets as well as in AutoCAD. Each boring log will be referred to by an approximate station and
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offset from the centerline that will be provided by HSQ. The numerical numbers of borings will be coordinated with HSQ.

- Prepare and submit a comprehensive geotechnical report that independently addresses the entire 17.46-mile project corridor, including both the existing pavement and proposed widening areas. This report shall be developed irrespective of our assigned segment length and will reflect a complete understanding of the project corridor.
- Coordinating with the client, who will be responsible for compiling the final geotechnical report package and submitting it to the project owner.

**Quality Control:**

- Conducting quality control (QC) reviews of the geotechnical reports prepared by the other firms on the HSQ team.

**Schedule:**

The geotechnical engineering evaluation can begin one day after we receive authorization to proceed. PACIFICA will start drilling after underground utilities have been located and identified, which may take 2-4 business days. The field exploration should be completed within 60 business days. The written report of the subsurface exploration and engineering evaluation will be available within 30-40 business days following the field demobilization. We estimate that our study will be completed within 6 months from your notice to proceed.

**CLOSING**

PACIFICA appreciates the opportunity to submit this scope of work and look forward to the opportunity of working with you. If you have any questions or would like to discuss the details of this proposal, please do not hesitate to give us a call at (561) 419-8460.

Sincerely,

**PACIFICA Engineering Services, LLC5**

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Name of Project: CR 880 FROM MARTIN LUTHER KING JR. BLVD TO SR 80  
PBC Project Number: 2024504

Subconsultant Name: Pacifica Engineering Services  
subconsultant Number:

Date: 2/12/2026

Task Description	Total Staff Hours	Staff Categories						Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal Engineer	Senior Geotechnical Engineer	Staff Engineer	CADD / Drafter	Senior Engineering Technician				
		\$247.25	\$203.74	\$106.13	\$92.17	\$99.96				
<b>BASIC SERVICES</b>										
Geotechnical Engineering Services										
Meetings	475	89.0	175.0	161.0	0.0	50.00	475.0	\$79,744.68	\$ 167.88	
Utility Clearance and Site Reconnaissance	110	0.0	0.0	50.0	0.0	60.00	110.0	\$11,304.10	\$ 102.76	
LBR/ Proctor Sampling	200	0.0	0.0	20.0	0.0	180.00	200.0	\$20,115.40	\$ 100.58	
Field Consolidation Test	316	0.0	0.0	22.0	0.0	294.00	316.0	\$31,723.10	\$ 100.39	
Laboratory Data Reporting and Analysis	150	0.0	50.0	100.0	0.0	0.00	150.0	\$20,800.00	\$ 138.67	
Soil & Rock Classification	160	0.0	80.0	80.0	0.0	0.00	160.0	\$24,789.60	\$ 154.94	
Drafting	220	0.0	0.0	20.0	200.0	0.00	220.0	\$20,556.60	\$ 93.44	
Geotechnical Recommendations	314	50.0	145.0	119.0	0.0	0.00	314.0	\$54,534.27	\$ 173.68	
Preliminary Report	281	62.0	133.0	86.0	0.0	0.00	281.0	\$1,554.10	\$ 183.47	
Final Report	312	87.0	155.0	70.0	0.0	0.00	312.0	\$60,519.55	\$ 193.97	
<b>Total Staff Hours (Basic Services)</b>	<b>2538.0</b>	<b>288.0</b>	<b>738.0</b>	<b>728.0</b>	<b>200.0</b>	<b>584.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
<b>Total Staff Cost (Basic Services)</b>		<b>\$71,208.00</b>	<b>\$150,360.12</b>	<b>\$77,262.64</b>	<b>\$18,434.00</b>	<b>\$58,376.64</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
<b>OPTIONAL SERVICES (FDR MIX DESIGN)</b>										
Meetings	118	58.0	20.0	20.0	0.0	20.00	118.0	\$22,537.10	\$ 190.99	
Utility Clearance and Site Reconnaissance	70	0.0	0.0	0.0	0.0	70.00	70.0	\$6,997.20	\$ 99.96	
Laboratory Data Reporting and Analysis	70	0.0	20.0	50.0	0.0	0.00	70.0	\$9,381.30	\$ 134.02	
Supervision of Field Technicians	30	0.0	0.0	0.0	0.0	30.00	30.0	\$2,998.80	\$ 99.96	
Lab Aggregate Crushing and Blending	70	0.0	0.0	50.0	0.0	20.00	70.0	\$7,505.70	\$ 104.37	
Drafting	75	0.0	0.0	20.0	55.0	0.00	75.0	\$7,191.95	\$ 95.89	
Geotechnical Recommendations	110	30.0	30.0	50.0	0.0	0.00	110.0	\$18,836.20	\$ 171.24	
FDR Mix Designs	14	14.0	0.0	0.0	0.0	0.00	14.0	\$3,461.50	\$ 247.25	
Preliminary Report	95	48.0	22.0	25.0	0.0	0.00	95.0	\$19,003.53	\$ 200.04	
Final Report	70.0	40.0	20.0	10.0	0.0	0.00	70.0	\$15,026.10	\$ 214.66	
<b>Total Staff Hours (Optional Services)</b>	<b>722.0</b>	<b>190.0</b>	<b>112.0</b>	<b>225.0</b>	<b>55.0</b>	<b>140.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
<b>Total Staff Cost (Optional Services)</b>		<b>\$46,977.50</b>	<b>\$22,818.88</b>	<b>\$23,879.25</b>	<b>\$5,069.35</b>	<b>\$13,994.40</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	

EBO SBE Calculation for this Fee Summary	SBE \$	Non-SBE \$
	\$1,155,708.28	\$0.00

<b>Basic Services:</b>	
Salary Related Costs:	\$375,641.40
Contract Multiplier 2.94 (The Multiplier is not included in the calculation, this is information only)	
<b>Subtotal Basic Services (Prime):</b>	<b>\$375,641.40</b>
<b>Reimbursables:</b>	
Field and Laboratory Tests (see Sheet Tabs Breakdown below)	\$533,536.00
<b>Reimbursables Total:</b>	<b>\$533,536.00</b>
<b>Optional Services:</b>	
Salary Related Costs:	\$112,739.38
<b>Optional Services Total:</b>	<b>\$112,739.38</b>
<b>Optional Reimbursables:</b>	
OPTIONAL Reimbursables: SEE ATTACHED FDR MIX DESIGN BREAKDOWN	\$133,791.50
<b>Optional Reimbursables Total:</b>	<b>\$133,791.50</b>
<b>Grand Total Estimated Fees:</b>	<b>\$1,155,708.28</b>

<b>COST BREAKDOWN</b>				
<b>17-Feb-26</b>				
<u>DESCRIPTION</u>	<u>UNIT</u>	<u># OF UNITS</u>	<u>UNIT RATE</u>	<u>TOTAL</u>
<b>I. FIELD EXPLORATIONS</b>				
Mobilization of drilling equipment to project (Minimum Charge): 50 mile travel	each	12.0	\$490.00	\$5,880.00
Support Truck	each	35.0	\$150.00	\$5,250.00
Standard Penetration Tests - Truck Rig (0' - 50')	feet	3100.0	\$16.00	\$49,600.00
Casing (0' - 50')	feet	3100.0	\$5.95	\$18,445.00
Grout - Truck Mounted Rig - 0 to 50 feet	feet	3100.0	\$5.76	\$17,856.00
Muck Probing (4 hr minimum)	hour	40.0	\$100.00	\$4,000.00
Vane Shear Testing	each	6.0	\$150.00	\$900.00
Shelby Tube	each	124.0	\$150.00	\$18,600.00
Shelby Tube (Wash Boring & Grouting)	feet	744.0	\$19.00	\$14,136.00
Dilatometer Test	each	15.0	\$1,400.00	\$21,000.00
Settlement Plates	each	1.0	\$1,550.00	\$1,550.00
One Dimensional Field Consolidation Test	each	1.0	\$24,750.00	\$24,750.00
Install Groundwater Monitoring Well, 30' Depth (per PBCWUD Standards & Details)	feet	450.0	\$50.00	\$22,500.00
Plug & Abandon Monitoring Well, 30' Depth	hour	45.0	\$100.00	\$4,500.00
Locking Well Covers & Pads	each	15.0	\$200.00	\$3,000.00
Smart Water Monitor Data Collector (Including Piezometer and Remote Monitor)	each	15.0	\$5,000.00	\$75,000.00
Piezometer Setup and Installation	hour	60.0	\$145.00	\$8,700.00
<b>II. LABORATORY TESTING</b>				
Determination of Organic Content	each	344.0	\$55.00	\$18,920.00
Natural Moisture Content	each	906.0	\$15.00	\$13,590.00
Grain size determination: Wash through (#200)	each	337.0	\$60.00	\$20,220.00
Grain size determination: Full grain size (8 sieves)	each	112.0	\$78.00	\$8,736.00
Triaxial Test (CU Triaxial Shear with Pore Pressure Measurements)	each	12.0	\$1,700.00	\$20,400.00
Atterberg Limits	each	112.0	\$100.00	\$11,200.00
Limerock Bearing Ratio (LBR) Test	each	6.0	\$400.00	\$2,400.00
One Dimensional Consolidation Test (Up to 5 Increments)	each	12.0	\$650.00	\$7,800.00
Specific Gravity & Absorption of Fine or Coarse Aggregate	each	6.0	\$70.00	\$420.00
Index Properties (for Consolidation and Triaxial Test Samples)	each	24.0	\$360.00	\$8,640.00
Preperation of Samples for Consolidation and Triaxial Tests	each	24.0	\$250.00	\$6,000.00
<b>III. REIMBURSABLES NOT ADDRESSED IN FEE SCHEDULE</b>				
Maintenance of Traffic (MOT)	day	31.0	\$1,250.00	\$38,750.00
MOT Plan and MOT Permitting	hour	60.0	\$180.00	\$10,800.00
Advance MOT Technician	hour	700.0	\$99.99	\$69,993.00
<b>ESTIMATED GEOTECHNICAL FEE FOR THE PROJECT</b>				<b>\$533,536.00</b>

<b>COST BREAKDOWN - OPTIONAL SERVICES</b>				
<b>17-Feb-26</b>				
<u>DESCRIPTION</u>	<u>UNIT</u>	<u># OF UNITS</u>	<u>UNIT RATE</u>	<u>TOTAL</u>
<b>I. FIELD EXPLORATIONS</b>				
Coring Machine plus Generator Rental	each	7.0	\$380.00	\$2,660.00
Asphalt Cores (obtaining core samples)	each	74.0	\$85.00	\$6,290.00
Hand Augers	feet	370.0	\$12.00	\$4,440.00
<b>II. LABORATORY TESTING</b>				
Natural Moisture Content	each	431.0	\$15.00	\$6,465.00
Grain size determination: Wash through (#200)	each	100.0	\$60.00	\$6,000.00
Grain size determination: Full grain size (8 sieves)	each	31.0	\$78.00	\$2,418.00
Unconfined Compression Test	each	112.0	\$225.00	\$25,200.00
Atterberg Limits	each	37.0	\$100.00	\$3,700.00
Modified Proctor Test	each	19.0	\$150.00	\$2,850.00
Bulk Density	each	125.0	\$90.00	\$11,250.00
Theor Max Specific Gravity	each	19.0	\$200.00	\$3,800.00
Marshall Stability	each	262.0	\$130.00	\$34,060.00
<b>III. REIMBURSABLES NOT ADDRESSED IN FEE SCHEDULE</b>				
Maintenance of Traffic (MOT)	day	6.0	\$1,250.00	\$7,500.00
MOT Plan and MOT Permitting	hour	12.0	\$180.00	\$2,160.00
Advance MOT Technician	hour	150.0	\$99.99	\$14,998.50
<b>ESTIMATED GEOTECHNICAL FEE FOR ADDITIONAL FDR MIX DESIGN SCOPE</b>				<b>\$133,791.50</b>



**GEOTECHNICAL SCOPE OF WORK**  
**CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80**  
**County Project no 2024504**



**Submission Date: February 17, 2026**

**Prepared by:**  
**Tierra South Florida, Inc.**  
**2765 Vista Parkway, Suite H-10**  
**West Palm Beach, Florida**

## INTRODUCTION

OWNER: Palm Beach County

PRIME CONSULTANT: HSQ Group, LLC

GEOTECHNICAL CONSULTANT: Tierra South Florida, Inc.

**SEGMENT: (Sta 791+00 to Sta 996+00) – (exception of 1300) = 19,200'**

NAME OF PROJECT: CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80

LOCATION OF WORK: Palm Beach County, Florida

Tierra South Florida, Inc. (TSFGeo) is pleased to submit this scope of work to provide geotechnical engineering services for the above referenced project. The purpose of the work is to obtain information regarding subsurface materials along the proposed alignments of the project to provide subsurface data necessary for geotechnical analysis and design to support the Project design. Site characterization, including interpretation of site data, selection of material characteristics and engineering properties, as well as recommended parameters to be used in valuation to support the rehabilitation and widening area. The field investigations will be conducted in accordance with FDOT's Soils and Foundations Handbook.

### GEOTECHNICAL SCOPE OF WORK

Our geotechnical scope of work for this project will consist of field exploration, specialized laboratory testing, evaluation of treatment options for muck soils and existing pavement, and preparation of engineering recommendations.

The scope is organized into the following components: General Services, Field Exploration/In-Situ Testing & Instrumentation, Laboratory Testing of Soil, FDR Mix Design Asphalt Field Testing, FDR Mix Design Asphalt Laboratory Testing, Treatment Options Evaluation, Reporting & Deliverables, Cost Evaluation & Coordination, and Quality Control.

#### **General Services:**

- Visit the site to field stake the planned boring and test locations, and observe the existing site conditions.
  - Contact Sunshine 811 to request field location and clearance of underground utilities in the area of the boring and test locations as per Florida Statutes.
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- Obtain a Right-of-Way (ROW) Permit from Palm Beach County and SFWMD prior to commencement of any field work activities within the County and SFWMD ROW, and implement MOT procedures (i.e. signs, cones, flaggers, etc.) for traffic control and safety purposes.
- Review readily available published topographic and soils information. This information will be obtained from the "Soil Survey of Palm Beach County, Florida" published by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS).

#### **Field Exploration / In-Situ Testing & Instrumentation:**

- **Split Spoon Testing:** Mobilize truck-mounted and track-mounted drilling rigs, and crew to the project site to perform Standard Penetration Test (SPT) soil borings to depths of 30 feet within the existing roadway and 20 feet within the widening area. The borings will be drilled using wet-rotary methods in general accordance with ASTM D 5783 "*Standard Guide for Use of Direct Rotary Drilling with Water Based Drilling Fluid*" to facilitate identification of subsurface materials and the collection of samples during the performance of the SPT. The SPT sampling will be performed continuously throughout the explored depths and will be performed in general accordance with ASTM D1586, "*Standard Method for Penetration Test and Split-Barrel Sampling of Soils*" using 1-3/8-inch diameter split-spoon sampler along with an automatic hammer. The groundwater levels will be recorded for each SPT boring performed during drilling and then the boreholes will be sealed with cement-bentonite grout and the pavement patched with cold asphalt patch where necessary. Records of materials encountered during drilling, field measured N-values and observations as well as classifications of these materials will be compiled into a boring log for each location drilled and sampled.
  - **Vane Shear:** Perform field vane shear testing in general accordance with ASTM D2573 in selected companion borings adjacent to the SPT borings. The testing procedure measures the shear resistance by utilizing a four-vane, symmetrical segment of rod inserted into a subject soil. Field vane testing shall commence within 5 minutes of insertion of the vane shear. A calibrated hand torque application and measurement apparatus rotates the vane about its axis at a relatively slow constant rate which is intended to measure the undrained shear strength ( $S_u$ ) of the soil. Both peak initial undrained and residual undrained shear strengths will be measured and recorded to assist the properties of the in-situ muck.
  - **Shelby Tube:** Undisturbed thin-walled (Shelby) tube samples will be taken at selected companion borings adjacent to the SPT borings. Undisturbed Shelby tube samples of organic soils overlying the near-surface limestone stratum will be obtained by pushing Shelby tubes into the soil in accordance with ASTM D1587.
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The samples will then be wax sealed, and carefully transported to the laboratory for testing purposes. Undisturbed samples will be tested for consolidation to determine the long term settlement characteristics of the muck.

- **Ground Water Monitoring wells:** Piezometers will be installed within the compressible layer to monitor pore water pressure changes, particularly in response to excavation, groundwater fluctuations, or rainfall events. Baseline readings will be recorded immediately after installation. Pore pressure measurements will be recorded on a weekly basis initially, with frequency adjusted based on observed changes. Monitoring will continue up to the design phase or until stabilization of readings. Collected data will be used to develop pore pressure dissipation curves. The recorded data will assist in off-site analyses for seepage management during construction and slope-stability modeling to support design evaluations. This monitoring program will ensure that subsurface water conditions are properly characterized for both short-term construction planning and long-term performance assessment.

Install standpipe piezometers. The clustered piezometers will be isolated in selected soil/rock layers within the upper 30 feet of subsurface profile. Well screens will be isolated by installation of a minimum 2 foot thick pelletized clay bentonite zone within the borehole. The annular area of the borehole above the bentonite clay seal shall be backfilled with a cement-bentonite grout to ground surface. The piezometers will be completed as the surface with an aluminum standpipe set in a concrete pad. The transducers will be installed within each piezometer to monitor the water levels. It is paired with a solar charged, battery powered data acquisition system which automatically uploads measurements to a cloud-based data management system and can be accessed at any time logging to Smart hub monitor dashboard.

- **Dilatometer Test:** Perform Flat Plate Dilatometer Tests (DMT) at selected boring locations to obtain in-situ soil stiffness, stress history, and consolidation characteristics. The testing will be performed in general accordance with ASTM D6635 – Standard Test Method for Performing the Flat Plate Dilatometer Test in Soils.
  - **Muck Probes (Optional):** Muck probes will be performed along the proposed alignment between the soil borings within the widening area. The muck depths will be determined by manually advancing a hand held 3/8-inch diameter steel rod into the surficial soils to delineate the transition between soft soil and the underlying limestone. In practice, this method of testing provides very good judgment for soil type and thickness however, it provides no soil samples for visual classification or laboratory testing. For the project site, the soft surficial soils are presumed to consist of organic soils (peat) overlying limestone based on USDA soil survey
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mapping. The muck probes will be recorded in the field using typical logging procedures adapted for this project. Coordinates for each probe location will be obtained using a hand-held global positioning system (GPS) device.

- **Settlement Plates:** Settlement plates will be installed at 4 locations, one location per segment to monitor vertical settlement. These instruments will provide direct measurements of settlement associated with natural soil consolidation. Baseline readings will be recorded immediately after installation, followed by regular monitoring up to the design period. The collected data will be used to evaluate the magnitude and rate of settlement and verify laboratory consolidation results. Findings will assist in assessing subgrade performance and informing decisions regarding ground improvement or surcharge requirements.
- **One Dimensional Field Consolidation:** Large scale field compression load tests will be performed at 4 locations, one location per segment using a 10-foot diameter load platform with 55-gallon drums in two lifts transmitting a load to the ground close to 10 tons, to evaluate the coefficient of volume compressibility ( $mv$ ) of the muck in large scale means and correlate with lab results of one dimensional consolidation tests to better estimate any consolidation settlements due to the imposed loads from the roadway widening and heightening. Then, modeling assessment of the behavior of the existing and proposed embankment using the previously determined soil and muck consolidation properties to determine short- and long-term settlements. The benefit of this large scale field test is that more accurate compression and consolidation characteristics of the muck under real loads in the field will be accomplished as it will be with the roadway widening, covering an area much more representative than the size of a standard lab sample (2.5 inches, compared to 10 feet), meaning that settlements calculations and estimations are going to be more in line with the actual behavior of the muck in place supporting the weight of the widening, rather than relying only of the consolidation tests conducted in the lab. Assuring deformation behavior of the muck material under anticipated loads, will relay on the final design of the road widening meeting geotechnical standards and practice.

#### **Laboratory Testing of Soil:**

- **Soil Classification:** Visually classify the collected soil and rock samples in the field, with subsequent laboratory confirmation/QC verification of classifications using the Unified Soil Classification System (USCS) in general accordance with the visual-manual method of ASTM D2488. Assign laboratory testing of selected soil samples for index property determinations limited to moisture content, fines content, full grain size analysis, Atterberg limits, specific gravity, and organic content tests to assist in classifying the soils for engineering purposes (ASTM D2487). Additionally,
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consolidation tests will be performed on undisturbed samples to assess the engineering properties of the subsoils.

- **Triaxial Test:** Measures shear strength parameters (cohesion and friction angle) of soils under controlled stress paths. Specifically evaluates the strength parameters of the muck layers at the time of sampling, providing reliable input for assessing their stability and suitability for treatment rather than removal.
  - **Natural Moisture Test:** Determines the in-situ water content of soil samples at the time of sampling. Provides a direct measure of the moisture condition of the muck layers at sampling, which is critical for evaluating their compressibility, and potential for settlement. For sands, it helps assess whether the soils are near optimum moisture conditions for compaction characteristics.
  - **Organic Content:** Laboratory organic content tests quantify the percentage of organics. Identifies problematic muck zones with high organics that reduce strength and increase compressibility. Essential for deciding whether treatment, stabilization, or partial replacement is viable. High organic content explains why these layers are weak and subject to settlement. Identifying organic levels is critical to determine whether stabilization will be effective or if partial removal is needed. Organic content testing confirms whether soils are “clean” enough for structural use. Even small amounts of organics in granular soils can reduce density and long-term strength.
  - **Full Grain Size:** Grain size distribution separates soil fractions (gravel, sand, silt, clay) to classify soils and evaluate engineering behavior. Proper gradation improves drainage, densification, and load-bearing behavior. While not the primary test for muck, grain size analysis still shows how much silt/clay fraction is present and can be cross-checked with Atterberg limits for classification.
  - **Atterberg Limits:** Atterberg Limits (Liquid Limit, Plastic Limit, Plasticity Index) define the consistency and plasticity characteristics of fine-grained soils. For muck / cohesive soils: These parameters are essential for classification (CL, CH, OL, OH, etc.) under USCS. High plasticity indicates higher compressibility, greater settlement potential, and possible shrink–swell behavior. Since muck layers are often highly plastic with organics, this test confirms their engineering limitations and helps predict long-term performance.
  - **Passing #200 Sieve:** The #200 sieve separates particles finer than 0.075 mm (silts and clays) from the sand and gravel fractions. It quantifies fines content, which strongly influences soil classification and performance. Determines how fines influence strength, permeability, and compaction. For muck, excessive fines exacerbate settlement issues; for sands, limited fines can enhance binding and stability if controlled.
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- **One-Dimensional Consolidation Test:** The consolidation test measures the compressibility and rate of settlement of cohesive soils when subjected to incremental vertical loading. This test is essential because muck typically undergoes significant consolidation settlement over time. The results ( $C_c$ ,  $C_r$ ,  $C_v$ , etc.) allows to estimate both the magnitude and the time rate of settlement, which are critical to deciding whether the muck can be treated in place or requires partial removal.
- **Specific Gravity:** Specific Gravity of soil solids is the ratio of the unit weight of soil solids to that of water. It's a fundamental property used in calculations of void ratio, degree of saturation, and unit weight relationships. For muck / organic soils, organic soils tend to have lower specific gravity values (typically  $< 2.40$ ), which distinguishes them from typical mineral soils ( $\sim 2.65$ – $2.75$ ). This helps identify the presence and extent of organic matter, which directly affects strength and compressibility. For sands/granular soils, specific gravity confirms the mineralogical composition (quartz-rich sands vs. heavier minerals). It is also needed for phase relationship calculations that support compaction and strength evaluations.
- **Limerock Bearing Ratio (LBR):** The LBR test measures the supporting capacity of subgrade soils and base materials under a simulated traffic load. Provides design input for pavement thickness and structural adequacy. Most applicable to sands and treated soils once stabilized.

#### **FDR Mix Design Asphalt Field Testing (OPTIONAL SERVICES):**

- **Asphalt Core (6 inch diameter):** Mobilize asphalt pavement coring equipment and perform asphalt coring using a 6-inch diamond-tipped core drill bit. Following core extraction, a hand-held power auger and a hand-operated bucket-type auger will be used to loosen the underlying base course material and clean out the borehole. Down-hole field measurements will be obtained using a surveyor's tape to document the approximate thickness and composition of the pavement and base materials encountered. Representative samples of the base course material, collected using the bucket-type auger, will be sealed in moisture-proof bags and transported to the laboratory for further evaluation.
  - **Hand Auger (5' below subbase):** Hand auger borings will be performed within the alignment to evaluate shallow subsurface conditions beneath the pavement. This approach provides a cost-effective and flexible means of evaluating subsurface conditions without the need for heavy equipment. Samples obtained from the hand auger borings will be classified and preserved for laboratory testing where appropriate. The information gained will be used to assess soil variability along the alignment.
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### **FDR Mix Design Asphalt Laboratory Testing (OPTIONAL SERVICES):**

- **Sieve Analysis:** Verifies the reclaimed/pulverized material's particle-size distribution. Proper gradation improves aggregate interlock, enables uniform binder dispersion, controls fines, and supports strength and durability.
- **Unconfined Compressive Strength (UCS):** Primary strength metric for cement/cementitious FDR. Binder percentage is tuned to meet a target UCS at specified cure (e.g., 7 days), supporting structural adequacy and layer coefficient assumptions.
- **Modified Proctor (Moisture–Density Relationship; ASTM D1557)** Determines Optimum Moisture Content (OMC) and Maximum Dry Density (MDD) for the FDR blend so lab specimens and field construction can be compacted to  $\geq$  specified % of MDD. Adequate compaction is essential for strength and moisture resistance.
- **Marshall Stability:** Checks the mix's load-carrying capacity and resistance to plastic deformation; helps select/verify optimum emulsion and cement content, ensuring adequate early-age and long-term stability.
- **Maximum Specific Gravity (Rice, Gmm) (for emulsion-treated FDR):** Establishes theoretical maximum density to compute air voids, verify compaction/curing, and help optimize emulsion content.

### **Treatment Options Evaluation:**

- The following treatment options will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
    - Constructing embankment over existing peat
    - Excavation and replacement with engineered fill
    - Geosynthetic reinforcement
    - Mass soil mixing
    - Rigid inclusions
    - Surcharge and preloading
  - The following methods for dealing with the existing pavement will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
    - Pavement coring and structural evaluation
    - Base material evaluation and reuse
    - Full-Depth Reclamation (FDR)
    - Complete removal and replacement
    - Geosynthetic reinforcement at base/subgrade Interface
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- Surcharge and preloading

**Reporting & Deliverables:**

- A Geotechnical Engineering Report will be prepared based on the findings of the field exploration, laboratory testing, and engineering evaluation. The report will include:
    - Overall site map showing the locations of all soil borings and test locations.
    - Ground water level elevations (including seasonal fluctuation).
    - Soil borings subsurface profiles showing soil classifications, depth, groundwater, and standard penetration “N values”, and soil description.
    - Locations and descriptions of any existing fill or potentially deleterious materials encountered at the site that may interfere with construction progress or structure performance.
    - Laboratory test results.
    - Perform canal bank slope stability analysis to evaluate short-term (construction) and long-term performance conditions.
    - Pavement structure evaluation, including thicknesses and condition of asphalt and base layers.
    - Delineation of muck/organic soil extents and depths based on probes and borings.
    - Evaluation of undrained shear strength and compressibility parameters of soft soils.
    - Recommendations for muck treatment and subgrade improvement options
    - Recommendations for pavement reconstruction, including base preparation and support measures.
    - Discussion of constructability considerations and long-term performance risks.
  - Compiling and sharing all boring logs, laboratory test results, and other relevant geotechnical data obtained during our investigation with the other geotechnical subconsultant firms involved in the project.
  - Geotechnical Consultant to provide the boring logs on 11"x17" sheets as well as in AutoCAD. Each boring log will be referred to by an approximate station and offset from the centerline that will be provided by HSQ. The numerical numbers of borings will be coordinated with HSQ.
  - Prepare and submit a comprehensive geotechnical report that independently addresses the entire 17.46-mile project corridor, including both the existing pavement and proposed widening areas. This report shall be developed irrespective of our assigned segment length and will reflect a complete understanding of the project corridor.
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- Coordinating with the client, who will be responsible for compiling the final geotechnical report package and submitting it to the project owner.

**Cost Evaluation & Coordination:**

- Provide and coordinate probable cost estimate for each alternative with other geotechnical subs.

**Quality Control:**

- Conducting quality control (QC) reviews of the geotechnical reports prepared by the other firms on the HSQ team.

**CLOSING**

TSFGeo appreciates the opportunity to submit this scope of work, and look forward to the opportunity of working with you. If you have any questions or would like to discuss the details of this proposal, please do not hesitate to give us a call at (561) 841-0103.

Sincerely,

**Tierra South Florida, Inc.**

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## GEOTECHNICAL SUBCONSULTANT SCOPE OF WORK

Tierra South Florida, Inc will utilize subconsultants (Radise international and Intertek PSI) to perform some of the work as described below:

Radise international will perform the following scope of work:

- Dilatometer tests and provide test results
- Insitu Vane shear tests and provide test results
- Consolidation tests and providing test results
- Triaxial tests and providing test results
- Monitoring Wells – Instrumentation and Monitoring, and providing ground water monitoring data

Intertek PSI will perform the following scope of work:

- FDR mix design and all laboratory work associated with FDR mix design.
- FDR mix design report

Estimate of Work Effort and Cost

Name of Project: CR 880 FROM MARTIN LUTHER KING JR. BLVD TO SR 80  
 PBC Project Number: 2024504

Consultant Name: TSFGEO  
 Consultant Project Number:

Date: 2/17/2026

Task Description	Total Staff Hours	Staff Categories & Unloaded Hourly Rates							Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal Engineer	Senior Geotechnical Engineer	Geotechnical Engineer, P.E.	CADD / Drafter	Senior Engineering Technician	Project Manager	Staff Geotechnical Engineer			
		\$274.05	\$200.01	\$180.00	\$126.00	\$105.00					
<b>BASIC SERVICES</b>											
Geotechnical Engineering Services											
1 Meetings	60.0	10.0	30.0	20.0	0.0	0.0	0.0	0.0	60.0	\$12,340.80	\$ 205.68
2 Utility Clearance and Site Reconnaissance	75.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	75.0	\$7,875.00	\$ 105.00
3 LBR/Proctor Sampling	70.0	0.0	0.0	0.0	0.0	70.0	0.0	0.0	70.0	\$7,350.00	\$ 105.00
4 Field Consolidation Test	120.0	0.0	0.0	0.0	0.0	120.0	0.0	0.0	120.0	\$12,600.00	\$ 105.00
5 Laboratory Data Reporting and Analysis	80.0	0.0	20.0	60.0	0.0	0.0	0.0	0.0	80.0	\$14,800.20	\$ 185.00
6 Soil & Rock Classification	80.0	0.0	20.0	60.0	0.0	0.0	0.0	0.0	80.0	\$14,800.20	\$ 185.00
7 Drafting	105.0	0.0	0.0	0.0	105.0	0.0	0.0	0.0	105.0	\$13,230.00	\$ 126.00
8 Geotechnical Recommendations	49.0	4.0	25.0	20.0	0.0	0.0	0.0	0.0	49.0	\$9,696.45	\$ 197.89
9 Preliminary Report	64.0	4.0	40.0	20.0	0.0	0.0	0.0	0.0	64.0	\$12,696.60	\$ 198.38
10 Final Report	55.0	10.0	25.0	20.0	0.0	0.0	0.0	0.0	55.0	\$11,340.75	\$ 206.20
<b>Total Staff Hours (Basic Services)</b>	<b>758.0</b>	<b>28.0</b>	<b>160.0</b>	<b>200.0</b>	<b>105.0</b>	<b>265.0</b>	<b>0.0</b>	<b>0.0</b>	<b>758.0</b>		<b>\$ 154.00</b>
<b>Total Staff Cost (Basic Services)</b>		<b>\$7,673.40</b>	<b>\$32,001.60</b>	<b>\$36,000.00</b>	<b>\$13,230.00</b>	<b>\$27,825.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$116,730.00</b>	
<b>BASIC SERVICES - RADISE</b>											
Geotechnical Engineering Services											
1 Meetings	26.0	0.0	2.0	8.0	0.0	0.0	0.0	16.0	26.0	\$3,701.76	\$ 142.38
2 Vane Shear Testing	12.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	12.0	\$1,500.48	\$ 125.04
3 Setup, Install and Uninstall Piezometers	40.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0	\$5,001.60	\$ 125.04
4 Daily Boring/Sample Receipt/Layout/Lab Assignments	4.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	\$500.16	\$ 125.04
5 Preliminary Report	40.0	0.0	4.0	20.0	0.0	0.0	0.0	16.0	40.0	\$6,037.44	\$ 150.94
6 Final Report	22.0	0.0	2.0	12.0	0.0	0.0	0.0	8.0	22.0	\$3,336.00	\$ 151.64
<b>Total Staff Hours (Optional Services)</b>	<b>144.0</b>	<b>0.0</b>	<b>8.0</b>	<b>40.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>96.0</b>	<b>144.0</b>		<b>\$ 139.43</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$0.00</b>	<b>\$1,728.00</b>	<b>\$6,345.60</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$12,003.84</b>		<b>\$20,077.44</b>	
<b>OPTIONAL SERVICES - Intertek</b>											
FDR Mix Design Services											
1 Meetings	40.0	33.0	5.0	2.0	0.0	0.0	0.0	0.0	40.0	\$10,089.81	\$ 252.25
2 Review marked core locations by TSF (field visit)	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	\$1,578.06	\$ 263.01
3 Supervision of TSF FDR sampling	24.0	0.0	0.0	0.0	0.0	14.0	0.0	10.0	24.0	\$2,580.00	\$ 107.50
4 Lab Aggregate Crushing and Blending	35.0	0.0	0.0	0.0	0.0	35.0	0.0	0.0	35.0	\$3,622.50	\$ 103.50
5 Conditioning of Lab Fills	25.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	\$2,587.50	\$ 103.50
6 FDR Mix Designs	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	\$3,945.15	\$ 263.01
7 Preliminary Report	30.0	10.0	15.0	5.0	0.0	0.0	0.0	0.0	30.0	\$6,696.60	\$ 223.22
8 Final report	15.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	15.0	\$3,220.35	\$ 214.69
<b>Total Staff Hours (Optional Services)</b>	<b>190.0</b>	<b>69.0</b>	<b>25.0</b>	<b>12.0</b>	<b>0.0</b>	<b>74.0</b>	<b>0.0</b>	<b>10.0</b>	<b>190.0</b>		<b>\$ 180.63</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$18,147.69</b>	<b>\$5,403.00</b>	<b>\$1,979.28</b>	<b>\$0.00</b>	<b>\$7,659.00</b>	<b>\$0.00</b>	<b>\$1,131.00</b>		<b>\$34,319.97</b>	

EBO SBE Calculation for this Fee Summary		SBE \$	Non-SBE \$
	Tierra South Florida, Inc. dba TSFGEO		\$389,579.00
	Radise International, L.C.		\$113,847.44
	Professional Service Industries, Inc. dba Intertek-PSI		\$100,074.97
<b>Totals</b>			<b>\$603,501.41</b>

Basic Services:	
Salary Related Costs (TSFGEO):	\$116,730.00
*Contract Multiplier 3.0	
Salary Related Costs (RADISE):	\$20,077.44
*Contract Multiplier 3.0	
<b>Total Basic Services:</b>	<b>\$136,807.44</b>

Reimbursables:	
TSFGEO	\$272,849.00
RADISE	\$93,770.00
<b>Reimbursables Total:</b>	<b>\$366,619.00</b>

Optional Services:	
Salary Related Costs (Intertek):	\$34,319.97
*Contract Multiplier 2.83	
<b>Optional Services Total:</b>	<b>\$34,319.97</b>

Optional Reimbursables:	
Intertek	\$65,755.00
<b>Optional Reimbursables Total:</b>	<b>\$65,755.00</b>

**Grand Total Estimated Fees: \$603,501.41**

\*Note: Hourly rates provided in table above are loaded rates. Contract multipliers have been included for informational purposes only.

**COST BREAKDOWN - TSFG<sub>00</sub>**

17-Feb-26

DESCRIPTION	UNIT	# OF UNITS	UNIT RATE	TOTAL
<b>I. FIELD EXPLORATIONS</b>				
Mobilization of men and equipment - Truck-mounted equipment	Trip	40.0	\$450.00	\$18,000.00
Support Truck	Trip	57.0	\$150.00	\$8,550.00
Standard Penetration Tests - Truck Rig 0 to 50 feet	Feet	1600.0	\$14.00	\$22,400.00
Casing - Truck Mounted Rig - 0 to 50 feet	Feet	1600.0	\$6.00	\$9,600.00
Grout-Seal Boreholes - Truck Mounted Rig - 0 to 50 feet	Feet	1600.0	\$6.00	\$9,600.00
Asphalt Core (6" Diameter)	Core	77.0	\$85.00	\$6,545.00
Patching Asphalt/Concrete Cored Holes	Each	77.0	\$12.00	\$924.00
Auger Borings	Feet	385.0	\$12.00	\$4,620.00
Shelby Tubes	Test	64.0	\$150.00	\$9,600.00
Shelby Tubes - Wash borings and grouting	Feet	640.0	\$19.00	\$12,160.00
Install Groundwater Monitoring Well (Piezometers)	Feet	240.0	\$60.00	\$14,400.00
Locking Well Covers and Pads	Each	8.0	\$175.00	\$1,400.00
Plug & Abandon Monitoring Well	Hour	64.0	\$100.00	\$6,400.00
Muck Probes (Optional)	Hour	40.0	\$100.00	\$4,000.00
Settlement Plates	Plate	1.0	\$1,500.00	\$1,500.00
One Dimensional Field Consolidation	Test	1.0	\$24,750.00	\$24,750.00
MOT (Maintenance of Traffic)	Set Up	40.0	\$1,800.00	\$72,000.00
Smart Water Monitor Data Collector (Including Piezometers & Remote Data Collection)				See attached fee breakdown from RADISE
<b>II. LABORATORY TESTING</b>				
Natural Sample Moisture Content	Test	527.0	\$25.00	\$13,175.00
Grain size determination: Full grain size (8 sieves)	Test	65.0	\$80.00	\$5,200.00
Grain size determination: Wash through (#200)	Test	196.0	\$55.00	\$10,780.00
Organic Content Test	Test	200.0	\$50.00	\$10,000.00
Atterberg Limits	Test	65.0	\$85.00	\$5,525.00
Specific Gravity	Test	4.0	\$80.00	\$320.00
Limerock Bearing Ratio Test	Test	4.0	\$350.00	\$1,400.00
Triaxial Test - CU Triaxial Shear with Pore Pressure Measurements (3 confining stress, <=2.87 inch diameter)				See attached fee breakdown from RADISE
Index Properties (For Consolidation & Triaxial Test Samples - Includes Atterberg Limits, Moisture Content, Organic Content, & Percent Passing #200 Sieve)				See attached fee breakdown from RADISE
Preparation of Samples for Consolidation and Triaxial Tests				See attached fee breakdown from RADISE
<b>III. FIELD ENGINEERING AND TECHNICAL SERVICES</b>				
Sr. Engineering Technician	Hour	265.0	\$105.00	\$27,825.00
<b>IV. ENGINEERING AND TECHNICAL SERVICES</b>				
Principal Engineer	Hour	28.0	\$274.05	\$7,673.40
Senior Geotechnical Engineer	Hour	160.0	\$200.01	\$32,001.60
Geotechnical Engineer, P.E.	Hour	200.0	\$180.00	\$36,000.00
Draftperson	Hour	105.0	\$126.00	\$13,230.00
<b>ESTIMATED GEOTECHNICAL FEE FOR THE PROJECT</b>				<b>\$389,579.00</b>

Field \$272,849.00  
Salary Costs \$ 116,730.00

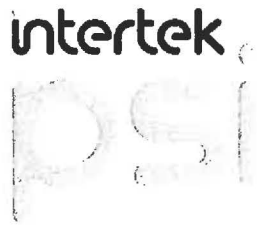
**CR880 - Martin Luther King to SR 80 - Geotechnical  
Project No. 2024504**

<b>FDR Mix Design Asphalt Lab Test (Optional Services)</b>				
<b>Activity</b>	<b>Test frequency per mile</b>			
Finer than #200	16	58	\$ 60.00	\$ 3,480.00
Moisture Content	69	251	\$ 25.00	\$ 6,275.00
Full Sieve Analysis	5	18	\$ 110.00	\$ 1,980.00
Atterberg Limits	6	22	\$ 100.00	\$ 2,200.00
Unconfined Compression	18	65	\$ 225.00	\$ 14,625.00
Modified Proctor	3	11	\$ 150.00	\$ 1,650.00
Bulk Density	20	73	\$ 90.00	\$ 6,570.00
Asphalt Core (6" diameter)	1 per Lane per 500'	0	\$ -	\$ -
Hand Auger (5' below sub base)	At every Core Location	0	\$ -	\$ -
Marshall Stability	42	153	\$ 175.00	\$ 26,775.00
Theor Max Specific Gravity	3	11	\$ 200.00	\$ 2,200.00
<b>TOTAL VALUE FOR ALL FIELD TESTING ACTIVITIES</b>				<b>\$ 65,755.00</b>



**COST ESTIMATE**  
CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80  
Palm Beach County, Florida

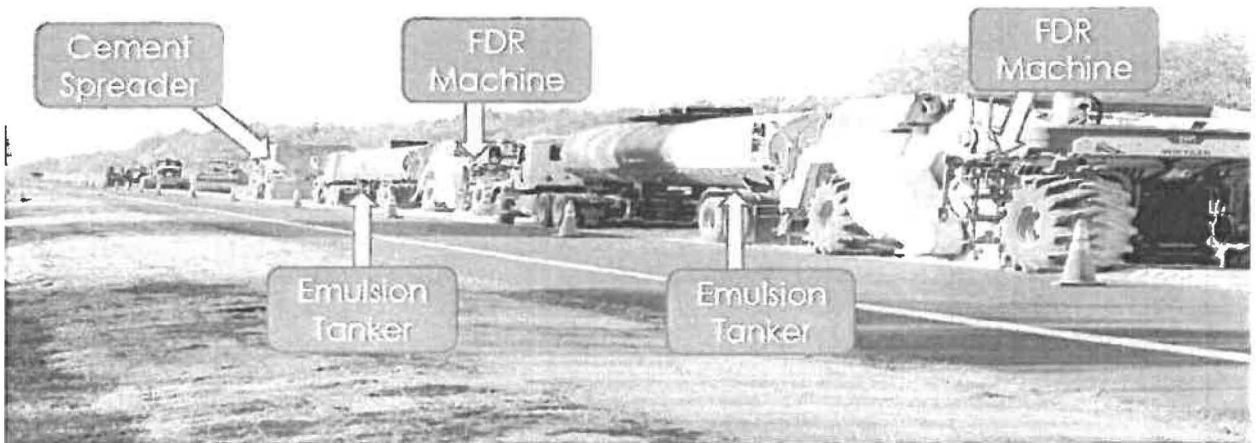
	Unit of Measure	Units	Unit Price	Total
<b>1.0 FIELD EXPLORATION</b>				
1.1 Site Reconnaissance and Boring Layout (Project Engineer)	Hour	8	\$ 125.04	\$ 1,000.32
1.2 Maintenance of Traffic				
1.2.1 Coordination	Hour	8	\$ 125.04	\$ 1,000.32
1.2.2 MOT Implementation	Day	3	\$ 1,800.00	\$ 5,400.00
1.3 Dilatometer Tests (8 to 30 feet) (5 within roadway & 3 within widening area)				
1.3.1 Coring Rig Mobilization	MOB	1	\$ 250.00	\$ 250.00
1.3.2 Patching Asphalt Cored Holes	Each	5	\$ 45.00	\$ 225.00
1.3.3 Coring - Daily Rate	Day	2	\$ 1,360.00	\$ 2,720.00
1.3.4 Test Rig Mobilization				
1.3.5 Hole to Hole Move				
1.3.6 Support Truck	Each	8	\$ 1,400.00	\$ 11,200.00
1.3.7 Flat plate dilatometer test (min. 100 lf per day)				
1.3.8 Grouting				
1.3.9 Predrilling for flat plate dilatometer testing (Different Equipment)	Day		Price \$ 550.00	
1.3.10 Predrilling for flat plate dilatometer testing (labor + materials + equipment) (min. 100 lf per day)	LF		Price \$ 30.00	
1.4 Vane Shear tests (4 to 20 feet) (3 within roadway & 1 within widening area)				
1.4.1 Coring Rig Mobilization	MOB	1	\$ 250.00	\$ 250.00
1.4.2 Patching Asphalt Cored Holes	Each	3	\$ 45.00	\$ 135.00
1.4.3 Coring - Daily Rate	Day	1	\$ 1,360.00	\$ 1,360.00
1.4.4 Drill Rig Mobilization	MOB	1	\$ 550.00	\$ 550.00
1.4.5 Hole to Hole Move	Hole	3	\$ 175.00	\$ 525.00
1.4.6 Support Truck	Day	1	\$ 175.00	\$ 175.00
1.4.7 Wash Boring (min. 100 lf per day)	Foot	80	\$ 13.00	\$ 1,040.00
1.4.8 Insitu Vane Shear Test	Test	4	\$ 150.00	\$ 600.00
1.4.9 Geotechnical Engineer For Testing	Hour	12	\$ 125.04	\$ 1,500.48
1.4.10 Grouting	LF	80	\$ 7.30	\$ 584.00
1.5 Monitoring Wells - Instrumentation / Remote Monitoring - (No Drilling) - 4 Months				
1.5.1 Setup, Install and Uninstall Piezometers				
1.5.1.1 Project Engineer	Hour	40	\$ 125.04	\$ 5,001.60
1.5.1.2 Support Truck	Day	4	\$ 175.00	\$ 700.00
1.5.2 Equipment				
1.5.2.1 Smart Water Monitor Data Collector (Including Piezometers & Remote Monitoring)	Each	8	\$ 4,995.00	\$ 39,960.00
	<b>SUBTOTAL - FIELD WORK</b>			<b>\$ 74,176.72</b>
<b>2.0 LABORATORY SERVICES</b>				
2.1 Daily Boring/Sample Receipt/Layout/Lab Assignments	Hour	4	\$ 125.04	\$ 500.16
2.2 Consolidation Tests; 2.5" diameter (method B) (Up to 5 increments)	Each	8	\$ 600.00	\$ 4,800.00
2.3 Triaxial Tests - ASTM D4767 - CU Triaxial Shear with Pore Pressure Measurements (3 confining stress, <=2.87 inch diameter)	Each	8	\$ 1,692.00	\$ 13,536.00
2.4 Index Properties (Includes Atterberg Limits, Moisture Content, Organic Content, & Percent Passing #200 Sieve)	Each	16	\$ 360.00	\$ 5,760.00
2.5 Preparation of Samples	Each	16	\$ 250.00	\$ 4,000.00
	<b>SUBTOTAL - LABORATORY SERVICES</b>			<b>\$ 28,596.16</b>
<b>3.0 PROFESSIONAL ENGINEERING AND REPORTING SERVICES</b>				
3.1 Senior Engineer	Hour	8	\$ 216.00	\$ 1,728.00
3.2 Geotechnical Engineer	Hour	40	\$ 158.64	\$ 6,345.60
3.3 Staff Engineer	Hour	24	\$ 125.04	\$ 3,000.96
	<b>SUBTOTAL - PROFESSIONAL SERVICES</b>			<b>\$ 11,074.56</b>
	<b>TOTAL AMOUNT</b>			<b>\$ 113,847.44</b>



## GEOTECHNICAL SCOPE OF WORK

### **CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80**

County Project No. 2024504



**February 17, 2026**

**Prepared by:**  
Professional Service Industries, Inc.  
(Intertek-PSI)  
6500 NW 12<sup>th</sup> Avenue, Suite 116  
Fort Lauderdale, FL 33309

## INTRODUCTION

**OWNER:** Palm Beach County

**PRIME CONSULTANT:** HSQ Group, LLC

**GEOTECHNICAL CONSULTANT:** Professional Service Industries, Inc.

**SEGMENT:** Sta 11+00 to Sta 351+42

**NAME OF PROJECT:** CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80

**LOCATION OF WORK:** Palm Beach County, Florida

**DATE:** February 12, 2026

**Professional Service Industries, Inc. (PSI), an Intertek Company,** is pleased to submit this scope of work to provide geotechnical engineering services for the above-referenced project. The purpose of the work is to obtain information regarding subsurface materials along the proposed alignments of the project to provide subsurface data necessary for geotechnical and pavement analysis and design to support the Project design. Site characterization, including interpretation of site data, selection of material characteristics and engineering properties, as well as recommended parameters to be used in evaluation to support the rehabilitation and widening areas. The field investigations will be conducted in accordance with FDOT's Soils and Foundations Handbook.

## GEOTECHNICAL SCOPE OF WORK

Our pavement and geotechnical scope of work for this project will consist of field exploration, specialized laboratory testing, evaluation of treatment options for muck soils and existing pavement, and preparation of engineering recommendations.

The scope is organized into the following components: General Services, Field Exploration/In-Situ Testing & Instrumentation, Laboratory Testing of Soil, Full Depth Reclamation (FDR) Field Sampling (Optional), FDR Mix Design Laboratory Testing (Optional), Treatment Options Evaluation (Optional), Reporting & Deliverables, Cost Evaluation & Coordination, and Quality Control.

### **General Services:**

- Visit the site to field stake the planned boring and test locations and observe the existing site conditions.
- Perform pavement survey and mark the pavement core locations.
- Contact Sunshine 811 to request the field location and clearance of underground utilities in the area of the boring and test locations as per Florida Statutes.
- Obtain a Right-of-Way (ROW) Permit from Palm Beach County and SFWMD prior to commencement of any field work activities within the County and SFWMD ROW, and implement MOT procedures (i.e., signs, cones, flaggers, etc.) for traffic control and safety purposes.

- Review readily available published topographic and soils information and existing geotechnical reports related to the CR880. This information will be obtained from the “Soil Survey of Palm Beach County, Florida” published by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS).

#### Field Exploration / In-Situ Testing & Instrumentation:

- **Split Spoon Testing:** Mobilize truck-mounted and track-mounted drilling rigs, and crew to the project site to perform Standard Penetration Test (SPT) soil borings to depths of 30 feet within the existing roadway and 20 feet within the widening area. The borings will be drilled using wet-rotary methods in general accordance with ASTM D 5783 “*Standard Guide for Use of Direct Rotary Drilling with Water Based Drilling Fluid*” to facilitate identification of subsurface materials and the collection of samples during the performance of the SPT. The SPT sampling will be performed continuously throughout the explored depths and will be performed in general accordance with ASTM D1586, “*Standard Method for Penetration Test and Split-Barrel Sampling of Soils*” using 1-3/8-inch diameter split-spoon sampler along with an automatic hammer. The groundwater levels will be recorded for each SPT boring performed during drilling and then the boreholes will be sealed with cement-bentonite grout and the pavement patched with cold asphalt patch where necessary. Records of materials encountered during drilling, field measured N-values and observations as well as classifications of these materials will be compiled into a boring log for each location drilled and sampled.
- **Vane Shear:** Perform field vane shear testing in general accordance with ASTM D2573 in selected companion borings adjacent to the SPT borings. The testing procedure measures the shear resistance by utilizing a four-vane, symmetrical segment of rod inserted into a subject soil. Field vane testing shall commence within 5 minutes of insertion of the vane shear. A calibrated hand torque application and measurement apparatus rotates the vane about its axis at a relatively slow constant rate which is intended to measure the undrained shear strength ( $S_u$ ) of the soil. Both peak initial undrained and residual undrained shear strengths will be measured and recorded to assist the properties of the in-situ muck.
- **Shelby Tube:** Undisturbed thin walled (Shelby) tube samples will be taken at selected companion borings adjacent to the SPT borings. Undisturbed Shelby tube samples of organic soils and/or muck overlying the near-surface limestone stratum will be obtained by pushing Shelby tubes into the soil in accordance with ASTM D1587. The samples will then be wax sealed and carefully transported to the laboratory for testing purposes. Undisturbed samples will be tested for consolidation to determine the long-term settlement characteristics of the muck.
- **Ground Water Monitoring wells:** Piezometers will be installed within the compressible layer to monitor pore water pressure changes, particularly in response to excavation, groundwater fluctuations, or rainfall events. Baseline readings will be recorded immediately after installation. Pore pressure measurements will be recorded on a weekly basis initially, with frequency adjusted based on observed changes. Monitoring will continue up to the design phase or until stabilization of readings. Collected data will be used to develop pore pressure dissipation curves. The recorded data will assist in off-site

analyses for seepage management during construction and slope-stability modeling to support design evaluations. This monitoring program will ensure that subsurface water conditions are properly characterized for both short-term construction planning and long-term performance assessment.

- **Install standpipe piezometers.** The clustered piezometers will be isolated in selected soil/weathered rock layers within the upper 30 feet of subsurface profile. Well screens will be isolated by installation of a minimum 2-foot-thick pelletized clay bentonite zone within the borehole. The annular area of the borehole above the bentonite clay seal shall be backfilled with a cement-bentonite grout to ground surface. The piezometers will be completed as the surface with an aluminum standpipe set in a concrete pad. The transducers will be installed within each piezometer to monitor the water levels. It is paired with a solar charged, battery powered data acquisition system which automatically uploads measurements to a cloud-based data management system and can be accessed at any time logging to Smart hub monitor dashboard.
- **Dilatometer Test:** Perform Flat Plate Dilatometer Tests (DMT) at selected boring locations to obtain in-situ soil stiffness, stress history, and consolidation characteristics. The testing will be performed in general accordance with ASTM D6635 – Standard Test Method for Performing the Flat Plate Dilatometer Test in Soils.
- **Muck Probes (Optional):** Muck probes will be performed along the proposed alignment between the soil borings within the widening area. The muck depths will be determined by manually advancing a hand held 3/8-inch diameter steel rod into the surficial soils to delineate the transition between soft soil and the underlying limestone. In practice, this method of testing provides very good judgment for soil type and thickness however, it provides no soil samples for visual classification or laboratory testing. For the project site, the weak surficial soils are presumed to consist of organic soils (muck) overlying limestone based on USDA soil survey mapping. The muck probes will be recorded in the field using typical logging procedures adapted for this project. Coordinates for each probe location will be obtained using a hand-held global positioning system (GPS) device.
- **Settlement Plates:** Settlement plates will be installed at four locations, one location per segment to monitor vertical settlement. These instruments will provide direct measurements of settlement associated with natural soil consolidation. Baseline readings will be recorded immediately after installation, followed by regular monitoring up to the design period. The collected data will be used to evaluate the magnitude and rate of settlement to model placement of widening fill and verify laboratory consolidation results. Findings will assist in assessing subgrade performance and informing decisions regarding ground improvement or surcharge requirements.



Field Compression Load Test

- **One Dimensional Field Compression:** Large scale field compression load tests will be performed at four locations, one location per segment using a 10-foot diameter load platform with 55-gallon drums in two lifts transmitting a load to the ground close to 10 tons, to evaluate the coefficient of volume compressibility (mv) of the muck in large scale means, and correlate with lab results of one dimensional consolidation tests to better

estimate any consolidation settlements due to the imposed loads from the roadway widening and heightening. Then, modeling assessment of the behavior of the existing and proposed embankment using the previously determined soil and muck consolidation properties to determine short- and long-term settlements. The benefit of this large scale field test is that more accurate compression and consolidation characteristics of the muck under real loads in the field will be accomplished as it will be with the roadway widening, covering an area much more representative than the size of a standard lab sample (2.5 inches, compared to 10 feet), meaning that settlements calculations and estimations are going to be more in line with the actual behavior of the muck in place supporting the weight of the widening, rather than relying only of the consolidation tests conducted in the lab. Assuring deformation behavior of the muck material under anticipated loads, will rely on the final design of the road widening meeting geotechnical standards and practice.

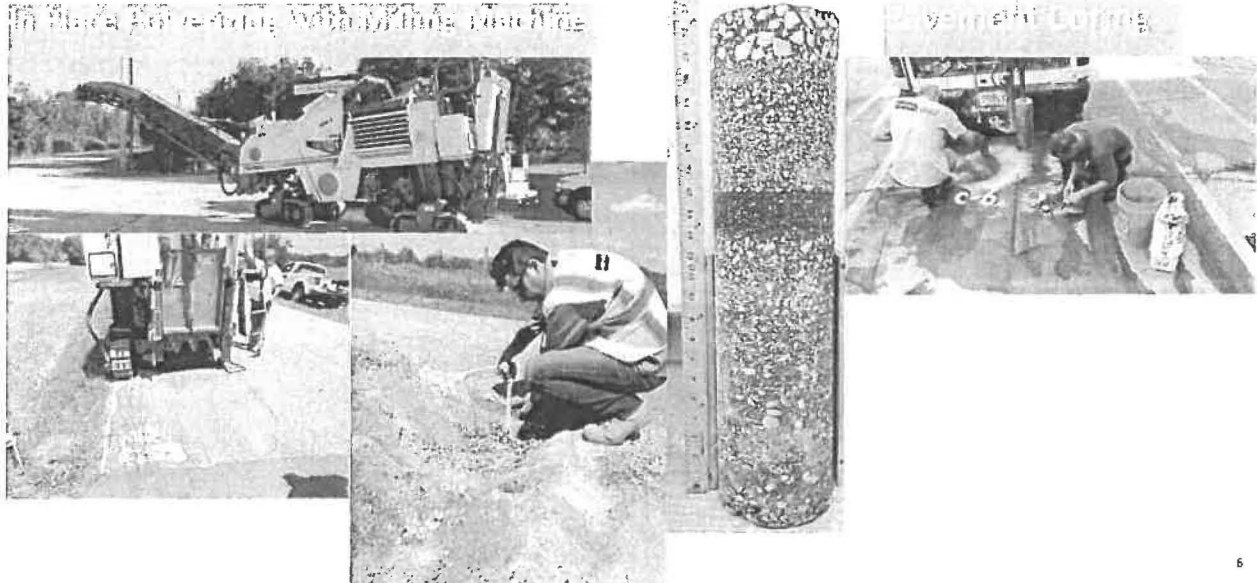
#### Laboratory Testing of Soil:

- **Soil Classification:** Visually classify the collected soil and rock samples in the field, with subsequent laboratory confirmation/QC verification of classifications using the Unified Soil Classification System (USCS) in general accordance with the visual-manual method of ASTM D2488. Soil samples recovered from the pavement borings will be classified in accordance with AASHTO M 145 (AASHTO soil classification). Assign laboratory testing of selected soil samples for index property determinations limited to moisture content, fines content, full grain size analysis, Atterberg limits, specific gravity, and organic content tests to assist in classifying the soils for engineering purposes (ASTM D2487). Additionally, consolidation tests will be performed on undisturbed samples to assess the engineering properties of the subsoils.
- **Triaxial Test:** Measures shear strength parameters (cohesion and friction angle) of soils under controlled stress paths. Specifically evaluates the strength parameters of the muck layers at the time of sampling, providing reliable input for assessing their stability and suitability for treatment rather than removal.
- **Natural Moisture Test:** Determines the in-situ water content of soil samples at the time of sampling. Provides a direct measure of the moisture condition of the muck layers at sampling, which is critical for evaluating their compressibility, and potential for settlement. For sands, it helps assess whether the soils are near optimum moisture conditions for compaction characteristics.
- **Organic Content:** Laboratory organic content tests quantify the percentage of organics. Identifies problematic muck zones with high organics that reduce strength and increase compressibility. Essential for deciding whether treatment, stabilization, or partial replacement is viable. High organic content explains why these layers are weak and subject to settlement. Identifying organic levels is critical to determine whether stabilization will be effective or if partial removal is needed. Organic content testing confirms whether soils are “clean” enough for structural use. Even small amounts of organics in granular soils can reduce density and long-term strength.
- **Full Grain Size:** Grain size distribution separates soil fractions (gravel, sand, silt, clay) to classify soils and evaluate engineering behavior. Proper gradation improves drainage, densification, and load-bearing behavior. While not the primary test for muck, grain size

analysis still shows how much silt/clay fraction is present and can be cross-checked with Atterberg limits for classification.

- **Atterberg Limits:** Atterberg Limits (Liquid Limit, Plastic Limit, Plasticity Index) define the consistency and plasticity characteristics of fine-grained soils. For muck / cohesive soils: These parameters are essential for classification (CL, CH, OL, OH, etc.) under USCS. High plasticity indicates higher compressibility, greater settlement potential, and possible shrink-swell behavior. Since muck layers are often highly plastic with organics, this test confirms their engineering limitations and helps predict long-term performance. Atterberg limits can also correlate if fine, plastic soils, i.e., in-situ muck, are normally or overconsolidated based on the in-situ moisture content, which is a major factor to understand the muck conditions and deformation behavior upon widening loading.
- **Passing #200 Sieve:** The #200 sieve separates particles finer than 0.075 mm (silts and clays) from the sand and gravel fractions. It quantifies fines content, which strongly influences soil classification and performance. Determines how fines influence strength, permeability, and compaction. For muck, excessive fines exacerbate settlement issues; for sands, limited fines can enhance binding and stability if controlled.
- **One-Dimensional Consolidation Test:** The consolidation test measures the compressibility and rate of settlement of cohesive soils when subjected to incremental vertical loading. This test is essential because muck typically undergoes significant consolidation settlement over time in case that it is saturated and normally consolidated. The results ( $C_c$ ,  $C_r$ ,  $C_v$ , etc.) allows to estimate both the magnitude and the time rate of settlement, which are critical to deciding whether the muck can be treated in place or requires partial removal.
- **Specific Gravity:** Specific Gravity of soil solids is the ratio of the unit weight of soil solids to that of water. It's a fundamental property used in calculations of void ratio, degree of saturation, and unit weight relationships. For muck / organic soils, organic soils tend to have lower specific gravity values (typically  $< 2.40$ ), which distinguishes them from typical mineral soils ( $\sim 2.65$ – $2.75$ ). This helps identify the presence and extent of organic matter, which directly affects strength and compressibility. For sands/granular soils, specific gravity confirms the mineralogical composition (quartz-rich sands vs. heavier minerals). It is also needed for phase relationship calculations that support compaction and strength evaluations.
- **Limerock Bearing Ratio (LBR):** The LBR test measures the supporting capacity of subgrade soils and base materials under a simulated traffic load. Provides design input for pavement thickness and structural adequacy. Most applicable to sands and treated soils once stabilized.

**FDR Mix Design Asphalt Field Testing (OPTIONAL SERVICES):**



- **Asphalt Core (6-inch diameter):** Mobilize asphalt pavement coring equipment and perform FDR asphalt and base sampling by pavement coring using a 6-inch diamond-tipped core drill bit. Following core extraction, a hand-held power auger and a hand-operated bucket-type auger will be used to loosen the underlying base course material and clean out the borehole. Down-hole field measurements will be obtained using a surveyor's tape to document the approximate thickness and composition of the pavement and base materials encountered. Representative samples of the base course material, collected using the bucket-type auger, will be sealed in moisture-proof bags and transported to the laboratory for further evaluation.
- **Hand Auger (5' below subbase):** Hand auger borings will be performed within the alignment to evaluate shallow subsurface conditions beneath the pavement. This approach provides a cost-effective and flexible means of evaluating subsurface conditions without the need for heavy equipment. Samples obtained from the hand auger borings will be classified and preserved for laboratory testing where appropriate. The information gained will be used to assess soil variability along the alignment.

**FDR Mix Design Asphalt Laboratory Testing (OPTIONAL SERVICES):**

- **Sieve Analysis:** Verifies the reclaimed/pulverized material's particle-size distribution. Proper gradation improves aggregate interlock, enables uniform binder dispersion, controls fines, and supports strength and durability.
- **Unconfined Compressive Strength (UCS):** Primary strength metric for cement/cementitious FDR. Binder percentage is tuned to meet a target UCS at specified cure (e.g., 7 days), supporting structural adequacy and layer coefficient assumptions.
- **Modified Proctor (Moisture–Density Relationship; ASTM D1557)** Determines Optimum Moisture Content (OMC) and Maximum Dry Density (MDD) for the FDR blend so lab specimens and field construction can be compacted to  $\geq$  specified % of MDD. Adequate compaction is essential for strength and moisture resistance.

- **Marshall Stability:** Checks the mix's load-carrying capacity and resistance to plastic deformation; helps select/verify optimum emulsion and cement content, ensuring adequate early-age and long-term stability.
- **Maximum Specific Gravity (Rice, Gmm) (for emulsion-treated FDR):** Establishes theoretical maximum density to compute air voids, verify compaction/curing, and help optimize emulsion content.

**Treatment Options Evaluation:**

- The following treatment options will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
  - Constructing embankment over existing muck
  - Excavation and replacement with engineered fill
  - Geosynthetic reinforcement
  - Mass soil mixing
  - Rigid inclusions
  - Surcharge and preloading
- The following methods for dealing with the existing pavement will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
  - Pavement coring and structural evaluation
  - Base material evaluation and reuse
  - Full-Depth Reclamation (FDR)
  - Complete removal and replacement
  - Geosynthetic reinforcement at base/subgrade Interface
  - Surcharge and preloading

**Reporting & Deliverables:**

A Geotechnical Engineering Report will be prepared based on the findings of the field exploration, laboratory testing, and engineering evaluation.

The report will include:

- Overall site map showing the locations of all soil borings and test locations.
- Ground water level elevations (including seasonal fluctuation).
- Soil borings subsurface profiles showing soil classifications, depth, groundwater, and standard penetration "N values", and soil description.

- Locations and descriptions of any existing fill or potentially deleterious materials encountered at the site that may interfere with construction progress or structure performance.
  - Laboratory test results.
  - Pavement structure evaluation, including thicknesses and condition of asphalt and base layers.
  - Delineation of muck/organic soil extents and depths based on probes and borings.
  - Evaluation of undrained shear strength and compressibility parameters of soft soils.
  - Recommendations for muck treatment and subgrade improvement options
  - Perform canal bank slope stability analysis to evaluate short-term (during construction) and long term conditions.
  - Recommendations for pavement reconstruction, including base preparation and support measures.
  - Optional. Evaluate the feasibility of proposing an FDR rehabilitation strategy by using the existing asphalt, base and subgrade materials (if necessary, implementation of virgin materials) in conjunction with mixing asphalt emulsion and Portland cement additive to provide a stabilized base course.
  - Optional. The laboratory testing results will be used to prepare a mix design recommendation prior to the mixing and placement of the asphalt emulsion and Portland cement for construction of the FDR base course.
  - Optional. PSI will provide recommendations on the type of additives (Portland Cement, Emulsion Asphalt, Virgin Aggregates or a combination if necessary), as well as the optimal proportion of each additive.
  - Optional. The mix design(s) will be developed in general accordance with FDOT Specification T332 Full Depth Reclamation (Rev 4-9-24) and PSI recommended criteria.
  - Discussion of constructability considerations and long-term performance risks.
- Compiling and sharing all boring logs, laboratory test results, and other relevant geotechnical data obtained during our investigation with the other geotechnical subconsultant firms involved in the project.
  - Geotechnical Consultant to provide the boring logs on 11"x17" sheets as well as in AutoCAD. Each boring log will be referred to by an approximate station and offset from the centerline that will be provided by HSQ. The numerical numbers of borings will be coordinated with HSQ.
  - Prepare and submit a comprehensive geotechnical report that independently addresses the entire 17.46-mile project corridor, including both the existing pavement and proposed widening areas. This report shall be developed irrespective of our assigned segment length and will reflect a complete understanding of the project corridor.

- Coordinating with Palm Beach County, who will be responsible for compiling the final geotechnical report package and submitting it to the project owner.

**Cost Evaluation & Coordination:**

**Quality Control:**

- Conducting quality control (QC) reviews of the geotechnical reports prepared by the other firms on the HSQ team.

**Schedule:**

The geotechnical engineering evaluation can begin one day after we receive authorization to proceed. Intertek-PSI will start drilling after underground utilities have been located and identified, which may take 2-4 business days. The field exploration should be completed within 60 business days. The written report of the subsurface exploration and engineering evaluation will be available within 30-40 business days following the field demobilization. We estimate that our study will be completed within six months from your notice to proceed.

PSI

**Intertek-PSI** appreciates the opportunity to submit this scope of work and look forward to the opportunity of working with you. If you have any questions or would like to discuss the details of this proposal, please do not hesitate to call us at 954-267-0965.

Sincerely,

**Professional Service Industries, Inc.**

Estimate of Work Effort and Cost

Name of Project: CR 880 FROM MARTIN LUTHER KING JR. BLVD TO SR 80  
PBC Project Number: 2024504  
Segment Length (PSI): 33,042 feet (6.45 mi)

Subconsultant Name: Professional Service Industries, Inc. (Intertek-PSI)  
Subconsultant Number:  
Date: 2/17/2026



Task Description	Total Staff Hours	Staff Categories							Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal Engineer	Senior Geotechnical Engineer	Project Engineer	Staff Engineer	CADD/Drafter	Senior Engineering Technician				
<b>BASIC SERVICES</b>		\$248.11	\$203.87	\$155.59	\$106.69	\$92.77	\$97.64				
<b>Geotechnical Engineering Services</b>											
Meetings	195.00	50.00	25.00	40.00	80.00			195.00	\$32,261.05	\$ 165.44	
Site Reconnaissance & Utility Clearance	210.00	15.00	15.00	35.00	75.00		70.0	210.00	\$27,061.90	\$ 128.87	
Field Compression Test Supervision	221.00	25.00	5.00		20.00		171.0	221.00	\$26,052.34	\$ 117.88	
Field Borings Logs	228.00			35.00	13.00		180.0	228.00	\$24,407.82	\$ 107.05	
pINT - Boring Data & Lab Data	150.00	15.00	10.00	95.00	30.00			150.00	\$23,742.10	\$ 158.28	
CADD-Soil Profile Preparation	90.00	5.00		20.00		65.0		90.00	\$10,382.40	\$ 115.36	
Lab Assignment & Classifications	120.00	5.00		35.00	60.00		20.0	120.00	\$15,040.40	\$ 125.34	
Geotechnical Analysis & Recommendations	220.00	50.00	30.00	70.00	15.00	55.0		220.00	\$36,115.60	\$ 164.16	
Preliminary Report	140.00	50.00	25.00	35.00	10.00	20.0		140.00	\$25,870.20	\$ 184.79	
Final Report	101.00	30.00	15.00	35.00	10.00	11.0		101.00	\$18,034.37	\$ 178.56	
Report Review of Others	65.00	24.00	22.00	15.00	4.00			65.00	\$13,200.39	\$ 203.08	
<b>Total Staff Hours (Basic Services)</b>	<b>1740.0</b>	<b>269.0</b>	<b>147.0</b>	<b>415.0</b>	<b>317.0</b>	<b>151.0</b>	<b>441.0</b>	<b>1740.0</b>			
<b>Total Staff Cost (Basic Services)</b>		<b>\$66,741.59</b>	<b>\$29,968.89</b>	<b>\$64,569.85</b>	<b>\$33,820.73</b>	<b>\$14,008.27</b>	<b>\$43,059.24</b>	<b>\$0.00</b>	<b>\$257,168.57</b>	<b>\$ 144.92</b>	
<b>OPTIONAL SERVICES (FDR MIX DESIGN)</b>											
Meetings	44.0	20.0	6.0	18.0				44.0	\$8,986.04	\$ 204.23	
Pavement Survey and Marking Core Locations	56.0	28.0		28.0				56.0	\$11,303.60	\$ 201.85	
Review marked core locations of other teams(desktop)	28.0	28.0						28.0	\$6,947.08	\$ 248.11	
Utility Coordination	14.0				14.0			14.0	\$1,493.66	\$ 106.69	
Pavement core thickness and lab Photography	42.0				42.0			42.0	\$4,480.98	\$ 106.69	
Soil Stratification and Lab Assignment	42.0			42.0				42.0	\$6,534.78	\$ 155.59	
Boring Profile Prep	40.0		12.0	28.0				40.0	\$6,802.96	\$ 170.07	
Lab Aggregate Crushing and Blending	75.0						75.0	75.0	\$7,323.00	\$ 97.64	
Conditioning of Lab Pills	64.0						64.0	64.0	\$6,248.96	\$ 97.64	
CADD-Soil Profile	42.0				12.0	30.0		42.0	\$4,063.38	\$ 96.75	
FDR Mix Designs	94.0	71.0		23.0				94.0	\$21,194.38	\$ 225.47	
Preliminary Report	77.0	18.0	41.0	18.0				77.0	\$15,625.27	\$ 202.93	
Final report	30.0	12.0	12.0	6.0				30.0	\$6,357.30	\$ 211.91	
Report Review of Others	37.0	27.0	10.0					37.0	\$8,737.67	\$ 235.34	
<b>Total Staff Hours (Optional Services)</b>	<b>685.0</b>	<b>204.0</b>	<b>81.0</b>	<b>163.0</b>	<b>68.0</b>	<b>30.0</b>	<b>139.0</b>	<b>705.0</b>			
<b>Total Staff Cost (Optional Services)</b>		<b>\$50,614.44</b>	<b>\$16,513.47</b>	<b>\$25,361.17</b>	<b>\$7,254.92</b>	<b>\$2,783.10</b>	<b>\$13,471.96</b>	<b>\$0.00</b>	<b>\$116,099.06</b>	<b>\$ 164.68</b>	

EBO SBE Calculation for this Fee Summary		SBE \$	Non-SBE \$
		50.00	\$917,690.93
<b>Totals \$</b>	<b>\$</b>	<b>\$</b>	<b>\$917,690.93</b>

Basic Services:	
Salary Related Costs:	\$252,168.57
Contract Multiplier 2.83 <i>(The multiplier is not included in the calculation, this is for information)</i>	
<b>Total Basic Services (Prime Firm):</b>	<b>\$257,168.57</b>

Reimbursables:	
Field and Laboratory Tests (SPT-110 Brgs)	\$415,935.30
<b>Reimbursables Total:</b>	<b>\$415,935.30</b>

Optional Services:	
Salary Related Costs	\$116,099.06
<b>Optional Services Total:</b>	<b>\$116,099.06</b>

Optional Reimbursables:	
Field and Laboratory Tests (FDR Mix Design)	\$133,488.00
<b>Optional Reimbursables Total:</b>	<b>\$133,488.00</b>

**Grand Total Estimated Fees: \$917,690.93**

<b>COST BREAKDOWN</b>				
<b>17-Feb-26</b>				
<u>DESCRIPTION</u>	<u>UNIT</u>	<u># OF UNITS</u>	<u>UNIT RATE</u>	<u>TOTAL</u>
<b>I. FIELD EXPLORATIONS</b>				
Mobilization of drilling equipment to project (Minimum Charge): 50 mile travel	each	10.0	\$720.00	\$7,200.00
Truck Support (two per week)	each	31.0	\$150.00	\$4,650.00
Standard Penetration Tests - Truck Rig (0' - 50') (110 borings)	feet	2750.0	\$17.00	\$46,750.00
Casing (0' - 50') (110 borings)	feet	2750.0	\$5.95	\$16,362.50
Grout - Truck Mounted Rig - 0 to 50 feet (110 boring)	feet	2750.0	\$5.76	\$15,840.00
Senior Engineering Technician (Site Reconnaissance, Boring Layout and Underground Utility Clearance)	hour	115.0	\$97.64	\$11,228.60
Muck Probing (4 hr minimum)	hour	20.0	\$100.00	\$2,000.00
Vane Shear Testing	each	10.0	\$150.00	\$1,500.00
Shelby Tube	each	110.0	\$150.00	\$16,500.00
Dilatometer Test	each	13.0	\$1,400.00	\$18,200.00
Settlement Plates	each	1.0	\$1,550.00	\$1,550.00
One Dimensional Field Consolidation Test	each	1.0	\$24,750.00	\$24,750.00
Install Groundwater Monitoring Well, 30' Depth (per PBCWUD Standards & Details)	feet	390.0	\$50.00	\$19,500.00
Plug & Abandon Monitoring Well, 30' Depth	hour	45.0	\$100.00	\$4,500.00
<b>II. LABORATORY TESTING</b>				
Determination of Organic Content	each	344.0	\$55.00	\$18,920.00
Natural Moisture Content (ASTM D2216)	each	907.0	\$25.00	\$22,675.00
Unit Weight & Moisture Content (undisturbed sample)	each	20.0	\$50.00	\$1,000.00
Grain size determination: Wash through (#200)	each	338.0	\$60.00	\$20,280.00
Grain size determination: Full grain size (8 sieves)	each	113.0	\$78.00	\$8,814.00
Triaxial Test (Pore pressure & three confining stresses)	each	12.0	\$1,700.00	\$20,400.00
Atterberg Limits	each	113.0	\$100.00	\$11,300.00
Limerock Bearing Ratio (LBR) Test	each	6.0	\$400.00	\$2,400.00
One Dimensional Consolidation Test (Up to 5 increments)	each	13.0	\$600.00	\$7,800.00
Specific Gravity & Absorption of Fine or Coarse Aggregate	each	6.0	\$70.00	\$420.00
<b>III. ENGINEERING SERVICES</b>				
<b>IV. REIMBURSABLES NOT ADDRESSED IN FEE SCHEDULE</b>				
Maintenance of Traffic (MOT) -SPT & FDR	day	36.0	\$1,250.00	\$45,000.00
MOT Plan and MOT Permitting - SPT & FDR	hour	30.0	\$200.00	
Advance MOT Technician	hour	680.0	\$97.64	\$66,395.20
<b>ESTIMATED GEOTECHNICAL FEE FOR THE PROJECT</b>				<b>\$415,935.30</b>

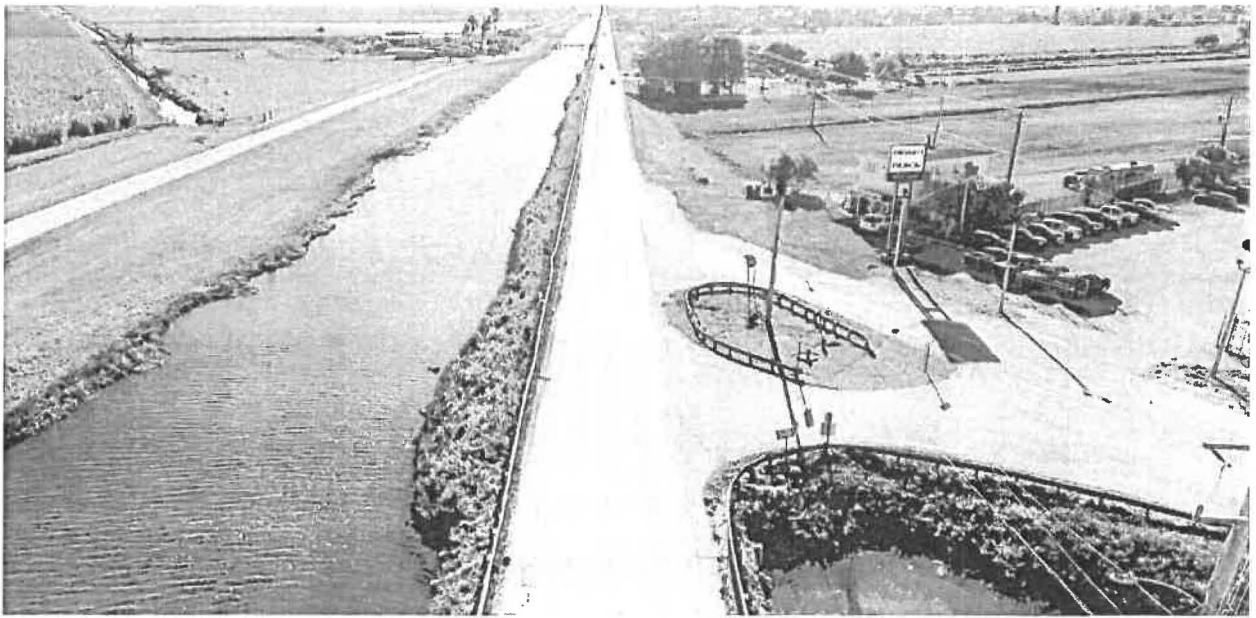
<b>COST BREAKDOWN (OPTIONAL SERVICES)</b>				
<b>17-Feb-26</b>				
<u>DESCRIPTION</u>	<u>UNIT</u>	<u># OF UNITS</u>	<u>UNIT RATE</u>	<u>TOTAL</u>
<b>I. FIELD EXPLORATIONS</b>				
Asphalt Cores (obtaining core samples)	each	132.0	\$85.00	\$11,220.00
Hand Augers	feet	660.0	\$15.00	\$9,900.00
<b>II. LABORATORY TESTING</b>				
Natural Moisture Content (ASTM D2216)	each	432.0	\$25.00	\$10,800.00
Grain size determination: Wash through (#200)	each	100.0	\$60.00	\$6,000.00
Grain size determination: Full grain size (8 sieves)	each	31.0	\$78.00	\$2,418.00
Unconfined Compression Test	each	113.0	\$225.00	\$25,425.00
Atterberg Limits	each	38.0	\$100.00	\$3,800.00
Modified Proctor Test	each	19.0	\$150.00	\$2,850.00
Bulk Density	each	125.0	\$90.00	\$11,250.00
Theor Max Specific Gravity	each	19.0	\$200.00	\$3,800.00
Marshall Stability	each	263.0	\$175.00	\$46,025.00
<b>ESTIMATED GEOTECHNICAL FEE FOR OPTIONAL FDR MIX DESIGN SCOPE</b>				<b>\$133,488.00</b>



## **GEOTECHNICAL SCOPE OF WORK**

**CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80**

**County Project no 2024504**



**Submission Date: February 17, 2026**

**Prepared by:  
RADISE International, L.C.  
Riviera Beach, Florida 33404**

## INTRODUCTION

OWNER: Palm Beach County

PRIME CONSULTANT: HSQ Group, LLC

GEOTECHNICAL CONSULTANT: RADISE International, LC.

SEGMENT: Sta 722+00 to Sta 791+00

NAME OF PROJECT: CR 880 from Dr. Martin Luther King Jr. Blvd. to S.R. 80

LOCATION OF WORK: Palm Beach County, Florida

RADISE International, L.C. (RADISE) is pleased to submit this scope of work to provide geotechnical engineering services for the above-referenced project. The purpose of the work is to obtain information regarding subsurface materials along the proposed alignments of the project to provide subsurface data necessary for geotechnical and pavement analysis and design to support the Project design. Site characterization, including interpretation of site data, selection of material characteristics and engineering properties, as well as recommended parameters to be used in valuation to support the rehabilitation and widening area. The field investigations will be conducted in accordance with FDOT's Soils and Foundations Handbook.

## GEOTECHNICAL SCOPE OF WORK

Our pavement and geotechnical scope of work for this project will consist of field exploration, specialized laboratory testing, evaluation of treatment options for muck soils and existing pavement, and preparation of engineering recommendations.

The scope is organized into the following components: General Services, Field Exploration/In-Situ Testing & Instrumentation, Laboratory Testing of Soil, Full Depth Reclamation (FDR) Field Sampling, FDR Mix Design Asphalt Laboratory Testing, Treatment Options Evaluation, Reporting & Deliverables, and Quality Control.

### General Services:

- Visit the site to field stake the planned boring and test locations, and observe the existing site conditions.
  - Perform pavement survey and mark the pavement core locations.
  - Contact Sunshine 811 to request field location and clearance of underground utilities in the area of the boring and test locations as per Florida Statutes.
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- Obtain a Right-of-Way (ROW) Permit from Palm Beach County and SFWMD prior to commencement of any field work activities within the County and SFWMD ROW, and implement MOT procedures (i.e. signs, cones, flaggers, etc.) for traffic control and safety purposes.
- Review readily available published topographic and soils information and existing geotechnical reports related to the CR880. This information will be obtained from the "Soil Survey of Palm Beach County, Florida" published by the United States Department of Agriculture (USDA) Natural Resources Conservation Services (NRCS).

#### **Field Exploration / In-Situ Testing & Instrumentation:**

- **Split Spoon Testing:** Mobilize truck-mounted and track-mounted drilling rigs, and crew to the project site to perform Standard Penetration Test (SPT) soil borings to depths of 30 feet within the existing roadway and 20 feet within the widening area. The borings will be drilled using wet-rotary methods in general accordance with ASTM D 5783 "*Standard Guide for Use of Direct Rotary Drilling with Water Based Drilling Fluid*" to facilitate identification of subsurface materials and the collection of samples during the performance of the SPT. The SPT sampling will be performed continuously throughout the explored depths and will be performed in general accordance with ASTM D1586, "*Standard Method for Penetration Test and Split-Barrel Sampling of Soils*" using 1-3/8-inch diameter split-spoon sampler along with an automatic hammer. The groundwater levels will be recorded for each SPT boring performed during drilling and then the boreholes will be sealed with cement-bentonite grout and the pavement patched with cold asphalt patch where necessary. Records of materials encountered during drilling, field measured N-values and observations as well as classifications of these materials will be compiled into a boring log for each location drilled and sampled.
  - **Vane Shear:** Perform field vane shear testing in general accordance with ASTM D2573 in selected companion borings adjacent to the SPT borings. The testing procedure measures the shear resistance by utilizing a four-vane, symmetrical segment of rod inserted into a subject soil. Field vane testing shall commence within 5 minutes of insertion of the vane shear. A calibrated hand torque application and measurement apparatus rotates the vane about its axis at a relatively slow constant rate which is intended to measure the undrained shear strength ( $S_u$ ) of the soil. Both peak initial undrained and residual undrained shear strengths will be measured and recorded to assist the properties of the in-situ muck.
  - **Shelby Tube:** Undisturbed thin-walled (Shelby) tube samples will be taken at selected companion borings adjacent to the SPT borings. Undisturbed Shelby tube
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samples of organic soils and/or muck overlying the near-surface limestone stratum will be obtained by pushing Shelby tubes into the soil in accordance with ASTM D1587. The samples will then be wax sealed, and carefully transported to the laboratory for testing purposes. Undisturbed samples will be tested for consolidation to determine the long term settlement characteristics of the muck.

- **Ground Water Monitoring wells:** Piezometers will be installed within the compressible layer to monitor pore water pressure changes, particularly in response to excavation, groundwater fluctuations, or rainfall events. Baseline readings will be recorded immediately after installation. Pore pressure measurements will be recorded on a weekly basis initially, with frequency adjusted based on observed changes. Monitoring will continue upto the design phase or until stabilization of readings. Collected data will be used to develop pore pressure dissipation curves. The recorded data will assist in off-site analyses for seepage management during construction and slope-stability modeling to support design evaluations. This monitoring program will ensure that subsurface water conditions are properly characterized for both short-term construction planning and long-term performance assessment.
  - **Install standpipe piezometers:** The clustered piezometers will be isolated in selected soil/weathered rock layers within the upper 30 feet of subsurface profile. Well screens will be isolated by installation of a minimum 2 foot thick pelletized clay bentonite zone within the borehole. The annular area of the borehole above the bentonite clay seal shall be backfilled with a cement-bentonite grout to ground surface. The piezometers will be completed as the surface with an aluminum standpipe set in a concrete pad. The transducers will be installed within each piezometer to monitor the water levels. It is paired with a solar charged, battery powered data acquisition system which automatically uploads measurements to a cloud-based data management system and can be accessed at any time logging to Smarthub monitor dashboard.
  - **Dilatometer Test:** Perform Flat Plate Dilatometer Tests (DMT) at selected boring locations to obtain in-situ soil stiffness, stress history, and consolidation characteristics. The testing will be performed in general accordance with ASTM D6635 – Standard Test Method for Performing the Flat Plate Dilatometer Test in Soils.
  - **Muck Probes (Optional):** Muck probes will be performed along the proposed alignment between the soil borings within the widening area. The muck depths will be determined by manually advancing a hand held 3/8-inch diameter steel rod into the surficial soils to delineate the transition between soft soil and the underlying limestone. In practice, this method of testing provides very good judgment for soil type and thickness however, it provides no soil samples for visual classification or
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laboratory testing. For the project site, the weak surficial soils are presumed to consist of organic soils (muck) overlying limestone based on USDA soil survey mapping. The muck probes will be recorded in the field using typical logging procedures adapted for this project. Coordinates for each probe location will be obtained using a hand-held global positioning system (GPS) device.

- **Settlement Plates:** Settlement plates will be installed at four locations, one location per segment to monitor vertical settlement. These instruments will provide direct measurements of settlement associated with natural soil consolidation. Install settlement plates and monitoring them for approximately 12 months, subject to field performance and laboratory results. The project surveyor will establish a baseline/reference readings immediately after installation, followed by monthly readings for the duration of 12-month period. The project surveyor will perform a one-day site visit every month to obtain the required readings. The collected data will be used to evaluate the magnitude and rate of settlement to model placement of widening fill and verify laboratory consolidation results. Findings will assist in assessing subgrade performance and informing decisions regarding ground improvement or surcharge requirements.
- **One Dimensional Field Compression:** The one-dimensional field compression tests will be performed within the right-of-way. This placement ensures the testing captures representative subsurface conditions without impacting active roadway. Accordingly, the test sites will be established within the R/W in areas that allow this duration of testing without affecting traffic operations. Large scale field compression load tests will be performed at four locations, one location per segment using a 10-foot diameter load platform with 55-gallon drums in two lifts transmitting a load to the ground close to 10 tons, to evaluate the coefficient of volume compressibility ( $mv$ ) of the muck in large scale means and correlate with lab results of one dimensional consolidation tests to better estimate any consolidation settlements due to the imposed loads from the roadway widening and heightening. Then, modeling assessment of the behavior of the existing and proposed embankment using the previously determined soil and muck consolidation properties to determine short- and long-term settlements. The benefit of this large scale field test is that more accurate compression and consolidation characteristics of the muck under real loads in the field will be accomplished as it will be with the roadway widening, covering an area much more representative than the size of a standard lab sample (2.5 inches, compared to 10 feet), meaning that settlements calculations and estimations are going to be more in line with the actual behavior of the muck in place supporting the weight of the widening, rather than relying only of the consolidation tests conducted in the lab. Assuring deformation behavior of the muck material under anticipated loads, will rely on the final design of the road widening meeting geotechnical standards and practice.

### Laboratory Testing of Soil:

- **Soil Classification:** Visually classify the collected soil and rock samples in the field, with subsequent laboratory confirmation/QC verification of classifications using the Unified Soil Classification System (USCS) in general accordance with the visual-manual method of ASTM D2488. Soil samples removed from the pavement borings will be classified in accordance with AASHTO M 145 (AASHTO Soil Classification). Assign laboratory testing of selected soil samples for index property determinations limited to moisture content, fines content, full grain size analysis, Atterberg limits, specific gravity, and organic content tests to assist in classifying the soils for engineering purposes (ASTM D2487). Additionally, consolidation tests will be performed on undisturbed samples to assess the engineering properties of the subsoils.
  - **Triaxial Test:** Measures shear strength parameters (cohesion and friction angle) of soils under controlled stress paths. Specifically evaluates the strength parameters of the muck layers at the time of sampling, providing reliable input for assessing their stability and suitability for treatment rather than removal.
  - **Natural Moisture Test:** Determines the in-situ water content of soil samples at the time of sampling. Provides a direct measure of the moisture condition of the muck layers at sampling, which is critical for evaluating their compressibility, and potential for settlement. For sands, it helps assess whether the soils are near optimum moisture conditions for compaction characteristics.
  - **Organic Content:** Laboratory organic content tests quantify the percentage of organics. Identifies problematic muck zones with high organics that reduce strength and increase compressibility. Essential for deciding whether treatment, stabilization, or partial replacement is viable. High organic content explains why these layers are weak and subject to settlement. Identifying organic levels is critical to determine whether stabilization will be effective or if partial removal is needed. Organic content testing confirms whether soils are “clean” enough for structural use. Even small amounts of organics in granular soils can reduce density and long-term strength.
  - **Full Grain Size:** Grain size distribution separates soil fractions (gravel, sand, silt, clay) to classify soils and evaluate engineering behavior. Proper gradation improves drainage, densification, and load-bearing behavior. While not the primary test for muck, grain size analysis still shows how much silt/clay fraction is present and can be cross-checked with Atterberg limits for classification.
  - **Atterberg Limits:** Atterberg Limits (Liquid Limit, Plastic Limit, Plasticity Index) define the consistency and plasticity characteristics of fine-grained soils. For muck / cohesive soils: These parameters are essential for classification (CL, CH, OL, OH,
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etc.) under USCS. High plasticity indicates higher compressibility, greater settlement potential, and possible shrink–swell behavior. Since muck layers are often highly plastic with organics, this test confirms their engineering limitations and helps predict long-term performance. Atterberg limits can also correlate if fine, plastic soils, i.e., in-situ muck, are normally or over consolidated based on the in-situ moisture content, which is a major factor to understand the muck conditions and deformation behavior upon widening loading.

- **Passing #200 Sieve:** The #200 sieve separates particles finer than 0.075 mm (silts and clays) from the sand and gravel fractions. It quantifies fines content, which strongly influences soil classification and performance. Determines how fines influence strength, permeability, and compaction. For muck, excessive fines exacerbate settlement issues; for sands, limited fines can enhance binding and stability if controlled.
- **One-Dimensional Consolidation Test:** The consolidation test measures the compressibility and rate of settlement of cohesive soils when subjected to incremental vertical loading. This test is essential because muck typically undergoes significant consolidation settlement over time in case that it is saturated and normally consolidated. The results ( $C_c$ ,  $C_r$ ,  $C_v$ , etc.) allows to estimate both the magnitude and the time rate of settlement, which are critical to deciding whether the muck can be treated in place or requires partial removal.
- **Specific Gravity:** Specific Gravity of soil solids is the ratio of the unit weight of soil solids to that of water. It's a fundamental property used in calculations of void ratio, degree of saturation, and unit weight relationships. For muck / organic soils, organic soils tend to have lower specific gravity values (typically  $< 2.40$ ), which distinguishes them from typical mineral soils ( $\sim 2.65$ – $2.75$ ). This helps identify the presence and extent of organic matter, which directly affects strength and compressibility. For sands/granular soils, specific gravity confirms the mineralogical composition (quartz-rich sands vs. heavier minerals). It is also needed for phase relationship calculations that support compaction and strength evaluations.
- **Limerock Bearing Ratio (LBR):** The LBR test measures the supporting capacity of subgrade soils and base materials under a simulated traffic load. Provides design input for pavement thickness and structural adequacy. Most applicable to sands and treated soils once stabilized.

#### **FDR Mix Design Asphalt Field Testing:**

- **Asphalt Core (6 inch diameter):** Mobilize asphalt pavement coring equipment and perform FDR asphalt and base sampling by pavement coring using a 6-inch diamond-tipped core drill bit. Following core extraction, a hand-held power auger
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and a hand-operated bucket-type auger will be used to loosen the underlying base course material and clean out the borehole. Down-hole field measurements will be obtained using a surveyor's tape to document the approximate thickness and composition of the pavement and base materials encountered. Representative samples of the base course material, collected using the bucket-type auger, will be sealed in moisture-proof bags and transported to the laboratory for further evaluation.

- **Hand Auger (5' below subbase):** Hand auger borings will be performed within the alignment to evaluate shallow subsurface conditions beneath the pavement. This approach provides a cost-effective and flexible means of evaluating subsurface conditions without the need for heavy equipment. Samples obtained from the hand auger borings will be classified and preserved for laboratory testing where appropriate. The information gained will be used to assess soil variability along the alignment.

#### **FDR Mix Design Asphalt Laboratory Testing (OPTIONAL SERVICES):**

- **Sieve Analysis:** Verifies the reclaimed/pulverized material's particle-size distribution. Proper gradation improves aggregate interlock, enables uniform binder dispersion, controls fines, and supports strength and durability.
  - **Unconfined Compressive Strength (UCS):** Primary strength metric for cement/cementitious FDR. Binder percentage is tuned to meet a target UCS at specified cure (e.g., 7 days), supporting structural adequacy and layer coefficient assumptions.
  - **Modified Proctor (Moisture–Density Relationship; ASTM D1557)** Determines Optimum Moisture Content (OMC) and Maximum Dry Density (MDD) for the FDR blend so lab specimens and field construction can be compacted to  $\geq$  specified % of MDD. Adequate compaction is essential for strength and moisture resistance.
  - **Marshall Stability:** Checks the mix's load-carrying capacity and resistance to plastic deformation; helps select/verify optimum emulsion and cement content, ensuring adequate early-age and long-term stability.
  - **Maximum Specific Gravity (Rice, Gmm) (for emulsion-treated FDR):** Establishes theoretical maximum density to compute air voids, verify compaction/curing, and help optimize emulsion content.
-

### **Treatment Options Evaluation:**

- The following treatment options will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
  - Constructing embankment over existing muck
  - Excavation and replacement with engineered fill
  - Geosynthetic reinforcement
  - Mass soil mixing
  - Rigid inclusions
  - Surcharge and preloading
  
- The following methods for dealing with the existing pavement will be considered and evaluated based on site-specific conditions, depth of muck, and constructability constraints:
  - Pavement coring and structural evaluation
  - Base material evaluation and reuse
  - Full-Depth Reclamation (FDR)
  - Complete removal and replacement
  - Geosynthetic reinforcement at base/subgrade Interface
  - Surcharge and preloading

### **Reporting & Deliverables:**

- A Geotechnical Engineering Report will be prepared based on the findings of the field exploration, laboratory testing, and engineering evaluation. The report will include:
    - Overall site map showing the locations of all soil borings and test locations.
    - Ground water level elevations (including seasonal fluctuation).
    - Soil borings subsurface profiles showing soil classifications, depth, groundwater, and standard penetration “N values”, and soil description.
    - Locations and descriptions of any existing fill or potentially deleterious materials encountered at the site that may interfere with construction progress or structure performance.
    - Laboratory test results.
    - Pavement structure evaluation, including thicknesses and condition of asphalt and base layers.
    - Delineation of muck/organic soil extents and depths based on probes and borings.
    - Evaluation of undrained shear strength and compressibility parameters of soft soils.
    - Recommendations for muck treatment and subgrade improvement options
-



- Recommendations for pavement reconstruction, including base preparation and support measures.
  - Discussion of constructability considerations and long-term performance risks.
- 
- Compiling and sharing all boring logs, laboratory test results, and other relevant geotechnical data obtained during our investigation with the other geotechnical subconsultant firms involved in the project.
  - Geotechnical Consultant to provide the boring logs on 11"x17" sheets as well as in AutoCAD. Each boring log will be referred to by an approximate station and offset from the centerline that will be provided by HSQ. The numerical numbers of borings will be coordinated with HSQ.
  - Prepare and submit a comprehensive geotechnical report that independently addresses the entire 17.46 mile project corridor, including both the existing pavement and proposed widening areas. This report shall be developed irrespective of our assigned segment length and will reflect a complete understanding of the project corridor.
  - Coordinating with Palm Beach County, who will be responsible for compiling the final geotechnical report package and submitting it to the project owner.

**Quality Control:**

- Conducting quality control (QC) reviews of the geotechnical reports prepared by the other firms on the HSQ team.

**SCHEDULE**

Upon receiving written authorization to proceed, we will commence with field marking of the boring and test locations, and preparation of the utility locate request. Mobilization for the drilling operations will occur soon after Sunshine 811 clearance of the boring location is received from the contacted utilities. These upfront activities are expected to require about 1 week to complete.

The specified field exploration work is expected to require 10 days to complete. Laboratory visual classification of the soils and report preparation will require about 6 to 8 weeks to complete following completion of field work. We expect to provide the final report within 6 months of the notice to proceed.

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## **CLOSING**

RADISE appreciates the opportunity to submit this scope of work, and look forward to the opportunity of working with you. If you have any questions or would like to discuss the details of this proposal, please do not hesitate to give us a call at (561) 841-0103.

Sincerely,

**RADISE International, LC**

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Estimate of Work Effort and Cost

Name of Project: CR 880 FROM MARTIN LUTHER KING JR. BLVD TO SR 80  
 PBC Project Number: 2024504

Subconsultant Name: RADISE International, LC  
 subconsultant Number:

Date: 2/18/2026

Task Description	Total Staff Hours	Staff Categories								Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal Engineer \$259.62	Senior Geotechnical Engineer \$216.00	Staff Geotechnical Engineer \$158.64	CADD / Drafter \$98.46	Senior Engineering Technician \$101.16						
<b>BASIC SERVICES</b>												
Geotechnical Engineering Services												
Meetings	220	65.0	65.0	65.0	0.0	25.00				220.0	\$43,755.90	\$ 198.89
Utility Clearance and Site Reconnaissance	16	0.0	0.0	0.0	0.0	16.00				16.0	\$1,618.56	\$ 101.16
Laboratory Data Reporting and Analysis	80	0.0	40.0	40.0	0.0	0.00				80.0	\$14,985.60	\$ 187.32
Soil & Rock Classification	20	0.0	0.0	20.0	0.0	0.00				20.0	\$3,172.80	\$ 158.64
Drafting	80	0.0	0.0	0.0	80.0	0.0				80.0	\$7,876.80	\$ 98.46
Geotechnical Recommendations	61	20.0	20.0	21.0	0.0	0.0				61.0	\$12,843.84	\$ 210.55
Preliminary Report	40	10.0	10.0	20.0	0.0	0.0				40.0	\$7,929.00	\$ 198.23
Review Reports Prepared by Other Firms + Final Report	150	24.0	40.0	0.0	0.0	0.0				64.0	\$14,870.88	\$ 232.36
<b>Total Staff Hours (Basic Services)</b>	<b>667.0</b>	<b>119.0</b>	<b>175.0</b>	<b>166.0</b>	<b>80.0</b>	<b>41.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>581.0</b>	<b>\$107,053.38</b>	<b>\$ 184.26</b>
<b>Total Staff Cost (Basic Services)</b>		<b>\$30,894.78</b>	<b>\$37,800.00</b>	<b>\$26,334.24</b>	<b>\$7,876.80</b>	<b>\$4,147.56</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>			
<b>OPTIONAL SERVICES (FDR MIX DESIGN)</b>												
FDR Mix Design Services												
Meetings	8.0	4.0		4.0						8.0	\$1,673.04	\$ 209.13
Assignment prep	4.0	4.0								4.0	\$1,038.48	\$ 259.62
Review marked core locations by Radise (field visit)	4.0	4.0								4.0	\$1,038.48	\$ 259.62
Supervision of TSF FDR sampling	16.0			8.0		8.0				16.0	\$2,078.40	\$ 129.90
lab Aggregate Crushing and Blending	15.0					15.0				15.0	\$1,517.40	\$ 101.16
Conditioning of Lab Pills	15.0					15.0				15.0	\$1,517.40	\$ 101.16
FDR Mix Designs	15.0	15.0								15.0	\$3,894.30	\$ 259.62
Preliminary Report	18.0	7.0	7.0	4.0						18.0	\$3,963.90	\$ 220.22
Final report	15.0	7.0	4.0	4.0						15.0	\$3,315.90	\$ 221.06
<b>Total Staff Hours (Optional Services)</b>	<b>110.0</b>	<b>41.0</b>	<b>11.0</b>	<b>20.0</b>	<b>0.0</b>	<b>38.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>110.0</b>	<b>\$20,037.30</b>	<b>\$ 182.16</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$10,644.42</b>	<b>\$2,376.00</b>	<b>\$3,172.80</b>	<b>\$0.00</b>	<b>\$3,844.98</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>			

EBO SBE Calculation for this Fee Summary	SBE \$	Non-SBE \$
	\$0.00	\$303,144.60
<b>Totals \$</b>	<b>-</b>	<b>\$303,144.60</b>

<b>Basic Services:</b>	
Salary Related Costs:	\$107,053.38
Contract Multiplier 3.0 (The Multiplier is not included in the calculation, this is information only)	
<b>Basic Services (Prime Firm):</b>	<b>\$107,053.38</b>

<b>Reimbursables:</b>	
SEE ATTACHED BREAKDOWN	\$148,372.92
<b>Reimbursables Total:</b>	<b>\$148,372.92</b>

<b>Optional Services:</b>	
Salary Related Costs:	\$20,037.30
<b>Optional Services Total:</b>	<b>\$20,037.30</b>

<b>Optional Reimbursable Services:</b>	
SEE ATTACHED FDR MIX DESIGN BREAKDOWN	\$27,681.00
<b>Optional Reimbursable Services Total:</b>	<b>\$27,681.00</b>

**Grand Total Estimated Fees: \$303,144.60**

COST BREAKDOWN				
17-Feb-26				
DESCRIPTION	UNIT	# OF UNITS	UNIT RATE	TOTAL
<b>I. FIELD EXPLORATIONS</b>				
Mobilization of drilling equipment to project (Minimum Charge): 50 mile travel	each	3.0	\$550.00	\$1,650.00
Support Truck	each	10.0	\$175.00	\$1,750.00
Standard Penetration Tests - Truck Rig (0' - 50')	feet	580.0	\$20.00	\$11,600.00
Casing (0' - 50')	feet	580.0	\$9.18	\$5,324.40
Grout - Truck Mounted Rig - 0 to 50 feet	feet	580.0	\$7.30	\$4,234.00
Senior Engineering Technician (Site Reconnaissance, Boring Layout and Underground Utility Clearance)	hour	41.0	\$101.16	\$4,147.56
Muck Probing (4 hr minimum)	hour	40.0	\$101.16	\$4,046.40
Vane Shear Testing	each	2.0	\$150.00	\$300.00
Shelby Tube	each	23.0	\$150.00	\$3,450.00
Shelby Tube - Wash Borings & Grouting	feet	625.0	\$19.00	\$11,875.00
Dilatometer Test	each	3.0	\$1,400.00	\$4,200.00
Settlement Plates	each	1.0	\$1,550.00	\$1,550.00
One Dimensional Field Consolidation Test	each	1.0	\$24,750.00	\$24,750.00
Install Groundwater Monitoring Well, 30' Depth (per PBCWUD Standards & Details)	feet	90.0	\$50.00	\$4,500.00
Plug & Abandon Monitoring Well, 30' Depth	hour	9.0	\$100.00	\$900.00
Locking Well Covers & Pads	each	3.0	\$175.00	\$525.00
Smart Water Monitor Data Collector (Including Piezometers & Remote Data Monitoring)	each	3.0	\$4,995.00	\$14,985.00
Piezometers - Setup, and instalaltion	Hour	40.0	\$125.04	\$5,001.60
<b>II. LABORATORY TESTING</b>				
Determination of Organic Content	each	72.0	\$65.00	\$4,680.00
Natural Moisture Content	each	189.0	\$15.00	\$2,835.00
Grain size determination: Wash through (#200)	each	71.0	\$55.00	\$3,905.00
Grain size determination: Full grain size (8 sieves)	each	24.0	\$90.00	\$2,160.00
Triaxial Test - CU Triaxial Shear with Pore Pressure Measurements (3 confining stress, <=2.87 inch diameter)	each	3.0	\$1,692.00	\$5,076.00
Atterberg Limits	each	24.0	\$88.00	\$2,112.00
Limerock Bearing Ratio (LBR) Test	each	1.0	\$350.00	\$350.00
One Dimensional Consolidation Test (up to 5 increments)	each	3.0	\$600.00	\$1,800.00
Specific Gravity & Absorption of Fine or Coarse Aggregate	each	1.0	\$70.00	\$70.00
Index Properties (For Consolidation & Triaxial Test Samples - Includes Atterberg Limits, Moisture Content, Organic Content, & Percent Passing #200 Sieve)	each	6.0	\$360.00	\$2,160.00
Preparation of Samples for Consolidation and Triaxial Tests	each	6.0	\$150.00	\$900.00
<b>III. ENGINEERING SERVICES</b>				
Principal Engineer, P.E.	hour	119.0	\$259.62	\$30,894.78
Senior Geotechnical Engineer	hour	175.0	\$216.00	\$37,800.00
Staff Geotechnical Engineer	hour	166.0	\$158.64	\$26,334.24
Drafter / CADD	hour	80.0	\$98.46	\$7,876.80
<b>IV. REIMBURSABLES NOT ADDRESSED IN FEE SCHEDULE</b>				
Maintenance of Traffic (MOT)	day	8.0	\$1,800.00	\$14,400.00
Advance MOT Technician / Senior Engineering Technician	hour	72.0	\$101.16	\$7,283.52
<b>ESTIMATED GEOTECHNICAL FEE FOR THE PROJECT</b>				<b>\$255,426.30</b>

<b>COST BREAKDOWN - OPTIONAL SERVICES</b>				
<b>17-Feb-26</b>				
<u>DESCRIPTION</u>	<u>UNIT</u>	<u># OF UNITS</u>	<u>UNIT RATE</u>	<u>TOTAL</u>
<b><u>I. FIELD EXPLORATIONS</u></b>				
Asphalt Cores (obtaining core samples)	each	28.0	\$85.00	\$2,380.00
Hand Augers	feet	140.0	\$12.00	\$1,680.00
<b><u>II. LABORATORY TESTING</u></b>				
Natural Moisture Content	each	90.0	\$25.00	\$2,250.00
Grain size determination: Wash through (#200)	each	21.0	\$60.00	\$1,260.00
Grain size determination: Full grain size (8 sieves)	each	7.0	\$78.00	\$546.00
Unconfined Compression Test	each	24.0	\$225.00	\$5,400.00
Atterberg Limits	each	8.0	\$100.00	\$800.00
Modified Proctor Test	each	4.0	\$150.00	\$600.00
Bulk Density	each	26.0	\$90.00	\$2,340.00
Theor Max Specific Gravity	each	4.0	\$200.00	\$800.00
Marshall Stability	each	55.0	\$175.00	\$9,625.00
<b><u>III. ENGINEERING SERVICES</u></b>				
Principal Engineer, P.E.	hour	41.0	\$259.62	\$10,644.42
Senior Geotechnical Engineer	hour	11.0	\$216.00	\$2,376.00
Staff Engineer	hour	20.0	\$158.64	\$3,172.80
Drafter / CADD	hour	0.0	\$98.46	\$0.00
Senior Engineering Technician	hour	38.0	\$101.16	\$3,844.08
<b>ESTIMATED GEOTECHNICAL FEE FOR ADDITIONAL FDR MIX DESIGN SCOPE</b>				<b>\$47,718.30</b>

**OPTIONAL SERVICES**  
**SCOPE OF SERVICES FOR PLANNING & ENVIRONMENTAL TASKS**  
**CR 880 FROM DR. MARTIN LUTHER KING JR. BLVD TO SR-80**  
**PROJECT NO. 2024504**

**1.0 BACKGROUND:**

HSQ and GOAL Associates Inc. (Consultant) was retained by the Palm Beach County to provide design and planning services for CR 880 From Dr. Martin Luther King Jr. Blvd to SR-80, County (Project No. 2024502).

**2.0 PURPOSE:**

The principal purpose of this project is to reconstruct and upgrade the existing roadway. The project scope also includes planning and environmental tasks as optional services.

**3.0 SCOPE FOR PLANNING & ENVIRONMENTAL TASKS**

**Task 1: Traffic Data Collection**

The consultant shall review Traffic Counts and crash information. Palm Beach County (PBC) would gather and provide:

- Two Day 6-hour turning movement counts (3-hour AM and 3-hour PM) at the following intersections
  1. Dr Martin Luther King Blvd
  2. SE Avenue G
  3. Wedgworth Road
  4. Whitaker Road
  5. Duda Road
  6. Browns Farm Road
  7. Senter Road
  8. Connors Hwy
- 72-hour Bi-directional classification counts at the following locations
  1. Between Martin Luther King Blvd and Duda Road
  2. Between Duda Road and Browns Farm Road
  3. Between Browns Farm Road and SR 80

**Task 2: Traffic Operational and Safety Analysis**

The consultant shall utilize the data collected for traffic operational analysis at the various intersections identified above to determine any operational deficiencies. The consultant shall also review the latest five years crash data provided by PBC for the corridor and perform safety analysis to identify determine the predominant crash pattern and safety deficiencies.

Based on the identified operational and safety deficiencies, the Consultant shall identify proposed improvements or countermeasures at the major intersections and/or along the roadway segments to mitigate these deficiencies in order to enhance safety and mobility along the corridor.

**Task 3: Environmental Desktop Evaluation**

The consultant shall perform a desktop environmental assessment of the project corridor to determine any potential environmental impacts from the proposed improvements. The environmental desktop assessment will include GIS review of natural, social, cultural, and physical resource layers using the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) as well as Aerial imagery and street maps. The Consultant will prepare an Environmental Resources Desktop Analysis (ERDA) Report to document the findings.

**4.0 PROJECT COMMON AND PROJECT GENERAL TASKS:**

The Consultant will attend all technical and other project-related meetings. The contract maintenance will be provided throughout the duration of the contract, and the project will be submitted in digital format via digital delivery.

**Estimate of Work Effort and Cost**

Name of Project: CR 880 FROM MARTIN LUTHER KING JR. BLVD TO SR 80  
PBC Project Number: 2024504

Subconsultant Name: GOAL ASSOCIATES, INC  
subconsultant Number:  
Date: 2/17/2026

Task Description	Total Staff Hours	Staff Categories						Community Outreach Specialist	Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Chief Engineer 2	Senior Engineer 2	Senior Engineer 1	Engineer 2	Engineer 1	Senior Designer				
		\$279.00	\$255.00	\$234.00	\$200.31	\$165.00	\$112.50	\$108.18			
<b>OPTIONAL SERVICES</b>											
Task 1: Traffic Data Collection , PBC will provide			0.0	0.0					0.0	\$0.00	\$ -
Task 2: Traffic Operational and Safety Analysis. All subtasks are included on the Attachment-Environmental Detail Staff Hours		8.0	20.0	70.0	24.0	24.0	0.0		146.0	\$32,479.44	\$ 222.46
Task 3: Environmental Desktop Evaluation		44.0	126.0	95.0	102.0	81.0	0.0		448.0	\$100,432.62	\$ 224.18
<b>Total Staff Hours (Optional Services)</b>		<b>52.0</b>	<b>146.0</b>	<b>165.0</b>	<b>126.0</b>	<b>105.0</b>	<b>0.0</b>	<b>0.0</b>	<b>594.0</b>		<b>\$ 223.76</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$14,508.00</b>	<b>\$37,230.00</b>	<b>\$38,610.00</b>	<b>\$25,239.06</b>	<b>\$17,325.00</b>	<b>\$0.00</b>	<b>\$0.00</b>		<b>\$132,912.06</b>	

EBO SBE Calculation for this Fee Summary	SBE \$	Non-SBE \$
	\$132,912.06	
<b>Totals \$</b>	<b>132,912.06</b>	<b>\$ -</b>

<b>Basic Services:</b>	
Salary Related Costs:	\$0.00
Contract Multiplier	<del>0.00</del> 3.0
<b>Total Basic Services (Prime Firm):</b>	<b>\$0.00</b>

<b>Reimbursables:</b>	
<b>Reimbursables Total:</b>	<b>\$0.00</b>

<b>Optional Services:</b>	
Traffic and Environmental Services	\$132,912.06
Contract Multiplier 3.0	
(The Multiplier is not included in the calculation, this is information only)	
<b>Optional Services Total:</b>	<b>\$132,912.06</b>

**Grand Total Estimated Fees: \$132,912.06**

ATTACHMENT A - ENVIRONMENTAL STAFF HOURS						
Task No.		Units	No. of Units	Hours/ Units	Total Hours	Comments
	<b>Environmental Desktop Screening for Feasibility Study</b>					
8.1	Preliminary Project Research	LS	1	36	36	Preliminary project research and preparation. Includes online review of existing permits, land use and potential listed species occurrence.
	<b>Permits</b>					
8.2	<b>Field Work</b>					
8.2.1	Pond Site Alternatives	per pond site	0	0	0	Not Anticipated
8.2.2	Establish Wetland Jurisdictional Lines and Assessments	LS	1	72	72	Review GIS Wetland Data to Delineate wetlands/other surface waters within 18-mile project limits and Windshield Survey (Does NOT include field work to establish wetland jurisdictional lines)
8.2.3	Species Surveys	LS	1	72	72	Review GIS Data and conduct general pedestrian/windshield wildlife field surveys to confirm presence/absence of species within the immediate proximity of work areas and GPS locate.
8.3	Agency Verification of Wetland Data	LS	0	0	0	Not Anticipated for the feasibility study
8.4	<b>Complete And Submit All Required Permit Applications</b>					
8.4.1	Complete and Submit All Required Wetland Permit Applications	LS	0	0	0	
8.4.2	Complete and Submit All Required Species Permit Applications	LS	0	48	48	Provided a Desktop Summary of Environmental Review and provide a Permits Required/Permits Summary Memo
8.5	Coordinate and Review Dredge and Fill Sketches	LS	0	0	0	Not Anticipated
8.15	<b>Preparation of Environmental Clearances and Reevaluations (use when consultant prepares all documents associated with reevaluation)</b>					
8.15.1	NEPA or SEIR Reevaluation	LS	1	0	0	Not Applicable this Phase
8.15.2	Archaeological and Historical Resources	LS	0	0	0	<b>By Others – NOT Included in Scope of Services</b>
8.15.3	Section 4(f), 6(f), and ARC	LS	1	36	36	Desktop Screening to identify potential areas of concern.
8.15.4	Wetland Impact Analysis	LS	0	0	0	The preparation of a wetlands impact analysis and a Natural Resources Evaluation Report (NRE) is NOT included in the Scope of Services.
8.15.5	Essential Fish Habitat Impact Analysis	LS	0	0	0	The preparation of a EFH impact analysis is NOT included in the Scope of Services.

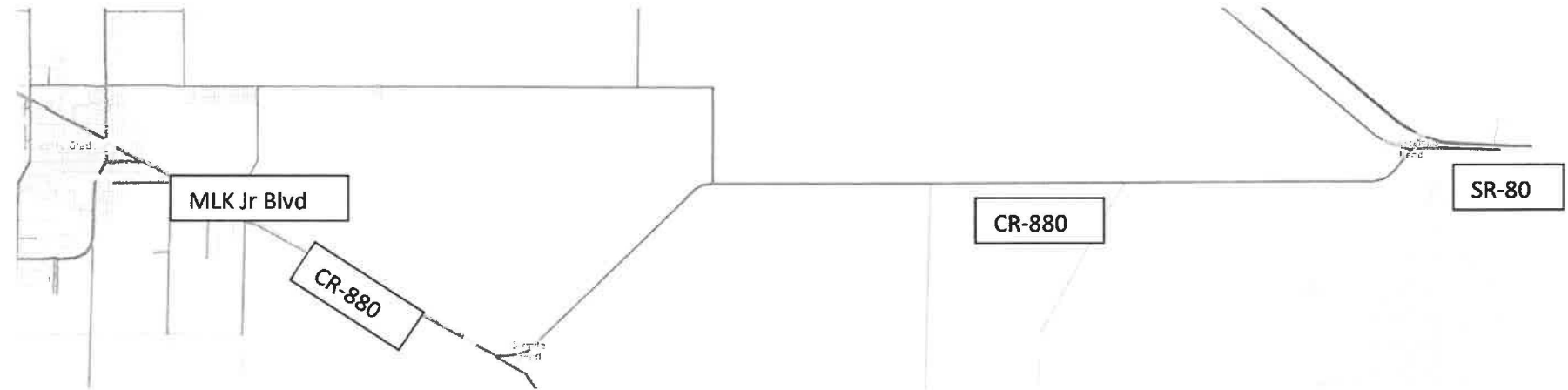
8.15.6	Protected Species and Habitat Impact Analysis	LS	0	0	0	The preparation of a Biological Impact analysis is NOT included in the Scope of Services.
	<b>Contamination Analysis</b>					
8.16	Contamination Impact Analysis	LS	1	130	130	Provide a Tech Memo documenting the Desktop Assessment to include 35 sites x 2 hrs/site + 40 hrs for report = total hours 110
8.17	Asbestos Survey	LS	0	0	0	Not Applicable this Phase
<b>Environmental Permits and Environmental Clearances/Reevaluations Technical Subtotal</b>					<b>394</b>	
8.18	Technical Inventory	LS	1	6	14	Inventory are listed below
8.19	Quality Assurance/Quality Control	LS	%	5%	20	
8.20	Supervision	LS	%	5%	20	
<b>Environmental Permits and Environmental Clearances Nontechnical Subtotal</b>					<b>54</b>	
8.21	Coordination	LS	%	0%	0	
<b>8. Environmental Permits and Environmental Clearances Total</b>					<b>448</b>	

Technical Inventory	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
WMD	EA	2	4	8			0
FDOT	EA	1	2	2			0
Other	EA	2	2	4			0

ATTACHMENT B - TRAFFIC OPERATIONAL AND SAFETY ANALYSIS STAFF HOURS						
Task No.		Units	No. of Units	Hours/ Units	Total Hours	Comments
1.1	Review of all corridors Historical Traffic Counts	Hrs	1	16	16	This includes ADT and Intersection Counts
1.2.	Summarizing all Traffic Counts on the report format with tables	Hrs	1	24	24	Not Anticipated
1.3	Review and document all Corridor Existing Traffic Operational Analysis	Hrs	1	12	12	
1.4	Review and document all Existing Safety including Crash Data	Hrs	1	24	24	
1.5	Documentation of Safety Analysis of Corridor Crash Summary on the report	Hrs	1	26	26	Not Anticipated for the feasibility study
<b>Development of Traffic Operational Analysis and Safety Report</b>						
1.6	Prepare a complete Corridor Safety Report	Hrs	1	44	44	
<b>Total Hours Traffic Operational Analysis and Safety</b>					<b>146</b>	

### Task 3: Environmental Desktop Evaluation

The consultant shall perform a desktop environmental assessment of the project corridor to determine any potential environmental impacts from the proposed improvements. The environmental desktop assessment will include GIS review of natural, social, cultural, and physical resource layers using the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) as well as Aerial imagery and street maps. The Consultant will prepare an Environmental Resources Desktop Analysis (ERDA) Report to document the findings.



**AFFIRMATIVE PROCUREMENT INITIATIVES  
FOR PROFESSIONAL SERVICES CONTRACTS (API's)**

The API(s) approved for this project are shown below. Any proposal/response/bid that fails to comply with the API requirements after the period allowed for waiver requests has lapsed shall be deemed non-responsive. Capitalized terms are defined as set forth in the EBO Ordinance and incorporated herein by reference. The Office of Small Business Development website at

<https://discover.pbcgov.org/HED/osbd/Pages/default.aspx>

includes all forms related to the EBO Program, including waiver forms and good faith documentation. Also, see the EBO Ordinance and Countywide PPM CW-O-043 for further information on APIs.

**SBE Evaluation Preference for SBE Participation (Contracts \$500,000 or greater) (EBO Ordinance Section 2-80.27(3)(d) option 2)**

**15 Points** (0 to 15%) total evaluation points shall be awarded based on the level of SBE dollar participation committed to on the prime respondent/bidder's team.

Evaluation Preference points shall be awarded on a sliding scale from zero up to 15 percent (15%) of the total available evaluation points for scoring of proposals to those firms responding to Professional Services Solicitations valued at \$500,000 or greater. The sliding scale shall be based upon the relative level of SBE dollar participation that has been committed to on the prime respondent/bidder's team (e.g., zero SBE participation on a prime respondent/bidder's team shall yield zero evaluation points, whereas the maximum SBE participation among all prime bidders, at the prime Contract and subcontract levels combined, shall yield award of fifteen Evaluation Preference points out of 100; and a prime respondent/bidder's team that achieves only half as many dollars in SBE participation as the firm with the greatest SBE dollar participation at the prime Contract and subcontract levels combined shall be awarded 7.5 evaluation points out of 100.

**SBE Subcontracting Goals for Professional Services (EBO Ordinance Section 2-80.27(3)(e))**

A **20% SBE subcontracting** participation goal is established for this CONTRACT.

The CONSULTANT has agreed to provide **37% SBE Participation**.

A minimum mandatory goal of 20% of the total estimated dollar value of the CONTRACT shall be subcontracted to SBEs, however the SBD Office shall reduce or waive this goal when there is inadequate availability of SBE prime and / or subcontractor firms.

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**OSBD SCHEDULE 1**

SOLICITATION/PROJECT/BID NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

SOLICITATION/PROJECT/BID NO.: 2024504

SOLICITATION OPENING/SUBMITTAL DATE: 10/10/2024

COUNTY DEPARTMENT: Engineering and Public Works

**Section A** PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY THE **PRIME CONTRACTOR/CONSULTANT\*** ON THE PROJECT:

NAME OF PRIME RESPONDENT/BIDDER: HSQ Group, LLC ADDRESS: 1001 Yamato Road, Suite 105, Boca Raton, FL 33431

CONTACT PERSON: Nour Shehadeh PHONE NO.: 561-392-0221 E-MAIL: nour@hsqgroup.net

PRIME'S DOLLAR AMOUNT OR PERCENTAGE OF WORK: \$982,111.86  
 SBE Prime's must include their percentage or dollar amount in the Total Participation line under section B.  Non-SBE  SBE

**Section B** PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY **ALL SUBCONTRACTORS/SUBCONSULTANTS** ON THE PROJECT BELOW:

Subcontractor/Sub consultant Name	(Check all Applicable Categories)		DOLLAR AMOUNT OR PERCENTAGE OF WORK
	Non-SBE	SBE	
1. Zeman Consulting Group, Inc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$180,232.32
2. Ritzel Mason, Inc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$180,368.25
3.	<input type="checkbox"/>	<input type="checkbox"/>	
4.	<input type="checkbox"/>	<input type="checkbox"/>	
5.	<input type="checkbox"/>	<input type="checkbox"/>	

(Please use additional sheets if necessary)

Total Bid/Offer Price \$ 4,455,669.71 Total \$3,473,557.85  
 Total Certified SBE Participation \$ 1,649,220.91

I hereby certify that the above information is accurate to the best of my knowledge: Jay Huebner Jay Huebner Managing Member  
 Name & Authorized Signature Title

- Note:**
- The amount listed on this form for a Subcontractor/sub consultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.
  - Only those firms certified by Palm Beach County at the time of solicitation due date are eligible to meet the established OSBD Affirmative Procurement Initiative (API). Please
  - Modification of this form is not permitted and will be rejected upon submittal.
  - If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation.

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2024504  
 SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: N/A

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

**SBE PARTICIPATION** – SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Roadway Services	1	1	0	982,111.86

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$982,111.86

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A Price or Percentage: \_\_\_\_\_  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

HSQ Group, LLC  
 Print Name of Prime  
 By:   
 Authorized Signature

N/A  
 Print Name of Subcontractor/subconsultant  
 By: \_\_\_\_\_  
 Authorized Signature

Jay Huebner  
 Print Name  
Managing Member  
 Title  
 Date: 2/24/2026

\_\_\_\_\_  
 Print Name  
 \_\_\_\_\_  
 Title  
 Date: \_\_\_\_\_

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SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Goal Associates, Inc.

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier

Date of Palm Beach County Certification (if applicable): 11/12/24-11/11/27

**SBE PARTICIPATION** – SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Optional Traffic and Environmental Evaluation	1	1	0	\$132,912.06

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$132,912.06

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A  
Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Price or Percentage: \_\_\_\_\_

HSQ Group, LLC

Print Name of Prime

By: Jay Huebner  
Authorized Signature

Jay Huebner

Print Name

Managing Member

Title

Date: 2/16/2026

Goal Associates, Inc.

Print Name of Subcontractor/subconsultant

By: Godfrey Lamptey  
Authorized Signature

Godfrey Lamptey, PE, PTOE

Print Name

President

Title

Date: 02/23/2026

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Pacifica Engineering Services, LLC

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier

Date of Palm Beach County Certification (if applicable): 10/25/24-10/24/27

**SBE PARTICIPATION – SBE Primes must document all work to be performed by their own work force on this form.** Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Geotechnical Services	1	1	0	\$375,641.40
2	Reimbursable Geotechnical Services	1	1	0	\$533,536.00
3	Optional Geotechnical Services	1	1	0	\$112,739.38
3	Optional Reimbursable Services	1	1	0	\$133,791.50

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$1,155,708.28

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A  
Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Price or Percentage: \_\_\_\_\_

HSQ Group, LLC  
Print Name of Prime

By: Jay Huebner  
Authorized Signature

Jay Huebner  
Print Name  
Managing Member  
Title

Date: 2/16/2026

Pacifica Engineering Services, LLC  
Print Name of Subcontractor/subconsultant

By: Wesley Foster  
Authorized Signature

Wesley Foster  
Print Name  
President  
Title

Date: 2/23/2026

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SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Tierra South Florida, Inc. dba TSFGeo

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

**SBE PARTICIPATION – SBE Primes must document all work to be performed by their own work force on this form.** Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Geotechnical Services	1	1	0	\$116,730.00
2	Reimbursable Geotechnical Services	1	1	0	\$272,849.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$389,579.00

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

(1) RADISE International, L.C. \$113,847.44

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Price or Percentage: (2) Intertek-PSI \$100,074.97

HSQ Group, LLC

Print Name of Prime

By:   
Authorized Signature

Jay Huebner

Print Name

Managing Member

Title

Date: \_\_\_\_\_

Tierra South Florida, Inc. dba TSFGeo

Print Name of Subcontractor/subconsultant

By:   
Authorized Signature

Raj Krishnasamy

Print Name

President

Title

Date: 2/23/2026

**A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such.** All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: RADISE International, L.C.

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

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Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Geotechnical Services	1	1	0	20,077.44
2	Optional Geotechnical Services	1	1	0	\$93,770.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$113,847.44

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A Price or Percentage: \_\_\_\_\_  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

HSQ Group, LLC  
 Print Name of Prime  
 By: Jay Huebner  
 Authorized Signature  
Jay Huebner  
 Print Name  
Managing Member  
 Title  
 Date: 2/16/2026

RADISE International, L.C.  
 Print Name of Subcontractor/subconsultant  
 By: Achmut Kumar Allaby  
 Authorized Signature  
ACHMUT KUMAR ALLABY  
 Print Name  
CEO  
 Title  
 Date: 2/23/2026

**OSBD LETTER OF INTENT – SCHEDULE 2**

**A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such.** All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Professional Service Industries, Inc. dba Intertek-PSI

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_


**SBE PARTICIPATION – SBE Primes must document all work to be performed by their own work force on this form.** Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

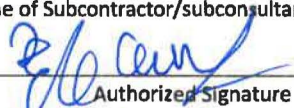
Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Reimbursable Geotechnical Services	1	1	0	\$34,319.97
2	Optional Geotechnical Services	1	1	0	\$65,755.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$100,074.97

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A Price or Percentage: \_\_\_\_\_  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

HSQ Group, LLC  
 Print Name of Prime  
 By:   
 Authorized Signature  
Jay Huebner  
 Print Name  
Managing Member  
 Title  
 Date: 2/16/2026

Professional Service Industries, Inc. dba Intertek-PSI  
 Print Name of Subcontractor/subconsultant  
 By:   
 Authorized Signature  
Ernesto Ramos  
 Print Name  
Branch Manager  
 Title  
 Date: 02/23/2026

**A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such.** All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: RADISE International, L.C.

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

**SBE PARTICIPATION – SBE Primes must document all work to be performed by their own work force on this form.** Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Geotechnical Services	1	1	0	\$107,053.38
2	Reimbursable Geotechnical Services	1	1	0	\$148,372.92
3	Optional Geotechnical Services	1	1	0	\$20,037.30
4	Optional Reimbursable Geotechnical Services	1	1	0	\$27,681.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$303,144.60

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A  
Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Price or Percentage: \_\_\_\_\_

HSQ Group, LLC  
Print Name of Prime

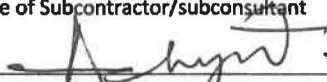
By:   
Authorized Signature

Jay Huebner  
Print Name

Managing Member  
Title

Date: 2/16/2026

RADISE International, L.C.  
Print Name of Subcontractor/subconsultant

By:   
Authorized Signature

ACHYUT KOMAR ALAMY  
Print Name

CEO  
Title

Date: 2/23/2026

**OSBD LETTER OF INTENT – SCHEDULE 2**

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SOLICITATION/PROJECT NUMBER: 2024504  
 SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Professional Service Industries, Inc. dba Intertek-PSI

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier Date of Palm Beach County Certification (if applicable): \_\_\_\_\_

**SBE PARTICIPATION – SBE Primes must document all work to be performed by their own work force on this form.** Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Geotechnical Services	1	1	0	\$252,168.57
2	Reimbursable Geotechnical Services	1	1	0	\$415,935.30
3	Optional Geotechnical Services	1	1	0	\$116,099.06
4	Optional Reimbursable Services	1	1	0	\$133,488.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$917,690.93

**If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.**

N/A Price or Percentage: \_\_\_\_\_  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

HSQ Group, LLC  
 Print Name of Prime  
 By: Jay Huebner  
 Authorized Signature  
Jay Huebner  
 Print Name  
Managing Member  
 Title  
 Date: 2/16/2026

Professional Service Industries, Inc. dba Intertek-PSI  
 Print Name of Subcontractor/subconsultant  
 By: Ernesto Ramos  
 Authorized Signature  
Ernesto Ramos  
 Print Name  
Branch Manager.  
 Title  
 Date: 02/23/2026

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SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Zeman Consulting Group, LLC

(Check box(s) that apply)

SBE  Non-SBE  Supplier

Date of Palm Beach County Certification (if applicable): 9/16/24-9/15/27

**SBE PARTICIPATION** – SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Surveying Services	1	1	0	\$178,658.07
2	Optional Surveying Services	1	1	0	\$1,574.25

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$180,232.32

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

N/A Price or Percentage: \_\_\_\_\_

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

HSQ Group, LLC  
Print Name of Prime

By: Jay Huebner  
Authorized Signature

Jay Huebner  
Print Name

Managing Member  
Title

Date: 2/16/2026

Zeman Consulting Group, LLC  
Print Name of Subcontractor/subconsultant

By: Derek Zeman  
Authorized Signature

DEREK ZEMAN  
Print Name

MANAGING MEMBER  
Title

Date: 2/24/2026

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SOLICITATION/PROJECT NUMBER: 2024504

SOLICITATION/PROJECT NAME: CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80

Prime Contractor: HSQ Group, LLC Subcontractor: Ritzel Mason, Inc.

**(Check box(s) that apply)**

SBE  Non-SBE  Supplier

Date of Palm Beach County Certification (if applicable): 4/10/25-4/9/28

**SBE PARTICIPATION** – SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Basic Surveying Services	1	1	0	\$199,971.00
2	Optional Surveying Services	1	1	0	\$1,302.75

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$201,273.75

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

N/A

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

Price or Percentage: \_\_\_\_\_

HSQ Group, LLC

Print Name of Prime

By: \_\_\_\_\_

*Jay Huebner*  
Authorized Signature

Jay Huebner

Print Name

Managing Member

Title

Date: 2/24/2026

Date:

Ritzel Mason, Inc.

Print Name of Subcontractor/subconsultant

By: \_\_\_\_\_

*Chade R. Mason II*  
Authorized Signature

Chade R. Mason II  
Print Name

President

Title

Date: 2/24/2026

Date:

# NONGOVERNMENTAL ENTITY HUMAN TRAFFICKING AFFIDAVIT

Section 787.06(13), Florida Statutes

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED

I, the undersigned, am an officer or representative of Jay Huebner  
(VENDOR) and attest that VENDOR does not use coercion for labor or services as defined in  
section 787.06, Florida Statutes.

**Under penalty of perjury, I hereby declare and affirm that the above stated facts are true and correct.**



(Signature of officer or representative)

Jay Huebner, Managing Member  
(Printed name and title of officer or representative)

State of Florida, County of Palm Beach

Sworn to and subscribed before me by means of  physical presence or  online notarization this,  
24th day of February, 2026, by Jay Huebner.

Personally known  OR produced identification .

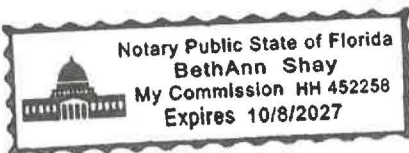
Type of identification produced \_\_\_\_\_.



NOTARY PUBLIC

My Commission Expires: 10/8/2027

State of Florida at large



(Notary Seal)

**PROJECT HISTORY**

Exhibi  
F

<b>CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80</b>						
<b>Project # 2024504</b>						
<b>Contract API(s):</b>		<b>20% Minimum mandatory SBE &amp; SBE Evaluation Preference</b>				
<b>Contract Commitment:</b>		<b>37% SBE</b>				
<b>GSC Date:</b>		<b>5-Jun-24</b>				
<b>Executed By</b>	<b>Supplement #</b>	<b>Date Approved</b>	<b>Total Amount</b>	<b>SBE</b>		
				<b>Total \$</b>	<b>Total %</b>	
BCC	0	Pending	\$ 4,455,669.71	\$ 1,649,220.91	37.01%	
<b>Project Totals \$</b>			<b>4,455,669.71</b>	<b>\$ 1,649,220.91</b>	<b>37.01%</b>	
<i>This Contract is subject to the provisions of Emergency Ordinance 2025-014 approved by the BCC on June 3, 2025. As a result, the M/WBE participation is not enforceable.</i>						



**Palm Beach County  
Compliance Summary Report**

Vendor Number	Vendor Name	AM Best Rating	Insurance Carrier	Policy #	Eff. Date	Exp. Date	Coverage	Contract Number	Contract Name
DX00003514	HSQ Group, LLC		Compliant					2024504	CR 880 from Dr. Martin Luther King Jr. Boulevard to SR 80
		A+g , XV	American Guarantee and Liability Insurance Company	SXS445976202	11/1/2025	11/1/2026	Excess Liability		
		A+g , XV	Zurich American Insurance Company	GLO429303602	11/1/2025	11/1/2026	General Liability		
		A+p , XV	Pacific Insurance Company, Limited	83OH058521725	12/15/2025	12/15/2026	Professional Liability		
		A+g , XV	Zurich American Insurance Company	WC429303502	11/1/2025	11/1/2026	Workers Comp		

**Risk Profile :** Standard - Professional Services  
**Required Additional Insured :** Palm Beach County Board of County Commissioners  
**Ownership Entity :**