

CONTRACT FOR DESIGN PROFESSIONAL SERVICES
FOR PROJECT NOS. 8220 18 and 8825 18

BETWEEN

HILLSBOROUGH COUNTY AVIATION AUTHORITY

AND

AECOM TECHNICAL SERVICES, INC.

DATED FEBRUARY 1, 2018

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CONTRACT FOR DESIGN PROFESSIONAL SERVICES

This Contract for Design Professional Services is made and entered into this 1st day of February, 2018 by and between the Hillsborough County Aviation Authority, a public body corporate under the laws of the State of Florida, hereinafter referred to as the "Owner", and AECOM Technical Services, Inc., a California Corporation, authorized to do business in the State of Florida, hereinafter referred to as the "Design Professional". The Owner and the Design Professional hereby agree as follows:

ARTICLE 1 - PROJECT

The project, hereinafter referred to as the Project, is as follows:

Provide design professional services in accordance with Section 287.055, Florida Statutes, in connection with the Taxiway A and MRO Taxilane Extension at Tampa International Airport.

ARTICLE 2 - CONTRACT ADMINISTRATION

This Contract will be administered by the Owner's Chief Executive Officer or designee.

ARTICLE 3 - SERVICES BY THE DESIGN PROFESSIONAL

3.1 The services that the Design Professional will provide to the Owner under this Contract will be as follows, and in general accordance with the Owner's Request for Qualifications dated August 16, 2017, entitled "Request for Qualifications for North Air Cargo Apron Expansion, Taxiway A and MRO Taxilane Extension at Tampa International Airport, Tampa, Florida", the Design Professional's response to the Owner's Request for Qualifications dated October 4, 2017, entitled "Statement of Qualifications, Tampa International Airport, North Air Cargo Apron Expansion, Taxiway A and MRO Taxilane Extension, Solicitation#: 17-411-828", which are both incorporated herein by reference, and the Design Professional's Fee and Scope Proposal dated January 22, 2018, entitled "AECOM Scope and Fee Proposal, 8220 18 – Taxilane Extension & Site Preparation for Eastside MRO Development, 8825 18 – New Taxiway A and Bridge, Tampa International Airport" which is attached hereto as Attachment 1 and incorporated herein by reference. In the event of any conflicts between this Contract and any other documents, the precedence in resolving such conflicts will be as follows:

- 3.1.1 This Contract
- 3.1.2 Individual work order and Design Professional's associated Fee and Scope Proposal
- 3.1.3 The Owner's Request for Qualifications
- 3.1.4 Design Professional's response to Request for Qualifications

3.2 Design Professional designates Dennis Combs, whose business address is 7650 W. Courtney Campbell Causeway , Tampa, Florida 33607-1462, and who is a qualified licensed professional, to serve as the project manager. The project manager will be authorized and responsible to act on behalf of the Design Professional with respect to directing, coordinating and administering all aspects of the services to be provided and performed under this Contract. Design Professional designates Steven Henriquez, whose title is Vice President-Florida Aviation Group, whose business address is 7650 W. Courtney Campbell Causeway , Tampa, Florida 33607-1462, to have full authority to bind and obligate the Design Professional on all matters arising out of or relating to this Contract. The Design Professional agrees that the project manager will devote whatever time is required to satisfactorily manage the services to be provided and performed by the Design Professional hereunder. Any replacement of the project manager will be subject to the prior approval and acceptance of the Owner.

3.3 Not used.

3.4 Not used.

3.5 The Design Professional agrees, within seven days of receipt of a written request from the Owner, to promptly remove and replace the project manager, or any other personnel employed or retained by the Design Professional, or any subconsultants or subcontractors or any personnel of any such subconsultants or subcontractors engaged by the Design Professional to provide and perform services or work pursuant to the requirements of this Contract, whom the Owner will request in writing to be removed, which request may be made by the Owner with or without cause.

3.6 Work Order Process - work orders are intended to be discrete working documents that will provide, in summary form, the background and factual context within which a particular work element or series of work elements will be completed by the Design Professional. Each work order will include a scope of services, level of effort and related costs. Work orders will be construed to be in addition to, supplementary to, and consistent with the provisions of this Contract. Upon request by the Owner, Design Professional will prepare and submit a work order to the Owner for review and approval. Work order forms will be provided by the Owner along with a detailed outline of design deliverables. Contracts involving multiple project numbers or airport locations will require work orders to identify basic services and reimbursement expense amounts per project and/or location.

3.7 The Design Professional will perform professional services provided for in each work order executed between the parties. Such professional services will be performed in accordance with the terms of this Contract. The Design Professional will be solely responsible for the technical completeness and accuracy of all work performed under this Contract.

3.8 The Design Professional will comply with all Owner Rules, Regulations, Policies, Standard Procedures and Operating Directives.

ARTICLE 4 - TIME

4.1 Services to be rendered by the Design Professional will commence subsequent to the execution of this Contract in accordance with each work order. Time is of the essence with respect to the performance of this Contract.

4.2 Should the Design Professional fail to commence, provide, perform or complete any of the services to be provided in a timely and diligent manner, in addition to any other rights or remedies available to the Owner, the Owner at its sole discretion and option may withhold any and all payments due and owing to the Design Professional until such time as the Design Professional resumes performance of its obligations in such a manner so as to satisfy the Owner.

ARTICLE 5 - PAYMENTS TO THE DESIGN PROFESSIONAL

5.1 The amount for the performance of basic services and direct and reimbursable expenses required under this Contract, will be in a not-to-exceed amount of Seven Million Five Hundred Sixty Three Thousand Six Hundred Twenty Three and No One-Hundredth Dollars (\$7,563,623.00), which includes all fees for subconsultants.

5.2 Not used.

5.3 Not used.

5.4 Invoiced amounts will be based on the Design Professional's and team member's most recent audited overhead rate or agreed upon overhead rate, personnel direct labor rates, negotiated profit and actual time billed to the Project as substantiated by backup acceptable to the Owner and supported by monthly progress reports:

| | | |
|-------------------------------------------------------|---|------------|
| Conceptual/Schematic Design Phase | - | Up to 15% |
| Design Development Phase | - | Up to 30% |
| Construction Document Phase through award of Contract | - | Up to 80% |
| Construction Phase | - | Up to 100% |

5.4.1 Invoiced amounts for multiple projects or multiple locations must be identified per project and/or location.

5.4.2 All subconsultant agreements must be submitted at time of billing. Subconsultant agreements must include a provision providing the Owner the same rights to audit at the subconsultant level in all of its subconsultant agreements executed to effect project completion.

5.4.3 An employee basic services spreadsheet based on the Fee and Scope Proposal in Excel format listing the employee's name, employee's classification and employee's raw rate must be submitted before the professional service invoice submittal. If there are changes such as new employees, new classification or new

raw rate, then a labor change indicator must be completed on an updated basic services spreadsheet. Any changes to an employee basic services spreadsheet must have prior approval by the Owner. All basic service billings must be accompanied by a rate & hour verification sheet submitted within the submittal as well as in Microsoft Excel format.

- 5.4.4 Basic services invoices that are submitted with a professional service invoice that are older than 90 days before the submission date will not be reimbursed. Basic services performed before the work order effective date will not be reimbursed.
- 5.4.5 Timesheets are required as supporting backup for all basic services invoice amounts. Hours billed must be clearly identified.
- 5.4.6 Overtime on any basic services must be pre-approved by the Owner.
- 5.4.7 Basic services must be organized using standard separators to identify the basic services being billed.
- 5.4.8 Rebalancing between tasks or fees must be requested with the first overage billing, along with an explanation for the overage and confirmation that the total Contract amount will not be exceeded. Proposed supporting sheets are to be submitted at the request for rebalancing.
- 5.4.9 All permit requirements, acceptable deliverables and badges are required to be submitted seven days before submission of a final professional service invoice.
- 5.4.10 If deficiencies are found, a standard deficiency e-mail will be sent to the Design Professional to resolve within three business days. If the deficiency is not resolved within that time, the professional service invoice will be returned.

5.5 Payments for Reimbursable Expenses. The Design Professional will be reimbursed at cost for all expenses, except travel and subsistence which will be reimbursed in accordance with Owner Policy, in an amount not to exceed the maximum reimbursable amount provided for in each individual work order. Each work order under this Contract will identify the type of expenses that will be eligible for reimbursement and the maximum reimbursable amount for that work order. As specified hereinafter, the Design Professional's direct and reimbursable expenses include only:

- 5.5.1 The cost of securing a recognized testing laboratory which will perform all soils and sub-surface investigations, tests, reports and recommendations required for schematic and final design and construction of the Project.
- 5.5.2 The cost of securing a recognized testing laboratory which will perform all necessary testing of materials and all shop and mill inspection of materials and equipment as will be required during construction of the assigned work in the Project.

- 5.5.3 The cost of boundary surveys, topographic surveys, land surveys, establishment of boundaries and monuments, field surveys, photogrammetry, field layouts of construction, construction layout, control staking, and related office computations and drafting.
- 5.5.4 The cost of outside special consultants to advise and assist Design Professional throughout the Project.
- 5.5.5 The actual cost of reproduction of review plans and specifications, the construction contract plans and specifications required for the securing of bids for the assigned work in the Project and for the use of contractors, subcontractors, testing laboratories, and others having need for such prints during construction.
- 5.5.6 All costs for long distance telephone calls, postage and overnight express delivery and couriers related to the Project.
- 5.5.7 Expenses for parking at Tampa International Airport and transportation related to the Project including airplane travel and automobile; and, in the event overnight travel related to the Project is required, cost of meals and lodging. All travel expenses will be reimbursed in accordance with the Owner's Policy and Standard Procedure on travel and business development expenses, as both may be amended from time to time. Only travel expenses incurred in the performance of the Owner's business are reimbursable. The most efficient and economical means of transportation is required. All travel must be pre-approved by the Owner. Employee expense sheets are required as well as supporting original or legible copies of all receipts.
- 5.5.8 Materials for study models, film and processing expenses.
- 5.5.9 The actual costs of all fees and permits required by and paid to agencies having jurisdiction. This does not include impact or development fees paid directly by the Owner or building permit fees paid by the construction contractor.
- 5.5.10 Invoiced amounts for multiple projects or multiple locations must be identified per project and/or location.
- 5.5.11 All subconsultant signed agreements must be submitted at time of billing. Subconsultant agreements must include a provision providing the Owner the same rights to audit at the subconsultant level in all of its subconsultant agreements executed to effect project completion.
- 5.5.12 Receipts/Invoices that are submitted with a professional service invoice that are older than 90 days before the submission date will not be reimbursed. Receipts/Invoices for expenses before the work order effective date will not be reimbursed.

- 5.5.13 Mileage within the Tri-County Area (Hillsborough, Pinellas, Pasco) will not be reimbursed. Mileage is part of travel which must be pre-approved by the Owner.
- 5.5.14 Legible copies of receipts/invoices that have not been altered are required for reimbursement. Receipts/Invoices must be identified by employee and employer, and include justification of expense.
- 5.5.15 Equipment purchased for and paid by the Owner must be identified when invoiced so that an asset tag can be attached to that equipment. A detail listing in Excel format must be submitted with the invoice when equipment is purchased.
- 5.5.16 No purchases of alcohol will be reimbursed by the Owner.
- 5.5.17 Meals for Owner or local consultant staff members will not be reimbursed.
- 5.5.18 No front loading on Progress Payments is allowed. Progress Payments are limited to the actual invoiced amounts.
- 5.5.19 Pre-approval from the Owner is necessary for office or petty cash expenditures.
- 5.5.20 Reimbursable expenses must be presented as a package organized in the following manner: Reimbursement Tracking Form, actual invoices identifying item numbers as it appears on the Reimbursement Tracking Form. The Reimbursement Tracking Form is required to be submitted electronically in Microsoft Excel format, as is the supporting documentation for the submitted professional service invoice.
- 5.5.21 Rebalancing between tasks or fees must be requested with the first overage billing, along with an explanation for the overage and confirmation that the total Contract amount will not be exceeded. Proposed supporting sheets are to be submitted at the request for rebalancing.
- 5.5.22 All permit requirements, acceptable deliverables and badges are required to be submitted seven days before submission of a final professional service invoice.
- 5.5.23 If deficiencies are found, a standard deficiency e-mail will be sent to the Design Professional to resolve within three business days. If the deficiency is not resolved within that time, the professional service invoice will be returned.

5.6 In the event that it is established during the design phase that there will be substantial changes to the scope of the Project as originally proposed and upon which the compensation is based, a change in said compensation will be negotiated prior to further development of the design.

5.7 One executed original sworn and notarized invoice for services, verified to the satisfaction of the Owner, will be rendered by the twenty-fifth of each month electronically to

DesignInvoice@TampaAirport.com. The Design Professional will submit with each invoice one original of a detailed accounting of the value of work performed to date by certified Disadvantaged Business Enterprises (DBE). This accounting will include the names and addresses of DBEs that have participated, a description of the work each named DBE has performed, and the value of work performed by each named DBE. The Design Professional will also submit with each invoice a Rate & Hour Verification Sheet and a Reimbursement Tracking Form, both in Microsoft Excel format.

5.8 Whenever compensation is paid to the Design Professional on a reimbursable basis, records as to the direct expense will be kept on a generally recognized accounting basis and will be submitted with each invoice.

5.9 Any compensation paid pursuant to a not-to-exceed amount will constitute full payment for all costs including, but not limited to, employee benefits, overhead, general administrative costs, profit and all other unallocated expenses.

5.10 The Design Professional agrees to pay each subcontractor under this Contract for satisfactory performance of its agreement no later than 10 days from the receipt of each payment the Design Professional receives from the Owner. The Design Professional agrees further to release retainage payments to each subconsultant within 10 days after the subconsultant's work is satisfactorily completed. Any delay or postponement of payment from the above-referenced time frame may occur only for good cause following written notice to the Owner. This clause applies to both D/W/MBE and non-D/W/MBE subconsultant.

5.11 With the exception of the month of September, all applications for payment will be submitted to the Authority by the twenty-fifth of each month. In the event that the twenty-fifth of the month falls on a Saturday or Sunday, applications for payment are due the next business day. Payment will be made by the third Friday of the month. Applications for payment submitted more than 20 days prior to the third Friday of the month will be rejected and returned. Due to the end of fiscal year financial closeout, September applications for payment will be submitted by September 19th, and in the event that the 19th falls on a Saturday or Sunday, applications for payment are due the next business day and subsequent payments will be made the second Friday of October. Such applications for payment submitted more than 20 days prior to the second Friday of October will be rejected and returned.

ARTICLE 6 - OWNER'S RIGHT TO PERFORM AUDITS, INSPECTIONS, OR ATTESTATION ENGAGEMENTS

6.1 Engagement(s) as used in this Contract include, but are not limited to, Audits, Inspections, or Attestation Engagements. In connection with payments to the Design Professional under this Contract, it is agreed the Design Professional will maintain adequate records in accordance with generally accepted accounting practices. The Owner, Florida Department of Transportation, Federal Aviation Administration, Federal Highway Administration, Florida Department of Financial Services, Florida Auditor General, Florida Inspector General, Florida Chief Financial Officer, and the Comptroller General of the United States, or any duly authorized representative of each, have the right to initiate and perform Engagements over the Design Professional's records for the purpose of determining payment eligibility under the Contract or over selected operations

performed by Design Professional under this Contract for the purpose of determining compliance with the Contract. Access will be to all of the Design Professional's records, including books, documents, papers, and records of Design Professional directly pertinent to this Contract or any work order, as well as records of parent, affiliate and subsidiary companies. If the records are kept at locations other than Tampa International Airport, Design Professional will arrange for said records to be brought to a location convenient to Owner's auditors to conduct Engagements as set forth in this Article. Or, Design Professional may transport Owner's team to location where the records are kept other than Tampa International Airport for purposes of undertaking Engagements. In such event, Design Professional will pay reasonable costs of transportation, food and lodging for Owner's team in accordance with Owner's Travel and Business Development Expenses Policy. Design Professional agrees to deliver or provide access to all records requested by Owner's auditors within 14 calendar days of the request at the initiation of Engagement and to deliver or provide access to all other records requested during the Engagement within 7 calendar days of each request. The parties recognize that Owner will incur damages if records requested by Owner's auditors are not provided in a timely manner and that the amount of those costs is difficult to determine with certainty. Consequently, the parties agree that Design Professional may be charged liquidated damages of \$100.00, for each item in a records request, per calendar day, for each time Design Professional is late in submitting requested records to perform an Engagement. Accrual of fee will continue until specific performance is accomplished. This liquidated damages rate is not an exclusive remedy and Owner retains its rights including but not limited to its rights to elect its remedies and pursue all legal and equitable remedies. The parties expressly agree that these liquidated damages are not a penalty and represent reasonable estimates of fair compensation for the losses that reasonably may be anticipated from such failure to comply.

6.2 In the event the Design Professional maintains its accounting or Project information in electronic format, upon request by the Owner's auditors, the Design Professional will provide a download of its accounting or Project information in an electronic format allowing readership in Microsoft Office software.

6.3 The Owner has the right during the Engagement to interview the Design Professional's employees and subconsultants, make photocopies, and inspect any and all records at reasonable times. The right to initiate an Engagement will extend for six years after the completion date of any work order, or six years after the termination of this Contract, whichever occurs later.

6.4 In the event the Design Professional has overcharged the Owner for direct and reimbursable expenses, the Design Professional will re-pay the Owner the amount of the overcharge and the Owner may assess interest of up to 12% per year on the overcharge from the date the overcharge occurred. In addition, if the Design Professional has overcharged the Owner by more than 3% of the gross direct and reimbursable amount, the Owner may assess and the Design Professional will pay for the entire cost of the Engagement.

6.5 The Design Professional shall require all of its subcontractors and subconsultants to provide the Owner the same rights to perform Engagements as allowed in this Contract. The Design Professional shall require that all of its subcontractors and subconsultants require their sub-subcontractors and sub-subconsultants to provide the Owner the same rights to perform

Engagements as allowed in this Contract.

6.6 Approvals by Owner's staff for any services included or not included in this Contract do not act as a waiver or limitation of the Owner's right to perform Engagements.

ARTICLE 7 - OWNERSHIP OF DOCUMENTS

7.1 Design Professional acknowledges and agrees that all records, documents, drawings, notes, tracings, plans, specifications, maps, evaluations, reports and other technical data, models, renderings and electronic data (other than working papers), prepared, developed or furnished by Design Professional or the design professional(s) employed or retained by the Design Professional under this Contract (Project Documents) will be and remain the property of the Owner. Project Documents will be deemed to be works made for hire, and all right, title and interest in and to the Project Documents will be vested in Owner. Design Professional will take all actions necessary to secure for Owner all such right, title and interest. Design Professional warrants that all materials comprising the Project Documents are original with Design Professional and have not been copied or derived from any other material without the express written consent of the owner, proprietor and/or copyright holder of that other material, and are not subject to any other claim of copyright by any other person. Design Professional will obtain any and all licenses necessary for the production and preparation of the Project Documents including, without limitation, licenses for the use of any material subject to copyright by other parties. Design Professional will assign to Owner any and all rights, including any copyrights, in the Project Documents that Design Professional or the design professional(s) employed or retained by the Design Professional on this Project may possess now or in the future, and Design Professional and its design professional(s) will claim no rights adverse to Owner in the Project Documents. Design Professional agrees to defend, indemnify and hold harmless the Owner and its Board members, officers, and employees from and against any liabilities, claims, costs or expenses as a result of any alleged infringement of third party rights in the documents described herein. If this clause is found to conflict in any way with Florida law, the clause will be considered modified by such law to the extent necessary to remedy the conflict. Any project as designed by Design Professional under this Contract may be reused or repeated by Owner at Owner's option or discretion at any time or times, including but not limited to, completion, addition, renovation, maintenance, reconstruction or remodeling of the project and construction of new projects. Design Professional hereby grants its consent to reuse of the Project Documents by Owner for any and all such purposes. The Design Professional will incorporate the terms of this Paragraph in all contracts with design professionals employed or retained by the Design Professional to perform services covered by this Contract.

7.2 Submission or distribution of the Design Professional's Project Documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the rights reserved in Paragraph 3.8.

7.3 CHAPTER 119, FLA. STATUTES REQUIREMENTS

IF THE DESIGN PROFESSIONAL HAS QUESTIONS REGARDING THE APPLICATION

**OF CHAPTER 119, FLORIDA STATUTES, TO THE DESIGN PROFESSIONAL'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:
(813) 870-8721, ADMCENTRALRECORDS@TAMPAAIRPORT.COM,
HILLSBOROUGH COUNTY AVIATION AUTHORITY, P.O. BOX 22287, TAMPA FL 33622.**

Design Professional agrees in accordance with Florida Statute Section 119.0701 to comply with public records laws including the following:

- a. Keep and maintain public records required by the Owner in order to perform the services contemplated by this Contract.
- b. Upon request from the Owner's custodian of public records, provide the Owner 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, Fla. Stat. or as otherwise provided by law.
- 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 and following completion of the Contract.
- d. Upon completion of this Contract, keep and maintain public records required by the Owner to perform the services. Design Professional shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Owner, upon request from the Owner's custodian of public records, in a format that is compatible with the information technology systems of Owner.

ARTICLE 8 - INDEMNITY

8.1 To the maximum extent permitted by Florida law, in addition to the Design Professional's obligation to provide pay for and maintain insurance as set forth elsewhere in this Contract, the Design Professional will indemnify and hold harmless the Owner, its members, officers, agents, employees, and volunteers from any and all liabilities, suits, claims, expenses, losses, costs, fines and damages (including but not limited to claims for attorney's fees and dispute resolutions) caused in whole or in part by the:

1. Presence on, use or occupancy of the Owner's property;
2. Acts, omissions, negligence (including professional negligence and malpractice), recklessness, intentional wrongful conduct, activities, or operations;
3. Any breach of the terms of this Contract;
4. Performance, non-performance or purported performance of this Contract;
5. Violation of any law, regulation, rule or ordinance;
6. Infringement of any patent, copyright, trademark, trade dress or trade secret rights; and/or

7. Contamination of the soil, groundwater, surface water, storm water, air or the environment by fuel, gas, chemicals or any other substance deemed by the Environmental Protection Agency or other regulatory agency to be an environmental contaminant

by the Design Professional or the Design Professional's officers, employees, agents, volunteers, subcontractors, invitees, or any other person whether the liability, suit, claim, expense, loss, cost, fine or damages is caused in part by an indemnified party.

8.2 In addition to the duty to indemnify and hold harmless, the Design Professional will have the separate and independent duty to defend the Owner, its members, officers, agents, employees, and volunteers from all suits, claims or actions of any nature seeking damages, equitable or injunctive relief, expenses, losses, costs, fines or attorney's fees in the event the suit, claim, or action of any nature arises in whole or in part from the:

1. Presence on, use or occupancy of the Owner's property;
2. Acts, omissions, negligence (including professional negligence and malpractice), recklessness, intentional wrongful conduct, activities, or operations;
3. Any breach of the terms of this Contract;
4. Performance, non-performance or purported performance of this Contract;
5. Violation of any law, regulation, rule or ordinance;
6. Infringement of any patent, copyright, trademark, trade dress or trade secret rights; and/or
7. Contamination of the soil, groundwater, surface water, storm water, air or the environment by fuel, gas, chemicals or any other substance deemed by the Environmental Protection Agency or other regulatory agency to be an environmental contaminant

by the Design Professional or the Design Professional's officers, employees, agents, volunteers, subcontractors, invitees, or any other person directly or indirectly employed or utilized by the Design Professional regardless of whether it is caused in part by the Owner, its members, officers, agents, employees, or volunteers. This duty to defend exists immediately upon presentation of written notice of a suit, claim or action of any nature to the Design Professional by a party entitled to a defense hereunder.

8.3 If the above indemnity or defense provisions or any part of the above indemnity or defense provisions are limited by Fla. Stat. § 725.06(2)-(3) or Fla. Stat. § 725.08, then with respect to the part so limited, the Design Professional agrees to the following: To the maximum extent permitted by Florida law, the Design Professional will indemnify and hold harmless the Owner, its members, officers, agents, employees, and volunteers from any and all liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fee, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the Design Professional and persons employed or utilized by the Design Professional in the performance of this Contract.

8.4 If the above indemnity or defense provisions or any part of the above indemnity or defense provisions are limited by Fla. Stat. § 725.06(1) or any other applicable law, then with

respect to the part so limited the monetary limitation on the extent of the indemnification shall be the greater of the (i) monetary value of this Contract, (ii) coverage amount of Commercial General Liability Insurance required under this Contract or (iii) \$1,000,000.00. Otherwise, the obligations of this Article will not be limited by the amount of any insurance required to be obtained or maintained under this Contract.

8.5 The Design Professional's obligations to defend and indemnify as described in this Article will survive the expiration or earlier termination of this Contract until it is determined by final judgment that any suit, claim or other action against the Owner, its members, officers, agents, employees, and volunteers is fully and finally barred by the applicable statute of limitations or repose.

8.6 Nothing in this Article or Contract will be construed as a waiver of any immunity from or limitation of liability the Owner, or its members, officers, agents, employees, and volunteers may have under the doctrine of sovereign immunity under common law or statute.

8.7 The Owner and its members, officers, agents, employees, and volunteers reserve the right, at their option, to participate in the defense of any suit, without relieving the Design Professional of any of its obligations under this Article.

8.8 If the above Article 8.1-8.7 or any part of Article 8.1-8.7 is deemed to conflict in any way with any law, the Article or part of the Article will be considered modified by such law to remedy the conflict.

ARTICLE 9 - INSURANCE COVERAGES AND LIMITS

9.1 Design Professional's Liability Insurance

9.1.1 Design Professional will maintain the following limits and coverages uninterrupted or amended through the life of this Contract. In the event the Design Professional becomes in default of the following requirements, the Owner reserves the right to take whatever actions deemed necessary to protect its interest. Required liability and property insurance policies, other than Workers' Compensation/Employer's Liability and Professional Liability, will provide that the Owner, members of the Owner's governing body, and the Owner's officers, volunteers, agents, volunteers and employees are included as additional insureds. Design Professional shall require that all subcontractors and subconsultants maintain insurance meeting all the requirements stated herein with the sole exception that Design Professional shall determine the applicable limits for its subcontractors and subconsultants. Design Professional shall have subcontractors and subconsultants endorse all applicable policies to name the Owner, members of the Owner's governing body, and the Owner's officers, agents, volunteers and employees as Additional Insureds. Before subcontractor or subconsultant commences services under this Contract, Design Professional will submit evidence that the subcontractor or subconsultant has complied with this provision to Owner.

9.1.2 Workers' Compensation / Employer's Liability

The minimum limits of insurance inclusive of any amount provided by an umbrella or excess policy will be:

| | |
|-------------------------|--------------|
| Part One: | "Statutory" |
| Part Two: | |
| Each Accident | \$ 1,000,000 |
| Disease - Policy Limit | \$ 1,000,000 |
| Disease - Each Employee | \$ 1,000,000 |

9.1.3 Commercial General Liability

The minimum limits of insurance inclusive of any amounts provided by an umbrella or excess policy without exclusion for independent contractors, XCU, or broad form property damage covering the work performed pursuant to this Contract will be the amounts specified herein. Coverage will be provided for liability resulting out of, or in connection with, ongoing operations performed by, or on behalf of, the Design Professional under this Contract or the use or occupancy of Owner premises by, or on behalf of, the Design Professional in connection with this Contract. Coverage shall be per form CG 00 01 or its equivalent. Additional insurance coverage shall be per ISO Form CG 20 10 10 01 and CG 20 37 10 01 or their equivalent.

| | <u>Contract Specific</u> |
|-----------------------------------|--------------------------|
| General Aggregate | \$ 10,000,000 |
| Each Occurrence | \$ 10,000,000 |
| Personal and Advertising Injury | \$ 10,000,000 |
| Products and Completed Operations | \$ 10,000,000 |

9.1.4 Business Auto Liability

Coverage will be provided for all owned, hired and non-owned vehicles. Coverage shall be per form CA 00 01 or its equivalent.

The minimum limits of insurance inclusive of any amounts provided by an umbrella or excess policy covering the work performed pursuant to this Contract will be:

| | |
|--------------------------------------------------------------|---------------|
| Each Occurrence - Bodily Injury and Property Damage Combined | \$ 10,000,000 |
|--------------------------------------------------------------|---------------|

9.1.5 Professional Liability

Such insurance will be maintained throughout the Project and for five years following completion of the Project work by the Design Professional. Any deductible amount over \$50,000 must be approved in writing by the Owner. Coverage will include all work of the Design Professional, including but not limited to areas with possible

environmental impact, without any exclusions unless approved in writing by the Owner. The limits of coverage will not be less than:

| | |
|------------------|--------------|
| Each Occurrence | \$ 5,000,000 |
| Annual Aggregate | \$ 5,000,000 |

9.1.6 Environmental Impairment (Pollution) Liability:

N/A

9.2 CONTRACTUAL INSURANCE TERMS AND CONDITIONS

9.2.1 PURPOSE: To establish the insurance terms and conditions associated with contractual insurance requirements.

9.2.2 INSURANCE COVERAGE:

9.2.2.1 Procurement of Coverage:

With respect to each of the required coverages the Design Professional will, at the Design Professional's expense, procure, maintain and keep in force the amounts and types of insurance conforming to the minimum requirements set forth in this Contract. Coverage will be provided by insurance companies eligible to do business in the State of Florida and having an AM best rating of A- or better and a financial size category of VII or better. Utilization of non-rated companies or companies with AM Best ratings lower than A- or better and financial size category lower than VII may be approved on a case by case basis. Such insurance will be no more restrictive than that provided by the latest edition filed for use in the State of Florida by the insurance service office, without restrictive endorsements. If the insurer does not meet these requirements, the Owner retains the right to approve or disapprove the use of the insurer.

9.2.2.2 Term of Coverage:

Except as otherwise specified in this Contract, the insurance will commence on or prior to the effective date of this Contract and will be maintained in force throughout the duration of this Contract. Five years' completed operations coverage must be maintained on all general liability policies and all professional liability policies, effective on the date of substantial completion of the design phase or the termination of this Contract, whichever is earlier. If Professional or Pollution liability coverage required is written on a claims made coverage form, the retroactive date must be shown, and this date must be before the earlier of the execution date of the Contract or the beginning of Contract Work.

9.2.2.3 Reduction of Aggregate Limits:

If any reduction of an aggregate limit occurs, the Design Professional will take immediate steps to have it reinstated. The policies shall be endorsed so that the specified policy limits are available for claims on this Project.

9.2.2.4 Cancellation Notice

Each of the insurance policies will be specifically endorsed to require the insurer to provide the Owner with 30 days written notice prior to the cancellation of the policy. The endorsement will specify that such notice will be sent to:

Hillsborough County Aviation Authority
Attn.: Chief Executive Officer
Tampa International Airport
Post Office Box 22287
Tampa, Florida 33622

9.2.2.5 No waiver by approval/disapproval:

The Owner accepts no responsibility for determining whether the Design Professional's insurance is in full compliance with the insurance required by this Contract. Neither the approval by the Owner nor the failure to disapprove the insurance furnished by the Design Professional will relieve the Design Professional of their full responsibility to provide the insurance required by this Contract.

9.2.2.6 Future Modifications – Changes in Circumstances:

9.2.2.6.1 Changes in Coverage and Required Limits of Insurance

The coverage and minimum limits of insurance required by this Contract are based on circumstances in effect at the inception of this Contract. If in the opinion of the Owner circumstances merit a change in such coverage or minimum limits of insurance required by this Contract, the Owner may change the coverage and minimum limits of insurance required and the Design Professional will, within 60 days of receipt of written notice of a change in the coverage and minimum limits required, comply with such change and provide evidence of such compliance in the manner required by this Contract. Provided, however, that no change in the coverage or minimum limits of insurance required will be made by the Owner until at least two years after inception of this Contract. Subsequent changes in the coverage or minimum limits of insurance will not be made by the Owner until at least two years after any prior change by the Owner unless extreme conditions warrant such change and are agreeable to both parties.

Notwithstanding the foregoing, Design Professional may make a written request for a waiver with respect to the insurance requirements contained herein for specific subcontractors and subconsultants for good cause and the Owner will evaluate the request for waiver within ten calendar days of receipt and issue a decision. Any such modification will be subject to the prior written approval of the Owner and subject to the conditions of such approval.

Owner expressly reserves the right, at its sole discretion, to adjust this Contract and pursue alternative methods for the provision of insurance and ancillary services associated with this Project. Alternative methods may include, but are not limited to, a controlled insurance program.

If, in the opinion of the Owner, compliance with the insurance requirements is not commercially practicable for the Design Professional, at the written request of the Design Professional, the Owner may, at its sole discretion and subject to any conditions it deems appropriate, relax or temporarily suspend, in whole or in part, the insurance requirements which would otherwise apply to the Design Professional. Any such modification will be subject to the prior written approval of the Owner and subject to the conditions of such approval.

9.2.2.7 Proof of Insurance – Insurance Certificate:

9.2.2.7.1 Prior to Work, Use or Occupancy of Owner Premises

The Design Professional will not commence work, or use or occupy Owner premises in connection with this Contract until the required insurance is in force, preliminary evidence of insurance acceptable to the Owner has been provided to the Owner, and the Owner has granted permission to the Design Professional to commence work or use or occupy the premises in connection with this Contract.

9.2.2.7.2 Proof of Insurance Coverage

As preliminary evidence of compliance with the insurance required by this Contract, the Design Professional will furnish the Owner with a certificate(s) of insurance satisfactory to the Owner. This certificate must be signed by an authorized representative of the insurer. Design Professional shall furnish the entity with endorsements effecting coverage as required by this Article. The endorsements are to be signed by a person authorized by insurer to bind coverage on its behalf. If requested by the Owner, the Design Professional will, within 30 days after receipt of written request from the Owner, provide the Owner, or make available for review, a certified complete copy of the policies of insurance. The Design Professional may redact those portions of the

insurance policies that are not relevant to the coverage required by this Contract. The Design Professional will provide the Owner with renewal or replacement evidence of insurance, acceptable to the Owner, prior to expiration or termination of such insurance.

9.2.2.7.3 The insurance certificate must:

9.2.2.7.3.1 Indicate that, to the extent required by this Contract, the Owner, members of the Owner's governing body, and the Owner's officers, agents, volunteers and employees are included as additional insured;

9.2.2.7.3.2 Indicate that the certificate has been issued in connection with this Contract;

9.2.2.7.3.3 Indicate the amount of any deductible or self-insured retention applicable to all coverages;

9.2.2.7.3.4 Identify the name and address of the certificate holder as:

Hillsborough County Aviation Authority
Attn.: Chief Executive Officer
Tampa International Airport
Post Office Box 22287
Tampa, Florida 33622;
and

9.2.2.7.3.5 Be signed and dated using approved methods by an individual who is an authorized representative of each insurer, whose insurance is the subject of the certificate and who is authorized by each such insurer to issue the certificate of insurance as modified. Facsimile signatures are acceptable.

9.2.2.8 Deductibles / Self Insurance:

9.2.2.8.1 All property and builders risk deductibles, as well as all self-insured retentions or any schemes other than a fully insured program, must be approved by the Owner. The Design Professional agrees to provide all documentation necessary for the Owner to review the deductible or alternative program.

9.2.2.8.2 The Design Professional will pay on behalf of the Owner, or any member of the Owner's governing body or any officer or employee of the Owner, any deductible or self-insured retention (SIR) which, with respect to the required insurance, is applicable to any claim

by or against the Owner or any member of the Owner's governing body, or any officer or employee of the Owner.

9.2.2.8.3 The agreement by the Owner to allow the use of a deductible or self-insurance program will be subject to periodic review by Owner's Risk Management Department. If, at any time, the Owner deems that the continued use of a deductible or self-insurance program by the Design Professional should not be permitted, the Owner may, upon 60 days written notice to the Design Professional, require the Design Professional to replace or modify the deductible or self-insurance in a manner satisfactory to the Owner.

9.2.2.8.4 Any deductible amount or SIR program will be included and clearly described on the certificate prior to any approval by the Owner. This is to include fully insured programs as to a zero deductible per the policy. Owner reserves the right to deny any certificate not in compliance with this requirement.

9.2.2.9 Design Professional's Insurance Primary:

The Design Professional's required insurance will apply on a primary basis. Any insurance maintained by the Owner will be excess and will not contribute to the insurance provided by or on behalf of the Design Professional. All policies will be endorsed so that Florida law will govern the interpretation of the policy including but not limited to Part II of Chapter 627 F.S.

9.2.2.10 Design Professional's Failure to Comply with Insurance Requirements:

9.2.2.10.1 Owner's Right to Procure Replacement Insurance

If after the inception of this Contract the Design Professional fails to fully comply with the insurance requirements of this Contract, in addition to and not in lieu of any other remedy available to the Owner provided by this Contract, the Owner may, at its sole discretion, procure and maintain on behalf of the Design Professional, insurance which provides, in whole or in part, the required insurance.

9.2.2.10.2 Replacement Coverage at Sole Expense of Design Professional

The entire cost of any insurance procured by the Owner pursuant to this section will be paid by the Design Professional without reimbursement from the Owner. At the option of the Owner, the Design Professional will either directly pay the entire cost of the insurance or immediately reimburse the Owner for any costs incurred by the Owner, including premium and a 15% administration cost.

9.2.2.10.3 Design Professional to Remain Fully Liable

Except to the extent any insurance procured by the Owner pursuant to this section actually provides the insurance coverage required by this Contract, the Design Professional will remain fully liable for full compliance with the insurance requirements in this Contract.

9.2.2.10.4 Owner's Right to Terminate, Modify, or Not Procure

Any insurance procured by the Owner pursuant to this section is solely for the Owner's benefit and is not intended to replace or supplement any insurance coverage which otherwise would have been maintained by the Design Professional. Owner is not obligated to procure any insurance pursuant to these requirements and retains the right, at its sole discretion, to terminate any such insurance which might be procured by the Owner pursuant to this section.

ARTICLE 10 - WAIVER OF CLAIMS

The Design Professional's acceptance of final payment for any individual work order will constitute a full waiver of any and all claims by Design Professional against the Owner arising out of this Contract or individual work order or otherwise related to the Project, except insurance company subrogation claims and other claims previously made in writing and identified by Design Professional as unsettled at the time of the final payment. Neither the acceptance of Design Professional's services nor payment by the Owner will be deemed to be a waiver of the Owner's rights against Design Professional.

ARTICLE 11 - CLAIMS AND DISPUTES

11.1 A claim is a written demand or assertion by one of the parties seeking as a matter of right adjustment or interpretation of the Contract terms, payment of money, extension of time or other relief with respect to the terms of this Contract. The term claim also includes other disputes and matters in question between the Owner and Design Professional arising out of or relating to this Contract. All claims must be made in writing. The responsibility to substantiate claims will rest with the party making the claim.

11.2 Claims by Design Professional must be made in writing to the Owner within 20 calendar days after the occurrence of the event giving rise to such claim or else Design Professional will be deemed to have waived the claim. Written supporting data will be submitted to the Owner within 30 calendar days after such occurrence unless the Owner allows additional time or else Design Professional will be deemed to have waived the claim. Claims by the Owner may be made at any time irrespective of the date of the occurrence of the event giving rise to the claim.

11.3 Unless otherwise agreed in writing and notwithstanding any other rights or obligations of

either of the parties under this Contract, the Design Professional will carry on with the performance of its services and duties hereunder during the pendency of any claim, dispute, other matter in question or arbitration or any other proceedings to resolve any claim, dispute or other matter in question. The Owner, however, will be under no obligation to make payments on or against such claims, disputes or other matters in question during the pendency of any proceedings to resolve such claims, disputes or other matters in question.

11.4 Documents in support of the claim referred to in this Article may be subject to an independent Engagement by the Owner. In the event the Engagement supports the Design Professional's claim, the Owner will pay for the Engagement. In the event the Engagement does not support the Design Professional's claim, the Design Professional will pay for the Engagement.

11.5 Any action initiated by either party associated with a claim or dispute, will be brought in the appropriate State Court in and for Hillsborough County, Florida. The appropriate Florida State Court shall be the exclusive venue and jurisdiction for such action. Confidential mediation with a mediator approved by the Owner shall be a condition precedent to litigation.

ARTICLE 12 - ASSISTANCE IN LITIGATION

Design Professional will render assistance to and on behalf of the Owner in litigation in connection with or arising out of this Contract, including any litigation brought by or against the Owner and any third parties, by providing technical information, analyses and expert witnesses only for the Owner. The Design Professional will provide services under this Article at a mutually agreed upon and reasonable rate as an additional service.

ARTICLE 13 - CONFLICT OF INTEREST

Design Professional represents that it presently has no interest and will acquire no interest, either direct or indirect, which would conflict, as determined by the Owner, in any manner with the performance of services required hereunder. Design Professional further represents that no persons having any such interest will be employed to perform these services.

ARTICLE 14 - NOTICES AND ADDRESS OF RECORD

14.1 All notices required or made pursuant to this Contract to be given by the Design Professional to the Owner will be in writing and may be given either by mailing same by United States mail with proper postage affixed thereto, or by hand-delivery, to the appropriate address as listed below:

14.1.1 Mail: Hillsborough County Aviation Authority
P. O. Box 22287
Tampa, FL 33622-2287
Attention: Chief Executive Officer

14.1.2 Hand-delivery: Hillsborough County Aviation Authority
Tampa International Airport

Third Level, Blue Side
Tampa, FL 33607
Attention: Chief Executive Officer

ARTICLE 15 - TERM OF CONTRACT

This Contract will commence on the date awarded by the Board and will remain in effect until final acceptance of the constructed project. Individual work orders will have effective dates and completion dates for the related scope of work.

ARTICLE 16 - TERMINATION OF CONTRACT

16.1 This Contract may be terminated by the Owner with or without cause with a seven day written notice to the Design Professional.

16.2 In the event of termination not the fault of the Design Professional, the Design Professional will be compensated for services performed to the termination date, together with reimbursable expenses then due and termination expenses. Termination expenses are expenses directly attributable to termination, including reasonable compensation for overhead and profit. Reasonable compensation for overhead and profit will be established pursuant to negotiation.

16.3 In the event of termination for cause, the Owner may retain all payments due to the Design Professional at the date of termination until all of the Owner's damages have been established and deducted from payments due.

16.4 Upon 30 days written notice to Owner, Design Professional may terminate this Contract if Design Professional is not in default of any term, provision, or covenant of this Contract only upon or after the occurrence of any of the following events: the inability of Design Professional to perform work at Peter O. Knight Airport for which a work order has been issued for a period of longer than 90 consecutive days due to war, terrorism, or the issuance of any order, rule or regulation by a competent governmental authority or court having jurisdiction over the Owner preventing Design Professional from operating its business for a period of 90 consecutive days provided, however, that such inability or such order, rule or regulation is not due to any fault or negligence of Design Professional.

ARTICLE 17 - SUSPENSION OF WORK

The Owner may, for any reason, order the Design Professional in writing to suspend, delay or interrupt the work in whole or in part for such period of time as the Owner may determine. If the work is stopped for a period exceeding 60 days by the Owner, the Design Professional may be entitled to additional compensation and expenses, said compensation and expenses to be established pursuant to negotiations between the parties.

ARTICLE 18 - SUCCESSORS AND ASSIGNS

18.1 The Owner and Design Professional respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Contract and to the partners, successors, and assigns of such other party with respect to the covenants of this Contract.

18.2 Except as hereinafter provided, neither party to this Contract will assign or sublet this Contract, in whole or in part, without the written consent of the other, nor will the Design Professional assign any monies due, or to become due, hereunder without the previous written consent of the Owner. If the Design Professional attempts to make such assignment or sublet without such consent, the Design Professional will nevertheless remain legally responsible for all obligations under this Contract.

18.3 The Owner reserves the right to transfer its interests herein to any other governmental body authorized by law to operate the Airport.

ARTICLE 19 - TRUTH IN NEGOTIATIONS

The Design Professional certifies that the wage rates and other factual unit costs supporting the compensation described herein and in all work orders provided under this Contract are accurate, complete and current at the time of contracting and that the original contract price and any additions or work orders will be adjusted to exclude any significant sums where the Owner determines the contract price was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such adjustments will be made within one year following the end of any particular work order issued under this Contract.

ARTICLE 20 - CERTIFICATION OF DESIGN PROFESSIONAL/PROHIBITION AGAINST CONTINGENT FEES

The Design Professional warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Design Professional, to solicit or secure this Contract, and that Design Professional has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the Design Professional, any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Contract. If the Owner finds that Design Professional violates this provision, the Owner may terminate this Contract and any underlying work orders without liability and, at its discretion, deduct from the Contract or work order, or otherwise recover, the full amount of any fee, commission, percentage, gift, or consideration.

ARTICLE 21 - PUBLIC ENTITY CRIME CERTIFICATION

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on an agreement to provide any goods or services to a public entity, may not submit a bid on an agreement with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or design professional under an agreement with any public entity, and may not

transact business with any public entity in excess of the threshold amount provided in Florida Statute Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

ARTICLE 22 - CONTRACT MADE IN FLORIDA

This Contract has been made in and will be construed in accordance with the laws of the State of Florida. In any action initiated by one party against the other, venue will lie in Hillsborough County, Florida.

ARTICLE 23 - NON-DISCRIMINATION

23.1 During the performance of this Contract, the Design Professional, for itself, its assignees and successors in interest, agrees as follows:

23.1.1 Compliance with regulations. The Design Professional must comply with the regulations relative to non-discrimination in federally assisted programs of the Department of Transportation (DOT) Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.

23.1.2 Non-discrimination. The Design Professional, with regard to the work performed by it during the Contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Design Professional will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.

23.1.3 Solicitations for subcontracts, including procurement of materials and equipment. In all solicitations either by competitive bidding or negotiation made by the Design Professional for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier must be notified by the Design Professional of the Design Professional's obligations under this Contract and the Regulations relative to non-discrimination on the grounds of race, color or national origin.

23.1.4 Information and reports. The Design Professional must provide all information and reports required by the Regulations or directives issued pursuant thereto and must permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the Owner or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of Design Professional is in the exclusive possession of another who fails or refuses to furnish this information, the Design Professional will so certify to the Owner or the

FAA, as appropriate, and will set forth what efforts it has made to obtain the information.

23.1.5 Sanctions for non-compliance. In the event of the Design Professional's non-compliance with the non-discrimination provisions of this Contract, the Owner will impose such contractual sanctions as it or the FAA may determine to be appropriate, including, but not limited to, withholding of payments to the Design Professional under this Contract until the Design Professional complies, and/or cancellation, termination or suspension of the Contract, in whole or in part.

23.1.6 Incorporation of provisions. The Design Professional must include the provisions of sub-articles 23.1.1 through 23.1.7 in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Design Professional must take such action with respect to any subcontract or procurement as the Owner or the FAA may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event the Design Professional becomes involved in or is threatened by litigation with a subcontractor or supplier as a result of such direction, the Design Professional may request the Owner to enter into such litigation to protect the interests of the Owner and, in addition, the Design Professional may request the United States to enter into such litigation to protect the interests of the United States.

23.1.7 Design Professional assures that, in the performance of its obligations hereunder, it will fully comply with the requirements of 14 C.F.R. Part 152, Subpart E (Non-discrimination in Airport Aid Program), as amended from time to time, to the extent applicable to Design Professional, to ensure, among other things, that no person will be excluded from participating in any activities covered by such regulations on the grounds of race, creed, color, national origin, or sex. Design Professional, if required by such regulations, will provide assurances to the Owner that Design Professional will undertake an affirmative action program and will require the same of its subconsultants.

ARTICLE 24 - DISADVANTAGED BUSINESS ENTERPRISE (DBE) ASSURANCES

To the extent the Airport Improvement Program funding is used on any of the Projects, the following provision applies.

24.1 Owner Policy: It is the policy of Owner that DBEs as defined in 49 CFR Part 26 will have a fair opportunity to participate in the performance of construction, architectural, engineering, and professional services contracts procured by Owner funded in whole or in part by the U.S. Department of Transportation. Design Professional will take all necessary and reasonable steps in accordance therewith to ensure that DBEs have a fair opportunity to compete for and perform subcontracts under this Contract.

24.2 Non-Discrimination: Design Professional and any subcontractor of Design Professional will

not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Design Professional will carry out applicable requirements of Owner's DBE Policy and Program in the award and administration of this Contract. Failure by Design Professional to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as Owner deems appropriate. Each contract Authority executes with Design Professional and each subcontract Design Professional executes with a subcontractor must include the following:

"Design Professional and subcontractor will not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Design Professional will carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by Design Professional or subcontractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as Owner deems appropriate."

- 24.3 DBE Termination and Substitution: Design Professional is prohibited from terminating or altering or changing the scope of work of a DBE subcontractor except upon written approval of Owner in accordance with Owner's procedures relating to DBE terminations contained in the DBE Policy and Program. Failure to comply with the procedure relating to DBE terminations or changes during the Contract will be a material violation of the Contract and will invoke the sanctions for non-compliance specified in this Contract and the DBE Policy and Program.
- 24.4 DBE Goals. In compliance with the Owner's DBE policy, the Design Professional's minimum DBE commitment is established as the sum total of the verified Letter(s) of Intent submitted with their response. The goal stated below is the sum total of the certified DBE's listed in the Design Professional's Fee and Scope Proposal which is attached hereto as Attachment 1 and which will be enforceable under the terms of this Contract. The Design Professional will demonstrate that they will subcontract to certified DBEs certified by the Florida Unified Certification Program (FLUCP) at least TBD % of the dollar amount of the design fees earned under this Contract, or clearly demonstrate in a manner acceptable to the Owner its good faith efforts to obtain certified DBE subcontractors.
- 24.5 Monitoring: Owner will monitor the ongoing good faith efforts of Design Professional in meeting the requirements of this Article. Owner will have access to the necessary records to examine such information as may be appropriate for the purpose of investigating and determining compliance with this Article, including, but not limited to, records, records of expenditures, contracts between Design Professional and the DBE participant, and other records pertaining to DBE participation, which Design Professional will maintain for a minimum of three years following the end of this Contract. Opportunities for DBE participation will be reviewed prior to the exercise of any renewal, extension or material amendment of this Contract to consider whether an adjustment in the DBE requirement is warranted. Without limiting the requirements of this Contract, Owner reserves the right to review and approve all sub-leases or subcontracts utilized by Design Professional for

the achievement of these goals.

- 24.6 Prompt Payment: Design Professional agrees to pay each subcontractor under this Contract for satisfactory performance of its contract no later than 10 calendar days from the receipt of each payment Design Professional receives from Owner. Design Professional agrees further to release retainage payments to each subcontractor within 10 calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above-referenced time frame may occur only for good cause following written approval of Owner. This clause applies to both DBE and non-DBE subcontractors.
- 24.7 Reporting Requirements: Design Professional agrees that within 15 calendar days after the expiration of each calendar month during the term of this Contract, it will provide a DBE Monthly Utilization Report to Owner's DBE Program Manager calculated in accordance with the requirements of 49 CFR Part 26. If the required DBE participation is not met, Design Professional will explain in the DBE Monthly Utilization Report the reasons for its failure to meet the prescribed goal and the strategy Design Professional proposes to meet the DBE goal. All firms interested in participating in contracting/subcontracting opportunities as a DBE must be certified as eligible DBEs before said business enterprises begin their portion of the Contract work. Only certified DBEs will count toward the DBE goal. If the Design Professional fails to achieve the DBE goal stated herein, it will be required to provide documentation demonstrating that it made good faith efforts in attempting to do so.
- 24.8 Design Professional agrees to indemnify the Owner from the loss of any funds or other damages that may result from Design Professional's failure to achieve the DBE goals set forth herein or to establish a good faith effort to do so, including attorneys' fees and costs associated with said failure by Design Professional or good faith investigation by Owner. Failure of Design Professional to make a good faith effort to achieve DBE goals will be a material breach of this Contract. The determination of whether Design Professional's efforts were made in good faith will be made by the Owner. At 50% completion, a plan of action properly reflecting anticipated DBE achievement of the commitment is required to be submitted to the Owner.
- 24.9 In the event of the Design Professional's non-compliance with the Owner's DBE Policy and Program or failure to meet the prescribed DBE goal set forth in this Article, or to establish a good faith effort to do so, the Owner, after due process, will impose such Contract sanctions as the Owner may determine to be appropriate including but not limited to:
- 24.9.1 Withholding of payments to the Design Professional under this Contract until the Design Professional complies; and/or
- 24.9.2 Cancellation, termination or suspension of this Contract in whole or in part; and/or
- 24.9.3 Suspension or debarment of Design Professional from eligibility to contract with

the Owner in the future or to receive bid packages or request for proposals (RFP)/request for qualification (RFQ) packages.

ARTICLE 25 – WOMAN AND MINORITY BUSINESS OWNED ENTERPRISE (W/MBE) ASSURANCES

A W/MBE participation goal has been established for the design of Project No. 8825 18, New Taxiway A and Bridge. The W/MBE Assurances of this Article will only apply to Project No. 8825 18.

25.1 It is the policy of the Owner that W/MBEs, as defined in the Owner’s W/MBE Policy and Program, will have full and fair opportunities to compete for and participate in the performance of non-federally funded contracts or in the purchase of goods and services procured by the Owner. Consequently, the W/MBE requirements and the Owner’s W/MBE Policy and Program will apply to this Contract and are made a part hereof.

25.1.1 The Design Professional and any subcontractor of the Design Professional will not discriminate on the basis of race, color, national origin, or sex in the performance of the Contract. The Design Professional will carry out applicable requirements of the Owner’s W/MBE Policy and Programs in the award and administration of contracts. Failure by the Design Professional to carry out these requirements is a material breach of the Contract, which may result in the termination of the Contract or such other remedy as the Owner deems appropriate which may include, but not limited to:

25.1.1.1 Withholding monthly progress payments;

25.1.1.2 Assessing sanctions;

25.1.1.3 Liquidated damages; and/or

25.1.1.4 Disqualifying the contractor from future bidding as non-responsible.

25.1.2 The Design Professional agrees that it will not discriminate against any business owner because of the owner’s race, color, national origin, or sex in connection with the award or performance of any contract, management contract, or subcontract, purchase or lease contract.

25.1.3 The Design Professional agrees to include the statements in paragraphs (1) and (2) above in any subsequent contract or contract that it enters and cause those businesses to similarly include the statements in further contracts.

25.2 The Design Professional agrees to ensure that W/MBEs, as defined in the Owner’s W/MBE Policy and Program, have the maximum opportunity to participate in the performance of this Contract, and the Design Professional will take all necessary and reasonable steps in

accordance therewith to ensure that W/MBEs have the maximum opportunity to compete for and perform subcontracts.

- 25.3 W/MBE Goals. In compliance with the Owner's W/MBE Policy and Program, the Design Professional's minimum W/MBE commitment is established as the sum total of the verified Letter(s) of Intent for each portion of the Program submitted with their response. The W/MBE goal stated below is the sum total of the certified W/MBE's listed in the Design Professional's fee and scope proposal which is attached hereto and which will be enforceable under the terms of this Contract. The Design Professional will demonstrate that they will subcontract to certified W/MBEs at least 36.2% of the total dollar amount earned on the design phase of Project 8825 18.
- 25.4 All W/MBEs interested in participating in contracting/subcontracting opportunities must be certified as eligible W/MBEs before said business enterprises begins their portion of the Contract work. Only certified W/MBEs will count toward the W/MBE goal. If the Design Professional fails to achieve the W/MBE expectancy stated herein, it will be required to provide documentation demonstrating that it made good faith efforts in attempting to do so.
- 25.5 W/MBE Termination and Substitution: The Design Professional will not terminate a W/MBE for convenience without the Owner's prior written consent. If a W/MBE is terminated by the Design Professional with the Owner's consent or because of the W/MBE's default, then the Design Professional must make a good faith effort, in accordance with the requirements of the Owner's W/MBE Policy and Program, to find another W/MBE to substitute for the original W/MBE to provide the same amount of W/MBE participation.
- 25.6 Reporting Requirements: The Design Professional agrees that, within 15 days after the expiration of each calendar month during the term of the Contract beginning on the effective date of the Contract, it will provide a W/MBE Utilization Activity report to the Owner's Business Diversity Manager reflecting, as applicable, in a form acceptable to the Owner, the Design Professional's total dollar value received under the Contract for the applicable period and the amount expended for the purchase of goods and services from each W/MBE firm during that period, calculated in accordance with the requirements of the Owner's W/MBE Policy and Program.
- 25.7 Monitoring: The Owner will monitor the compliance and good faith efforts of the Design Professional in meeting these requirements. The Owner will have access to the necessary records to examine such information as may be appropriate for the purpose of investigating and determining compliance with this subsection, including, but not limited to, records, records of expenditures, contracts between the Design Professional and the W/MBE participant, and other records pertaining to the W/MBE participation plan, which the Design Professional will maintain for a minimum of three years following the end of the Contract. Opportunities for W/MBE participation will be reviewed prior to the exercise of any renewal, extension or material amendment of the Contract to consider whether an adjustment in the W/MBE requirement is warranted.

Without limiting the requirements of the Contract, the Owner reserves the right to review and approve all subleases or subcontracts utilized by the Design Professional for the achievement of these goals.

- 25.8 Design Professional agrees to indemnify the Owner from the loss of any funds or other damages that may result from Design Professional's failure to achieve the W/MBE goals set forth herein or to establish a good faith effort to do so, including attorneys' fees and costs associated with said failure by Design Professional or good faith investigation by Owner. Failure of Design Professional to make a good faith effort to achieve W/MBE goals will be a material breach of this Contract. The determination of whether Design Professional's efforts were made in good faith will be made by the Owner. At 50% completion, a plan of action properly reflecting anticipated W/MBE achievement of the commitment is required to be submitted to the Owner.
- 25.9 In the event of the Design Professional's non-compliance with the Owner's W/MBE Policy and Program, failure to meet the prescribed W/MBE goal set forth in this Contract, or failure to establish a good faith effort to do so, the Owner will impose such contract sanctions as the Owner may determine to be appropriate, including but not limited to:
- 25.9.1 Withholding of payments to the Design Professional under this Contract until the Design Professional complies; and/or
 - 25.9.2 Assessing sanctions; and/or
 - 25.9.3 Liquidated damages; and/or
 - 25.9.4 Cancellation, termination or suspension of this Contract in whole or in part; and/or
 - 25.9.5 Suspension or debarment of Design Professional from eligibility to contract with the Owner in the future or to receive bid packages or request for qualification (RFQ) packages, pursuant to the Owner's Policy P414, Suspension/Debarment of Contractors.

ARTICLE 26 – BUY AMERICAN ASSURANCE

To the extent the Airport Improvement Program funding is used on any of the Projects, the following provision applies.

26.1 In accordance with 49 U.S.C. Section 50101, the Design Professional will ensure that all steel and manufactured goods specified in the construction contract documents for this Project, including components and subcomponents, are (1) wholly produced in the United States, or (2) have a nationwide waiver excepting the Buy American requirements, or (3) meet the requirements necessary to obtain a waiver as outlined in 49 U.S.C. Section 50101

ARTICLE 27 – PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES

This Contract will be terminated in accordance with Florida Statute Section 287.135(3) if it is found that Company submitted a false Scrutinized Company Certification as provided in Florida Statute Section 287.135(5) or, has been placed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List, created pursuant to Florida Statute Section 215.473, or has been engaged in business operations in Syria.

ARTICLE 28 – E-VERIFY REQUIREMENT

In accordance with the State of Florida, Office of the Governor, Executive Order Number 11-116 (Verification of Employment Status), all agencies under the direction of the Governor are to include as a condition of all state contracts for the provision of goods or services to the state in excess of nominal value, an express requirement that contractors utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor during the contract term, and an express requirement that contractors include in such subcontracts the requirement that subcontractors performing work or providing services pursuant to the state contract utilize the E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term. Any projects with Florida Department of Transportation (FDOT) funding will contain this assurance as a condition for any new Joint Participation Contracts dated after January 4, 2011. The Design Professional will verify all of their new employees and will require that their subcontractors verify all of their new employees in accordance with the E-verify requirements set out above. The Design Professional will execute Attachment 3, E-Verify Certification, to certify and affirm that Design Professional will comply with the E-Verification requirements of Executive Order Number 11-116.

ARTICLE 29 - COMPLETE CONTRACT

This Contract represents the entire and fully integrated Contract between the Owner and the Design Professional and supersedes all prior negotiations, representations or contracts, either written or oral. This Contract may be amended only by written instrument signed by both the Owner and the Design Professional.

IN WITNESS WHEREOF, the parties hereto have set their hands and corporate seals by their proper officers, duly authorized to do so;

By the Design Professional this _____ day of _____, 20_____.

ATTEST:

AECOM Technical Services, Inc.

By: _____
Title: _____

Print Name

Print Address

Signed, sealed, and delivered
in the presence of:

Witness

Print Name

Witness

Print Name

Notary for AECOM Technical Services, Inc.

**STATE OF FLORIDA
COUNTY OF HILLSBOROUGH**

The foregoing instrument was acknowledged before me this ____ day of _____, 20__,
by _____ in the capacity of _____,
of _____ a _____
(Name of organization or company, if any) (Corporation / Partnership / Sole Proprietor / Other)
on _____ behalf. _____
(Its / His / Her) (They are / He is / She is) (Personally known to me /not personally known to
me)

_____ and _____ take an oath.
and has produced the following document of identification) (they / he / she) (did / did not)

(Seal of Notary)

Signature of Notary

By the Owner this 1st day of February, 2018.

HILLSBOROUGH COUNTY AVIATION AUTHORITY

(Affix Corporate Seal)

By: _____
Robert I. Watkins, Chairman

ATTEST:

Victor D. Crist, Secretary

Signed, sealed, and delivered
in the presence of:

Witness

Print Name

Witness

Print Name

LEGAL FORM APPROVED:

By: _____
Michael T. Kamprath, Assistant General Counsel

Notary for Hillsborough County Aviation Authority
STATE OF FLORIDA
COUNTY OF HILLSBOROUGH

The foregoing instrument was acknowledged before me this ____ day of _____, 2018, by Robert I. Watkins, in the capacity of Chairman, and by Victor D. Crist, in the capacity of Secretary, Hillsborough County Aviation Authority, a public body corporate under the laws of the State of Florida, on its behalf. They are personally known to me and they did not take an oath.

Signature of Notary

Print, Type, or Stamp Commissioned Name of Notary



January 22, 2018

Mr. Tom Thalheimer
 Manager of Procurement
 Tampa International Airport
 Post Office Box 22287
 Tampa, Florida 33622

Re: **AECOM Scope and Fee Proposal**
8220 18 - Taxilane Extension & Site Preparation for Eastside MRO Development
8825 18 - New Taxiway A and Bridge
Tampa International Airport

Dear Mr. Thalheimer:

Thank you for the opportunity to submit a scope and fee on the referenced projects. We are excited to begin these new projects and look forward to continued success. As discussed, attached is our scope and fee for these projects. The attachments are listed separately below:

1. 8825 18 TPA Taxiway A Bridge Proposal 1-22-18 (pdf)
2. 8220 18 TPA MRO Taxilane Proposal 1-22-18 (pdf)
3. Associated backup fee spreadsheets (xls)

Our proposal for referenced projects is summarized below:

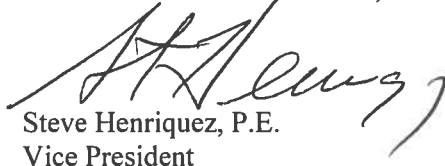
| Project | Fee |
|-------------------------------------------------|-----------------------|
| Taxiway A and Bridge | \$5,785,219.82 |
| T/L Extension & Site Prep for Eastside MRO Dev. | \$1,090,800.68 |
| Contingency (10%) | \$687,602.50 |
| Total | \$7,563,623.00 |

For your convenience each project has been incorporated into a single Adobe Acrobat file listed above and the backup spreadsheets for fee are included as requested.

Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely yours,

AECOM Technical Services, Inc.


 Steve Henriquez, P.E.
 Vice President

cc: Dennis Combs, AECOM
 File

Scope of Services for:

**Professional Engineering Services for
Taxilane Extension and Site Preparation for Eastside
MRO Development
HCAA Project Number 8220 18
Tampa International Airport**

Prepared by:

AECOM

January 22, 2018

SCOPE OF SERVICES FOR
PROFESSIONAL ENGINEERING SERVICES FOR
TAXILANE EXTENSION AND SITE PREPARATION FOR EASTSIDE MRO DEVELOPMENT
HCAA PROJECT NUMBER 8220 18

TAMPA INTERNATIONAL AIRPORT (TIA)
TAMPA, FL

AECOM TECHNICAL SERVICES, INC.

INTRODUCTION

This scope of services (scope) outlines the tasks proposed by AECOM Technical Services, Inc. (AECOM) to assist the Hillsborough County Aviation Authority (Authority) with Professional Engineering and Construction Administration Services associated with Taxilane Extension and Site Preparation for Eastside MRO Development.

The purpose of this project is to provide the necessary airfield access and site infrastructure to accommodate development of a new 62,000 SF Maintenance, Repair and Overhaul (MRO) Hangar facility (MRO facility to be designed and constructed by the tenant) within a portion of the 50-acre Eastside Development Area of Tampa International Airport (TPA). The new airfield access will be provided via a taxilane extension from existing Taxilane D5. This project will also serve to help attract development of other MRO hangar and MRO support facilities in the same general vicinity, resulting in added revenue to HCAA.

The proposed MRO hangar facility site is anticipated to occupy approximately five acres within the southern portion of the overall 50-acre Eastside Airport Development Area that is bounded by Ohio Avenue to the south, MLK Avenue to the north, Air Cargo Road to the east and extends west of N. Westshore Boulevard. The 2012 Master Plan Update established this area for MRO hangar and other airport/airline support facilities and the proposed MRO hangar site will essentially be the first phase of this development. This project will consist of site preparation and construction of a new connecting taxilane to fully support development of a new MRO hangar facility by the new tenant (the hangar, apron, parking, stormwater ponds and support facilities will be developed by the tenant). The taxilane extension and site preparation will include the associated taxilane drainage system improvements and all utility modifications required to support the hangar facility. The hangar facility is anticipated to accommodate up to two B-737-900 aircraft and exterior parking for up to 60 vehicles. See Exhibit B on page 4 of this proposal.

The taxilane extension portion of the project is anticipated to consist of connection to existing Taxilane D5, located at the existing Ground Run-up Enclosure (GRE), to provide access to the proposed MRO hangar development area to the east. Major elements of the taxilane extension and MRO site preparation project are as follows:

- Approximately 960' long x 75' wide taxilane concrete pavement
- 35' wide asphalt shoulder pavement on each side of the taxilane
- Taxilane edge lights and signage
- Earthwork (i.e., primarily excavation)
- Stormwater management (for taxilane pavement only)
- Pavement markings
- Fencing modifications
- Utility relocations
- Site clearing & debris removal
- Other typical site development work

All necessary water and sanitary sewer lines as well as power and communications for the new hangar facility are available adjacent to the site from Ohio Avenue, located to the south. Existing service lines that have

been abandoned on the site will be demolished and removed. There are existing overhead power, phone, fiber optic, water, sewer, gas and jet fuel lines running along N. Westshore Boulevard that must remain in service. In order to maximize the developable real estate, the existing power and phone lines will be relocated to the west side of the road. Due to the taxilane crossing, the existing single-wall jet fuel pipe will need to be replaced with a double-wall pipe within the project limits. The project will include design of the taxilane extension and related drainage and utilities, and MRO hangar site preparation. All airport site design will conform to current FAA Advisory Circulars.

Site validation will be independently conducted by HCAA's General Consultant as part of their holistic assessment of the North Cargo Facility as well as the MRO development because of the ongoing UPS/LGSTX issues. **Validation is not included in this proposal.**

It is assumed this site is free from contaminated soils. This proposal excludes any services related to identification or remediation of contaminated soils. National Environmental Policy Act (NEPA) Environmental Assessment (EA) is not included in the scope of services for Eastside MRO Development.

Scope of Services, Design Criteria and Project Schedule

Scope of Services:

Airfield engineering – AECOM will prepare design documents for MRO Taxilane Extension per Exhibit B on page 4 and in accordance with all applicable and current FAA Advisory Circulars and HCAA Design Criterial Manual.

Proposed Design Criteria for connectors and Apron

Airplane Design Group (ADG) III Geometry to support Design Aircraft: Boeing 737-900
Taxiway Design Group (TDG) 3 Geometry to support Design Aircraft: Boeing 737-900

Sustainability – The scope includes evaluating potential sustainability initiatives starting with the sustainability checklist provided by the Authority. We will evaluate potential initiatives from the HCAA Sustainability Handbook and provide these options to the Authority at 30%/60% design for inclusion in the project.

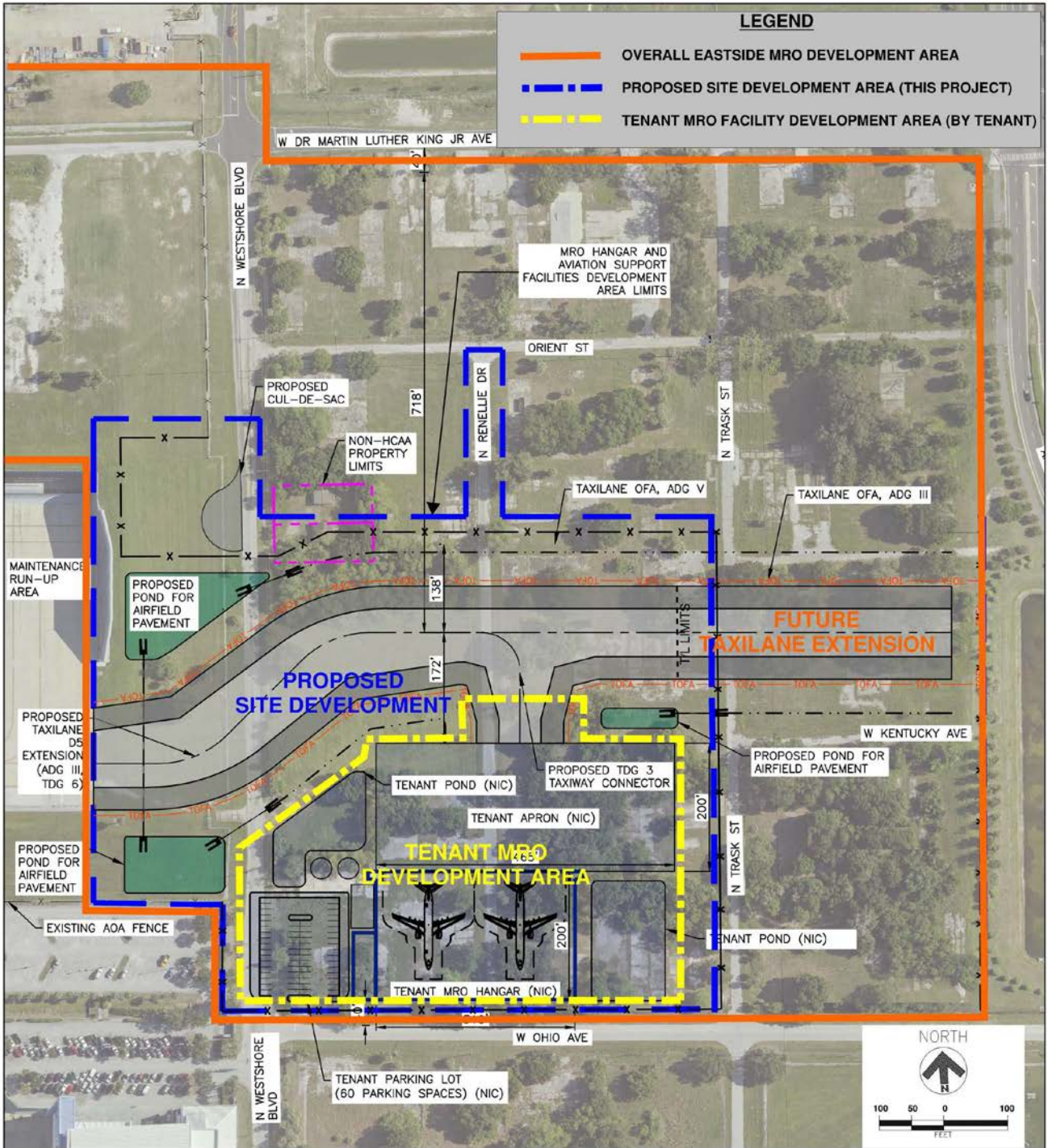


EXHIBIT B - CONCEPTUAL SITE LAYOUT PLAN

Airfield lighting design – Design will be in accordance with FAA AC 150/5340-30H - Design and Installation Details for Airport Visual Aids and will include the following scope elements:

- Medium Intensity Taxiway Edge Lights for taxilane as required.
- Underground duct and wiring to support edge lights, airfield circuitry, and all other electrical systems impacted by construction.
- Airfield Signage for taxiway connectors and adjacent taxiways.
- Existing airfield circuitry will be evaluated once the new light layout is defined to determine the need for a new circuit or if lights can be added to an existing circuit. Our proposal **does not** anticipate a new circuit to the electrical vault, or installation of new Constant Current Regulator.
- Our proposal does include coordination with the Airfield Lighting Control System manufacturer regarding revisions to the airfield.
- No centerline lights or cans are anticipated in this project.

Electrical engineering – No electrical engineering is anticipated other than airfield electrical and coordination and preliminary design as required with TECO under utilities.

Fuel System engineering – Replace existing single wall fuel line with a double wall fuel line under the proposed taxilane. No other fuel engineering is included.

Drainage engineering – Work includes all design and coordination to submit and receive a new Environmental Resource Permit (ERP) from the Southwest Florida Water Management District (SWFWMD). The scope includes detailed calculations, narrative, and exhibits as required to meet SWFWMD requirements. Stormwater ponds will be designed and permitted as required for the taxilane pavement only. Collection and conveyance systems will be designed in accordance to FAA standards, City of Tampa standards, and FDOT standards.

Utility engineering – The scope includes Omni Communications for subsurface utility locating. AECOM will provide utility coordination, removal, and relocation as required for the project area to include the following utilities:

- Potable Water – City of Tampa coordination and permitting. Preliminary and final design drawings.
- Sanitary Sewer - City of Tampa coordination and permitting. Preliminary and final design drawings.
- Verizon (Frontier) – Utility coordination. Preliminary design. Review of utility final drawings.
- HCAA Fiber Optic – Coordination and preliminary and final design.
- TECO Gas - Utility coordination. Preliminary design. Review of utility final drawings.

Cost estimating – The scope includes an estimate of probable construction cost for the project and verify with the current project budget for construction. AECOM will perform a quantity take-off of the plans at each stage of design and provide a unit price estimate. Any cost opinions or estimates provided by AECOM will be on a basis of experience and judgment, but since AECOM has no control over market conditions or bidding procedures, AECOM cannot and does not warrant that bids, ultimate construction cost, or project economics will not vary from such opinions or estimates.

Scheduling – The scope includes developing and maintaining a schedule for design. The schedule will be updated and submitted with each design deliverable milestone. A generic design schedule timeline is included as a basis for the potential design time. A CPM schedule will be provided once we understand the timeframe for Notice to Proceed. We understand this project will not begin until HCAA has an agreement with the MRO.

Land surveying/Subsurface Utility Engineering – See attached scope of services from Northwest Surveying, Inc. dated January 4, 2018 along with the limits of surveying in MRO Taxilane Survey Exhibit attached to NSI's proposal. Additionally, see the attached scope of services from Omni Communications, LLC dated December 14, 2017 that describe the scope of the proposed subsurface utility engineering proposed for this project.

Geotechnical engineering – See attached scope of services from Tierra, Inc. dated December 20, 2017 and Table 6 Standard Fee Schedule 2017 for design services and scope and fee letter dated December 14, 2017 for post design geotechnical services related to the apron.

Construction inspection – If authorized, our team will supply up to 1 experienced construction inspector for this project to support additional inspectors and engineers supplied by the owner. The proposed inspector will be a senior airfield inspector. Our proposal is based on a total project duration of 21 weeks for the senior airfield inspector. A 50 hour work week is estimated for this inspector. Inspectors will monitor the Contractor's on-site construction activities and inspect materials entering into the work in accordance with the plans, specifications, and special provisions for the Construction Contract to determine that the projects are constructed in reasonable conformity with such documents. Maintain detailed accurate records of the Contractor's daily operations and of significant events that affect the work.

Materials testing – Our team will provide materials testing in accordance with the specifications of the project anticipated to be FAA AC 150/5370-10G Standards for Specifying Construction at Airports and FDOT for the other parking lot and roadway construction. See attached estimated materials costs from Tierra dated December 21, 2017.

SCHEDULE

- Schedule will be negotiated with HCAA prior to issuance of the Work Order. Attached is a generic table listing potential design durations of tasks.

30% DESIGN DEVELOPMENT

AECOM will provide the tasks below related to 30% Design Development:

Preliminary Design Plans

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Demolition Plans
Geometry Plans
Airfield Lighting Plans
Existing Utility Plans

30% Deliverables

- 1) Preliminary 30% Design Plans (11x17) – 2 copies + pdf
- 2) Project Design schedule – 2 copies + pdf
- 3) Construction Cost Estimate – 2 copies +pdf
- 4) Design & Review Meeting Minutes – Copies as required
- 5) QA/QC Documents

60% DESIGN DEVELOPMENT

AECOM will provide the tasks below related to 60% Design Development:

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans

Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Pavement Details
Grading and Drainage Plans
Underdrain Plans
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Signage Plans
Utility Plans
Airfield Marking Plans
Airfield Marking Details
Utility Details& Profiles

60% Deliverables

- 1) Comment documentation list from 30% Review – 2 copies & pdf
- 2) 60% Design Plans (11x17) – 2 copies & pdf
- 3) Project Design schedule – 2 copies & pdf
- 4) Construction Cost Estimate – 2 copies & pdf
- 5) Technical Specification – 2 copies & pdf
- 6) Design & Review Meeting Minutes – Copies as required
- 7) QA/QC Documents

90% CONSTRUCTION DOCUMENTS

AECOM will provide the tasks below related to 90% Construction Documents:

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Pavement Details
Grading and Drainage Plans
Underdrain Plans
Underdrain Details
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Signage Plans
Utility Plans
Airfield Marking Plans
Airfield Marking Details
Utility Details& Profiles

90% Deliverables

- 1) Comment documentation list from 60% Review – 2 copies & pdf

- 2) 90% Design Plans (11x17) – 2 copies & pdf
- 3) Project Design & Construction schedule – 2 copies & pdf
- 4) Construction Cost Estimate – 2 copies & pdf
- 5) DBE % Breakout Estimate – 2 copies and pdf
- 6) Technical Specification – 2 copies & pdf
- 7) Draft HCAA front end Specifications – 2 copies and pdf
- 8) Design & Review Meeting Minutes – Copies as required
- 9) Draft Construction Safety and Phasing Plan – 2 copies & pdf
- 10) Draft Engineer's Report – 2 copies & pdf
- 11) QA/QC Documents

100% FINAL DOCUMENTS

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Pavement Details
Grading and Drainage Plans
Underdrain Plans
Underdrain Details
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Signage Plans
Utility Plans
Airfield Marking Plans
Airfield Marking Details
Utility Details & Profiles
Cross Sections

100% Deliverables

- 1) Comment documentation list from 90% Review – 2 copies & pdf
- 2) 100% Design Plans (11x17) – 2 copies & pdf
- 3) Project Design & Construction schedule – 2 copies & pdf
- 4) Construction Cost Estimate – 2 copies & pdf
- 5) Technical Specification – 2 copies & pdf
- 6) HCAA front end Specifications – 2 copies and pdf
- 7) Design & Review Meeting Minutes – Copies as required
- 8) Final Construction Safety and Phasing Plan – 2 copies & pdf
- 9) Final Engineer's Report – 2 copies & pdf
- 10) QA/QC Documents

BID AND AWARD SERVICES

This Task shall consist of bid and award services:

- Advertisement and Bidding Assistance
- Assist in Addenda Preparations
- Attend Prebid Conference
- Evaluate Bids and Recommend Award
- Issue Conformed Documents

Bid and Award Deliverables

- 1) Bid Advertisement
- 2) Addenda
- 3) Electronic exhibits in PowerPoint for prebid conference
- 4) Recommendation for Award
- 5) Certified Bid Tabulations
- 6) Conformed Documents

CONSTRUCTION ADMINISTRATION

This Task shall consist of construction phase services:

- Attend Preconstruction Conference
- Weekly Contractor's Meeting and Site Visit
- Prepare and distribute progress meeting minutes
- Construction Changes & Change Orders
- Review Shop Drawings
- Respond to RFIs
- Review and Approve Contractor's Pay Request
- Prepare Construction Management Plan
- Review and Assist with Materials Testing
- Review Contractor's Safety Plan and Compliance Document
- Perform Substantial and Final Inspections
- Prepare Record Drawings from Contractor Markups
- Assist in Obtaining Close-Out Documents
- Provide Close-out of SWFWMD permits

TAXILANE EXTENSION AND SITE PREPARATION FOR EASTSIDE MRO DEVELOPMENT

TAMPA INTERNATIONAL AIRPORT

Design Schedule

1/10/2018

| | Day Start | Day Finish | Calendar Days Duration | Finish Date in Weeks |
|--------------------------------|-----------|------------|------------------------|----------------------|
| Signed PO & NTP | 1 | 1 | 0 | 1 |
| Subcontracts | 1 | 8 | 7 | 2 |
| Survey | 8 | 68 | 60 | 10 |
| Geotech | 8 | 68 | 60 | 10 |
| Kickoff Meeting | 5 | 5 | 0 | 1 |
| Validation | 7 | 21 | 14 | 3 |
| QC Draft Validation Report | 21 | 24 | 3 | 4 |
| Submit Draft Validation Report | 24 | 24 | 0 | 4 |
| HCAA Review Validation | 24 | 31 | 7 | 5 |
| Validation Meeting | 31 | 31 | 0 | 5 |
| Submit Final Validation Report | 31 | 45 | 14 | 7 |
| 30% Submittal Prep | 45 | 75 | 30 | 11 |
| QA/QC 30% Submittal | 75 | 80 | 5 | 12 |
| Submit 30% | 80 | 80 | 0 | 12 |
| HCAA Review | 80 | 87 | 7 | 13 |
| 30% Meeting | 87 | 87 | 0 | 13 |
| 60% Submittal Prep | 87 | 117 | 30 | 17 |
| QA/QC 60% Submittal | 117 | 124 | 7 | 18 |
| Submit 60% | 124 | 124 | 0 | 18 |
| HCAA Review | 124 | 131 | 7 | 19 |
| 60% Meeting | 131 | 131 | 0 | 19 |
| 90% Submittal Prep | 131 | 161 | 30 | 23 |
| QA/QC 90% Submittal | 161 | 168 | 7 | 24 |
| Submit 90% | 168 | 168 | 0 | 24 |
| HCAA Review | 168 | 175 | 7 | 25 |
| 90% Meeting | 175 | 175 | 0 | 25 |
| 100% Submittal Prep | 175 | 196 | 21 | 28 |
| QA/QC 100% Submittal | 196 | 203 | 7 | 29 |
| Submit 100% | 203 | 203 | 0 | 29 |
| HCAA Review | 203 | 210 | 7 | 30 |
| 100% Meeting | 210 | 210 | 0 | 30 |
| QA/QC Final Submittal | 210 | 224 | 14 | 32 |
| Submit Final Bid Docs | 224 | 224 | 0 | 32 |

EXHIBIT B FEE ESTIMATE

| Project Fee Proposal - AECOM Team - Summary Sheet | | | | | | | | | | |
|-------------------------------------------------------------------------------|----------------------------------------------|---------------|---------------|---------------|--------------|--------------|----------------|---------------|-----------------|----------------|
| Taxilane Extension & Site Preparation for Eastside MRO Development | | | | | | | | | | |
| HCAA Project Number 8220 18 | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | |
| Basic Design Services | | 30% | 60% | 90% | 100% | Bid & Award | Construction | Resident | Total | % Construction |
| Engineering & Preconstruction Services | | Design Dev. | Design Dev. | Const. Docs | Final Docs | Services | Administration | Inspection | | Cost |
| | AECOM Technical Services | \$ 80,435.44 | \$ 180,242.68 | \$ 170,997.92 | \$ 82,748.00 | \$ 13,349.28 | \$ 148,272.36 | \$ 139,755.00 | \$ 815,800.68 | 4,965,000 |
| | AVCON, Inc. | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | 21.97% |
| | | | | | | | | | | |
| | Design Phase Sub Total | \$ 80,435.44 | \$ 180,242.68 | \$ 170,997.92 | \$ 82,748.00 | \$ 13,349.28 | \$ 148,272.36 | \$ 139,755.00 | \$ 815,800.68 | |
| | | | | | | | | | | |
| Reimbursable Expenses | | | | | | | | | | |
| | Northwest Surveying, Inc. | \$ 75,000.00 | | | | | | | \$ 75,000.00 | |
| | Tierra, Inc. | \$ 55,000.00 | | | | | \$ 79,000.00 | | \$ 134,000.00 | |
| | Omni Communication | \$ 45,000.00 | \$ 21,000.00 | | | | | | \$ 66,000.00 | |
| | | | | | | | | | | |
| | Sub Total | \$ 175,000.00 | \$ 21,000.00 | \$ - | \$ - | \$ - | \$ 79,000.00 | \$ - | \$ 275,000.00 | |
| | Total Fee, Allowances, Reimbursable Expenses | \$ 255,435.44 | \$ 201,242.68 | \$ 170,997.92 | \$ 82,748.00 | \$ 13,349.28 | \$ 227,272.36 | \$ 139,755.00 | \$ 1,090,800.68 | |

Bid and Award Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------|--------------------------------------|--|-----------|-------------|-------------|-------------|------------|-----------|-------------|------|------|------|--------------|
| Taxilane Extension & Site Preparation for Eastside MRO Development | | | | | | | | | | | | | |
| HCAA Project Number 8220 18 | | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | | |
| Scope/Task | | | Principle | PM | Sr. AE | AE | Sr. Design | Admin | Sr. Planner | | | | Total |
| | | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | | | | |
| Basic Design Services AECOM | | | | | | | | | | | | | |
| Task - Bid & Award Services | | | | | | | | | | | | | |
| | Advertisement and Bidding assistance | | | 4 | | | | | | | | | 4 |
| | Assist in Addenda Preparation | | | 4 | 8 | 8 | 8 | 8 | | | | | 36 |
| | Attend PreBid Conference | | | 4 | 4 | | | | | | | | 8 |
| | Evaluate Bids & Recommend Award | | | 4 | 4 | | | | | | | | 8 |
| | Conformed Documents | | | 4 | 8 | 16 | | | | | | | 28 |
| | | | | | | | | | | | | | 0 |
| | Subtotal Hours | | | - | 20.00 | 24.00 | 24.00 | 8.00 | 8.00 | - | - | - | 84 |
| | Rate | | \$ 100.00 | \$ 70.00 | \$ 67.00 | \$ 55.00 | \$ 40.00 | \$ 28.00 | \$ 45.00 | \$ - | \$ - | \$ - | |
| | Subtotal Direct Labor | | \$ - | \$ 1,400.00 | \$ 1,608.00 | \$ 1,320.00 | \$ 320.00 | \$ 224.00 | \$ - | \$ - | \$ - | | \$ 4,872.00 |
| | Subtotal Burdened Labor @ | | | 2.74 | | | | | | | | | \$ 13,349.28 |

Construction Administration Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-------------------------------------------------------------------------------|---------------------------|-----------|-----------|--------------|--------------|--------------|-------------|-------------|----------|------|------|---------------|
| Taxilane Extension & Site Preparation for Eastside MRO Development | | | | | | | | | | | | |
| HCAA Project Number 8220 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | Principle | PM | Sr. AE | AE | Sr. Design | Admin | Sr. Planner | | | | Total |
| | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | | | | |
| Basic Design Services AECOM | | | | | | | | | | | | |
| Task - CA Services | | | | | | | | | | | | |
| Attend PreConstruction Conference | | | 4 | | | | | | | | | 4 |
| Weekly Contractor's Meeting & Site Visit (30 weeks) | | 2 | 120 | 40 | 16 | | 40 | | | | | 218 |
| Construction Changes & Change Orders | | 2 | 40 | 40 | 16 | 60 | | | | | | 158 |
| Review Shop Drawings | | | 24 | 40 | 80 | | | | | | | 144 |
| Respond to RFIs | | | 8 | 24 | 40 | 16 | | | | | | 88 |
| Review and Approve Contractor Pay Request | | | 16 | | | | | | | | | 16 |
| Prepare Construction Management Plan | | | 2 | 8 | 16 | 8 | 16 | | | | | 50 |
| Review and assist with Materials Testing | | 2 | 24 | 40 | 40 | | | | | | | 106 |
| Review Contractor's Safety Plan and Compliance Doc | | | 2 | 4 | 2 | | | | | | | 8 |
| Perform substantial and final inspections | | | 8 | 16 | 8 | | | | | | | 32 |
| Prepare as-builts from contractor markups | | | 4 | 8 | 24 | 40 | | | | | | 76 |
| Assist in obtaining close-out documents | | 2 | 8 | 8 | | | | | | | | 18 |
| | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | 0 |
| | Subtotal Hours | | 8.00 | 260.00 | 228.00 | 242.00 | 124.00 | 56.00 | - | - | - | 918 |
| | Rate | | \$ 100.00 | \$ 70.00 | \$ 67.00 | \$ 55.00 | \$ 40.00 | \$ 28.00 | \$ 45.00 | \$ - | \$ - | |
| | Subtotal Direct Labor | | \$ 800.00 | \$ 18,200.00 | \$ 15,276.00 | \$ 13,310.00 | \$ 4,960.00 | \$ 1,568.00 | \$ - | \$ - | \$ - | \$ 54,114.00 |
| | Subtotal Burdened Labor @ | | | 2.74 | | | | | | | | \$ 148,272.36 |

Resident Inspection Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------|--|--|-------------------------------------|---------------------------|---------------------|---------------------|----------------------|-------|------|------|------|------|---------------|
| Taxilane Extension & Site Preparation for Eastside MRO Development | | | | | | | | | | | | | |
| HCAA Project Number 8220 18 | | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | | |
| Scope/Task | | | Senior Construction Inspector | Construction Inspector | Airport Engineer | Airport Engineer | Graduate Engineer | Admin | | | | | Total |
| Basic Design Services | | | Hours | Hours | Hours | Hours | Hours | Hours | | | | | |
| Task - Resident Inspection AECOM | | | | | | | | | | | | | |
| Full Time straight hours | | | | | | | | | | | | | 0 |
| 21 Weeks @ 50hours/week | | | | 1050 | | | | | | | | | 1050 |
| | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | 0 |
| | | | Subtotal Hours | - | 1,050.00 | - | - | - | - | - | - | - | 1050 |
| | | | Rate | | \$ 55.00 | | | | | | | | |
| | | | Subtotal Direct Labor | \$ - | \$ 57,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 57,750.00 |
| | | | Subtotal Burdened Labor @ | | 2.42 | | | | | | | | \$ 139,755.00 |

December 14, 2017

AECOM

7650 W. Courtney Campbell Causeway, Suite 700
Tampa, FL 33607
Attn: Dennis Combs P.E.

**RE: TIA – Taxi Lane Extension
Price Proposal SUE Services**

Dear Mr. Combs:

In accordance with your request, OMNI Communications, LLC (OMNI) is pleased to submit our proposal to provide Subsurface Utility Engineering (SUE) services to AECOM for the above named project.

DESCRIPTION OF SERVICES:

OMNI will mark the horizontal position of all underground utilities detected using electromagnetic and ground penetrating radar (GPR). Our anticipated plan of action for this project is to establish horizontal and vertical control throughout the project site. As the designation and utility location progresses survey will locate all flagged/painted or staked marks as established by the SUE crews, along with the utility structures. OMNI will provide ample technicians, equipment, software and special tools to provide the requested digital utility file.

Designating (SUE Level B):

Electromagnetic (EM) induction is a method in which a transmitter signal is applied by directly coupling to a metallic target. A receiver is then used to detect the transmitted signal. Passive detection is another technique used to locate naturally occurring magnetic fields that exist on power cables generating a 50/60 Hz. signal. Additionally, very low frequency (VLF) signals can be detected on other metallic utilities that are typically long in length and are well grounded electrically. Some utility systems contain portions of non-metallic material and, therefore, we may not be able to locate using EM techniques. Ground Penetrating Radar (GPR) uses a high frequency radio signal that is transmitted into the ground and reflected signals are returned to the receiver for storage on digital media. The computer measures the time taken for a pulse to travel to and from the target indicating its depth and location. The reflected signals are interpreted by the system and displayed on the unit's LCD panel.

OMNI Assumptions (Designating):

- OMNI based this estimate on 48 acres.
- OMNI's field crews can designate and scan 3 acres per day.
- Utilities we anticipate on this project include: water, gas, TECO electric, reclaim, FOC, sewer and telephone.

Locating (SUE Level A):

Vacuum excavation is a technique used to safely expose utilities by using a combination of compressed and vacuum air. Once the utility has been exposed, depth, diameter, configuration and material type can be obtained.



Surveying & Mapping • Subsurface Utility Engineering
Utility Coordination • Public Involvement



Utilization of the above equipment and methods is the industry recognized procedure for designating underground utilities and features. Although effective and reliable, there is the possibility that all utilities may not be detected due to environmental conditions, soil conditions, water table, excessive depth and/or feature makeup.

OMNI Assumptions (Locating)

- OMNI based this estimate on 50 locates to be used as needed for potential utility conflicts.
- OMNI’s field crews can perform 6 locates per day.
- OMNI estimated 10 locates to be used for verifying utilities during the designating phase.

Office Support (Included in loaded rate)

- Processing all field collected data.
- QA/QC of all files and reports.
- Attend project associated meetings (external and internal).
- Gathering utility record or as-built drawings.
- Coordination with Sunshine 811.
- Produce a utility digital file.

**OMNI Communications, LLC
PRICE PROPOSAL**

| SERVICES | QUANTITY | LOADED RATE | FEE |
|-------------------------|----------|--------------------|--------------------|
| Designating | 16 Days | \$2,516.00 Per Day | \$40,256.00 |
| Locating (Test Holes) | 8 Days | \$2,633.00 Per Day | \$21,064.00 |
| Survey 2 Man Field Crew | 8 Days | \$1,742.00 Per Day | \$13,936.00 |
| TOTAL | | | \$75,256.00 |

If you have any questions or need additional information please do not hesitate to contact me. Again, we appreciate this opportunity and look forward to working with you on this project.

Sincerely,

Shannon Wright
SUE Manager

**GEOTECHNICAL INVESTIGATIONS
SCOPE OF WORK**

Project No. 6530 18 – North Air Cargo Apron and Taxiway

Project No. 8220 18 - Taxilane Extension & Site Preparation for Eastside MRO Development

Project No. 8825 18 – New Taxiway A and Bridge

AECOM Project No. 60561057

I. PROJECT INFORMATION

PROJECT TITLE: North Air Cargo Apron and Taxiway, Taxilane Extension & Site Preparation for Eastside MRO Development, New Taxiway A and Bridge

PROJECT LOCATION: Tampa International Airport, Tampa, Florida

PROJECT DESCRIPTIONS:

Project Name: **North Air Cargo Apron**

Project Description: The North Air Cargo facility redevelopment includes the following:

1. Construction of a connector taxiway between Taxiway V and the air cargo apron.
2. Rehabilitation of the existing cargo apron pavement.
3. Expansion of the existing cargo apron to provide three aircraft parking positions.
4. Extension of the jet fuel system piping to the cargo apron for truck fueling.

Project Name: **Taxilane Extension & Site Preparation for Eastside MRO Development**

Project Description: The Taxilane Extension and Site Preparation for the Eastside MRO project will consist of the following:

1. Site preparation and extension of Taxilane D5.
2. All associated drainage system improvements for Taxilane D5.
3. All utility modifications required to support a future MRO hangar facility.

Project Name: **New Taxiway A and Bridge**

Project Description: Taxiway A will provide for a new cross-field taxiway located north of and parallel to existing Taxiway B. It is anticipated that the new bridge will be similar to the existing

Taxiway B Bridge which accommodates future North Terminal roadways, service roads and people mover systems.

See the following attachments:

- a. **Taxiway A and Bridge Geotechnical Exhibit**
- b. **North Air Cargo Apron Geotechnical Exhibit**
- c. **Taxilane Extension & Site Preparation for Eastside MRO Development Geotechnical Exhibit**

II. GENERAL REQUIREMENTS

- A. Access to Site:** The Consultant shall be responsible for obtaining permission to enter the site and perform all required fieldwork. There are special access requirements to the airport and project work areas that will require coordination with airport staff. Some project areas are within aircraft operations areas (AOA) and will require coordination with airfield operations staff for access and driving requirements.
- B. Licenses and Permits:** The Consultant shall be responsible for obtaining any necessary licenses and permits, and for complying with all applicable laws, codes and regulations in connection with prosecution of the work.
- C. Safety Plan:** The Consultant shall prepare a project specific health and safety plan, and provide a copy to AECOM.
- D. Quality Plan:** The Consultant is responsible for the quality of the work they perform. A copy of the quality plan outlining the procedure to be followed in performing and reviewing the work shall be provided to AECOM.
- E. Ownership.** Design databases and all other files for this project shall become AECOM and HCAA property.
- F. Local Contact.** The Consultant may consult with the HCAA in matters concerning local conditions and operational procedures for the sites. Consultant's points of contact at the activity are:

To be determined, and provided to Consultant

- G. Scope.** The work required is the work indicated in the following description. Consultant is advised that no additional work, above and beyond what is listed herein, shall be performed without a modification of this contract issued by AECOM.

III. PROJECT REQUIREMENTS (GEOTECHNICAL INVESTIGATIONS)

A. Geotechnical Investigation – General Requirements

- 1. **Intent.** It is the intent of this contract to acquire a complete and accurate geotechnical

investigation for the project through boring logs, performing soil testing and incorporating this and other pertinent information into a comprehensive subsurface investigation report for the site.

2. **Responsibility.** A Registered Geotechnical Engineer shall be directly responsible for the proper execution of the work to be performed. All geotechnical work shall comply with applicable FDOT and FAA standards unless otherwise noted herein. The Geotechnical Engineer of Record shall advise AECOM if additional subsurface investigation and/or testing, above and beyond what is identified herein, is required to adequately provide the required design services.
3. **AECOM Points of Contact:** During the course of the contract, the Consultant shall seek clarification and guidance from and follow such instructions as may be issued to him by:

Contractual Issues: TBD when contracting is started

Technical Issues: Dennis Combs (813) 675-6513 dennis.combs@aecom.com

B. Geotechnical Investigation – Soil Borings

4. **Responsibility.** A fully qualified representative of the Registered Geotechnical Engineer shall be on the site during all boring and sampling operations.
5. **Boring Locations and Depths.** . Consultant shall provide an itemized breakout of quantities required for each of the 3 projects within the program.

North Air Cargo Apron:

- 40 borings (20 SPTs to 15 feet and 20 Hand Augers to 5 feet)
- 7 Concrete Pavement Cores (with 10-foot SPT to evaluate subgrade)
- 4 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

MRO Development

- 45 roadway borings (10 SPTs to 20 feet and 35 Hand Augers to 5 feet)
- 10 pond expansion borings (3 SPTs to 20 feet and 7 Hand Augers to 5 feet)
- 2 Concrete Pavement Cores (with 5-foot auger to evaluate subgrade)
- 4 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

Taxiway A

- 132 at-grade roadway borings (26 SPTs to 20 feet and 106 Hand Augers to 5 feet)
- 28 approach embankment/wall borings (28 SPTs to depths 20 feet to 50 feet)
- 12 Bridge Structure Borings (12 SPTs to a depth of 100 feet)
- 2 Box Culvert Extension Borings (2 SPTs to a depth of 25 feet)
- 6 Concrete Pavement Cores (with 5-foot auger to evaluate subgrade)
- 12 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

All three projects require CBR sampling and may require muck/clay/unsuitable soils delineations.

6. **Dig Permits.** A Dig Permit is not specifically required by Tampa International Airport. Consultant will verify requirements with the owner for soil borings.
7. **Subsurface Utilities:** Where appropriate, the Consultant shall have existing underground utilities, such as electric power, telephone/data/security systems (fiber and copper pathways), cable TV, gas, fuel, water, sewer, irrigation, and others, identified and marked by the owner or by a local utility locator service, if available, prior to commencement of work.
8. **Means & Methods.** Soil boring and sampling procedures and apparatus shall be in accordance with generally accepted engineering practice. The Standard Penetration test (SPT) soil borings shall be taken in accordance with ASTM D 1586. The Consultant shall determine and record the depth at which the ground water table is encountered, if encountered. . Upon completion of SPT borings, , the Consultant shall fill the remainder of the borehole with bentonite grout. If required by State or local regulations, boreholes must be grouted. Excess material shall be removed from the site by the Consultant and disposed of in accordance with all applicable Federal, State and local laws and regulations. Any borings/corings in paved areas shall be patched in kind. Upon completion of hand auger borings, the hand auger bore holes shall be backfilled with material removed from the borehole.

C. Geotechnical Investigation – Field Work Summary

1. Consultant shall provide an itemized breakdown for each project on SPT and auger borings, and pavement corings for review and approval.

D. Geotechnical Investigation – Testing

1. The Consultant shall perform all tests necessary to properly classify and evaluate existing soil conditions. At a minimum:
 - a. Each soil type encountered shall be classified in accordance with the Unified Soil Classification System (ASTM D 2487).
 - b. Moisture content test shall be performed in accordance with ASTM D 2216.
 - c. The moist and dry unit weights shall be determined for each soil profile encountered.
 - d. The unconfined compressive strength of cohesive soils shall be determined with unconfined compression tests (ASTM D 2166).
 - e. The Atterburg Limits (ASTM D 4318) shall be determined for cohesive soils encountered.
 - f. A statement shall be provided as to whether or not the site soils are considered expansive in accordance with 1802.3.2 of the International Building Code.
 - g. Particle size analyses (ASTM C 136 or ASTM D 422) shall be performed for each soil type encountered.
 - h. Consolidation tests in accordance with ASTM D 2435.
 - i. Soil resistivity tests on representative near surface soil samples.

E. Geotechnical Investigation – Submittals

1. Soil Boring Logs

- a. Prepare and submit soil-boring logs for each boring in both hard-copy and electronic format. Boring logs shall be shown to an appropriate scale and shall include a description of each soil type encountered (including Unified Soil Classification). For each boring, include ground surface elevation or depth if survey information is not available. For each soil type, include strata depth and thickness, depth to ground water table, standard penetration test blow counts, natural moisture content, percent fines, and Atterburg limits. Each boring log shall also include boring identification, date of boring, drill rig type, the name of the person who performed the boring and the name of the company that performed the test. Provide graphic scales, abbreviations, and legends that clearly define all symbols used. Lettering shall be all capitals and shall have a text height of not less than 0.1 inches (2.5 millimeters).
- b. **Electronic Format.** The Consultant shall provide 2 identical Compact Disks (CDs) each containing complete copies of the boring logs in a single AutoCAD Drawing File (.DWG file).

2. Geotechnical Investigation Report

- a. **Content.** A written report of the soils investigation shall include, but need not be

limited to the following:

- i. A dimensioned plot showing the location of test borings and/or excavations relative to local site features. Include road names and building numbers.
 - ii. A log of each boring shown individually on letter size sheets.
 - iii. The identification of the soils from the most recent USDA NRCS Soil Survey.
 - iv. Recommendations for foundation type, floor slab type and soil parameters to be used in design, including but not limited to: bearing capacity of natural or compacted soil; modulus of subgrade reaction, provisions to mitigate the effects of expansive soils; mitigation of the effects of liquefaction, differential settlement, and varying soil strength; minimum foundation depth for frost protection; and the effects of adjacent loads.
 - v. Expected total and differential settlement.
 - vi. Special design and construction provisions for footings, foundations or slabs founded on expansive soils, as necessary.
- b. **Format.** Compile all deliverables (i.e., main body of report, graphics, soil boring logs, test data, etc.) into a single complete report in both hard-copy and as an Adobe Acrobat (.PDF) document. The bulk of the main body of the report should be letter (8.5" by 11") size format, while graphical sheets may be letter, legal or tabloid-size format. Consultant shall coordinate with the Point of Contact listed above on any other issues related to the formatting and coordination of the report.
- c. **Paper Copies.** Provide two (2) paper copies of the complete report. Both paper copies shall be sealed by the registered geotechnical engineer who was directly responsible for the proper execution of the work.
- d. **Electronic Copies.** Provide 2 identical Compact Disks (CDs), each with a complete consolidated electronic copy of the report as an Adobe Acrobat (PDF) file. The PDF document shall contain such non-electronic entities such as signatures and seals.

General - A draft final submittal containing all of the deliverables listed above is the required initial submittal package. After review and comment by AECOM and the Owner a final submittal package shall be provided. The submittal packages shall be sent to AECOM at the following address:

AECOM
Attention: Dennis Combs
7650 West Courtney Campbell Causeway
Tampa, Florida 33607

F. Geotechnical Investigation – Schedule

3. The Geotechnical Investigation work described in this section shall be submitted to AECOM within the following schedule per project:
 - **North Air Cargo Apron and Taxiway – Draft within 60 calendar days from notice to proceed**
 - **Taxilane Extension & Site Preparation for Eastside MRO Development - Draft within 60 calendar days from notice to proceed**
 - **New Taxiway A and Bridge- Draft within 60 calendar days from notice to proceed**

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------------------------------------|------|-------------|----------|-------------|
| 612-Geo Mobilization Drill Rig Truck Mount | Each | \$ 350.00 | 2 | \$ 700.00 |
| 614-Geo Mobilization Mudbug/All Terrain Vehicle | Each | \$ 700.00 | | \$ - |
| 610-Geo Mobilization Drill Rig Track Mount | Each | \$ 3,250.00 | | \$ - |
| 418-Geo Drill Crew Support Vehicle | Day | \$ 160.00 | 8 | \$ 1,280.00 |
| 609-Geo Mobilization Drill Rig Barge Mount | Each | \$ 7,500.00 | | \$ - |
| 405-Geo Barge (Owned) | Day | \$ 2,500.00 | | \$ - |
| 618-Geo Mobilization Support Boat | Each | \$ 500.00 | | \$ - |
| 618.1-Geo Support Safety Boat | Day | \$ 500.00 | | \$ - |
| 619-Geo Mobilization Tri-Pod | Each | \$ 1,250.00 | | \$ - |
| 419-Geo Drilling Crew 2-Person | Hour | \$ 135.00 | | \$ - |
| 420-Geo Drilling Crew 3-Person | Hour | \$ 185.00 | | \$ - |
| Geo SPT Truck 0-50 Ft | LF | \$ 12.90 | 260 | \$ 3,354.00 |
| Geo SPT Truck 50-100 Ft | LF | \$ 17.00 | | \$ - |
| Geo SPT Truck 100-150 Ft | LF | \$ 31.00 | | \$ - |
| Geo SPT Truck 150-200 Ft | LF | \$ 39.00 | | \$ - |
| 478-Geo SPT Truck-Mud Bug 0-50 Ft | LF | \$ 15.20 | | \$ - |
| 479-Geo SPT Truck-Mud Bug 50-100 Ft | LF | \$ 18.10 | | \$ - |
| 480-Geo SPT Truck-Mud Bug 100-150 Ft | LF | \$ 32.00 | | \$ - |
| 481-Geo SPT Truck-Mud Bug 150-200 Ft | LF | \$ 42.00 | | \$ - |
| 473-Geo SPT Barge/Track/Amphibious 000-050 Ft | LF | \$ 21.50 | | \$ - |
| 474-Geo SPT Barge/Track/Amphibious 050-100 Ft | LF | \$ 28.90 | | \$ - |
| 475-Geo SPT Barge/Track/Amphibious 100-150 Ft | LF | \$ 53.00 | | \$ - |
| 476-Geo SPT Barge/Track/Amphibious 150-200 Ft | LF | \$ 70.00 | | \$ - |
| Geo Grout Boreholes- Truck 0-050 Ft | LF | \$ 5.25 | 260 | \$ 1,365.00 |
| Geo Grout Boreholes- Truck 50-100 Ft | LF | \$ 7.00 | | \$ - |
| Geo Grout Boreholes- Truck 100-150 Ft | LF | \$ 10.25 | | \$ - |
| Geo Grout Boreholes- Truck 150-200 Ft | LF | \$ 14.00 | | \$ - |
| 440-Geo Grout Boreholes- Truck/Mud Bug 000-050 Ft | LF | \$ 6.25 | | \$ - |
| 441-Geo Grout Boreholes- Truck/Mud Bug 050-100 Ft | LF | \$ 8.00 | | \$ - |
| 442-Geo Grout Boreholes- Truck/Mud Bug 100-150 Ft | LF | \$ 13.10 | | \$ - |
| 443-Geo Grout Boreholes- Truck/Mud Bug 150-200 Ft | LF | \$ 18.00 | | \$ - |
| 435-Geo Grout Boreholes- Barge/Track/Amphibious 000-050 Ft | LF | \$ 8.50 | | \$ - |
| 436-Geo Grout Boreholes- Barge/Track/Amphibious 050-100 Ft | LF | \$ 11.25 | | \$ - |
| 437-Geo Grout Boreholes- Barge/Track/Amphibious 100-150 Ft | LF | \$ 17.25 | | \$ - |
| 438-Geo Grout Boreholes- Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| Geo Temp Casing 3" Truck 0-050 Ft | LF | \$ 8.50 | 40 | \$ 340.00 |
| Geo Temp Casing 3" Truck 50-100 Ft | LF | \$ 10.25 | | \$ - |
| Geo Temp Casing 3" Truck 100-150 Ft | LF | \$ 12.25 | | \$ - |
| Geo Temp Casing 3" Truck 150-200 Ft | LF | \$ 15.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|-----------------------------------------------------------------------|------|-------------|----------|-------------|
| 488-Geo Temp Casing 3" Truck/Mud Bug 000-050 Ft | LF | \$ 10.30 | | \$ - |
| 489-Geo Temp Casing 3" Truck/Mud Bug 050-100 Ft | LF | \$ 14.00 | | \$ - |
| 490-Geo Temp Casing 3" Truck/Mud Bug 100-150 Ft | LF | \$ 17.50 | | \$ - |
| 491-Geo Temp Casing 3" Truck/Mud Bug 150-200 Ft | LF | \$ 22.00 | | \$ - |
| 483-Geo Temp Casing 3" Barge/Track/Amphibious 0-050 Ft | LF | \$ 14.50 | | \$ - |
| 484-Geo Temp Casing 3" Barge/Track/Amphibious 50-100 Ft | LF | \$ 17.50 | | \$ - |
| 485-Geo Temp Casing 3" Barge/Track/Amphibious 100-150 Ft | LF | \$ 20.00 | | \$ - |
| 486-Geo Temp Casing 3" Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| 463-Geo Rock Coring Truck/Mud Bug 000-050 Ft less than 4" ID | LF | \$ 45.00 | | \$ - |
| 465-Geo Rock Coring Truck/Mud Bug 050-100 Ft less than 4" ID | LF | \$ 52.00 | | \$ - |
| 467-Geo Rock Coring Truck/Mud Bug 100-150 Ft less than 4" ID | LF | \$ 60.00 | | \$ - |
| 453-Geo Rock Coring Barge/Track/Amphibious 000-050 Ft less than 4" ID | LF | \$ 48.00 | | \$ - |
| 455-Geo Rock Coring Barge/Track/Amphibious 050-100 Ft less than 4" ID | LF | \$ 64.00 | | \$ - |
| 457-Geo Rock Coring Barge/Track/Amphibious 100-150 Ft less than 4" ID | LF | \$ 80.00 | | \$ - |
| 459-Geo Rock Coring Barge/Track/Amphibious 150-200 Ft less than 4" ID | LF | \$ 94.00 | | \$ - |
| 427-Geo Extra SPT Samples-Truck/Mud Bug 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 428-Geo Extra SPT Samples-Truck/Mud Bug 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 429-Geo Extra SPT Samples-Truck/Mud Bug 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 430-Geo Extra SPT Samples-Truck/Mud Bug 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 422-Geo Extra SPT Samples-Barge/Track/Amphibious 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 423-Geo Extra SPT Samples-Barge/Track/Amphibious 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 424-Geo Extra SPT Samples-Barge/Track/Amphibious 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 425-Geo Extra SPT Samples-Barge/Track/Amphibious 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 519-Geo Undisturbed Samples Truck/Mud Bug 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 520-Geo Undisturbed Samples Truck/Mud Bug 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 521-Geo Undisturbed Samples Truck/Mud Bug 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 522-Geo Undisturbed Samples Truck/Mud Bug 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 515-Geo Undisturbed Samples Barge/Track/Amphibious 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 516-Geo Undisturbed Samples Barge/Track/Amphibious 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 517-Geo Undisturbed Samples Barge/Track/Amphibious 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 518-Geo Undisturbed Samples Barge/Track/Amphibious 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 401-Geo Auger Borings- Hand & Truck/Mud Bug | LF | \$ 10.50 | 240 | \$ 2,520.00 |
| 402-Geo Auger Borings- Track | LF | \$ 12.00 | | \$ - |
| 432-Geo Field Permeability 0-10 Ft (Open - End Borehole Method) | Each | \$ 290.00 | | \$ - |
| Flagman and Barricades 2-Man Crew Own Equipment | Day | \$ 1,080.00 | 1 | \$ 1,080.00 |
| Muck/Sediment/Debris Probing Unsuitable Soils 2-Man Crew | Day | \$ 1,080.00 | 3 | \$ 3,240.00 |
| 450-Geo Piezometer 2" 000-050 Ft | LF | \$ 44.00 | 40 | \$ 1,760.00 |
| 445-Geo Grouted Monitor Well 2" 000-050 Ft | LF | \$ 6.25 | | \$ - |
| Piezometer Permit Costs(SWFWMD) | Each | \$ 250.00 | 1 | \$ 250.00 |
| 403-Geo Backhoe (Owned) | Day | \$ 600.00 | | \$ - |
| 416-Geo Dozer (Owned) | Day | \$ 800.00 | | \$ - |
| Airport Stand-by to Access Boring or Test Locations and Clean-up | Hour | \$ 210.00 | 8 | \$ 1,680.00 |
| 407-Geo Chainsaw (Owned) | Day | \$ 28.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|-------------------------------------------------------------------------|---------|------------|----------|-------------|
| 415-Geo Double Ring Infiltration (ASTM D3385) | Each | \$ 525.00 | | \$ - |
| 434-Geo Ground Penetrating Radar (GPR) | Hour | \$ 350.00 | 16 | \$ 5,600.00 |
| 209-Asphalt Pavement Coring – 4" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 210-Asphalt Pavement Coring – 4" dia without Base Depth Check | Each | \$ 110.00 | 4 | \$ 440.00 |
| 211-Asphalt Pavement Coring – 6" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 212-Asphalt Pavement Coring – 6" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 305-Concrete Pavement Coring - 4" Dia | Each | \$ 110.00 | 2 | \$ 220.00 |
| 306-Concrete Pavement Coring - 6" Dia | Each | \$ 110.00 | | \$ - |
| 603-Mobilization Asphalt Coring equipment | Each | \$ 250.00 | 1 | \$ 250.00 |
| 606-Mobilization Concrete Coring | Each | \$ 250.00 | 1 | \$ 250.00 |
| 812-Soils Materials Finer than 200 Sieve (FM 1-T011) | Test | \$ 42.00 | 20 | \$ 840.00 |
| 817-Soils Moisture Content Laboratory (AASHTO T 265) | Test | \$ 10.00 | 15 | \$ 150.00 |
| 821-Soils Particle Size Analysis (AASHTO T 88) (Including Hydrometer) | Test | \$ 131.00 | | \$ - |
| 822-Soils Particle Size Analysis (AASHTO T 88) (No Hydrometer) | Test | \$ 67.00 | 6 | \$ 402.00 |
| 805-Soils Corrosion Series (FM 5-550 through 5-553) | Test | \$ 175.00 | 5 | \$ 875.00 |
| 825-Soils pH Soil or Water (FM 5-550) | Test | \$ 35.00 | | \$ - |
| 829-Soils Resistivity Soil or Water (FM 5-551) | Test | \$ 46.00 | | \$ - |
| 800-Soils Chloride Soil or Water (FM 5-552) | Test | \$ 46.00 | | \$ - |
| 833-Soils Sulfate Soil or Water (FM 5-553) | Test | \$ 48.00 | | \$ - |
| 819-Soils Organic Content Ignition (FM 1 T-267) | Test | \$ 42.00 | 5 | \$ 210.00 |
| Atterberg Limit Tests (AASHTO T-89 and T-90) Combined | Test | \$ 130.00 | 10 | \$ 1,300.00 |
| 826-Soils Plastic Limit & Plasticity Index (AASHTO T 90) | Test | \$ 70.00 | | \$ - |
| 811-Soils Liquid Limit (AASHTO T 89) | Test | \$ 60.00 | | \$ - |
| 823-Soils Permeability Constant Head (AASHTO T 215) | Test | \$ 175.00 | | \$ - |
| 824-Soils Permeability Falling Head (FM 5-513) | Test | \$ 175.00 | | \$ - |
| 827-Soils Proctor Modified (FM 1-T 180) | Test | \$ 115.00 | 4 | \$ 460.00 |
| 828-Soils Proctor Standard (AASHTO T 99) | Test | \$ 111.00 | | \$ - |
| 832-Soils Splitting Tensile Strength of Rock Cores (ASTM D3967) | Test | \$ 138.00 | | \$ - |
| 838-Soils Unconfined Compression - Rock (ASTM D7012, Method C) | Test | \$ 138.00 | 2 | \$ 276.00 |
| 803-Soils Consolidation - Constant Strain (ASTM D4186) | Test | \$ 580.00 | | \$ - |
| 804-Soils Consolidation - Extended Load Increments (AASHTO T216) | Test | \$ 50.00 | | \$ - |
| 806-Soils Direct Shear Consolidated Drained/ Point AASHTO T 236 | Test | \$ 250.00 | | \$ - |
| 810-Soils Limerock Bearing Ratio (LBR)(FM 5-515)/CBR | Test | \$ 340.00 | 4 | \$ 1,360.00 |
| 850-EDR Report | Each | \$ 500.00 | | \$ - |
| 852-Organic Vapor Analyzer (OVA) | Day | \$ 150.00 | | \$ - |
| 854-Handheld GPS | Per Day | \$ 80.34 | | \$ - |
| 856-Field Sampling Kit (soil) | Each | \$ 75.00 | | \$ - |
| 858-Field Sampling Survey Kit (water) | Each | \$ 75.00 | | \$ - |
| 860-Power Auger Boring (includes decontamination to a depth of 25 feet) | Foot | \$ 11.90 | | \$ - |
| 862-BTEX and MTBE (Method 8260) | Each | \$ 65.00 | | \$ - |
| 864-Organochlorine Pesticides (Method 8081) | Each | \$ 100.00 | | \$ - |
| 866-Organophosphorous Pesticides (Method 8141) | Each | \$ 125.00 | | \$ - |
| 868-Chlorinated Herbicides (Method 8151) | Each | \$ 100.00 | | \$ - |
| 870-Volatile Organics (Method 8260) | Each | \$ 95.00 | | \$ - |
| 872-Volatile Organics BTEX/MTBE(Method 8260) | Each | \$ 60.00 | | \$ - |
| 874-Semi-Volatiles (Method 8270) | Each | \$ 200.00 | | \$ - |
| 876-Polyaromatic Hydrocarbons (Method 8270) | Each | \$ 100.00 | | \$ - |
| 878-TPH Method FL-Pro | Each | \$ 65.00 | | \$ - |
| 880-RCRA 8 Metals (Method 6010/7471) | Each | \$ 65.00 | | \$ - |
| 882-RCRA Metals Individual (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 884-Mercury Individual (Method 6010/7471) | Each | \$ 25.00 | | \$ - |
| 886-Ultr Low Trace Mercury GW Individual (Method 1631) | Each | \$ 75.00 | | \$ - |
| 888-Arsenic (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 890-SPLP/TCLP Metals | Each | \$ 198.00 | | \$ - |
| 892-Asbestos Samples | Each | \$ 15.00 | | \$ - |
| 894-Polychlorinated Biphenals (8082) | Each | \$ 75.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------|------|------------|----------|---------------------|
| Chief Geotechnical Engineer | Hour | \$ 200.91 | 8 | \$ 1,607.28 |
| Chief Scientist | Hour | \$ 144.24 | 0 | \$ - |
| Senior Geotechnical Engineer | Hour | \$ 176.85 | 21 | \$ 3,713.85 |
| Geotechnical Engineer | Hour | \$ 152.19 | 25 | \$ 3,804.75 |
| Engineer | Hour | \$ 115.44 | 31 | \$ 3,578.64 |
| Engineering Intern | Hour | \$ 83.67 | 51 | \$ 4,267.17 |
| Senior Scientist | Hour | \$ 123.84 | 0 | \$ - |
| Sr Engineering Technician | Hour | \$ 87.00 | 21 | \$ 1,827.00 |
| Geotechnical Technician | Hour | \$ 70.44 | 21 | \$ 1,479.24 |
| Designer | Hour | \$ 91.74 | 21 | \$ 1,926.54 |
| Secretary/Clerical | Hour | \$ 101.67 | 8 | \$ 813.36 |
| Total Estimated Fee | | | | \$ 53,219.83 |

| | |
|-----------------------------------|--------------|
| Engineering and Technical Support | \$ 23,017.83 |
| Field Services | \$ 24,329.00 |
| Laboratory Services | \$ 5,873.00 |

TIERRA

December 14, 2017

AECOM
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-146

Attn: Mr. Dennis Combs, P.E.

**RE: Post-Design Geotechnical Engineering Services Proposal
HCAA Project No. 8220 18
Taxilane Extension & Eastside MRO Development
Hillsborough County Aviation Authority
Tierra Project No.: 6511-17-209PD**

Mr. Combs:

Tierra, Inc. appreciates the opportunity to submit the attached proposal to provide post-design geotechnical engineering services for the above project. Services to occur after the design period may include review of shop drawings, plan review, responding to RFIs, RFMs, etc. Tierra has estimated 60 hours for these tasks.

The estimated fee to perform post-design geotechnical services is estimated to be \$8,133.84. Services would be completed on as-needed basis in accordance with our 2017 contract rates. A unit cost breakdown is attached. Tierra will invoice on a time and materials basis, thus individual line items, although presented, may not be invoiced.

We appreciate the opportunity to offer our services to you. Should you have any questions in regard to this proposal, please do not hesitate to contact this office.

Respectfully Submitted,

TIERRA, INC.



Marc E. Novak, Ph.D., P.E.
Geotechnical Engineer

Attachment A: Post-Design Schedule of Services and Fee

Table 6 Standard Fee Schedule 2017

Post-Design Geotechnical Engineering Estimate

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------------------------------------|------|-------------|----------|-------|
| 612-Geo Mobilization Drill Rig Truck Mount | Each | \$ 350.00 | | \$ - |
| 614-Geo Mobilization Mudbug/All Terrain Vehicle | Each | \$ 700.00 | | \$ - |
| 610-Geo Mobilization Drill Rig Track Mount | Each | \$ 3,250.00 | | \$ - |
| 418-Geo Drill Crew Support Vehicle | Day | \$ 160.00 | | \$ - |
| 609-Geo Mobilization Drill Rig Barge Mount | Each | \$ 7,500.00 | | \$ - |
| 405-Geo Barge (Owned) | Day | \$ 2,500.00 | | \$ - |
| 618-Geo Mobilization Support Boat | Each | \$ 500.00 | | \$ - |
| 618.1-Geo Support Safety Boat | Day | \$ 500.00 | | \$ - |
| 619-Geo Mobilization Tri-Pod | Each | \$ 1,250.00 | | \$ - |
| 419-Geo Drilling Crew 2-Person | Hour | \$ 135.00 | | \$ - |
| 420-Geo Drilling Crew 3-Person | Hour | \$ 185.00 | | \$ - |
| Geo SPT Truck 0-50 Ft | LF | \$ 12.90 | | \$ - |
| Geo SPT Truck 50-100 Ft | LF | \$ 17.00 | | \$ - |
| Geo SPT Truck 100-150 Ft | LF | \$ 31.00 | | \$ - |
| Geo SPT Truck 150-200 Ft | LF | \$ 39.00 | | \$ - |
| 478-Geo SPT Truck-Mud Bug 0-50 Ft | LF | \$ 15.20 | | \$ - |
| 479-Geo SPT Truck-Mud Bug 50-100 Ft | LF | \$ 18.10 | | \$ - |
| 480-Geo SPT Truck-Mud Bug 100-150 Ft | LF | \$ 32.00 | | \$ - |
| 481-Geo SPT Truck-Mud Bug 150-200 Ft | LF | \$ 42.00 | | \$ - |
| 473-Geo SPT Barge/Track/Amphibious 000-050 Ft | LF | \$ 21.50 | | \$ - |
| 474-Geo SPT Barge/Track/Amphibious 050-100 Ft | LF | \$ 28.90 | | \$ - |
| 475-Geo SPT Barge/Track/Amphibious 100-150 Ft | LF | \$ 53.00 | | \$ - |
| 476-Geo SPT Barge/Track/Amphibious 150-200 Ft | LF | \$ 70.00 | | \$ - |
| Geo Grout Boreholes- Truck 0-050 Ft | LF | \$ 5.25 | | \$ - |
| Geo Grout Boreholes- Truck 50-100 Ft | LF | \$ 7.00 | | \$ - |
| Geo Grout Boreholes- Truck 100-150 Ft | LF | \$ 10.25 | | \$ - |
| Geo Grout Boreholes- Truck 150-200 Ft | LF | \$ 14.00 | | \$ - |
| 440-Geo Grout Boreholes- Truck/Mud Bug 000-050 Ft | LF | \$ 6.25 | | \$ - |
| 441-Geo Grout Boreholes- Truck/Mud Bug 050-100 Ft | LF | \$ 8.00 | | \$ - |
| 442-Geo Grout Boreholes- Truck/Mud Bug 100-150 Ft | LF | \$ 13.10 | | \$ - |
| 443-Geo Grout Boreholes- Truck/Mud Bug 150-200 Ft | LF | \$ 18.00 | | \$ - |
| 435-Geo Grout Boreholes- Barge/Track/Amphibious 000-050 Ft | LF | \$ 8.50 | | \$ - |
| 436-Geo Grout Boreholes- Barge/Track/Amphibious 050-100 Ft | LF | \$ 11.25 | | \$ - |
| 437-Geo Grout Boreholes- Barge/Track/Amphibious 100-150 Ft | LF | \$ 17.25 | | \$ - |
| 438-Geo Grout Boreholes- Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| Geo Temp Casing 3" Truck 0-050 Ft | LF | \$ 8.50 | | \$ - |
| Geo Temp Casing 3" Truck 50-100 Ft | LF | \$ 10.25 | | \$ - |
| Geo Temp Casing 3" Truck 100-150 Ft | LF | \$ 12.25 | | \$ - |
| Geo Temp Casing 3" Truck 150-200 Ft | LF | \$ 15.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

Post-Design Geotechnical Engineering Estimate

| Item Description | Unit | Unit Price | Quantity | Total |
|-----------------------------------------------------------------------|------|-------------|----------|-------|
| 488-Geo Temp Casing 3" Truck/Mud Bug 000-050 Ft | LF | \$ 10.30 | | \$ - |
| 489-Geo Temp Casing 3" Truck/Mud Bug 050-100 Ft | LF | \$ 14.00 | | \$ - |
| 490-Geo Temp Casing 3" Truck/Mud Bug 100-150 Ft | LF | \$ 17.50 | | \$ - |
| 491-Geo Temp Casing 3" Truck/Mud Bug 150-200 Ft | LF | \$ 22.00 | | \$ - |
| 483-Geo Temp Casing 3" Barge/Track/Amphibious 0-050 Ft | LF | \$ 14.50 | | \$ - |
| 484-Geo Temp Casing 3" Barge/Track/Amphibious 50-100 Ft | LF | \$ 17.50 | | \$ - |
| 485-Geo Temp Casing 3" Barge/Track/Amphibious 100-150 Ft | LF | \$ 20.00 | | \$ - |
| 486-Geo Temp Casing 3" Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| 463-Geo Rock Coring Truck/Mud Bug 000-050 Ft less than 4" ID | LF | \$ 45.00 | | \$ - |
| 465-Geo Rock Coring Truck/Mud Bug 050-100 Ft less than 4" ID | LF | \$ 52.00 | | \$ - |
| 467-Geo Rock Coring Truck/Mud Bug 100-150 Ft less than 4" ID | LF | \$ 60.00 | | \$ - |
| 453-Geo Rock Coring Barge/Track/Amphibious 000-050 Ft less than 4" ID | LF | \$ 48.00 | | \$ - |
| 455-Geo Rock Coring Barge/Track/Amphibious 050-100 Ft less than 4" ID | LF | \$ 64.00 | | \$ - |
| 457-Geo Rock Coring Barge/Track/Amphibious 100-150 Ft less than 4" ID | LF | \$ 80.00 | | \$ - |
| 459-Geo Rock Coring Barge/Track/Amphibious 150-200 Ft less than 4" ID | LF | \$ 94.00 | | \$ - |
| 427-Geo Extra SPT Samples-Truck/Mud Bug 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 428-Geo Extra SPT Samples-Truck/Mud Bug 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 429-Geo Extra SPT Samples-Truck/Mud Bug 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 430-Geo Extra SPT Samples-Truck/Mud Bug 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 422-Geo Extra SPT Samples-Barge/Track/Amphibious 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 423-Geo Extra SPT Samples-Barge/Track/Amphibious 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 424-Geo Extra SPT Samples-Barge/Track/Amphibious 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 425-Geo Extra SPT Samples-Barge/Track/Amphibious 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 519-Geo Undisturbed Samples Truck/Mud Bug 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 520-Geo Undisturbed Samples Truck/Mud Bug 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 521-Geo Undisturbed Samples Truck/Mud Bug 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 522-Geo Undisturbed Samples Truck/Mud Bug 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 515-Geo Undisturbed Samples Barge/Track/Amphibious 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 516-Geo Undisturbed Samples Barge/Track/Amphibious 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 517-Geo Undisturbed Samples Barge/Track/Amphibious 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 518-Geo Undisturbed Samples Barge/Track/Amphibious 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 401-Geo Auger Borings- Hand & Truck/Mud Bug | LF | \$ 10.50 | | \$ - |
| 402-Geo Auger Borings- Track | LF | \$ 12.00 | | \$ - |
| 432-Geo Field Permeability 0-10 Ft (Open - End Borehole Method) | Each | \$ 290.00 | | \$ - |
| Flagman and Barricades 2-Man Crew Own Equipment | Day | \$ 1,080.00 | | \$ - |
| Muck/Sediment/Debris Probing Unsuitable Soils 2-Man Crew | Day | \$ 1,080.00 | | \$ - |
| 450-Geo Piezometer 2" 000-050 Ft | LF | \$ 44.00 | | \$ - |
| 445-Geo Grouted Monitor Well 2" 000-050 Ft | LF | \$ 6.25 | | \$ - |
| Piezometer Permit Costs(SWFWMD) | Each | \$ 250.00 | | \$ - |
| 403-Geo Backhoe (Owned) | Day | \$ 600.00 | | \$ - |
| 416-Geo Dozer (Owned) | Day | \$ 800.00 | | \$ - |
| Airport Stand-by to Access Boring or Test Locations and Clean-up | Hour | \$ 210.00 | | \$ - |
| 407-Geo Chainsaw (Owned) | Day | \$ 28.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

Post-Design Geotechnical Engineering Estimate

| Item Description | Unit | Unit Price | Quantity | Total |
|-------------------------------------------------------------------------|---------|------------|----------|-------|
| 415-Geo Double Ring Infiltration (ASTM D3385) | Each | \$ 525.00 | | \$ - |
| 434-Geo Ground Penetrating Radar (GPR) | Hour | \$ 350.00 | | \$ - |
| 209-Asphalt Pavement Coring – 4" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 210-Asphalt Pavement Coring – 4" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 211-Asphalt Pavement Coring – 6" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 212-Asphalt Pavement Coring – 6" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 305-Concrete Pavement Coring - 4" Dia | Each | \$ 110.00 | | \$ - |
| 306-Concrete Pavement Coring - 6" Dia | Each | \$ 110.00 | | \$ - |
| 603-Mobilization Asphalt Coring equipment | Each | \$ 250.00 | | \$ - |
| 606-Mobilization Concrete Coring | Each | \$ 250.00 | | \$ - |
| 812-Soils Materials Finer than 200 Sieve (FM 1-T011) | Test | \$ 42.00 | | \$ - |
| 817-Soils Moisture Content Laboratory (AASHTO T 265) | Test | \$ 10.00 | | \$ - |
| 821-Soils Particle Size Analysis (AASHTO T 88) (Including Hydrometer) | Test | \$ 131.00 | | \$ - |
| 822-Soils Particle Size Analysis (AASHTO T 88) (No Hydrometer) | Test | \$ 67.00 | | \$ - |
| 805-Soils Corrosion Series (FM 5-550 through 5-553) | Test | \$ 175.00 | | \$ - |
| 825-Soils pH Soil or Water (FM 5-550) | Test | \$ 35.00 | | \$ - |
| 829-Soils Resistivity Soil or Water (FM 5-551) | Test | \$ 46.00 | | \$ - |
| 800-Soils Chloride Soil or Water (FM 5-552) | Test | \$ 46.00 | | \$ - |
| 833-Soils Sulfate Soil or Water (FM 5-553) | Test | \$ 48.00 | | \$ - |
| 819-Soils Organic Content Ignition (FM 1 T-267) | Test | \$ 42.00 | | \$ - |
| Atterberg Limit Tests (AASHTO T-89 and T-90) Combined | Test | \$ 130.00 | | \$ - |
| 826-Soils Plastic Limit & Plasticity Index (AASHTO T 90) | Test | \$ 70.00 | | \$ - |
| 811-Soils Liquid Limit (AASHTO T 89) | Test | \$ 60.00 | | \$ - |
| 823-Soils Permeability Constant Head (AASHTO T 215) | Test | \$ 175.00 | | \$ - |
| 824-Soils Permeability Falling Head (FM 5-513) | Test | \$ 175.00 | | \$ - |
| 827-Soils Proctor Modified (FM 1-T 180) | Test | \$ 115.00 | | \$ - |
| 828-Soils Proctor Standard (AASHTO T 99) | Test | \$ 111.00 | | \$ - |
| 832-Soils Splitting Tensile Strength of Rock Cores (ASTM D3967) | Test | \$ 138.00 | | \$ - |
| 838-Soils Unconfined Compression - Rock (ASTM D7012, Method C) | Test | \$ 138.00 | | \$ - |
| 803-Soils Consolidation - Constant Strain (ASTM D4186) | Test | \$ 580.00 | | \$ - |
| 804-Soils Consolidation - Extended Load Increments (AASHTO T216) | Test | \$ 50.00 | | \$ - |
| 806-Soils Direct Shear Consolidated Drained/ Point AASHTO T 236 | Test | \$ 250.00 | | \$ - |
| 810-Soils Limerock Bearing Ratio (LBR)(FM 5-515)/CBR | Test | \$ 340.00 | | \$ - |
| 850-EDR Report | Each | \$ 500.00 | | \$ - |
| 852-Organic Vapor Analyzer (OVA) | Day | \$ 150.00 | | \$ - |
| 854-Handheld GPS | Per Day | \$ 80.34 | | \$ - |
| 856-Field Sampling Kit (soil) | Each | \$ 75.00 | | \$ - |
| 858-Field Sampling Survey Kit (water) | Each | \$ 75.00 | | \$ - |
| 860-Power Auger Boring (includes decontamination to a depth of 25 feet) | Foot | \$ 11.90 | | \$ - |
| 862-BTEX and MTBE (Method 8260) | Each | \$ 65.00 | | \$ - |
| 864-Organochlorine Pesticides (Method 8081) | Each | \$ 100.00 | | \$ - |
| 866-Organophosphorous Pesticides (Method 8141) | Each | \$ 125.00 | | \$ - |
| 868-Chlorinated Herbicides (Method 8151) | Each | \$ 100.00 | | \$ - |
| 870-Volatile Organics (Method 8260) | Each | \$ 95.00 | | \$ - |
| 872-Volatile Organics BTEX/MTBE(Method 8260) | Each | \$ 60.00 | | \$ - |
| 874-Semi-Volatiles (Method 8270) | Each | \$ 200.00 | | \$ - |
| 876-Polyaromatic Hydrocarbons (Method 8270) | Each | \$ 100.00 | | \$ - |
| 878-TPH Method FL-Pro | Each | \$ 65.00 | | \$ - |
| 880-RCRA 8 Metals (Method 6010/7471) | Each | \$ 65.00 | | \$ - |
| 882-RCRA Metals Individual (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 884-Mercury Individual (Method 6010/7471) | Each | \$ 25.00 | | \$ - |
| 886-Ultr Low Trace Mercury GW Individual (Method 1631) | Each | \$ 75.00 | | \$ - |
| 888-Arsenic (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 890-SPLP/TCLP Metals | Each | \$ 198.00 | | \$ - |
| 892-Asbestos Samples | Each | \$ 15.00 | | \$ - |
| 894-Polychlorinated Biphenals (8082) | Each | \$ 75.00 | | \$ - |

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------|------|------------|----------|--------------------|
| Chief Geotechnical Engineer | Hour | \$ 200.91 | 2 | \$ 401.82 |
| Chief Scientist | Hour | \$ 144.24 | | \$ - |
| Senior Geotechnical Engineer | Hour | \$ 176.85 | 8 | \$ 1,414.80 |
| Geotechnical Engineer | Hour | \$ 152.19 | 24 | \$ 3,652.56 |
| Engineer | Hour | \$ 115.44 | 12 | \$ 1,385.28 |
| Engineering Intern | Hour | \$ 83.67 | 8 | \$ 669.36 |
| Senior Scientist | Hour | \$ 123.84 | | \$ - |
| Sr Engineering Technician | Hour | \$ 87.00 | | \$ - |
| Geotechnical Technician | Hour | \$ 70.44 | | \$ - |
| Designer | Hour | \$ 91.74 | | \$ - |
| Secretary/Clerical | Hour | \$ 101.67 | 6 | \$ 610.02 |
| Total Estimated Fee | | | | \$ 8,133.84 |

TIERRA

December 21, 2017

AECOM
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-146

Attn: Mr. Dennis Combs, P.E.

**RE: Construction Materials Testing Fee Estimate
HCAA Project No. 8820 18
MRO Taxi Lane Extension
Hillsborough County Aviation Authority
Tierra Project No.: 6511-17-209PD**

Mr. Combs:

Please find the attached preliminary estimate for Quality Assurance (QA) materials testing for the near future projects. At this time construction plans have not been developed and these estimates were based on concept information only and our scope and responsibilities not having been developed. QA inspection services are anticipated to be completed on an on-call basis, with the Contractor supplying the Quality Control (QC) testing services. A full-time Construction Inspector is believed to be provided by the Engineer of Record. **Please consider these estimates draft.** The project description is noted below and general construction testing items are noted.

A new east-west access taxi lane is proposed to the east of the engine run-up area west of Air Cargo Road. The new taxi lane appears to be approximately 1,500 lineal feet in length and approximately 170 feet in width. It is anticipated to be constructed with asphalt pavement and asphalt shoulders. Potential paved repair/parking areas may be added at some point in the design. The estimated fee is **\$68,020.00**.

We appreciate the opportunity to offer our services to you. Should you have any questions in regard to this proposal, please do not hesitate to contact this office.

Respectfully Submitted,

TIERRA, INC.

Marc E. Novak, Ph.D., P.E.
Geotechnical Engineer

Harmon C. Bennett, P.E.
Vice President of Construction Services

Attachment: Schedule of Services and Fee

MRO Taxilane Extension & Apron Areas (Asphalt Pavement)

P152 Excavation and Embankment

| Description | Estimated Quantity | Unit Rate | Unit | Sub-Total |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|----------|---------------------|
| Laboratory Tests | | | | |
| Modified Proctor Tests (ASTM D1557) | 5 | \$ 120.00 | per test | \$ 600.00 |
| Gradation Analysis Tests (ASTM D422) | 5 | \$ 65.00 | per test | \$ 325.00 |
| Liquid and Plastic Limits (ASTM D4318) | 5 | \$ 65.00 | per test | \$ 325.00 |
| Organic Content (AASHTO T-267) | 5 | \$ 40.00 | per test | \$ 200.00 |
| Field Testing | | | | |
| Senior Engineering Technician (to perform in place density tests by nuclear methods per subplot; obtain and transport samples) | 375 | \$ 48.00 | per hour | \$ 18,000.00 |
| Total P-152 | | | | \$ 19,450.00 |

P-219 Recycled Concrete Aggregate Base

| | | | | |
|----------------------------------------------------------------------------|-----|-----------|----------|---------------------|
| Field Testing | | | | |
| Senior Inspector (to perform field density tests and pick up soil samples) | 300 | \$ 45.00 | per hour | \$ 13,500.00 |
| Laboratory Testing | | | | |
| Modified Proctor (ASTM D1557) | 1 | \$ 120.00 | each | \$ 120.00 |
| Gradation (ASTM D422) | 1 | \$ 85.00 | per test | \$ 85.00 |
| LBR | 1 | \$ 275.00 | per test | \$ 275.00 |
| Flat & Elongated Particles (ASTM D4791) | 1 | \$ 100.00 | per test | \$ 100.00 |
| LA Abrasion (ASTM C131) | 1 | \$ 200.00 | per test | \$ 200.00 |
| Liquid and Plastic Limits (ASTM D4318) | 1 | \$ 65.00 | per test | \$ 65.00 |
| Sand Equivalency Test | 1 | \$ 350.00 | per test | \$ 350.00 |
| Total P-219: | | | | \$ 14,695.00 |

P401 Asphalt Plant Inspection

| | | | | |
|---------------------------------------|-----|----------|----------|---------------------|
| Asphalt Plant Inspector ASTM D3666 | 225 | \$ 60.00 | per hour | \$ 13,500.00 |
| Total P-501 | | | | \$ 13,500.00 |

Engineering

| | | | | |
|--------------------------------------------------|-----|-----------|----------|---------------------|
| Project Manager | 125 | \$ 85.00 | per hour | \$ 10,625.00 |
| Senior Engineer | 65 | \$ 150.00 | per hour | \$ 9,750.00 |
| Total Engineering / Specialty Inspections | | | | \$ 20,375.00 |

MRO Taxilane Extension \$ 68,020.00



Northwest Surveying, Inc. (fka Northwest Engineering, Inc.)

A certified MBE/DBE/SBE Corporation

8409 Sunstate Street. Tampa, Florida 33634-1309

(813) 889-9236; Fax: (813) 886-3315

www.nsitampa.com

January 4, 2018

Mr. Dennis Combs, PE
Aecom
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-1462

REVISION NO. 1

RE: MRO Taxiway Extension
NSI Proposal No. 171205-C

Dear Mr. Combs:

Thank you for the opportunity to present this proposal for surveying services on the above referenced project.

SCOPE

This site is approximately 42 acres \pm consisting of existing paved roads, abandoned concrete foundations, driveways, a pond, utilities, substantial vegetation and mature trees.

Unfortunately, the area is being used as a dump site by the public. Much of the deposited debris is covering parts of the foundations and drives which we will need to remove to identify the concrete and driveway limits.

Once we have exposed the corners of the drives and foundations, we will establish control points and benchmarks at 500' intervals. The horizontal datum will be Florida State Plane NAD 83/2011 adjustment and the vertical will be NAVD 88.

The scope for the topographic survey is typical, as we will locate and map all manmade and natural topographic features within the survey limits as shown on the reference map attached hereto. (See Exhibit 3 attached.) Road right-of-ways will be shown, and the existing pond TOB and TOE of slope will be surveyed on 3 sides. Trees 4" DBH and larger will be located with the exception of large groups where only the tree line will be shown on our map. The topographic spacing will be 50' in all areas. The existing above ground utilities plus the nearest connecting manhole or drainage structure will be located along with above ground evidence of underground utilities. We will also provide underground utility pipe sizes, shape, type material and invert elevations where access is possible.

Our fee to perform the services outlined herein will be **\$74,180.00.**

MANHOURS

| | DAYS/HOURS | RATE | TOTAL |
|----------------------------|-------------------|-------------|--------------------|
| 3-PERSON CREW DAYS | 33 | \$1,224.00 | \$40,392.00 |
| PROJECT SURVEYOR, PSM | 64 | \$135.00 | \$ 8,640.00 |
| AUTOCAD TECHNICIAN | 161 | \$90.00 | \$14,490.00 |
| SENIOR PLS | 11 | \$255.00 | \$ 2,805.00 |
| ADMINISTRATIVE | 21 | \$87.00 | \$ 1,827.00 |
| | | | |
| TRUCK & EQUIPMENT EXPENSES | | | \$ 6,026.00 |
| TOTAL | | | \$74,180.00 |

We will require 60 business days from your notice to proceed date to complete the survey and submit an Autocad Civil 3D file containing our topographic map and TIN with 0.5 contours, along with signed hardcopy maps.

All of the work will be performed under the direct supervision of a Florida Licensed Professional Land Surveyor and will meet or exceed the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J17.050 to 5J17.052, Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

If you have any questions, please do not hesitate to contact our office.

Sincerely,

NORTHWEST SURVEYING, INC.



Gerald Silva, PSM
President

GS/kg/prp

Scope of Services for:

**Professional Engineering Services for
New Taxiway A and Bridge**

HCAA Project Number 8825 18

Tampa International Airport

Prepared by:

AECOM

January 22, 2018

SCOPE OF SERVICES FOR
**PROFESSIONAL ENGINEERING SERVICES FOR
NEW TAXIWAY A AND BRIDGE
HCAA PROJECT NUMBER 8825 18**

**TAMPA INTERNATIONAL AIRPORT (TIA)
TAMPA, FL**

AECOM TECHNICAL SERVICES, INC.

INTRODUCTION

This scope of services (scope) outlines the tasks proposed by AECOM Technical Services, Inc. (AECOM) to assist the Hillsborough County Aviation Authority with Professional Engineering and Construction Administration Services associated with New Taxiway A and Bridge.

The purpose of this project is to design and construct a new crossfield Taxiway A from Runway 1L-19R / Taxiway V to Runway 1R-19L / Taxiway C north of existing Taxiway B at Tampa International Airport (TPA), as shown on Exhibit D (included on the following page). Currently the existing service road north of the Terminal Complex that connects the North Employee Parking Lot, the Airfield Maintenance Facility and the Air Cargo Facilities to the Main Terminal / Apron requires that vehicle traffic cross an active taxiway. This is a safety and security issue since vehicle entry into the Air Operations Area (AOA) and both the FAA and TSA have noted their displeasure with this condition. The possibility of a collision between a vehicle and an aircraft exists as well as concern with non-SIDA employee on the employee bus being in the AOA. This project will remove the service road from directly crossing a movement area for aircraft.

The airport currently has two existing crossfield taxiing routes north of the existing terminal complex, Taxiway A and Taxiway B. These facilities provide dual bypass capability along the north side of the airfield. This project will remove a section of the existing Taxiway A and replace it with a new taxiway 267-ft to the north of Taxiway B. Existing Taxiway A, which runs along the north, east and west side of the terminal apron will be given a new designation, to be determined. The re-designation of a number of adjacent connector taxiways may also be required. The scope includes addition or replacement of signage and/or lights and, due to geometric and operational requirements, and the addition or removal of pavement. The exact details of the new Taxiway A location and geometry will need to be determined based on current and future development in the north section of the airport.

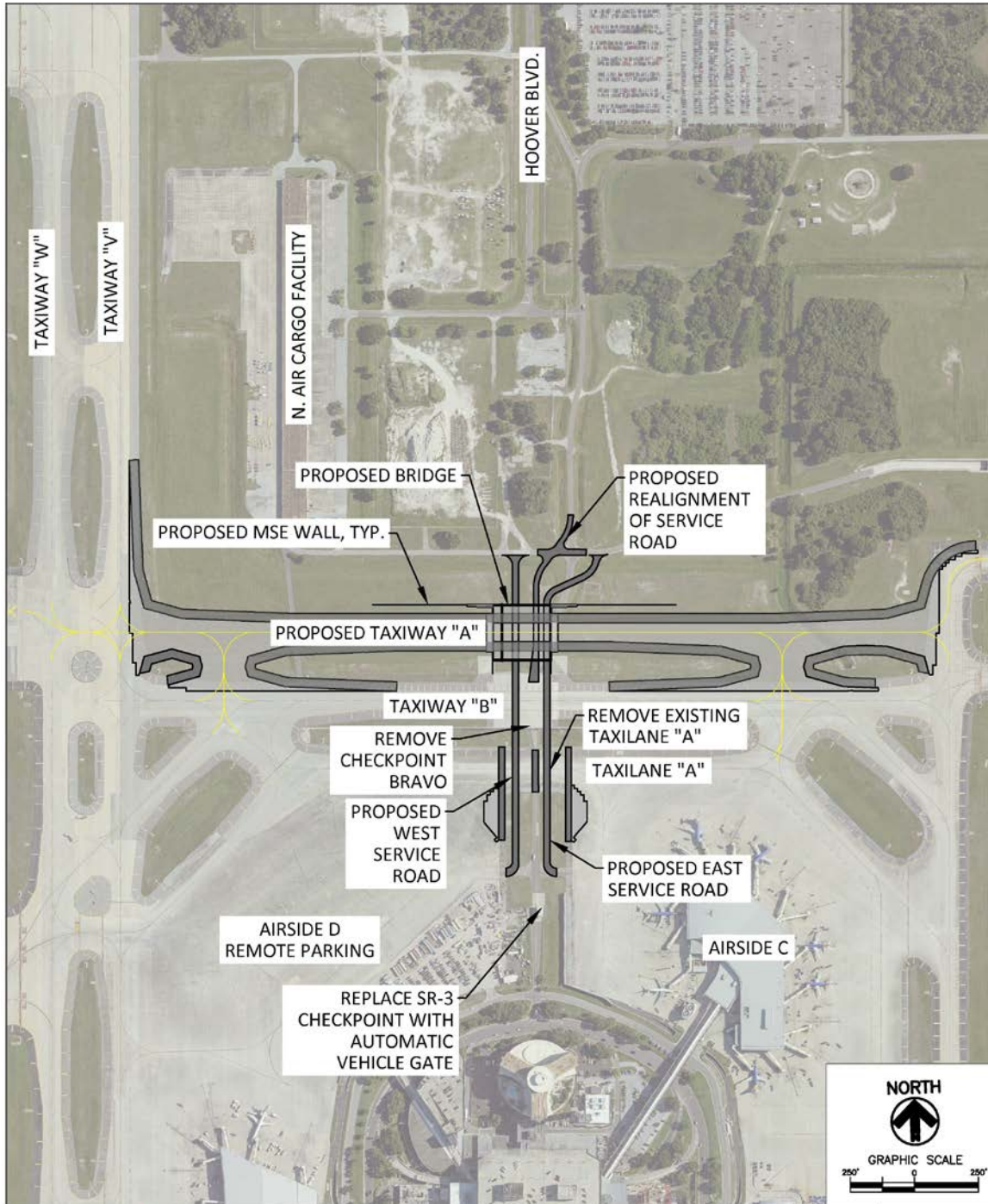
One of the major objectives of this project is the exclusion of the service road from crossing the active taxiway. This will allow the road to be separated from the AOA by adding fence with gates from the existing Gate SR-3 north to the North Employee Parking lot. This will also allow for the possible removal of the manned access gates at Checkpoint BRAVO and SR-3 and for these personnel to be assigned to different functions at the airport.

Scope of Services, Design Criteria and Project Schedule

Airfield engineering – AECOM will prepare design documents for Taxiway A and Bridge per Exhibit D on page 3 and in accordance with all applicable and current FAA Advisory Circulars and HCAA Design Criteria Manual.

Proposed Design Criteria for Taxiway A

| | |
|--------------------------------------------------------------------|----------------|
| Airplane Design Group (ADG) V Geometry to support Design Aircraft: | Boeing 747-400 |
| Taxiway Design Group (TDG) 6 Geometry to support Design Aircraft: | Boeing 747-400 |



| | | | | |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------|-------------|---------|
|  Tampa International Airport | PROJECT NAME | | SHEET TITLE | |
| | TAXIWAY "A" | | EXHIBIT D | |
| HCAA Planning & Development | AIRPORT | PROJECT NO. | SCALE | DATE |
| | TAMPA INTERNATIONAL AIRPORT | 8825 18 | AS SHOWN | 8/14/17 |

Sustainability – The scope includes evaluating potential sustainability initiatives starting with the sustainability checklist provided by the Authority. We will evaluate potential initiatives from the HCAA Sustainability Handbook and provide these options to the Authority at 30%/60% design for inclusion in the project.

Bridge engineering – Our Team (TYLI) will prepare structural design criteria for approval by the owner. As a minimum, the taxiway bridge will be designed to accommodate Aircraft Design Group (ADG) V, which includes the Boeing 747-400, Boeing 777 and Airbus A340. Design criteria will include current editions of FAA AC 150/5300-13A Airport Design Chapter 7, FDOT Bridge Design Manual, and AASHTO LRFD Bridge Design Specifications. The bridge is anticipated to have three spans in the basic same configuration as the existing Taxiway B Bridge located just south of the proposed Taxiway A Bridge.

Airfield lighting design – Design will be in accordance with FAA AC 150/5340-30H - Design and Installation Details for Airport Visual Aids and will include the following scope elements:

- Medium Intensity Taxiway Edge Lights for Taxiway A and impacted other taxiways.
- Underground duct and wiring to support edge lights, airfield circuitry, underdeck lighting, and all other electrical systems impacted by construction.
- Airfield Signage for Taxiway A, adjacent taxiways, and any sign panel replacements necessary along existing Taxiway A due to designation changes.
- New circuit to the electrical vault, installation of new Constant Current Regulator, and coordination with the Airfield Lighting Control System manufacturer regarding revisions in the vault and to the airfield.
- Centerline lights cans and conduit will be designed for Taxiway A and included in the project for future fixtures.

Electrical engineering – Design will be in accordance with NEC, Florida Building Code, or other local electrical standards as required. Scope is anticipated to include bridge underdeck lighting, control system, and gate operators for new access control points. Gate controllers will require power and communications to interface with the airport's security system.

Fuel System engineering – No fuel design is anticipated in this project. Our scope includes coordinating with other designers for fuel line extension through or near our project limits.

Drainage engineering – Work includes all design and coordination to submit and receive a modification to an existing Environmental Resource Permit (ERP) from the Southwest Florida Water Management District (SWFWMD). The scope includes detail calculations, narrative, and exhibits as required to meet SWFWMD. Additional treatment capacity is not anticipated to be required for this project as the existing stormwater pond west of Runway 1L-19R should have sufficient treatment capacity. Collection and conveyance systems will be designed in accordance to FAA standards, City of Tampa standards, and FDOT standards.

Utility engineering – The scope includes utility coordination, removal, and relocation as required for the project area to include the following utilities:

- Potable Water – City of Tampa coordination and permitting. Preliminary and final design drawings.
- Sanitary Sewer - City of Tampa coordination and permitting. Preliminary and final design drawings.
- Verizon (Frontier) – Utility coordination. Preliminary design. Review of utility final drawings.
- FAA – Coordination. Preliminary and final design of relocations or modifications.
- HCAA Fiber Optic – Coordination and preliminary and final design.
- TECO Gas - Utility coordination. Preliminary design. Review of utility final drawings.

Cost estimating – The scope includes an estimate of probable construction cost for the project and verify with the current project budget for construction. AECOM will perform a quantity take-off of the plans at each stage of design and provide a unit price estimate. Any cost opinions or estimates provided by AECOM will be on a basis of experience and judgment, but since AECOM has no control over market conditions or bidding procedures, AECOM cannot and does not warrant that bids, ultimate construction cost, or project economics will not vary from such opinions or estimates.

Scheduling – The scope includes developing and maintaining a schedule for design. The schedule will be updated and submitted with each design deliverable milestone.

Land surveying/Subsurface Utility Engineering – See attached scope of services from Northwest Surveying, Inc. dated January 4, 2018 along with the limits of surveying in Taxiway A and Bridge Survey

Exhibit attached to NSI's proposal. Additionally, see the attached scope of services from Omni Communications, LLC dated December 14, 2017 that describe the scope of the proposed subsurface utility engineering proposed for this project.

Geotechnical engineering – See attached scope of services from Tierra, Inc. dated December 20, 2017 and Table 6 Standard Fee Schedule 2017 for design services and scope and fee letter dated December 14, 2017 for post design geotechnical services related to the bridge.

Construction inspection – If authorized, our team will supply up to 2 experienced construction inspectors for this project to support additional inspectors and engineers supplied by the owner. One inspector will be a senior bridge inspector and one inspector will be a senior airfield inspector. Our proposal is based on a total project duration of 76 weeks for the senior airfield inspector and 48 weeks for the senior bridge inspector. A 50 hour work week is estimated for each inspector. Inspectors will monitor the Contractor's on-site construction activities and inspect materials entering into the work in accordance with the plans, specifications, and special provisions for the Construction Contract to determine that the projects are constructed in reasonable conformity with such documents. Maintain detailed accurate records of the Contractor's daily operations and of significant events that affect the work.

Materials testing – Our team will provide materials testing in accordance with the specifications of the project anticipated to be FAA AC 150/5370-10H and FDOT for the bridge construction. See attached estimated materials costs from Tierra dated December 21, 2017.

Structural Design Criteria:

Prepare structural design criteria for approval by the owner. As a minimum, the taxiway bridge will be designed to accommodate Aircraft Design Group (ADG) V, which includes the Boeing 747-400, Boeing 777 and Airbus A340.

Prepare Bridge Development Report (BDR): Feasible structure types will be evaluated based on construction costs, maintenance costs, structure feasibility. Taxiway Bridge Alternatives considered shall include posttensioned box, pre-stressed concrete box beams with CIP Slab for the two large spans and CIP Slab for the short span. Foundation alternatives will also be investigated such as pre-stressed concrete piles and drilled shafts. A technical memorandum will be prepared summarizing the evaluation and include final recommendation for structure type with due consideration to all applicable data to support the recommendation.

Prepare Basis of Design Report (BDR), design development phase (30%), 60%, 90%, and 100% submittals of design drawings. Prepare bridge construction phasing schematic as part of the design drawings.

Prepare preliminary engineer's report at BDR and final engineer's report at 100% design.

Wall design: design and prepare plans for permanent MSE walls and temporary sheet pile walls.

Airfield Criteria

Taxiway A

Airplane Design Group (ADG) V Geometry to support Design Aircraft: Boeing 747-400
Taxiway Design Group (TDG) 6 Geometry to support Design Aircraft: Boeing 747-400

SCHEDULE

- See attached CPM schedule.

BRIDGE DEVELOPMENT REPORT (BDR) TASK

AECOM through our structural design team member TY Lin International, Inc. (TYLI) will provide a Bridge development Report (BDR) containing the following:

- Structural Design Criteria
- Preliminary Geometrics
- Superstructure Alternatives (Spans 1 & 2)
- Superstructure Alternatives (Span 3)
- Foundation Alternatives
- Comparison and Report

BDR Deliverables

- 1) Meeting Minutes – Copies as required
- 2) Bridge Development Report (BDR) – 2 copies & pdf

30% DESIGN DEVELOPMENT

AECOM will provide the tasks below related to 30% Design Development:

Preliminary Design Plans

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Demolition Plans
Geometry Plans
Roadway Layout Plans
Airfield Lighting Plans
Existing Utility Plans
Fencing Plans
Structural – Bridge Layout Plans
Structural Details

30% Deliverables

- 1) Preliminary 30% Design Plans (11x17) – 2 copies + pdf
- 2) Project Design schedule – 2 copies + pdf
- 3) Construction Cost Estimate – 2 copies +pdf
- 4) Design & Review Meeting Minutes – Copies as required
- 5) QA/QC Documentation

60% DESIGN DEVELOPMENT

AECOM will provide the tasks below related to 60% Design Development:

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Grading and Drainage Plans

Underdrain Plans
Roadway Layout Plans
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Vault Plans
Airfield Signage Plans
Bridge Lighting Plans
Existing Utility Plans
Airfield Marking Plans
Airfield Marking Details
Utility Details & Profiles
Fencing Plans
Structural – Bridge Layout Plans
Substructure Plans
Substructure Details
Superstructure Plans
Superstructure Details

60% Deliverables

- 1) Comment documentation list from 30% Review – 4 copies & pdf
- 2) 60% Design Plans (11x17) – 4 copies & pdf
- 3) Project Design schedule – 4 copies & pdf
- 4) Construction Cost Estimate – 4 copies & pdf
- 5) Technical Specification – 4 copies & pdf
- 6) Design & Review Meeting Minutes – Copies as required
- 7) QA/QC Documentation

90% CONSTRUCTION DOCUMENTS

AECOM will provide the tasks below related to 90% Construction Documents:

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Grading and Drainage Plans
Underdrain Plans
Underdrain Details
Roadway Layout Plans
Roadway Profiles
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Vault Plans
Airfield Signage Plans
Bridge Lighting Plans
Bridge Lighting Details
Existing Utility Plans
Airfield Marking Plans

Airfield Marking Details
Utility Details & Profiles
Fencing Plans
Fencing Details
Structural – Bridge Layout Plans
Substructure Plans
Substructure Details
Superstructure Plans
Superstructure Details

90% Deliverables

- 1) Comment documentation list from 60% Review – 2 copies & pdf
- 2) 90% Design Plans (11x17) – 2 copies & pdf
- 3) Project Design & Construction schedule – 2 copies & pdf
- 4) Construction Cost Estimate – 2 copies & pdf
- 5) DBE % Breakout Estimate – 2 copies and pdf
- 6) Technical Specification – 2 copies & pdf
- 7) Draft HCAA front end documents – 2 copies and pdf
- 8) Design & Review Meeting Minutes – Copies as required
- 9) Draft Construction Safety and Phasing Plan – 2 copies & pdf
- 10) Draft Engineer's Report – 2 copies & pdf
- 11) QA/QC Documentation

100% FINAL DOCUMENTS

Anticipated Project Sheets

Cover Sheet
Contract Layout Plan (Site Plan)
Horizontal and Vertical Control
Safety and Security Notes
Construction Phasing Plans
Geotechnical Data
Temporary and Permanent Erosion and Sedimentation Controls
Demolition Plans
Geometry Plans
Joint Layout Plans
Grading and Drainage Plans
Underdrain Plans
Underdrain Details
Roadway Layout Plans
Roadway Profiles
Airfield Lighting Plans
Airfield Lighting Circuitry
Airfield Lighting Details
Airfield Vault Plans
Airfield Signage Plans
Bridge Lighting Plans
Bridge Lighting Details
Existing Utility Plans
Airfield Marking Plans
Airfield Marking Details
Utility Details & Profiles
Fencing Plans
Fencing Details
Cross Sections
Structural – Bridge Layout Plans

Substructure Plans
Substructure Details
Superstructure Plans
Superstructure Details

100% Deliverables

- 1) Comment documentation list from 90% Review – 2 copies & pdf
- 2) 100% Design Plans (11x17) – 2 copies & pdf
- 3) Project Design & Construction schedule – 2 copies & pdf
- 4) Construction Cost Estimate – 2 copies & pdf
- 5) Technical Specification – 2 copies & pdf
- 6) HCAA front end – 2 copies and pdf
- 7) Design & Review Meeting Minutes – Copies as required
- 8) Final Construction Safety and Phasing Plan – 2 copies & pdf
- 9) Final Engineer's Report – 2 copies & pdf
- 10) QA/QC Documentation

BID AND AWARD SERVICES

This Task shall consist of bid and award services:

- Advertisement and Bidding Assistance
- Assist in Addenda Preparations
- Attend Prebid Conference
- Evaluate Bids and Recommend Award
- Issue Conformed Documents

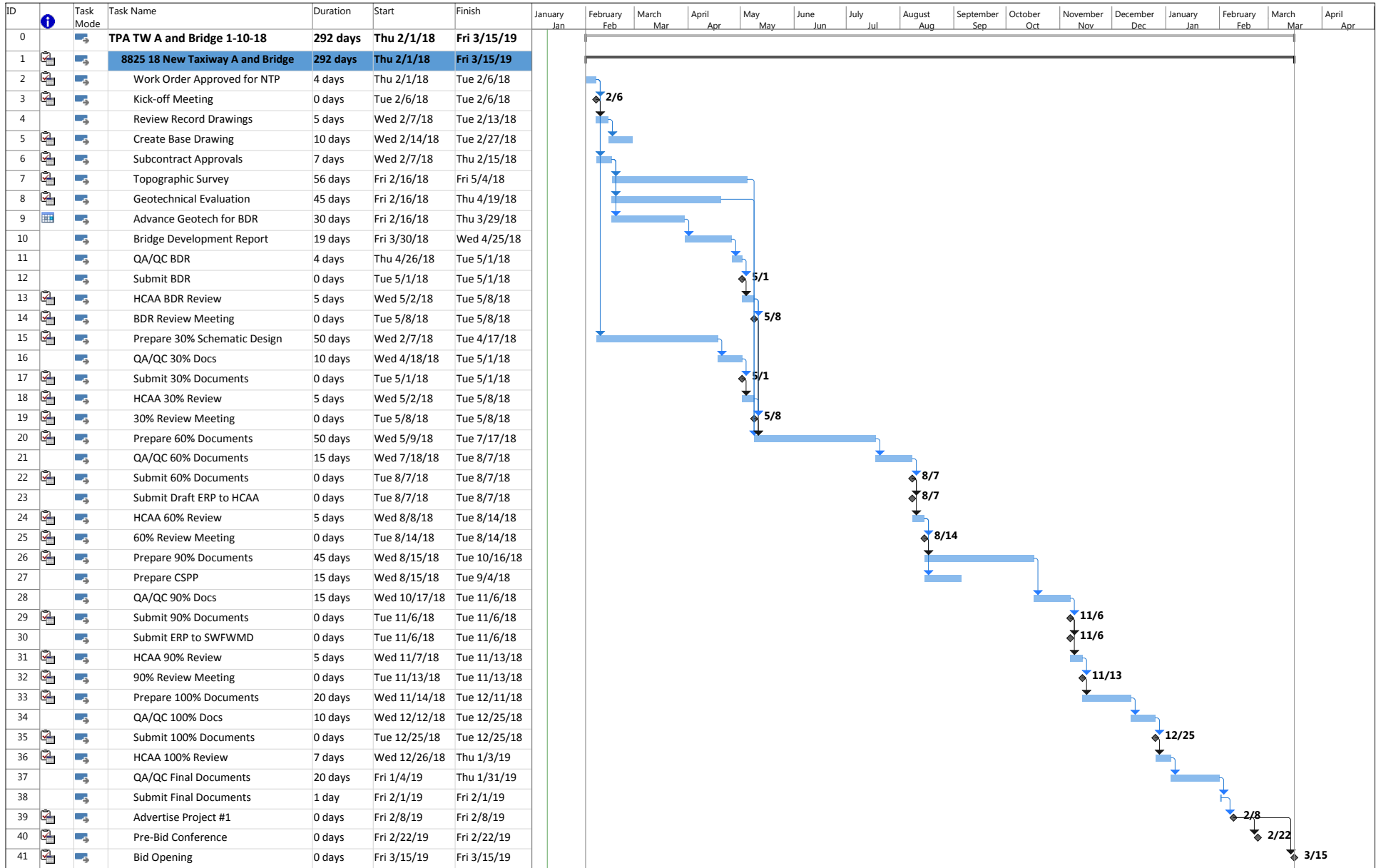
Bid and Award Deliverables

- 1) Bid Advertisement
- 2) Addenda
- 3) Electronic exhibits in PowerPoint for prebid conference
- 4) Recommendation for Award
- 5) Certified Bid Tabulations
- 6) Conformed Documents

CONSTRUCTION ADMINISTRATION

This Task shall consist of construction phase services:

- Attend Preconstruction Conference
- Weekly Contractor's Meeting and Site Visit
- Construction Changes & Change Orders
- Review Shop Drawings
- Respond to RFIs
- Review MOT Changes
- Review and Approve Contractor's Pay Request
- Prepare Construction Management Plan
- Review and Assist with Materials Testing
- Review Contractor's Safety Plan and Compliance Document
- Perform Substantial and Final Inspections
- Prepare Record Drawings from Contractor Markups
- SWFWMD Closeout
- Assist in Obtaining Close-Out Documents



| | | | | | |
|--------------------------------|-----------|--------------------|-----------------------|--------------------|-----------------|
| Project: TPA TW A and Bridge 1 | Task | Project Summary | Manual Task | Start-only | Deadline |
| | Split | Inactive Task | Duration-only | Finish-only | Progress |
| | Milestone | Inactive Milestone | Manual Summary Rollup | External Tasks | Manual Progress |
| | Summary | Inactive Summary | Manual Summary | External Milestone | |

EXHIBIT B FEE ESTIMATE

| Project Fee Proposal - AECOM Team - Summary Sheet | | | | | | | | | | | | |
|-----------------------------------------------------|----------------------|----------------------|------------------------|------------------------|----------------------|---------------------|------------------------|----------------------|------------------------|---------|---------|----------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Basic Design Services | BDR | 30% | 60% | 90% | 100% | Bid & Award | Construction | Resident | Total | W/MBE % | % W/MBE | % Construction |
| Engineering & Preconstruction Services | Only | Design Dev. | Design Dev. | Const. Docs | Final Docs | Services | Administration | Inspection | | of Fee | Goal | Cost |
| AECOM Technical Services | \$ - | \$ 323,517.28 | \$ 509,360.52 | \$ 506,472.56 | \$ 212,048.60 | \$ 32,408.72 | \$ 471,975.96 | \$ 433,262.50 | \$ 2,489,046.14 | | | 43,904,000 |
| AVCON, Inc. | \$ - | \$ 136,997.64 | \$ 225,015.20 | \$ 224,074.96 | \$ 121,387.32 | \$ 11,697.52 | \$ 177,629.44 | \$ 528,885.00 | \$ 1,425,687.08 | 36.24% | 23.00% | 13.18% |
| TY Lin International | \$ 124,544.00 | \$ 191,861.70 | \$ 309,330.60 | \$ 319,018.90 | \$ 45,397.40 | \$ 10,564.00 | \$ 198,770.00 | \$ - | \$ 1,199,486.60 | | | |
| Design Phase | \$ 124,544.00 | \$ 652,376.62 | \$ 1,043,706.32 | \$ 1,049,566.42 | \$ 378,833.32 | \$ 54,670.24 | \$ 848,375.40 | \$ 962,147.50 | \$ 5,114,219.82 | 36.24% | 23.00% | |
| Reimbursable Expenses | | | | | | | | | | | | |
| Northwest Surveying, Inc. | \$ 66,000.00 | | | | | | | | \$ 66,000.00 | | | |
| Tierra, Inc. | \$ 248,000.00 | | | | | | \$ 228,000.00 | | \$ 476,000.00 | | | |
| Omni Communication | \$ 84,000.00 | | \$ 45,000.00 | | | | | | \$ 129,000.00 | | | |
| Sub Total | \$ 398,000.00 | \$ - | \$ 45,000.00 | \$ - | \$ - | \$ - | \$ 228,000.00 | \$ - | \$ 671,000.00 | | | |
| Total Fee, Allowances, Reimbursable Expenses | \$ 522,544.00 | \$ 652,376.62 | \$ 1,088,706.32 | \$ 1,049,566.42 | \$ 378,833.32 | \$ 54,670.24 | \$ 1,076,375.40 | \$ 962,147.50 | \$ 5,785,219.82 | | | |

BDR Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | |
|-------------------------------------|----------------------------------------------------|-----------|-------|--------------|--------------|----------|------|------|------|------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | |
| Scope/Task | | Principal | PM | SE | E | Sr. Tech | | | | | Total |
| | | Hours | Hours | Hours | Hours | Hours | | | | | |
| Basic Design Services | | | | | | | | | | | |
| Task - 15% BDR only - TY LIN | | | | | | | | | | | |
| | Kickoff Meeting & Badging | | | 4 | 4 | | | | | | 8 |
| | Review Design Schedule | | | 8 | 4 | | | | | | 12 |
| | Review Meetings with Minutes | | | 8 | | | | | | | 8 |
| | Structural Design Criteria | | | 8 | 4 | | | | | | 12 |
| | Preliminary Geometrics - Conceptual layout (HC,VC) | | | 24 | 48 | | | | | | 72 |
| | Geotechnical Coordination | | | 8 | 4 | | | | | | 12 |
| | Utility coordination | | | 4 | 2 | | | | | | 6 |
| | Airside Engineering coordination | | | 8 | 4 | | | | | | 12 |
| | Superstructure Alternatives (Spans 1 & 2) | | | 120 | 60 | | | | | | 180 |
| | Superstructure Alternatives (Span 3) | | | 80 | 40 | | | | | | 120 |
| | Foundation Alternatives (Piles, Drilled Shaft) | | | 24 | 60 | | | | | | 84 |
| | Quantities for Cost Comparison | | | 20 | 60 | | | | | | 80 |
| | Report Preparation and Submittal Package | | | 40 | 20 | | | | | | 60 |
| | Quality Assurance Check (5%) | | | 24 | 16 | | | | | | 40 |
| | Subtotal Hours | - | - | 380.00 | 326.00 | - | - | - | - | - | 706 |
| | Rate | | | \$ 75.00 | \$ 50.00 | \$ 40.00 | | | | | |
| | Subtotal Direct Labor | \$ - | \$ - | \$ 28,500.00 | \$ 16,300.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 44,800.00 |
| | Subtotal Burdened Labor @ | | 2.78 | | | | | | | | \$ 124,544.00 |

30% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-----------------------------------|-----------------------------------------|-----------|-------|-------|--------------|--------------|-------------|-------|-------|-------|------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | Principal | PM | SE | E | Sr. Tech | 0% | 0% | 0% | 0% | | Total |
| | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | | |
| Basic Design Services | | | | | | | | | | | | |
| Task -30% DesignTY LIN | | | | | | | | | | | | |
| | Review Meetings, Coordination, Comments | | | 60 | 4 | | | | | | | 64 |
| | General Layout Design and Plans | | | 17 | 26 | 24 | | | | | | 67 |
| | End Bent Design and Plans | | | 16 | 36 | 20 | | | | | | 72 |
| | Pier Design and Plans | | | 30 | 50 | 50 | | | | | | 130 |
| | Longitudinal Analysis | | | 210 | 122 | 0 | | | | | | 332 |
| | Transverse Analysis | | | 90 | 44 | 0 | | | | | | 134 |
| | Superstructure Design | | | 60 | 32 | 0 | | | | | | 92 |
| | Superstructure Plans | | | 20 | 40 | 60 | | | | | | 120 |
| | Post-Tensioning Details | | | 0 | 0 | 0 | | | | | | 0 |
| | Miscellaneous Details | | | 4 | 8 | 12 | | | | | | 24 |
| | Reinforcing Bar Lists | | | 0 | 0 | 0 | | | | | | 0 |
| | Walls | | | 6 | 14 | 44 | | | | | | 64 |
| | Technical Specifications | | | 0 | 0 | 0 | | | | | | 0 |
| | Quantities and cost Estimating Support | | | 0 | 0 | 0 | | | | | | 0 |
| | Quality Assurance Check (5%) | | | 26 | 19 | 11 | | | | | | 56 |
| | | | | | | | | | | | | 0 |
| | Subtotal Hours | | - | - | 539.00 | 395.00 | 221.00 | - | - | - | - | 1155 |
| | Rate | | \$ - | \$ - | \$ 75.00 | \$ 50.00 | \$ 40.00 | \$ - | \$ - | \$ - | \$ - | |
| | Subtotal Direct Labor | | \$ - | \$ - | \$ 40,425.00 | \$ 19,750.00 | \$ 8,840.00 | \$ - | \$ - | \$ - | \$ - | \$ 69,015.00 |
| | Subtotal Burdened Labor @ | | | 2.78 | | | | | | | | \$ 191,861.70 |

60% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-----------------------------------------|--|--|-----------|-------|--------------|--------------|--------------|-------|-------|-------|-------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | | Principal | PM | SE | E | Sr. Tech | 0% | 0% | 0% | 0% | Total |
| | | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | |
| Basic Design Services | | | | | | | | | | | | |
| Task - 60% Design TY LIN | | | | | | | | | | | | |
| Review Meetings, Coordination, Comments | | | | | 60 | 12 | 24 | | | | | 96 |
| General Layout Design and Plans | | | | | 15 | 31 | 48 | | | | | 94 |
| End Bent Design and Plans | | | | | 28 | 50 | 26 | | | | | 104 |
| Pier Design and Plans | | | | | 52 | 64 | 48 | | | | | 164 |
| Longitudinal Analysis | | | | | 276 | 200 | 0 | | | | | 476 |
| Transverse Analysis | | | | | 152 | 76 | 0 | | | | | 228 |
| Superstructure Design | | | | | 104 | 74 | 0 | | | | | 178 |
| Superstructure Plans | | | | | 8 | 30 | 64 | | | | | 102 |
| Post-Tensioning Details | | | | | 14 | 28 | 60 | | | | | 102 |
| Miscellaneous Details | | | | | 7 | 16 | 28 | | | | | 51 |
| Reinforcing Bar Lists | | | | | 0 | 0 | 0 | | | | | 0 |
| Walls | | | | | 9 | 28 | 52 | | | | | 89 |
| Technical Specifications | | | | | 32 | 16 | 0 | | | | | 48 |
| Quantities and cost Estimating Support | | | | | 20 | 48 | 0 | | | | | 68 |
| Quality Assurance Check (5%) | | | | | 39 | 34 | 18 | | | | | 91 |
| | | | | | | | | | | | | 0 |
| Subtotal Hours | | | - | - | 816.00 | 707.00 | 368.00 | - | - | - | - | 1891 |
| Rate | | | \$ - | \$ - | \$ 75.00 | \$ 50.00 | \$ 40.00 | \$ - | \$ - | \$ - | \$ - | |
| Subtotal Direct Labor | | | \$ - | \$ - | \$ 61,200.00 | \$ 35,350.00 | \$ 14,720.00 | \$ - | \$ - | \$ - | \$ - | \$ 111,270.00 |
| Subtotal Burdened Labor @ | | | | 2.78 | | | | | | | | \$ 309,330.60 |

90% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-----------------------------------------------|--|-----------|-----------|--------------|--------------|--------------|--------------|-------------|------|------|-------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | Principal | PM | Sr. AE | AE | Sr. Design | Admin | | | | Total | |
| Basic Design Services | | | | | | | | | | | | |
| Task - 90% Design AECOM | | | | | | | | | | | | |
| Incorporate Comments from 60% Review | | | 4 | 8 | 16 | 24 | 8 | | | | 60 | |
| Incorporate Value Engineering Recommendations | | | 4 | 4 | 24 | 40 | | | | | 72 | |
| Project Management | | 2 | 40 | 40 | | | 40 | | | | 122 | |
| Meetings | | 2 | 40 | 24 | 16 | | 60 | | | | 142 | |
| Cost Estimates and Scheduling | | | 8 | 24 | 24 | 8 | | | | | 64 | |
| General Sheets | | | 2 | 16 | 24 | 40 | | | | | 82 | |
| Demolition Plans | | | 2 | 16 | 40 | 80 | | | | | 138 | |
| Drainage and Permitting | | | 2 | 40 | 60 | 80 | | | | | 182 | |
| Roadway Drainage and Grading | | | 2 | 16 | 40 | 80 | | | | | 138 | |
| Utility Plans | | | 2 | 24 | 80 | 40 | | | | | 146 | |
| Utility Profiles | | | 2 | 24 | 80 | 40 | | | | | 146 | |
| Airfield Grading and Drainage | | | 2 | 40 | 60 | 80 | | | | | 182 | |
| Underdrain Design | | | 2 | 24 | 40 | 40 | | | | | | |
| Underdrain Details | | | 2 | 24 | 40 | 40 | | | | | | |
| Drainage Details | | | 2 | 16 | 24 | 40 | | | | | 82 | |
| Pavement Design | | | 8 | 24 | 24 | 12 | | | | | 68 | |
| Pavement Details | | | 2 | 16 | 16 | 24 | | | | | 58 | |
| Airfield Lighting Plans | | | 2 | 40 | 60 | 40 | | | | | 142 | |
| Airfield Circuitry Plans | | | 2 | 60 | 80 | 40 | | | | | 182 | |
| Airfield Lighting Details | | | 2 | 16 | 24 | 40 | | | | | 82 | |
| Vault Plans and Details | | | 2 | 16 | 24 | 8 | | | | | 50 | |
| ATCT ALCS Modifications | | | 2 | 16 | 24 | 8 | | | | | 50 | |
| Bridge Lighting Plans | | | 2 | 40 | 60 | 80 | | | | | 182 | |
| Bridge Lighting Details | | | 2 | 40 | 40 | 80 | | | | | 162 | |
| Erosion Control and Grassing Plans | | | 2 | 16 | 16 | 8 | | | | | 42 | |
| Erosion Control and Grassing Details | | | 2 | 16 | 16 | 8 | | | | | 42 | |
| QA/QC Structural Design | | | 2 | 120 | 160 | 8 | | | | | 290 | |
| QA/QC AECOM Design | | | 16 | 40 | 40 | 40 | | | | | 136 | |
| Prepare 90% Specifications | | | 16 | 24 | 40 | | 60 | | | | 140 | |
| Submit Draft Engineer's Report | | | 4 | 16 | 24 | 40 | 40 | | | | 124 | |
| | | | | | | | | | | | 0 | |
| Subtotal Hours | | | 4.00 | 182.00 | 840.00 | 1,216.00 | 1,068.00 | 208.00 | - | - | - | 3306 |
| Rate | | | \$ 100.00 | \$ 70.00 | \$ 67.00 | \$ 55.00 | \$ 40.00 | \$ 28.00 | \$ - | \$ - | \$ - | |
| Subtotal Direct Labor | | | \$ 400.00 | \$ 12,740.00 | \$ 56,280.00 | \$ 66,880.00 | \$ 42,720.00 | \$ 5,824.00 | \$ - | \$ - | \$ - | \$ 184,844.00 |
| Subtotal Burdened Labor @ | | | | 2.74 | | | | | | | | \$ 506,472.56 |

90% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-----------------------------------------|-------|-----------|-------|--------------|-------------|-------------|-------|-------|-------|-------|---------------|--|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | Principal | PM | SE | E | Sr. Tech | 0% | 0% | 0% | 0% | Total | |
| Task -90% Design TY LIN | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | |
| Basic Design Services | | | | | | | | | | | | |
| Review Meetings, Coordination, Comments | | | | 52 | 20 | 48 | | | | | 120 | |
| General Layout Design and Plans | | | | 19 | 36 | 36 | | | | | 91 | |
| End Bent Design and Plans | | | | 40 | 72 | 32 | | | | | 144 | |
| Pier Design and Plans | | | | 45 | 50 | 36 | | | | | 131 | |
| Longitudinal Analysis | | | | 368 | 254 | 0 | | | | | 622 | |
| Transverse Analysis | | | | 148 | 72 | 0 | | | | | 220 | |
| Superstructure Design | | | | 100 | 66 | 0 | | | | | 166 | |
| Superstructure Plans | | | | 7 | 20 | 44 | | | | | 71 | |
| Post-Tensioning Details | | | | 9 | 14 | 40 | | | | | 63 | |
| Miscellaneous Details | | | | 7 | 15 | 17 | | | | | 39 | |
| Reinforcing Bar Lists | | | | 20 | 60 | 20 | | | | | 100 | |
| Walls | | | | 4 | 8 | 10 | | | | | 22 | |
| Technical Specifications | | | | 8 | 4 | 0 | | | | | 12 | |
| Quantities and cost Estimating Support | | | | 8 | 16 | 0 | | | | | 24 | |
| Quality Assurance Check (5%) | | | | 42 | 35 | 14 | | | | | 91 | |
| | | | | | | | | | | | 0 | |
| Subtotal Hours | | - | - | 877.00 | 742.00 | 297.00 | - | - | - | - | 1916 | |
| Rate | | \$ - | \$ - | \$ 75.00 | \$ 50.00 | \$ 40.00 | \$ - | \$ - | \$ - | \$ - | | |
| Subtotal Direct Labor | | \$ - | \$ - | \$ 65,775.00 | \$37,100.00 | \$11,880.00 | \$ - | \$ - | \$ - | \$ - | \$ 114,755.00 | |
| Subtotal Burdened Labor @ | | | | | 2.78 | | | | | | \$ 319,018.90 | |

100% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | | |
|-----------------------------------------------------------|--|--|-------------|-------------|-------------|--------------|-------------|-------------|------|------|------|--|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | | |
| Scope/Task | | | Principal | SPM | SE | E | Designer | Admin | | | | | Total |
| | | | Hours | Hours | Hours | Hours | Hours | Hours | | | | | |
| Basic Design Services | | | | | | | | | | | | | |
| Task - 100% Design AVCON | | | | | | | | | | | | | |
| Project Management | | | 2 | 24 | | | | 24 | | | | | 50 |
| Meetings | | | 2 | 8 | 0 | 8 | | 8 | | | | | 26 |
| Field Visits | | | | 8 | 8 | | | | | | | | 16 |
| Phasing Sheets | | | | 2 | 4 | 8 | | | | | | | 14 |
| CSPP | | | | 2 | 4 | 8 | | 8 | | | | | 22 |
| Identify and Coordinate - Modification of Standards (MOS) | | | | 2 | 4 | | | | | | | | 6 |
| Roadway Plans | | | | 2 | 8 | 16 | 24 | | | | | | 50 |
| Roadway Profiles | | | | 2 | 8 | 24 | 24 | | | | | | 58 |
| Roadway Typical Sections | | | | 2 | 2 | 8 | 16 | | | | | | 28 |
| Maintenance of Traffic | | | | 2 | 4 | 16 | 24 | | | | | | 46 |
| Roadway Signage and Marking | | | | 2 | 8 | 24 | 24 | | | | | | 58 |
| Airfield Geometry | | | | 2 | 8 | 24 | | | | | | | 34 |
| Airfield Joint Layout Plans | | | | 2 | 12 | 24 | | | | | | | 38 |
| Airfield Marking Plans | | | | 1 | 4 | 8 | 16 | | | | | | 29 |
| Airfield Marking Details | | | | 1 | 4 | 8 | 16 | | | | | | 29 |
| Airfield Signage Plans, Schedule, and Details | | | | 2 | 8 | 16 | 24 | | | | | | 50 |
| Temporary Fencing Plans | | | | 1 | 2 | 8 | 16 | | | | | | 27 |
| Final Fencing Plans | | | | 1 | 8 | 16 | 24 | | | | | | 49 |
| Fencing Details | | | | 1 | 4 | 8 | 16 | | | | | | 29 |
| Final Specifications | | | | 2 | | 24 | | 8 | | | | | 34 |
| Independent Quantity Take-offs | | | | 4 | 8 | 8 | 16 | | | | | | 36 |
| Prepare Sections of Engineers Report | | | | 2 | 4 | 8 | | | | | | | 14 |
| QA/QC | | | 16 | 24 | 40 | 60 | | | | | | | 140 |
| QA/QC Deliverable | | | 16 | 16 | 16 | | | | | | | | 48 |
| Subtotal Hours | | | 36.00 | 115.00 | 168.00 | 324.00 | 240.00 | 48.00 | - | - | - | | 931 |
| Rate | | | \$ 76.00 | \$ 57.00 | \$ 52.00 | \$ 46.00 | \$ 30.00 | \$ 30.00 | \$ - | \$ - | \$ - | | |
| Subtotal Direct Labor | | | \$ 2,736.00 | \$ 6,555.00 | \$ 8,736.00 | \$ 14,904.00 | \$ 7,200.00 | \$ 1,440.00 | \$ - | \$ - | \$ - | | \$ 41,571.00 |
| Subtotal Burdened Labor @ | | | | 2.92 | | | | | | | | | \$ 121,387.32 |

100% Design Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|-----------------------------------------|--|--|-----------|-------|-------------|-------------|-------------|-------|-------|-------|-------|--------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | |
| Scope/Task | | | Principal | PM | SE | E | Sr. Tech | 0% | 0% | 0% | 0% | Total |
| | | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | |
| Basic Design Services | | | | | | | | | | | | |
| Task - 100% Design TY LIN | | | | | | | | | | | | |
| Review Meetings, Coordination, Comments | | | | | 20 | 12 | 24 | | | | | 56 |
| General Layout Design and Plans | | | | | 6 | 13 | 10 | | | | | 29 |
| End Bent Design and Plans | | | | | 6 | 6 | 4 | | | | | 16 |
| Pier Design and Plans | | | | | 9 | 9 | 5 | | | | | 23 |
| Longitudinal Analysis | | | | | 0 | 0 | 0 | | | | | 0 |
| Transverse Analysis | | | | | 0 | 0 | 0 | | | | | 0 |
| Superstructure Design | | | | | 0 | 0 | 0 | | | | | 0 |
| Superstructure Plans | | | | | 8 | 13 | 16 | | | | | 37 |
| Post-Tensioning Details | | | | | 6 | 10 | 12 | | | | | 28 |
| Miscellaneous Details | | | | | 3 | 8 | 11 | | | | | 22 |
| Reinforcing Bar Lists | | | | | 8 | 16 | 8 | | | | | 32 |
| Walls | | | | | 6 | 6 | 12 | | | | | 24 |
| Technical Specifications | | | | | 4 | 2 | 0 | | | | | 6 |
| Quantities and cost Estimating Support | | | | | 6 | 12 | 0 | | | | | 18 |
| Quality Assurance Check (5%) | | | | | 4 | 5 | 5 | | | | | 14 |
| | | | | | | | | | | | | |
| Subtotal Hours | | | - | - | 86.00 | 112.00 | 107.00 | - | - | - | - | 305 |
| Rate | | | \$ - | \$ - | \$ 75.00 | \$ 50.00 | \$ 40.00 | \$ - | \$ - | \$ - | \$ - | |
| Subtotal Direct Labor | | | \$ - | \$ - | \$ 6,450.00 | \$ 5,600.00 | \$ 4,280.00 | \$ - | \$ - | \$ - | \$ - | \$ 16,330.00 |
| Subtotal Burdened Labor @ | | | | 2.78 | | | | | | | | \$ 45,397.40 |

Construction Administration Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | |
|--------------------------------------------------|--|--|-----------|-------|--------------|--------------|-------------|-------|-------|-------|-------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | |
| Scope/Task | | | Principal | PM | SE | E | Sr. Tech | 0% | 0% | 0% | 0% | Total |
| | | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | |
| Basic Design Services | | | | | | | | | | | | |
| Task - CA Services - TY LIN | | | | | | | | | | | | |
| Weekly Contractor's Meeting & Site Visit | | | | | 208 | | | | | | | 208 |
| Perform substantial and final visual inspections | | | | | 8 | 8 | | | | | | 16 |
| Prepare as-builts from contractor markups | | | | | 12 | 24 | 40 | | | | | 76 |
| Prepare Punch list | | | | | 8 | | | | | | | 8 |
| Perform 26 Field Visits to Observe Construction | | | | | 156 | | | | | | | 156 |
| Review RFIs and Answer Questions | | | | | 80 | 100 | | | | | | 180 |
| Review Shop Drawings | | | | | 160 | 250 | | | | | | 410 |
| Issue for construction drawing | | | | | 24 | | 40 | | | | | 64 |
| | | | | | | | | | | | | 0 |
| Subtotal Hours | | | - | - | 656.00 | 382.00 | 80.00 | - | - | - | - | 1118 |
| Rate | | | \$ - | \$ - | \$ 75.00 | \$ 50.00 | \$ 40.00 | \$ - | \$ - | \$ - | \$ - | |
| Subtotal Direct Labor | | | \$ - | \$ - | \$ 49,200.00 | \$ 19,100.00 | \$ 3,200.00 | \$ - | \$ - | \$ - | \$ - | \$ 71,500.00 |
| Subtotal Burdened Labor @ | | | | 2.78 | | | | | | | | \$ 198,770.00 |

Resident Inspection Fee

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | | |
|-----------------------------------|---------------------------|--|-------------------------------------|---------------------------|---------------------|---------------------|----------------------|----------|------|------|------|------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | | |
| Scope/Task | | | Senior Construction Inspector | Construction Inspector | Airport Engineer | Airport Engineer | Graduate Engineer | Admin | | | | | Total |
| Basic Design Services | | | Hours | Hours | Hours | Hours | Hours | Hours | | | | | |
| Task - Resident Inspection AECOM | | | | | | | | | | | | | |
| 6.1 | Bridge Inspection hours | | | | | | | | | | | | 0 |
| | 52 Weeks @ 50hours/week | | 2,600 | | | | | | | | | | 2600 |
| | OT Premium | | 275 | | | | | | | | | | 275 |
| | | | | | | | | | | | | | 0 |
| | Subtotal Hours | | 2,875.00 | - | - | - | - | - | - | - | - | - | 2875 |
| | Rate | | \$ 55.00 | | \$ 45.00 | | \$ 35.00 | \$ 28.00 | | | | | |
| | Subtotal Direct Labor | | \$ 158,125.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 158,125.00 |
| | Subtotal Burdened Labor @ | | | 2.74 | | | | | | | | | \$ 433,262.50 |

| Project Fee Proposal - AECOM Team | | | | | | | | | | | | | |
|-----------------------------------|---------------------------|--|-------------------------------------|---------------|-------|-------|-------|-------|-------|-------|-------|------|---------------|
| New Taxiway A and Bridge | | | | | | | | | | | | | |
| HCAA Project Number 8825 18 | | | | | | | | | | | | | |
| 1/22/2018 | | | | | | | | | | | | | |
| Scope/Task | | | Senior Construction Inspector | | | | | | | | | | Total |
| Basic Design Services | | | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours | | |
| Task - Resident Inspection AVCON | | | | | | | | | | | | | |
| | Full Time straight hours | | | | | | | | | | | | 0 |
| | 76 Weeks @ 50hours/week | | | 3800 | | | | | | | | | 3800 |
| | OT Premium | | | 225 | | | | | | | | | 225 |
| | | | | | | | | | | | | | 0 |
| | Subtotal Hours | | - | 4,025.00 | - | - | - | - | - | - | - | - | 4025 |
| | Rate | | | \$ 45.00 | | | | | | | | | |
| | Subtotal Direct Labor | | \$ - | \$ 181,125.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 181,125.00 |
| | Subtotal Burdened Labor @ | | | 2.92 | | | | | | | | | \$ 528,885.00 |

EXHIBIT A SCOPE OF SERVICES

1. DESCRIPTION OF THE PROJECT

The purpose of this project is to design and construct a new Crossfield Taxiway A, parallel to Taxiway B, from Taxiway V to Taxiway C, at the Tampa International Airport. Currently, Taxiway B and Taxilane A serve as the two Crossfield taxiing routes North of the terminal area. Taxilane A is an at-grade crossing - connecting Airside C and D, whereas Taxiway B is a bridge Taxiway connecting Taxiway V to Taxiway C.

Because shuttles need to bus HCAA employees to/from the employee parking lot North of the Airport from/to the terminal continuously throughout the day, there is currently interference of the active aircraft area with non-aircraft related traffic, generating thereby a potential safety and security risk for the Airport.

In order to reduce this risk, HCAA has undertaken to elevate the second crossing route north of the Airport in accordance with the latest Master Plan layout and build a new Taxiway A North of Taxiway B. The current Taxilane A will be terminated on either side of the existing roadway crossing between the two Airsides and the taxilane will be re-named.

The project also includes the re-configuration of service roads with associated security system to provide for secured AOA access to the airside for authorized personnel, and non-AOA access from the employee parking lot to the terminal.

2. SCOPE OF SERVICES TO BE PERFORMED BY AVCON

AVCON will be responsible for the completion of the following tasks:

Base File Development:

AVCON will prepare and update a CADD base file to be used by the project team throughout the project. To complete this task, AVCON will integrate relevant information gathered from record files from the Airport and from the topographical survey/SUE specifically commissioned for this project.

Phasing:

AVCON will prepare construction plans for the different phases of work during construction. The plans will be prepared to to maximize work areas for the Contractor while maintaining continuity of operations for some of the Airport's stakeholders. For instance, it is anticipated that some level of continuity of operation will be needed by airlines, HCAA Operations, air cargo handlers between Airside D and the North Cargo Area, ARFF and employee shuttle operations. AVCON will coordinate the stakeholders' needs with AECOM and HCAA.

The phasing plan will also be developed in accordance to closure restrictions and requirements specified in FAA AC 150/5370-2G Operational Safety on Airports During Construction.

Airfield Geometry:

AVCON will determine the geometry of the new Taxiway A and associated connectors. The preparation of the geometry will be in accordance with geometric and clearance requirements set forth in FAA AC150/5300-13A Airport Design. It is anticipated that the critical aircraft used for the geometry will be ADG V (B747-400) and TDG VI (B777-300), with occasional operations of the A380-800 (ADG VI/TDG VII).

Airfield Civil Engineering: Airfield Joint Layout Plans and Details

AVCON will be responsible for the design of the airfield joint layout of new PCC pavement. AVCON will also prepare the related joint details needed to support the proposed PCC pavement, including joint with asphaltic cement (ACC) and associated tie-ins with existing PCC and asphaltic pavement. AVCON shall also lay out the Taxiway centerline light base cans to minimize any light/joint conflicts and develop paving details to address these.

Airfield Marking Plans and Details

AVCON will provide construction documents for the marking of Taxiway A and associated taxiway connectors. The documents will also include modifications to markings necessary on Airsides C and D, with the interruption of Taxiway A. Marking details will be provided to clarify the specificities of each type of marking and marking intersection.

All markings will be designed in accordance with FAA AC150/5340-1L Standards for Airport Markings.

Airfield Signage Plan

AVCON will develop the overall Airfield Signage Plan for the project as well as airside areas impacted by the change of name for Taxiway A. A signage schedule will be developed identifying the existing and proposed changes to the signage. This effort shall be coordinated with AECOM and HCAA.

Roadway Civil Engineering:

AVCON will be responsible for the design of the new service road configuration under Taxiway A and B. The new configuration will provide for a secured AOA access road to Airsides C and D to authorized personnel, and a non-AOA access road to the employee shuttles. Construction plans will include demolition, paving and geometry plans of new roads. AVCON will also be responsible for the road profile sheets, typical sections and typical details.

Roadway Design, including Signing and Marking and Maintenance of Traffic, will typically follow 2018 FDOT Design Manual (FDM) and 2018 FDOT Standard Specifications, as well as MUTCD requirements. At a minimum, design will meet requirements set forth in the 2016 Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Street and Highways (Florida Greenbook).

Roadway Signage and Marking:

Upon completion of the new configured service road system, AVCON will provide signage and marking construction documents associated with the new configuration. Plans will include signage and marking plans, as well as signage and marking details.

Maintenance of Traffic:

It is anticipated that cargo handlers operating out of the North Cargo Area will need to maintain access from that facility to the Airside D ramp; employee shuttles will need to continue to bus employees to the terminal from the employee parking lot; HCAA Airport Operations will need to continue to have access to service roads for daily inspections and operations and emergency services will need to continue to have prompt access to airside. The MOT plan will provide for safe operations within the significant construction zone and the on-going service road system.

AVCON will design a Maintenance of Traffic plan in coordination with AECOM and HCAA to maintain continuity of vehicular traffic to appropriate stakeholders, in the vicinity and through the Taxiway A construction area.

Temporary and Permanent AOA Fencing:

Should HCAA concur, AVCON will design temporary AOA fencing plans that will maximize to the extent possible the Contractor's work areas outside of the AOA. This approach will reduce safety and security risks with the Contractor's employees and equipment outside of the AOA area for extended periods of time. It will also accelerate the construction duration as less time will be needed for the Contractor at gates and checkpoints.

AVCON will also prepare a final AOA fencing plan and details, with the final layout of the AOA fence upon completion of the project.

Modifications of Standards:

AVCON will prepare and submit Modifications of Standards that may be desired by the HCAA or the design team.

Construction Safety and Phasing Plan (CSPP):

In accordance with FAA AC5370-2G Safety on Airports during Construction, a CSPP must be submitted for each on-airport project of projects funded by the Airports Improvement Program (AIP) or for airports certificated under Part 139. A CSPP is therefore required for this project; AVCON will prepare and submit the said CSPP.

FAA Coordination: 7460

AVCON will prepare and submit Form 7460-1 as required by the FAA for federally funded projects on airport property.

QA/QC:

AVCON will conduct a QA/QC of all their deliverables per their internal QA/QC plan.

Tampa International Airport
New T/W A and Bridge
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AVCON will also conduct a QA/QC the entire of the entire deliverable submittal of the team prior to submitting them to HCAA. An exception will be made for the Structural Design that will be QA'd by others.

Construction Inspection:

AVCON will provide one senior airfield construction inspector to assist throughout the duration of the project the lead Construction Inspector provided by HCAA.

3. SCHEDULE

AVCON shall complete their tasks per AECOM's schedule dated 1-10-18.

4. MILESTONES AND DELIVERABLES:

➤ **30% Design Development:**

AVCON will complete the tasks below related to the 30% Design Development:

30% Design Plans:

The sheets anticipated for this stage of Design are the following:

- Construction Phasing Plans
- Airfield Geometry
- Roadway Plan
- Maintenance of Traffic
- Temporary Fencing Plans

30% Deliverables:

- 30% Design Plans – PDF
- 30% Cost Estimates - Excel
- QA/QC Comments on internal 30% QA/QC – PDF

➤ **60% Design Development:**

AVCON will complete the tasks below related to the 60% Design Development:

60% Design Plans:

The sheets anticipated for this stage of Design are the following:

- Construction Phasing Plans
- Airfield Geometry Plan Plans
- Airfield Joint Layout Plans
- Airfield Lighting/Joint Conflicts
- Airfield Joint Layout Details
- Airfield Marking Plans
- Airfield Marking Details
- Roadway Demolition Plans
- Roadway Geometry and Paving Plans
- Roadway Profiles

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- Roadway Typical Sections
- Roadway Pavement Details
- Maintenance of Traffic Plans
- Temporary Fencing Plans
- Final Fencing Plan
- Fencing Details

60% Deliverables:

- 60% Design Plans – PDF
- Technical Specifications – PDF
- 60% Cost Estimates - Excel
- Draft CSPP - PDF
- Draft MOS - PDF
- Relevant sections of 60% Engineer's Report – Word
- QA/QC comments on internal 60% QA/QC - PDF

➤ **90% Design Development:**

AVCON will complete the tasks below related to the 90% Design Development:

90% Design Plans:

The sheets anticipated for this stage of Design are the following:

- Construction Phasing Plans
- Airfield Geometry Plan Plans
- Airfield Joint Layout Plans
- Airfield Joint/Light Conflicts
- Airfield Joint Layout Details
- Airfield Marking Plans
- Airfield Marking Details
- Roadway Demolition Plans
- Roadway Geometry and Paving Plans
- Roadway Profiles
- Roadway Typical Sections
- Roadway Pavement Details
- Maintenance of Traffic Plans
- Temporary Fencing Plans
- Final Fencing Plan
- Fencing Details

90% Deliverables:

- 90% Design Plans – PDF
- Technical Specifications – PDF
- 90% Cost Estimates - Excel
- CSPP - PDF
- Revised MOS – PDF

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- 7460 - online
- Relevant sections of 90% Engineer's Report - Word
- QA/QC comments on internal 90% QA/QC - PDF

➤ **100% Design Development:**

AVCON will complete the tasks below related to the 100% Design Development:

100% Design Plans:

The sheets anticipated for this stage of Design are the following:

- Construction Phasing Plans
- Airfield Geometry Plan Plans
- Airfield Joint Layout Plans
- Airfield Joint/Light Conflicts
- Airfield Joint Layout Details
- Airfield Marking Plans
- Airfield Marking Details
- Roadway Demolition Plans
- Roadway Geometry and Paving Plans
- Roadway Profiles
- Roadway Typical Sections
- Roadway Pavement Details
- Maintenance of Traffic Plans
- Temporary Fencing Plans
- Final Fencing Plan
- Fencing Details

100% Deliverables:

- 100% Design Plans – PDF
- Technical Specifications – PDF
- 100% Cost Estimates - Excel
- Final CSPP - PDF
- Relevant sections of Final Engineer's Report - Word
- QA/QC comments on internal 100% QA/QC – PDF

➤ **Bid and Award Services:**

This task presents the services to be performed by AVCON during the bidding and award phases of the project. Services are the following:

- Assist in Addenda Preparations (includes responses to questions during bidding as relevant)
- Attend Pre-Bid Conference
- Evaluate Portions of bids relevant to AVCON's services in this project
- Issue Conformed Documents

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Bid and Award Deliverables:

- Relevant Sections of Addenda
- Conformed Set of Plans
- Conformed Set of Technical Specifications

➤ **Construction Administration Services:**

Below are the services to be provided by AVCON as part of the Construction Administration task:

- Attend Pre-Con Conference
- Periodically Attend Weekly Contractor's Meeting and Site Visit
- Review Shop Drawings
- Respond to RFIs
- Assist with Construction Changes and Change Orders
- Prepare relevant section of Construction Management Plan
- Review Contractor's Safety and Compliance Plan
- Perform substantial and final inspections

- Prepare Record Drawings from Contractor's mark-ups.

Construction Administration Deliverables:

- Response to RFIs
- Record Drawings

➤ **Construction Inspection Services:**

AVCON will provide one senior airfield construction inspector to assist HCAA's lead construction inspector throughout the duration of the project. AVCON's inspector will monitor the Contractor's on-site construction activities and will inspect materials utilized throughout the project for compliance with the contract documents. He will also keep accurate and detailed records of the Contractor's daily operations.

January 8, 2018

Dennis G. Combs, PE
Senior Project Manager, Aviation
AECOM
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-1462

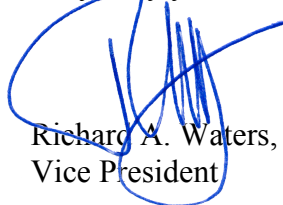
Re: Fee Proposal for New Taxiway A Bridge, Project No. 8825 18
Tampa International Airport

Dear Mr. Combs:

Thank you for the opportunity to submit this proposal for engineering services at Tampa International Airport (TPA). T.Y. Lin International (TYLI) hereby proposes to provide professional services related to the preparation of plans and specifications for the Taxiway A Bridge at TPA as described in Hillsborough County Aviation Authority (HCAA) Solicitation Number 17-411-828. TYLI's proposed Scope of Services for the project specifically relate to the proposed taxiway bridge, as further described in Exhibit A. We hereby propose to provide these services on at time and materials basis for a not-to-exceed fee of \$1,199,486.60, based on the estimated man-hour effort attached as Exhibit B.

We sincerely appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you have any questions or comments regarding this proposal, please do not hesitate to contact me.

Very truly yours,



Richard A. Waters, P.E.
Vice President

EXHIBIT A SCOPE OF SERVICES

1. DESCRIPTION OF THE PROJECT

Taxiway A will provide for a new cross-field taxiway located north of and parallel to existing Taxiway B. It is anticipated that the new bridge will be similar to the existing Taxiway B bridge which accommodates future North Terminal roadways, service roads and people mover systems.

2. SCOPE OF SERVICES TO BE PERFORMED BY TYLI

The services to be provided by TYLI for this project consist of the following:

- a. Prepare structural design criteria for approval by the owner. As a minimum, the taxiway bridge will be designed to accommodate Aircraft Design Group (ADG) V, which includes the Boeing 747-400, Boeing 777 and Airbus A340.
- b. Prepare Bridge Development Report (BDR): Feasible structure types will be evaluated based on construction costs, maintenance costs, structure feasibility. Taxiway Bridge Alternatives considered shall include post-tensioned box, pre-stressed concrete box beams with CIP Slab for the two large spans and CIP Slab for the short span. Foundation alternatives will also be investigated such as pre-stressed concrete piles and drilled shafts. A technical memorandum will be prepared summarizing the evaluation and include final recommendation for structure type with due consideration to all applicable data to support the recommendation.
- c. Prepare Basis of Design Report (BDR), design development phase (30%), 60%, 90%, and 100% submittals of design drawings. Prepare bridge construction phasing schematic as part of the design drawings.
- d. Prepare preliminary engineer's report at BDR and final engineer's report at 100% design.
- e. Wall design: design and prepare plans for permanent MSE walls and temporary sheet pile walls.
- f. Attend meetings to coordinate the project requirements.

- g. Coordinate the design with geotechnical engineer on foundation strengths and options. Coordinate with airfield engineer vertical and horizontal layout to confirm proper clearances and requirements. Coordinate with utility engineers regarding the existing utilities to be impacted by new bridge.
- h. Provide assistance in preparing bridge construction cost estimates at 30%, 60%, 90% and 100% submittals.
- i. Prepare outline technical specifications at 30% and technical specifications at 60%, 90% and 100% submittals.
- j. Prepare documents for QA/QC review.
- k. Bid & Award Services: Provide assistance in preparing addendums, attend pre-bid conference, review presentation and incorporate comments.
- l. Provide construction administration services to include the following: Attend a pre-construction conference and make bi-weekly site visits to observe the work in progress. Provide interpretation of the plans and specifications, review and respond to requests for information, review requests for change orders and review shop drawings. Prepare Punch list and perform a substantial and final engineering inspection. Prepare as-built drawings from contractor markups.

3. ITEMS NOT INCLUDED

Geotechnical work or material testing, surveying, airfield civil engineering, utility engineering, safety and security fencing design, airfield lighting design, electrical engineering, drainage engineering, permitting, preparing and submitting FAA documentation such as Construction Safety and Phasing Plans (CSPP), Safety Risk Management (SRM) and Safety Risk Management Decision Memorandum (SRMDM) and construction resident inspection.

4. ASSUMPTIONS

All work product to be prepared in AutoCAD and/or Microsoft Office computer programs.

5. INFORMATION TO BE PROVIDED TO TYLI

- a. Applicable Client requirements and criteria.
- b. Topographic survey.

- c. Civil background CAD files in electronic format.
- d. Geotechnical information required for bridge design.
- e. Proposed taxiway alignment and centerline profile.
- f. Location and depth of embedded infrastructure, including airfield lighting, electrical conduit, drainage piping and/or utilities.

6. PROJECT SCHEDULE

The proposed schedule for completion of the project is included as Exhibit C.

7. DELIVERABLES

Deliverables for this project will be based on standard HCAA deliverable requirements.

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December 14, 2017

AECOM

7650 W. Courtney Campbell Causeway, Suite 700
Tampa, FL 33607
Attn: Dennis Combs P.E.

**RE: TIA – Taxiway A and Bridge
Price Proposal SUE Services**

Dear Mr. Combs:

In accordance with your request, OMNI Communications, LLC (OMNI) is pleased to submit our proposal to provide Subsurface Utility Engineering (SUE) services to AECOM for the above named project.

DESCRIPTION OF SERVICES:

OMNI will mark the horizontal position of all underground utilities detected using electromagnetic and ground penetrating radar (GPR). Our anticipated plan of action for this project is to establish horizontal and vertical control throughout the project site. As the designation and utility location progresses survey will locate all flagged/painted or staked marks as established by the SUE crews, along with the utility structures. OMNI will provide ample technicians, equipment, software and special tools to provide the requested digital utility file.

Designating (SUE Level B):

Electromagnetic (EM) induction is a method in which a transmitter signal is applied by directly coupling to a metallic target. A receiver is then used to detect the transmitted signal. Passive detection is another technique used to locate naturally occurring magnetic fields that exist on power cables generating a 50/60 Hz. signal. Additionally, very low frequency (VLF) signals can be detected on other metallic utilities that are typically long in length and are well grounded electrically. Some utility systems contain portions of non-metallic material and, therefore, we may not be able to locate using EM techniques. Ground Penetrating Radar (GPR) uses a high frequency radio signal that is transmitted into the ground and reflected signals are returned to the receiver for storage on digital media. The computer measures the time taken for a pulse to travel to and from the target indicating its depth and location. The reflected signals are interpreted by the system and displayed on the unit's LCD panel.

OMNI Assumptions (Designating):

- OMNI based this estimate on 75 acres.
- OMNI's field crews can designate and scan 3 acres per day.
- Utilities we anticipate on this project include: water, gas, TECO electric, Jet Fuel, reclaim, FOC, sewer and telephone.

Locating (SUE Level A):

Vacuum excavation is a technique used to safely expose utilities by using a combination of compressed and vacuum air. Once the utility has been exposed, depth, diameter, configuration and material type can be obtained.

Utilization of the above equipment and methods is the industry recognized procedure for designating underground utilities and features. Although effective and reliable, there is the possibility that all utilities may not be detected due to environmental conditions, soil conditions, water table, excessive depth and/or feature makeup.

OMNI Assumptions (Locating):

- OMNI based this estimate on 100 locates to be used as needed for potential utility conflicts.
- OMNI's field crews can perform 6 locates per day.
- OMNI estimated 15 of the 100 locates to be used for verifying utilities during the designating phase.

Office Support (Included in loaded rate):

- Processing all field collected data.
- QA/QC of all files and reports.
- Attend project associated meetings (external and internal).
- Gathering utility record or as-built drawings.
- Coordination with Sunshine 811.
- Produce a utility digital file.

**OMNI Communications, LLC
 PRICE PROPOSAL**

| SERVICES | QUANTITY | LOADED RATE | FEE |
|-------------------------|----------|--------------------|---------------------|
| Designating | 25 Days | \$2,516.00 Per Day | \$62,900.00 |
| Locating (Test Holes) | 17 Days | \$2,633.00 Per Day | \$44,761.00 |
| Survey 2 Man Field Crew | 12 Days | \$1,742.00 Per Day | \$20,904.00 |
| TOTAL | | | \$128,565.00 |

If you have any questions or need additional information please do not hesitate to contact me. Again, we appreciate this opportunity and look forward to working with you on this project.

Sincerely,



Shannon Wright
 SUE Manager

**GEOTECHNICAL INVESTIGATIONS
SCOPE OF WORK**

Project No. 6530 18 – North Air Cargo Apron and Taxiway

Project No. 8220 18 - Taxilane Extension & Site Preparation for Eastside MRO Development

Project No. 8825 18 – New Taxiway A and Bridge

AECOM Project No. 60561057

I. PROJECT INFORMATION

PROJECT TITLE: North Air Cargo Apron and Taxiway, Taxilane Extension & Site Preparation for Eastside MRO Development, New Taxiway A and Bridge

PROJECT LOCATION: Tampa International Airport, Tampa, Florida

PROJECT DESCRIPTIONS:

Project Name: **North Air Cargo Apron**

Project Description: The North Air Cargo facility redevelopment includes the following:

1. Construction of a connector taxiway between Taxiway V and the air cargo apron.
2. Rehabilitation of the existing cargo apron pavement.
3. Expansion of the existing cargo apron to provide three aircraft parking positions.
4. Extension of the jet fuel system piping to the cargo apron for truck fueling.

Project Name: **Taxilane Extension & Site Preparation for Eastside MRO Development**

Project Description: The Taxilane Extension and Site Preparation for the Eastside MRO project will consist of the following:

1. Site preparation and extension of Taxilane D5.
2. All associated drainage system improvements for Taxilane D5.
3. All utility modifications required to support a future MRO hangar facility.

Project Name: **New Taxiway A and Bridge**

Project Description: Taxiway A will provide for a new cross-field taxiway located north of and parallel to existing Taxiway B. It is anticipated that the new bridge will be similar to the existing

Taxiway B Bridge which accommodates future North Terminal roadways, service roads and people mover systems.

See the following attachments:

- a. **Taxiway A and Bridge Geotechnical Exhibit**
- b. **North Air Cargo Apron Geotechnical Exhibit**
- c. **Taxilane Extension & Site Preparation for Eastside MRO Development Geotechnical Exhibit**

II. GENERAL REQUIREMENTS

- A. Access to Site:** The Consultant shall be responsible for obtaining permission to enter the site and perform all required fieldwork. There are special access requirements to the airport and project work areas that will require coordination with airport staff. Some project areas are within aircraft operations areas (AOA) and will require coordination with airfield operations staff for access and driving requirements.
- B. Licenses and Permits:** The Consultant shall be responsible for obtaining any necessary licenses and permits, and for complying with all applicable laws, codes and regulations in connection with prosecution of the work.
- C. Safety Plan:** The Consultant shall prepare a project specific health and safety plan, and provide a copy to AECOM.
- D. Quality Plan:** The Consultant is responsible for the quality of the work they perform. A copy of the quality plan outlining the procedure to be followed in performing and reviewing the work shall be provided to AECOM.
- E. Ownership.** Design databases and all other files for this project shall become AECOM and HCAA property.
- F. Local Contact.** The Consultant may consult with the HCAA in matters concerning local conditions and operational procedures for the sites. Consultant's points of contact at the activity are:

To be determined, and provided to Consultant

- G. Scope.** The work required is the work indicated in the following description. Consultant is advised that no additional work, above and beyond what is listed herein, shall be performed without a modification of this contract issued by AECOM.

III. PROJECT REQUIREMENTS (GEOTECHNICAL INVESTIGATIONS)

A. Geotechnical Investigation – General Requirements

- 1. **Intent.** It is the intent of this contract to acquire a complete and accurate geotechnical

investigation for the project through boring logs, performing soil testing and incorporating this and other pertinent information into a comprehensive subsurface investigation report for the site.

2. **Responsibility.** A Registered Geotechnical Engineer shall be directly responsible for the proper execution of the work to be performed. All geotechnical work shall comply with applicable FDOT and FAA standards unless otherwise noted herein. The Geotechnical Engineer of Record shall advise AECOM if additional subsurface investigation and/or testing, above and beyond what is identified herein, is required to adequately provide the required design services.
3. **AECOM Points of Contact:** During the course of the contract, the Consultant shall seek clarification and guidance from and follow such instructions as may be issued to him by:

Contractual Issues: TBD when contracting is started

Technical Issues: Dennis Combs (813) 675-6513 dennis.combs@aecom.com

B. Geotechnical Investigation – Soil Borings

4. **Responsibility.** A fully qualified representative of the Registered Geotechnical Engineer shall be on the site during all boring and sampling operations.
5. **Boring Locations and Depths.** . Consultant shall provide an itemized breakout of quantities required for each of the 3 projects within the program.

North Air Cargo Apron:

- 40 borings (20 SPTs to 15 feet and 20 Hand Augers to 5 feet)
- 7 Concrete Pavement Cores (with 10-foot SPT to evaluate subgrade)
- 4 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

MRO Development

- 45 roadway borings (10 SPTs to 20 feet and 35 Hand Augers to 5 feet)
- 10 pond expansion borings (3 SPTs to 20 feet and 7 Hand Augers to 5 feet)
- 2 Concrete Pavement Cores (with 5-foot auger to evaluate subgrade)
- 4 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

Taxiway A

- 132 at-grade roadway borings (26 SPTs to 20 feet and 106 Hand Augers to 5 feet)
- 28 approach embankment/wall borings (28 SPTs to depths 20 feet to 50 feet)
- 12 Bridge Structure Borings (12 SPTs to a depth of 100 feet)
- 2 Box Culvert Extension Borings (2 SPTs to a depth of 25 feet)
- 6 Concrete Pavement Cores (with 5-foot auger to evaluate subgrade)
- 12 Asphalt Pavement Cores (with 5-foot auger to evaluate subgrade)

All three projects require CBR sampling and may require muck/clay/unsuitable soils delineations.

6. **Dig Permits.** A Dig Permit is not specifically required by Tampa International Airport. Consultant will verify requirements with the owner for soil borings.
7. **Subsurface Utilities:** Where appropriate, the Consultant shall have existing underground utilities, such as electric power, telephone/data/security systems (fiber and copper pathways), cable TV, gas, fuel, water, sewer, irrigation, and others, identified and marked by the owner or by a local utility locator service, if available, prior to commencement of work.
8. **Means & Methods.** Soil boring and sampling procedures and apparatus shall be in accordance with generally accepted engineering practice. The Standard Penetration test (SPT) soil borings shall be taken in accordance with ASTM D 1586. The Consultant shall determine and record the depth at which the ground water table is encountered, if encountered. . Upon completion of SPT borings, , the Consultant shall fill the remainder of the borehole with bentonite grout. If required by State or local regulations, boreholes must be grouted. Excess material shall be removed from the site by the Consultant and disposed of in accordance with all applicable Federal, State and local laws and regulations. Any borings/corings in paved areas shall be patched in kind. Upon completion of hand auger borings, the hand auger bore holes shall be backfilled with material removed from the borehole.

C. Geotechnical Investigation – Field Work Summary

1. Consultant shall provide an itemized breakdown for each project on SPT and auger borings, and pavement corings for review and approval.

D. Geotechnical Investigation – Testing

1. The Consultant shall perform all tests necessary to properly classify and evaluate existing soil conditions. At a minimum:
 - a. Each soil type encountered shall be classified in accordance with the Unified Soil Classification System (ASTM D 2487).
 - b. Moisture content test shall be performed in accordance with ASTM D 2216.
 - c. The moist and dry unit weights shall be determined for each soil profile encountered.
 - d. The unconfined compressive strength of cohesive soils shall be determined with unconfined compression tests (ASTM D 2166).
 - e. The Atterburg Limits (ASTM D 4318) shall be determined for cohesive soils encountered.
 - f. A statement shall be provided as to whether or not the site soils are considered expansive in accordance with 1802.3.2 of the International Building Code.
 - g. Particle size analyses (ASTM C 136 or ASTM D 422) shall be performed for each soil type encountered.
 - h. Consolidation tests in accordance with ASTM D 2435.
 - i. Soil resistivity tests on representative near surface soil samples.

E. Geotechnical Investigation – Submittals

1. Soil Boring Logs

- a. Prepare and submit soil-boring logs for each boring in both hard-copy and electronic format. Boring logs shall be shown to an appropriate scale and shall include a description of each soil type encountered (including Unified Soil Classification). For each boring, include ground surface elevation or depth if survey information is not available. For each soil type, include strata depth and thickness, depth to ground water table, standard penetration test blow counts, natural moisture content, percent fines, and Atterburg limits. Each boring log shall also include boring identification, date of boring, drill rig type, the name of the person who performed the boring and the name of the company that performed the test. Provide graphic scales, abbreviations, and legends that clearly define all symbols used. Lettering shall be all capitals and shall have a text height of not less than 0.1 inches (2.5 millimeters).
- b. **Electronic Format.** The Consultant shall provide 2 identical Compact Disks (CDs) each containing complete copies of the boring logs in a single AutoCAD Drawing File (.DWG file).

2. Geotechnical Investigation Report

- a. **Content.** A written report of the soils investigation shall include, but need not be

limited to the following:

- i. A dimensioned plot showing the location of test borings and/or excavations relative to local site features. Include road names and building numbers.
 - ii. A log of each boring shown individually on letter size sheets.
 - iii. The identification of the soils from the most recent USDA NRCS Soil Survey.
 - iv. Recommendations for foundation type, floor slab type and soil parameters to be used in design, including but not limited to: bearing capacity of natural or compacted soil; modulus of subgrade reaction, provisions to mitigate the effects of expansive soils; mitigation of the effects of liquefaction, differential settlement, and varying soil strength; minimum foundation depth for frost protection; and the effects of adjacent loads.
 - v. Expected total and differential settlement.
 - vi. Special design and construction provisions for footings, foundations or slabs founded on expansive soils, as necessary.
- b. **Format.** Compile all deliverables (i.e., main body of report, graphics, soil boring logs, test data, etc.) into a single complete report in both hard-copy and as an Adobe Acrobat (.PDF) document. The bulk of the main body of the report should be letter (8.5" by 11") size format, while graphical sheets may be letter, legal or tabloid-size format. Consultant shall coordinate with the Point of Contact listed above on any other issues related to the formatting and coordination of the report.
- c. **Paper Copies.** Provide two (2) paper copies of the complete report. Both paper copies shall be sealed by the registered geotechnical engineer who was directly responsible for the proper execution of the work.
- d. **Electronic Copies.** Provide 2 identical Compact Disks (CDs), each with a complete consolidated electronic copy of the report as an Adobe Acrobat (PDF) file. The PDF document shall contain such non-electronic entities such as signatures and seals.

General - A draft final submittal containing all of the deliverables listed above is the required initial submittal package. After review and comment by AECOM and the Owner a final submittal package shall be provided. The submittal packages shall be sent to AECOM at the following address:

AECOM
Attention: Dennis Combs
7650 West Courtney Campbell Causeway
Tampa, Florida 33607

F. Geotechnical Investigation – Schedule

3. The Geotechnical Investigation work described in this section shall be submitted to AECOM within the following schedule per project:
 - **North Air Cargo Apron and Taxiway – Draft within 60 calendar days from notice to proceed**
 - **Taxilane Extension & Site Preparation for Eastside MRO Development - Draft within 60 calendar days from notice to proceed**
 - **New Taxiway A and Bridge- Draft within 60 calendar days from notice to proceed**

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------------------------------------|------|-------------|----------|--------------|
| 612-Geo Mobilization Drill Rig Truck Mount | Each | \$ 350.00 | 25 | \$ 8,750.00 |
| 614-Geo Mobilization Mudbug/All Terrain Vehicle | Each | \$ 700.00 | | \$ - |
| 610-Geo Mobilization Drill Rig Track Mount | Each | \$ 3,250.00 | | \$ - |
| 418-Geo Drill Crew Support Vehicle | Day | \$ 160.00 | 35 | \$ 5,600.00 |
| 609-Geo Mobilization Drill Rig Barge Mount | Each | \$ 7,500.00 | | \$ - |
| 405-Geo Barge (Owned) | Day | \$ 2,500.00 | | \$ - |
| 618-Geo Mobilization Support Boat | Each | \$ 500.00 | | \$ - |
| 618.1-Geo Support Safety Boat | Day | \$ 500.00 | | \$ - |
| 619-Geo Mobilization Tri-Pod | Each | \$ 1,250.00 | | \$ - |
| 419-Geo Drilling Crew 2-Person | Hour | \$ 135.00 | | \$ - |
| 420-Geo Drilling Crew 3-Person | Hour | \$ 185.00 | | \$ - |
| Geo SPT Truck 0-50 Ft | LF | \$ 12.90 | 2010 | \$ 25,929.00 |
| Geo SPT Truck 50-100 Ft | LF | \$ 17.00 | 600 | \$ 10,200.00 |
| Geo SPT Truck 100-150 Ft | LF | \$ 31.00 | | \$ - |
| Geo SPT Truck 150-200 Ft | LF | \$ 39.00 | | \$ - |
| 478-Geo SPT Truck-Mud Bug 0-50 Ft | LF | \$ 15.20 | | \$ - |
| 479-Geo SPT Truck-Mud Bug 50-100 Ft | LF | \$ 18.10 | | \$ - |
| 480-Geo SPT Truck-Mud Bug 100-150 Ft | LF | \$ 32.00 | | \$ - |
| 481-Geo SPT Truck-Mud Bug 150-200 Ft | LF | \$ 42.00 | | \$ - |
| 473-Geo SPT Barge/Track/Amphibious 000-050 Ft | LF | \$ 21.50 | | \$ - |
| 474-Geo SPT Barge/Track/Amphibious 050-100 Ft | LF | \$ 28.90 | | \$ - |
| 475-Geo SPT Barge/Track/Amphibious 100-150 Ft | LF | \$ 53.00 | | \$ - |
| 476-Geo SPT Barge/Track/Amphibious 150-200 Ft | LF | \$ 70.00 | | \$ - |
| Geo Grout Boreholes- Truck 0-050 Ft | LF | \$ 5.25 | 2010 | \$ 10,552.50 |
| Geo Grout Boreholes- Truck 50-100 Ft | LF | \$ 7.00 | 600 | \$ 4,200.00 |
| Geo Grout Boreholes- Truck 100-150 Ft | LF | \$ 10.25 | | \$ - |
| Geo Grout Boreholes- Truck 150-200 Ft | LF | \$ 14.00 | | \$ - |
| 440-Geo Grout Boreholes- Truck/Mud Bug 000-050 Ft | LF | \$ 6.25 | | \$ - |
| 441-Geo Grout Boreholes- Truck/Mud Bug 050-100 Ft | LF | \$ 8.00 | | \$ - |
| 442-Geo Grout Boreholes- Truck/Mud Bug 100-150 Ft | LF | \$ 13.10 | | \$ - |
| 443-Geo Grout Boreholes- Truck/Mud Bug 150-200 Ft | LF | \$ 18.00 | | \$ - |
| 435-Geo Grout Boreholes- Barge/Track/Amphibious 000-050 Ft | LF | \$ 8.50 | | \$ - |
| 436-Geo Grout Boreholes- Barge/Track/Amphibious 050-100 Ft | LF | \$ 11.25 | | \$ - |
| 437-Geo Grout Boreholes- Barge/Track/Amphibious 100-150 Ft | LF | \$ 17.25 | | \$ - |
| 438-Geo Grout Boreholes- Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| Geo Temp Casing 3" Truck 0-050 Ft | LF | \$ 8.50 | 500 | \$ 4,250.00 |
| Geo Temp Casing 3" Truck 50-100 Ft | LF | \$ 10.25 | | \$ - |
| Geo Temp Casing 3" Truck 100-150 Ft | LF | \$ 12.25 | | \$ - |
| Geo Temp Casing 3" Truck 150-200 Ft | LF | \$ 15.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|-----------------------------------------------------------------------|------|-------------|----------|--------------|
| 488-Geo Temp Casing 3" Truck/Mud Bug 000-050 Ft | LF | \$ 10.30 | | \$ - |
| 489-Geo Temp Casing 3" Truck/Mud Bug 050-100 Ft | LF | \$ 14.00 | | \$ - |
| 490-Geo Temp Casing 3" Truck/Mud Bug 100-150 Ft | LF | \$ 17.50 | | \$ - |
| 491-Geo Temp Casing 3" Truck/Mud Bug 150-200 Ft | LF | \$ 22.00 | | \$ - |
| 483-Geo Temp Casing 3" Barge/Track/Amphibious 0-050 Ft | LF | \$ 14.50 | | \$ - |
| 484-Geo Temp Casing 3" Barge/Track/Amphibious 50-100 Ft | LF | \$ 17.50 | | \$ - |
| 485-Geo Temp Casing 3" Barge/Track/Amphibious 100-150 Ft | LF | \$ 20.00 | | \$ - |
| 486-Geo Temp Casing 3" Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| 463-Geo Rock Coring Truck/Mud Bug 000-050 Ft less than 4" ID | LF | \$ 45.00 | 250 | \$ 11,250.00 |
| 465-Geo Rock Coring Truck/Mud Bug 050-100 Ft less than 4" ID | LF | \$ 52.00 | | \$ - |
| 467-Geo Rock Coring Truck/Mud Bug 100-150 Ft less than 4" ID | LF | \$ 60.00 | | \$ - |
| 453-Geo Rock Coring Barge/Track/Amphibious 000-050 Ft less than 4" ID | LF | \$ 48.00 | | \$ - |
| 455-Geo Rock Coring Barge/Track/Amphibious 050-100 Ft less than 4" ID | LF | \$ 64.00 | | \$ - |
| 457-Geo Rock Coring Barge/Track/Amphibious 100-150 Ft less than 4" ID | LF | \$ 80.00 | | \$ - |
| 459-Geo Rock Coring Barge/Track/Amphibious 150-200 Ft less than 4" ID | LF | \$ 94.00 | | \$ - |
| 427-Geo Extra SPT Samples-Truck/Mud Bug 000-050 Ft | Each | \$ 71.00 | 20 | \$ 1,420.00 |
| 428-Geo Extra SPT Samples-Truck/Mud Bug 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 429-Geo Extra SPT Samples-Truck/Mud Bug 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 430-Geo Extra SPT Samples-Truck/Mud Bug 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 422-Geo Extra SPT Samples-Barge/Track/Amphibious 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 423-Geo Extra SPT Samples-Barge/Track/Amphibious 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 424-Geo Extra SPT Samples-Barge/Track/Amphibious 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 425-Geo Extra SPT Samples-Barge/Track/Amphibious 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 519-Geo Undisturbed Samples Truck/Mud Bug 000-050 Ft | Each | \$ 200.00 | 6 | \$ 1,200.00 |
| 520-Geo Undisturbed Samples Truck/Mud Bug 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 521-Geo Undisturbed Samples Truck/Mud Bug 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 522-Geo Undisturbed Samples Truck/Mud Bug 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 515-Geo Undisturbed Samples Barge/Track/Amphibious 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 516-Geo Undisturbed Samples Barge/Track/Amphibious 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 517-Geo Undisturbed Samples Barge/Track/Amphibious 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 518-Geo Undisturbed Samples Barge/Track/Amphibious 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 401-Geo Auger Borings- Hand & Truck/Mud Bug | LF | \$ 10.50 | 620 | \$ 6,510.00 |
| 402-Geo Auger Borings- Track | LF | \$ 12.00 | | \$ - |
| 432-Geo Field Permeability 0-10 Ft (Open - End Borehole Method) | Each | \$ 290.00 | | \$ - |
| Flagman and Barricades 2-Man Crew Own Equipment | Day | \$ 1,080.00 | 8 | \$ 8,640.00 |
| Muck/Clay Probing Unsuitable Soils 2-Man Crew | Day | \$ 1,080.00 | 2 | \$ 2,160.00 |
| 450-Geo Piezometer 2" 000-050 Ft | LF | \$ 44.00 | 100 | \$ 4,400.00 |
| 445-Geo Grouted Monitor Well 2" 000-050 Ft | LF | \$ 6.25 | | \$ - |
| Piezometer Permit Costs(SWFWMD) | Each | \$ 250.00 | 1 | \$ 250.00 |
| 403-Geo Backhoe (Owned) | Day | \$ 600.00 | | \$ - |
| 416-Geo Dozer (Owned) | Day | \$ 800.00 | | \$ - |
| Airport Stand-by to SAccess Boring or Test Locations and Clean-up | Hour | \$ 210.00 | 40 | \$ 8,400.00 |
| 407-Geo Chainsaw (Owned) | Day | \$ 28.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|-------------------------------------------------------------------------|---------|------------|----------|-------------|
| 415-Geo Double Ring Infiltration (ASTM D3385) | Each | \$ 525.00 | | \$ - |
| 434-Geo Ground Penetrating Radar (GPR) | Hour | \$ 350.00 | | \$ - |
| 209-Asphalt Pavement Coring – 4" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 210-Asphalt Pavement Coring – 4" dia without Base Depth Check | Each | \$ 110.00 | 12 | \$ 1,320.00 |
| 211-Asphalt Pavement Coring – 6" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 212-Asphalt Pavement Coring – 6" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 305-Concrete Pavement Coring - 4" Dia | Each | \$ 110.00 | 6 | \$ 660.00 |
| 306-Concrete Pavement Coring - 6" Dia | Each | \$ 110.00 | | \$ - |
| 603-Mobilization Asphalt Coring equipment | Each | \$ 250.00 | 1 | \$ 250.00 |
| 606-Mobilization Concrete Coring | Each | \$ 250.00 | 1 | \$ 250.00 |
| 812-Soils Materials Finer than 200 Sieve (FM 1-T011) | Test | \$ 42.00 | 50 | \$ 2,100.00 |
| 817-Soils Moisture Content Laboratory (AASHTO T 265) | Test | \$ 10.00 | 40 | \$ 400.00 |
| 821-Soils Particle Size Analysis (AASHTO T 88) (Including Hydrometer) | Test | \$ 131.00 | | \$ - |
| 822-Soils Particle Size Analysis (AASHTO T 88) (No Hydrometer) | Test | \$ 67.00 | 20 | \$ 1,340.00 |
| 805-Soils Corrosion Series (FM 5-550 through 5-553) | Test | \$ 175.00 | 12 | \$ 2,100.00 |
| 825-Soils pH Soil or Water (FM 5-550) | Test | \$ 35.00 | | \$ - |
| 829-Soils Resistivity Soil or Water (FM 5-551) | Test | \$ 46.00 | | \$ - |
| 800-Soils Chloride Soil or Water (FM 5-552) | Test | \$ 46.00 | | \$ - |
| 833-Soils Sulfate Soil or Water (FM 5-553) | Test | \$ 48.00 | | \$ - |
| 819-Soils Organic Content Ignition (FM 1 T-267) | Test | \$ 42.00 | 10 | \$ 420.00 |
| Atterberg Limit Tests (AASHTO T-89 and T-90) Combined | Test | \$ 130.00 | 25 | \$ 3,250.00 |
| 826-Soils Plastic Limit & Plasticity Index (AASHTO T 90) | Test | \$ 70.00 | | \$ - |
| 811-Soils Liquid Limit (AASHTO T 89) | Test | \$ 60.00 | | \$ - |
| 823-Soils Permeability Constant Head (AASHTO T 215) | Test | \$ 175.00 | | \$ - |
| 824-Soils Permeability Falling Head (FM 5-513) | Test | \$ 175.00 | | \$ - |
| 827-Soils Proctor Modified (FM 1-T 180) | Test | \$ 115.00 | 8 | \$ 920.00 |
| 828-Soils Proctor Standard (AASHTO T 99) | Test | \$ 111.00 | | \$ - |
| 832-Soils Splitting Tensile Strength of Rock Cores (ASTM D3967) | Test | \$ 138.00 | 40 | \$ 5,520.00 |
| 838-Soils Unconfined Compression - Rock (ASTM D7012, Method C) | Test | \$ 138.00 | 40 | \$ 5,520.00 |
| 803-Soils Consolidation - Constant Strain (ASTM D4186) | Test | \$ 580.00 | 4 | \$ 2,320.00 |
| 804-Soils Consolidation - Extended Load Increments (AASHTO T216) | Test | \$ 50.00 | 8 | \$ 400.00 |
| 806-Soils Direct Shear Consolidated Drained/ Point AASHTO T 236 | Test | \$ 250.00 | 4 | \$ 1,000.00 |
| 810-Soils Limerock Bearing Ratio (LBR)(FM 5-515)/CBR | Test | \$ 340.00 | 8 | \$ 2,720.00 |
| 850-EDR Report | Each | \$ 500.00 | | \$ - |
| 852-Organic Vapor Analyzer (OVA) | Day | \$ 150.00 | | \$ - |
| 854-Handheld GPS | Per Day | \$ 80.34 | | \$ - |
| 856-Field Sampling Kit (soil) | Each | \$ 75.00 | | \$ - |
| 858-Field Sampling Survey Kit (water) | Each | \$ 75.00 | | \$ - |
| 860-Power Auger Boring (includes decontamination to a depth of 25 feet) | Foot | \$ 11.90 | | \$ - |
| 862-BTEX and MTBE (Method 8260) | Each | \$ 65.00 | | \$ - |
| 864-Organochlorine Pesticides (Method 8081) | Each | \$ 100.00 | | \$ - |
| 866-Organophosphorous Pesticides (Method 8141) | Each | \$ 125.00 | | \$ - |
| 868-Chlorinated Herbicides (Method 8151) | Each | \$ 100.00 | | \$ - |
| 870-Volatile Organics (Method 8260) | Each | \$ 95.00 | | \$ - |
| 872-Volatile Organics BTEX/MTBE(Method 8260) | Each | \$ 60.00 | | \$ - |
| 874-Semi-Volatiles (Method 8270) | Each | \$ 200.00 | | \$ - |
| 876-Polyaromatic Hydrocarbons (Method 8270) | Each | \$ 100.00 | | \$ - |
| 878-TPH Method FL-Pro | Each | \$ 65.00 | | \$ - |
| 880-RCRA 8 Metals (Method 6010/7471) | Each | \$ 65.00 | | \$ - |
| 882-RCRA Metals Individual (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 884-Mercury Individual (Method 6010/7471) | Each | \$ 25.00 | | \$ - |
| 886-Ultr Low Trace Mercury GW Individual (Method 1631) | Each | \$ 75.00 | | \$ - |
| 888-Arsenic (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 890-SPLP/TCLP Metals | Each | \$ 198.00 | | \$ - |
| 892-Asbestos Samples | Each | \$ 15.00 | | \$ - |
| 894-Polychlorinated Biphenals (8082) | Each | \$ 75.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------|------|------------|----------|----------------------|
| Chief Geotechnical Engineer | Hour | \$ 200.91 | 37 | \$ 7,433.67 |
| Chief Scientist | Hour | \$ 144.24 | 0 | \$ - |
| Senior Geotechnical Engineer | Hour | \$ 176.85 | 93 | \$ 16,447.05 |
| Geotechnical Engineer | Hour | \$ 152.19 | 112 | \$ 17,045.28 |
| Engineer | Hour | \$ 115.44 | 140 | \$ 16,161.60 |
| Engineering Intern | Hour | \$ 83.67 | 233 | \$ 19,495.11 |
| Senior Scientist | Hour | \$ 123.84 | 0 | \$ - |
| Sr Engineering Technician | Hour | \$ 87.00 | 93 | \$ 8,091.00 |
| Geotechnical Technician | Hour | \$ 70.44 | 93 | \$ 6,550.92 |
| Designer | Hour | \$ 91.74 | 93 | \$ 8,531.82 |
| Secretary/Clerical | Hour | \$ 101.67 | 37 | \$ 3,761.79 |
| Total Estimated Fee | | | | \$ 247,719.74 |

| | |
|-----------------------------------|---------------|
| Engineering and Technical Support | \$ 103,518.24 |
| Field Services | \$ 116,191.50 |
| Laboratory Services | \$ 28,010.00 |

TIERRA

December 14, 2017

AECOM
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-146

Attn: Mr. Dennis Combs, P.E.

**RE: Post-Design Geotechnical Engineering Services Proposal
Project No. 8825 18 – New Taxiway A and Bridge
Hillsborough County Aviation Authority
Tierra Project No.: 6511-17-209PD**

Mr. Combs:

Tierra, Inc. appreciates the opportunity to submit the attached proposal to provide post-design geotechnical engineering services for the above project. Services to occur after the design period may include review of shop drawings, plan review, responding to RFIs, RFMs, etc. Tierra has estimated 124 hours for these tasks.

We understand that drilled shafts may be proposed as the foundation system for the new bridge. Tierra as the Geotechnical Engineer of Record will be required to set tip elevation for each shaft per Specifications. A pilot hole will be required at each shaft to assist in determining the shaft tip elevation. Tierra will review and classify the soil samples obtained from the pilot hole borings, perform axial capacity analysis based on the results of each pilot hole boring, and provide a signed and sealed letter indicating the required tip elevation for each shaft.

Based on our previous post-design work at Taxiway J as the Geotechnical Engineer of Record where drilled 134 shafts were installed requiring similar services, we are estimating for a similar number of drilled shafts for the Taxiway A bridge 468 hours of staff time.

Tierra has based our post-design estimate to be 592 hours based on the anticipated project design and construction requirements.

Exclusions

This proposal does not include services that are related to drilled shaft inspection services, Crosshole Sonic Logging, performing drilled shaft load tests, pilot hole borings, additional exploration services or Construction Quality Control (CQC).

The estimated fee to perform post-design geotechnical services is estimated to be \$90,666.24. Services would be completed on as-needed basis in accordance with our previous contract rates. A unit cost breakdown is included on Attachment A. Tierra will invoice on a time and materials basis, thus individual line items, although presented, may not be invoiced.

We appreciate the opportunity to offer our services to you. Should you have any questions in regard to this proposal, please do not hesitate to contact this office.

Respectfully Submitted,

TIERRA, INC.



Marc E. Novak, Ph.D., P.E.
Senior Geotechnical Engineer

Attachment A: Schedule of Services and Fee

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------------------------------------|------|-------------|----------|-------|
| 612-Geo Mobilization Drill Rig Truck Mount | Each | \$ 350.00 | | \$ - |
| 614-Geo Mobilization Mudbug/All Terrain Vehicle | Each | \$ 700.00 | | \$ - |
| 610-Geo Mobilization Drill Rig Track Mount | Each | \$ 3,250.00 | | \$ - |
| 418-Geo Drill Crew Support Vehicle | Day | \$ 160.00 | | \$ - |
| 609-Geo Mobilization Drill Rig Barge Mount | Each | \$ 7,500.00 | | \$ - |
| 405-Geo Barge (Owned) | Day | \$ 2,500.00 | | \$ - |
| 618-Geo Mobilization Support Boat | Each | \$ 500.00 | | \$ - |
| 618.1-Geo Support Safety Boat | Day | \$ 500.00 | | \$ - |
| 619-Geo Mobilization Tri-Pod | Each | \$ 1,250.00 | | \$ - |
| 419-Geo Drilling Crew 2-Person | Hour | \$ 135.00 | | \$ - |
| 420-Geo Drilling Crew 3-Person | Hour | \$ 185.00 | | \$ - |
| Geo SPT Truck 0-50 Ft | LF | \$ 12.90 | | \$ - |
| Geo SPT Truck 50-100 Ft | LF | \$ 17.00 | | \$ - |
| Geo SPT Truck 100-150 Ft | LF | \$ 31.00 | | \$ - |
| Geo SPT Truck 150-200 Ft | LF | \$ 39.00 | | \$ - |
| 478-Geo SPT Truck-Mud Bug 0-50 Ft | LF | \$ 15.20 | | \$ - |
| 479-Geo SPT Truck-Mud Bug 50-100 Ft | LF | \$ 18.10 | | \$ - |
| 480-Geo SPT Truck-Mud Bug 100-150 Ft | LF | \$ 32.00 | | \$ - |
| 481-Geo SPT Truck-Mud Bug 150-200 Ft | LF | \$ 42.00 | | \$ - |
| 473-Geo SPT Barge/Track/Amphibious 000-050 Ft | LF | \$ 21.50 | | \$ - |
| 474-Geo SPT Barge/Track/Amphibious 050-100 Ft | LF | \$ 28.90 | | \$ - |
| 475-Geo SPT Barge/Track/Amphibious 100-150 Ft | LF | \$ 53.00 | | \$ - |
| 476-Geo SPT Barge/Track/Amphibious 150-200 Ft | LF | \$ 70.00 | | \$ - |
| Geo Grout Boreholes- Truck 0-050 Ft | LF | \$ 5.25 | | \$ - |
| Geo Grout Boreholes- Truck 50-100 Ft | LF | \$ 7.00 | | \$ - |
| Geo Grout Boreholes- Truck 100-150 Ft | LF | \$ 10.25 | | \$ - |
| Geo Grout Boreholes- Truck 150-200 Ft | LF | \$ 14.00 | | \$ - |
| 440-Geo Grout Boreholes- Truck/Mud Bug 000-050 Ft | LF | \$ 6.25 | | \$ - |
| 441-Geo Grout Boreholes- Truck/Mud Bug 050-100 Ft | LF | \$ 8.00 | | \$ - |
| 442-Geo Grout Boreholes- Truck/Mud Bug 100-150 Ft | LF | \$ 13.10 | | \$ - |
| 443-Geo Grout Boreholes- Truck/Mud Bug 150-200 Ft | LF | \$ 18.00 | | \$ - |
| 435-Geo Grout Boreholes- Barge/Track/Amphibious 000-050 Ft | LF | \$ 8.50 | | \$ - |
| 436-Geo Grout Boreholes- Barge/Track/Amphibious 050-100 Ft | LF | \$ 11.25 | | \$ - |
| 437-Geo Grout Boreholes- Barge/Track/Amphibious 100-150 Ft | LF | \$ 17.25 | | \$ - |
| 438-Geo Grout Boreholes- Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| Geo Temp Casing 3" Truck 0-050 Ft | LF | \$ 8.50 | | \$ - |
| Geo Temp Casing 3" Truck 50-100 Ft | LF | \$ 10.25 | | \$ - |
| Geo Temp Casing 3" Truck 100-150 Ft | LF | \$ 12.25 | | \$ - |
| Geo Temp Casing 3" Truck 150-200 Ft | LF | \$ 15.00 | | \$ - |

Table 6 Standard Fee Schedule 2017

| Item Description | Unit | Unit Price | Quantity | Total |
|-----------------------------------------------------------------------|------|-------------|----------|-------|
| 488-Geo Temp Casing 3" Truck/Mud Bug 000-050 Ft | LF | \$ 10.30 | | \$ - |
| 489-Geo Temp Casing 3" Truck/Mud Bug 050-100 Ft | LF | \$ 14.00 | | \$ - |
| 490-Geo Temp Casing 3" Truck/Mud Bug 100-150 Ft | LF | \$ 17.50 | | \$ - |
| 491-Geo Temp Casing 3" Truck/Mud Bug 150-200 Ft | LF | \$ 22.00 | | \$ - |
| 483-Geo Temp Casing 3" Barge/Track/Amphibious 0-050 Ft | LF | \$ 14.50 | | \$ - |
| 484-Geo Temp Casing 3" Barge/Track/Amphibious 50-100 Ft | LF | \$ 17.50 | | \$ - |
| 485-Geo Temp Casing 3" Barge/Track/Amphibious 100-150 Ft | LF | \$ 20.00 | | \$ - |
| 486-Geo Temp Casing 3" Barge/Track/Amphibious 150-200 Ft | LF | \$ 25.00 | | \$ - |
| 463-Geo Rock Coring Truck/Mud Bug 000-050 Ft less than 4" ID | LF | \$ 45.00 | | \$ - |
| 465-Geo Rock Coring Truck/Mud Bug 050-100 Ft less than 4" ID | LF | \$ 52.00 | | \$ - |
| 467-Geo Rock Coring Truck/Mud Bug 100-150 Ft less than 4" ID | LF | \$ 60.00 | | \$ - |
| 453-Geo Rock Coring Barge/Track/Amphibious 000-050 Ft less than 4" ID | LF | \$ 48.00 | | \$ - |
| 455-Geo Rock Coring Barge/Track/Amphibious 050-100 Ft less than 4" ID | LF | \$ 64.00 | | \$ - |
| 457-Geo Rock Coring Barge/Track/Amphibious 100-150 Ft less than 4" ID | LF | \$ 80.00 | | \$ - |
| 459-Geo Rock Coring Barge/Track/Amphibious 150-200 Ft less than 4" ID | LF | \$ 94.00 | | \$ - |
| 427-Geo Extra SPT Samples-Truck/Mud Bug 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 428-Geo Extra SPT Samples-Truck/Mud Bug 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 429-Geo Extra SPT Samples-Truck/Mud Bug 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 430-Geo Extra SPT Samples-Truck/Mud Bug 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 422-Geo Extra SPT Samples-Barge/Track/Amphibious 000-050 Ft | Each | \$ 71.00 | | \$ - |
| 423-Geo Extra SPT Samples-Barge/Track/Amphibious 050-100 Ft | Each | \$ 71.00 | | \$ - |
| 424-Geo Extra SPT Samples-Barge/Track/Amphibious 100-150 Ft | Each | \$ 85.00 | | \$ - |
| 425-Geo Extra SPT Samples-Barge/Track/Amphibious 150-200 Ft | Each | \$ 85.00 | | \$ - |
| 519-Geo Undisturbed Samples Truck/Mud Bug 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 520-Geo Undisturbed Samples Truck/Mud Bug 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 521-Geo Undisturbed Samples Truck/Mud Bug 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 522-Geo Undisturbed Samples Truck/Mud Bug 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 515-Geo Undisturbed Samples Barge/Track/Amphibious 000-050 Ft | Each | \$ 200.00 | | \$ - |
| 516-Geo Undisturbed Samples Barge/Track/Amphibious 050-100 Ft | Each | \$ 200.00 | | \$ - |
| 517-Geo Undisturbed Samples Barge/Track/Amphibious 100-150 Ft | Each | \$ 200.00 | | \$ - |
| 518-Geo Undisturbed Samples Barge/Track/Amphibious 150-200 Ft | Each | \$ 200.00 | | \$ - |
| 401-Geo Auger Borings- Hand & Truck/Mud Bug | LF | \$ 10.50 | | \$ - |
| 402-Geo Auger Borings- Track | LF | \$ 12.00 | | \$ - |
| 432-Geo Field Permeability 0-10 Ft (Open - End Borehole Method) | Each | \$ 290.00 | | \$ - |
| Flagman and Barricades 2-Man Crew Own Equipment | Day | \$ 1,080.00 | | \$ - |
| Muck/Clay Probing Unsuitable Soils 2-Man Crew | Day | \$ 1,080.00 | | \$ - |
| 450-Geo Piezometer 2" 000-050 Ft | LF | \$ 44.00 | | \$ - |
| 445-Geo Grouted Monitor Well 2" 000-050 Ft | LF | \$ 6.25 | | \$ - |
| Piezometer Permit Costs(SWFWMD) | Each | \$ 250.00 | | \$ - |
| 403-Geo Backhoe (Owned) | Day | \$ 600.00 | | \$ - |
| 416-Geo Dozer (Owned) | Day | \$ 800.00 | | \$ - |
| Airport Stand-by to SAccess Boring or Test Locations and Clean-up | Hour | \$ 210.00 | | \$ - |
| 407-Geo Chainsaw (Owned) | Day | \$ 28.00 | | \$ - |

| Item Description | Unit | Unit Price | Quantity | Total |
|-------------------------------------------------------------------------|---------|------------|----------|-------|
| 415-Geo Double Ring Infiltration (ASTM D3385) | Each | \$ 525.00 | | \$ - |
| 434-Geo Ground Penetrating Radar (GPR) | Hour | \$ 350.00 | | \$ - |
| 209-Asphalt Pavement Coring – 4" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 210-Asphalt Pavement Coring – 4" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 211-Asphalt Pavement Coring – 6" dia with Base Depth Check | Each | \$ 125.00 | | \$ - |
| 212-Asphalt Pavement Coring – 6" dia without Base Depth Check | Each | \$ 110.00 | | \$ - |
| 305-Concrete Pavement Coring - 4" Dia | Each | \$ 110.00 | | \$ - |
| 306-Concrete Pavement Coring - 6" Dia | Each | \$ 110.00 | | \$ - |
| 603-Mobilization Asphalt Coring equipment | Each | \$ 250.00 | | \$ - |
| 606-Mobilization Concrete Coring | Each | \$ 250.00 | | \$ - |
| 812-Soils Materials Finer than 200 Sieve (FM 1-T011) | Test | \$ 42.00 | | \$ - |
| 817-Soils Moisture Content Laboratory (AASHTO T 265) | Test | \$ 10.00 | | \$ - |
| 821-Soils Particle Size Analysis (AASHTO T 88) (Including Hydrometer) | Test | \$ 131.00 | | \$ - |
| 822-Soils Particle Size Analysis (AASHTO T 88) (No Hydrometer) | Test | \$ 67.00 | | \$ - |
| 805-Soils Corrosion Series (FM 5-550 through 5-553) | Test | \$ 175.00 | | \$ - |
| 825-Soils pH Soil or Water (FM 5-550) | Test | \$ 35.00 | | \$ - |
| 829-Soils Resistivity Soil or Water (FM 5-551) | Test | \$ 46.00 | | \$ - |
| 800-Soils Chloride Soil or Water (FM 5-552) | Test | \$ 46.00 | | \$ - |
| 833-Soils Sulfate Soil or Water (FM 5-553) | Test | \$ 48.00 | | \$ - |
| 819-Soils Organic Content Ignition (FM 1 T-267) | Test | \$ 42.00 | | \$ - |
| Atterberg Limit Tests (AASHTO T-89 and T-90) Combined | Test | \$ 130.00 | | \$ - |
| 826-Soils Plastic Limit & Plasticity Index (AASHTO T 90) | Test | \$ 70.00 | | \$ - |
| 811-Soils Liquid Limit (AASHTO T 89) | Test | \$ 60.00 | | \$ - |
| 823-Soils Permeability Constant Head (AASHTO T 215) | Test | \$ 175.00 | | \$ - |
| 824-Soils Permeability Falling Head (FM 5-513) | Test | \$ 175.00 | | \$ - |
| 827-Soils Proctor Modified (FM 1-T 180) | Test | \$ 115.00 | | \$ - |
| 828-Soils Proctor Standard (AASHTO T 99) | Test | \$ 111.00 | | \$ - |
| 832-Soils Splitting Tensile Strength of Rock Cores (ASTM D3967) | Test | \$ 138.00 | | \$ - |
| 838-Soils Unconfined Compression - Rock (ASTM D7012, Method C) | Test | \$ 138.00 | | \$ - |
| 803-Soils Consolidation - Constant Strain (ASTM D4186) | Test | \$ 580.00 | | \$ - |
| 804-Soils Consolidation - Extended Load Increments (AASHTO T216) | Test | \$ 50.00 | | \$ - |
| 806-Soils Direct Shear Consolidated Drained/ Point AASHTO T 236 | Test | \$ 250.00 | | \$ - |
| 810-Soils Limerock Bearing Ratio (LBR)(FM 5-515)/CBR | Test | \$ 340.00 | | \$ - |
| 850-EDR Report | Each | \$ 500.00 | | \$ - |
| 852-Organic Vapor Analyzer (OVA) | Day | \$ 150.00 | | \$ - |
| 854-Handheld GPS | Per Day | \$ 80.34 | | \$ - |
| 856-Field Sampling Kit (soil) | Each | \$ 75.00 | | \$ - |
| 858-Field Sampling Survey Kit (water) | Each | \$ 75.00 | | \$ - |
| 860-Power Auger Boring (includes decontamination to a depth of 25 feet) | Foot | \$ 11.90 | | \$ - |
| 862-BTEX and MTBE (Method 8260) | Each | \$ 65.00 | | \$ - |
| 864-Organochlorine Pesticides (Method 8081) | Each | \$ 100.00 | | \$ - |
| 866-Organophosphorous Pesticides (Method 8141) | Each | \$ 125.00 | | \$ - |
| 868-Chlorinated Herbicides (Method 8151) | Each | \$ 100.00 | | \$ - |
| 870-Volatile Organics (Method 8260) | Each | \$ 95.00 | | \$ - |
| 872-Volatile Organics BTEX/MTBE(Method 8260) | Each | \$ 60.00 | | \$ - |
| 874-Semi-Volatiles (Method 8270) | Each | \$ 200.00 | | \$ - |
| 876-Polyaromatic Hydrocarbons (Method 8270) | Each | \$ 100.00 | | \$ - |
| 878-TPH Method FL-Pro | Each | \$ 65.00 | | \$ - |
| 880-RCRA 8 Metals (Method 6010/7471) | Each | \$ 65.00 | | \$ - |
| 882-RCRA Metals Individual (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 884-Mercury Individual (Method 6010/7471) | Each | \$ 25.00 | | \$ - |
| 886-Ultr Low Trace Mercury GW Individual (Method 1631) | Each | \$ 75.00 | | \$ - |
| 888-Arsenic (Method 6010/7471) | Each | \$ 9.00 | | \$ - |
| 890-SPLP/TCLP Metals | Each | \$ 198.00 | | \$ - |
| 892-Asbestos Samples | Each | \$ 15.00 | | \$ - |
| 894-Polychlorinated Biphenals (8082) | Each | \$ 75.00 | | \$ - |

| Item Description | Unit | Unit Price | Quantity | Total |
|------------------------------|------|------------|----------|---------------------|
| Chief Geotechnical Engineer | Hour | \$ 200.91 | 72 | \$ 14,465.52 |
| Chief Scientist | Hour | \$ 144.24 | 0 | \$ - |
| Senior Geotechnical Engineer | Hour | \$ 176.85 | 144 | \$ 25,466.40 |
| Geotechnical Engineer | Hour | \$ 152.19 | 240 | \$ 36,525.60 |
| Engineer | Hour | \$ 115.44 | 80 | \$ 9,235.20 |
| Engineering Intern | Hour | \$ 83.67 | 40 | \$ 3,346.80 |
| Senior Scientist | Hour | \$ 123.84 | 0 | \$ - |
| Sr Engineering Technician | Hour | \$ 87.00 | 0 | \$ - |
| Geotechnical Technician | Hour | \$ 70.44 | 0 | \$ - |
| Designer | Hour | \$ 91.74 | 0 | \$ - |
| Secretary/Clerical | Hour | \$ 101.67 | 16 | \$ 1,626.72 |
| Total Estimated Fee | | | | \$ 90,666.24 |

TIERRA

December 21, 2017

AECOM
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-146

Attn: Mr. Dennis Combs, P.E.

**RE: Construction Materials Testing Fee Estimate
HCAA Project No. 8825 18
Hillsborough County Aviation Authority
Tierra Project No.: 6511-17-209PD**

Mr. Combs:

Please find the attached preliminary estimate for Quality Assurance (QA) materials testing for the near future projects. At this time construction plans have not been developed and these estimates were based on concept information only and our scope and responsibilities not having been developed. QA inspection services are anticipated to be completed on an on-call basis, with the Contractor supplying the Quality Control (QC) testing services. A full-time Construction Inspector is believed to be provided by the Engineer of Record. **Please consider these estimates draft.** The project description is noted below and general construction testing items are noted.

A new east-west taxiway is proposed parallel to the existing Taxiway B, approximately 3,200 lineal feet in length. The taxiway construction is to include a new bridge structure and box culvert crossing. The taxiway is anticipated to be constructed with concrete pavement. The bridge is anticipated to be supported on drilled shaft foundations. The box culvert is anticipated to be constructed on shallow foundations. The estimated fee is **\$136,970.00**.

We appreciate the opportunity to offer our services to you. Should you have any questions in regard to this proposal, please do not hesitate to contact this office.

Respectfully Submitted,

TIERRA, INC.

Marc E. Novak, Ph.D., P.E.
Geotechnical Engineer

Harmon C. Bennett, P.E.
Vice President of Construction Services

Attachment: Schedule of Services and Fee

Taxiway A HCAA Project No. 8825 18

P152 Excavation and Embankment

| Description | Estimated Quantity | Unit Rate | Unit | Sub-Total |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|----------|---------------------|
| Laboratory Tests | | | | |
| Modified Proctor Tests (ASTM D1557) | 10 | \$ 120.00 | per test | \$ 1,200.00 |
| Gradation Analysis Tests (ASTM D422) | 10 | \$ 65.00 | per test | \$ 650.00 |
| Liquid and Plastic Limits (ASTM D4318) | 10 | \$ 65.00 | per test | \$ 650.00 |
| Organic Content (AASHTO T-267) | 10 | \$ 40.00 | per test | \$ 400.00 |
| Field Testing | | | | |
| Senior Engineering Technician (to perform in place density tests by nuclear methods per subplot; obtain and transport samples) | 300 | \$ 48.00 | per hour | \$ 14,400.00 |
| Total P-152 | | | | \$ 17,300.00 |

P-219 Recycled Concrete Aggregate Base

| | | | | |
|----------------------------------------------------------------------------|-----|-----------|----------|---------------------|
| Field Testing | | | | |
| Senior Inspector (to perform field density tests and pick up soil samples) | 250 | \$ 45.00 | per hour | \$ 11,250.00 |
| Laboratory Testing | | | | |
| Modified Proctor (ASTM D1557) | 1 | \$ 120.00 | each | \$ 120.00 |
| Gradation (ASTM D422) | 1 | \$ 85.00 | per test | \$ 85.00 |
| LBR | 1 | \$ 275.00 | per test | \$ 275.00 |
| Flat & Elongated Particles (ASTM D4791) | 1 | \$ 100.00 | per test | \$ 100.00 |
| LA Abrasion (ASTM C131) | 1 | \$ 200.00 | per test | \$ 200.00 |
| Liquid and Plastic Limits (ASTM D4318) | 1 | \$ 65.00 | per test | \$ 65.00 |
| Sand Equivalency Test | 1 | \$ 350.00 | per test | \$ 350.00 |
| Total P-219: | | | | \$ 12,445.00 |

P501 Portland Cement Concrete Pavement

| | | | | |
|--------------------------------------------------------------------------|-----|-----------|----------|---------------------|
| Laboratory Tests | | | | |
| Flexural Strength Tests | 260 | \$ 35.00 | per test | \$ 9,100.00 |
| Aggregate Gradation | 10 | \$ 100.00 | per test | \$ 1,000.00 |
| Field Testing | | | | |
| Senior Engineering Technician (Perform slump, temperature, air tests) | 500 | \$ 45.00 | per hour | \$ 22,500.00 |
| Total P-501 | | | | \$ 32,600.00 |

P610 Portland Cement Concrete Structural Bridge

| | | | | |
|--------------------------------------------------------------------------|-----|-----------|----------|---------------------|
| Laboratory Tests | | | | |
| Concrete Compression Tests Tests | 300 | \$ 35.00 | per test | \$ 10,500.00 |
| Aggregate Gradation | 25 | \$ 100.00 | per test | \$ 2,500.00 |
| Field Testing | | | | |
| Senior Engineering Technician (Perform slump, temperature, air tests) | 350 | \$ 45.00 | per hour | \$ 15,750.00 |
| Total P-610 | | | | \$ 28,750.00 |

Engineering / Specialty Inspections

| | | | | |
|--------------------------------------------------|-----|-----------|----------|---------------------|
| Drilled Shaft Inspector (Bridge) | 250 | \$ 60.00 | per hour | \$ 15,000.00 |
| Post Tension Inspector during Tendon Stressing | 175 | \$ 60.00 | per hour | \$ 10,500.00 |
| Project Manager | 125 | \$ 85.00 | per hour | \$ 10,625.00 |
| Senior Engineer | 65 | \$ 150.00 | per hour | \$ 9,750.00 |
| Total Engineering / Specialty Inspections | | | | \$ 45,875.00 |

Grand Total Taxiway A & Bridge \$ 136,970.00



January 4, 2018

Mr. Dennis Combs, PE
Aecom
7650 W Courtney Campbell Causeway
Suite 700
Tampa, Florida 33607-1462

REVISION NO. 1

RE: Taxiway "A" & Bridge
NSI Proposal No. 171205-A

Dear Mr. Combs:

Thank you for the opportunity to present this proposal for surveying services on the above referenced project.

SCOPE

The scope of work included in this proposal is a topographic survey of an 80 acre ± site consisting of natural ground, existing taxiways, utilities and other improvements.

Our approach will be to establish fixed horizontal control points at 500' spacing, then obtain the elevations on each point for use by our survey crew and the contractor during the construction phase. The horizontal datum will be Florida State Plane NAD 83/2011 adjustment and the vertical datum will be NAVD 88.

After establishing the control, we will begin performing a topographic survey of all natural and manmade topographic features within the entire survey limits, as shown on the reference map attached (Exhibit 1), plus the nearest connecting manhole or drainage structures.

The natural ground elevation shot spacing will not exceed 50' and the taxiway shots will not exceed 25' spacing. Additional taxiway shots will be taken to identify the concrete grid pattern and break lines. Within the survey limits we will locate and map all trees 4" DBH and larger, above ground utilities, above ground evidence of underground utilities, along with pipe sizes, shape, type material and invert elevations where access is possible.

Our fee to perform the survey scope as described above will be **\$65,492.50**.

MANHOURS

| | DAYS/HOURS | RATE | TOTAL |
|----------------------------|-------------------|-------------|--------------------|
| 3-PERSON CREW DAYS | 25 | \$1,224.00 | \$30,600.00 |
| PROJECT SURVEYOR, PSM | 60 | \$135.00 | \$8,100.00 |
| AUTOCAD TECHNICIAN | 175 | \$90.00 | \$15,750.00 |
| SENIOR PLS | 12.5 | \$255.00 | \$3,187.50 |
| ADMINISTRATIVE | 15 | \$87.00 | \$1,305.00 |
| | | | |
| TRUCK & EQUIPMENT EXPENSES | | | \$6,550.00 |
| TOTAL | | | \$65,492.50 |

We will require 40 business days from your notice to proceed date to complete the survey and submit an Autocad Civil 3D file containing our topographic map and TIN with 0.5 contours, along with signed hardcopy maps.

All of the work will be performed under the direct supervision of a Florida Licensed Professional Land Surveyor and will meet or exceed the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J17.050 to 5J17.052, Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

If you have any questions, please do not hesitate to contact our office.

Sincerely,

NORTHWEST SURVEYING, INC.



Gerald Silva, PSM
President

GS/kg/prp

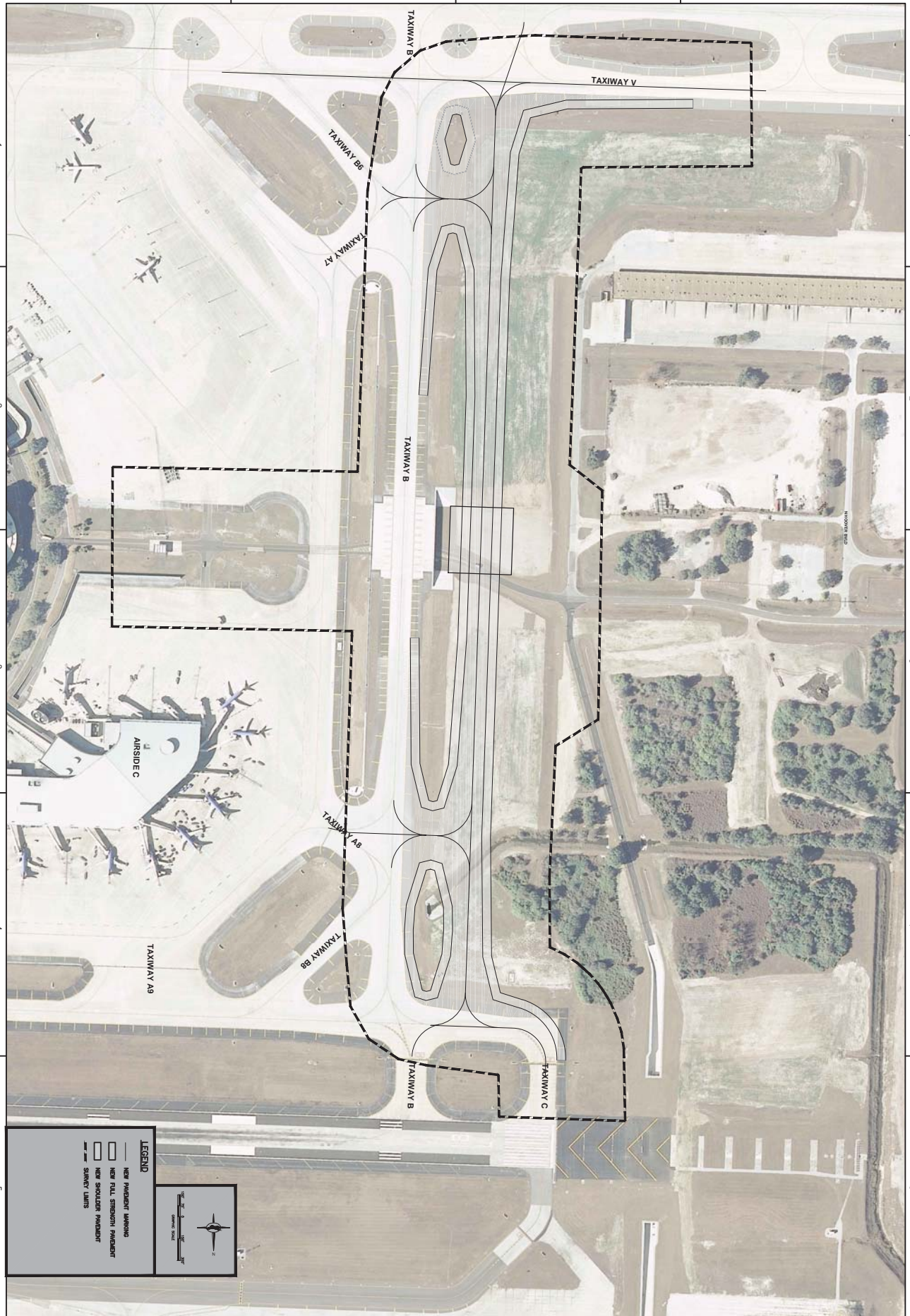


EXHIBIT 1

| | | | | | | | | |
|-------------|-----------------|---------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------|-----------------|-------|------|
| SHEET NO. | PROJECT NAME | PM |  | HILLSBOROUGH COUNTY AVIATION AUTHORITY TAMPA, FLORIDA | DATE | DESCRIPTION | BY | AUTH |
| | TW A AND BRIDGE | DWG. BY: | | | 12/07/17 | BORING LOCATION | AECOM | DGC |
| SHEET TITLE | SURVEY EXHIBIT | CHK. BY: |  | AECOM 7550 West Courtney Campbell Boulevard Tampa, FL 33607-1562 | | | | |
| | | DSG. BY: | | | | | | |
| | | SCALE: AS NOTED | | | | | | |
| | | AECOM JOB NO. | | | | | | |
| | | HCAA NO. | | | | | | |
| | | DATE: DECEMBER 2017 | | | | | | |

ATTACHMENT 2 - CONTRACT CLAUSES AIRPORT IMPROVEMENT PROGRAM

To the extent the Airport Improvement Program funding is used on any of the Projects, the following provisions apply.

GENERAL REQUIREMENT FOR CONTRACTS.

Subject to the applicability criteria noted in the specific contract provisions, these Contract provisions apply to all work performed on the Contract.

- A. Failure to comply with the terms of these Contract provisions may be sufficient grounds to:
1. Withhold progress payments or final payment,
 2. Terminate the Contract,
 3. Seek suspension/debarment, or
 4. Any other action determined to be appropriate by the sponsor or the FAA.

1.0 ACCESS TO RECORDS AND REPORTS - 2 CFR § 200.326, 2 CFR § 200.333

The Design Professional must maintain an acceptable cost accounting system. The Design Professional agrees to provide the Owner, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives, access to any books, documents, papers, and records of the Design Professional which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Design Professional agrees to maintain all books, records and reports required under this Contract for a period of not less than three years after final payment is made and all pending matters are closed.

2.0 AFFIRMATIVE ACTION REQUIREMENT - 41 CFR part 60-4, Executive Order 11246

- A. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- B. The goals and timetables for minority and female participation, expressed in percentage terms for the Design Professional's aggregate workforce in each trade on all construction work in the covered area, are as follows:
1. Timetables
 2. Goals for minority participation for each trade (Vol. 45 Federal Register pg. 65984 10/3/80)

3. Goals for female participation in each trade (6.9%)

These goals are applicable to all of the Design Professional's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the Design Professional performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Design Professional is also subject to the goals for both federally funded and non-federally funded construction regardless of the percentage of federal participation in funding.

The Design Professional's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training shall be substantially uniform throughout the length of the Contract, and in each trade, and the Design Professional shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project, for the sole purpose of meeting the Design Professional's goals, shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

C. The Design Professional shall provide written notification to the Director, Office of Federal Contract Compliance Programs (OFCCP), within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subconsultant; employer identification number of the subconsultant; estimated dollar amount of the subcontract; estimated starting and completion dates of subcontract; and the geographical area in which the subcontract is to be performed.

D. As used in this notice and in the Contract resulting from this solicitation, the "covered area" is Hillsborough County, Florida.

3.0 BREACH OF CONTRACT TERMS - 2 CFR § 200 Appendix II(A)

Any violation or breach of terms of this Contract on the part of the Design Professional or its subconsultants may result in the suspension or termination of this Contract or such other action that may be necessary to enforce the rights of the parties of this Contract. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

4.0 BUY AMERICAN PREFERENCE - 49 USC § 50101

The Design Professional agrees to comply with 49 USC § 50101, which provides that Federal funds

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may not be obligated unless all steel and manufactured goods used in AIP-funded projects are produced in the United States, unless the FAA has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

A bidder or offeror must submit the appropriate Buy America certification (Section 00419 – Buy American Certification) with all bids or offers on AIP funded projects. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive.

Type of Certification is based on Type of Project:

There are two types of Buy American certifications.

- A. For projects for a facility, the Certificate of Compliance Based on Total Facility (Terminal or Building Project) must be submitted.
- B. For all other projects, the Certificate of Compliance Based on Equipment and Materials Used on the Project (Non-building construction projects such as runway or roadway construction; or equipment acquisition projects) must be submitted.

5.0 CIVIL RIGHTS – GENERAL - 49 USC § 47123

The Design Professional agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Design Professional from the Request for Qualifications solicitation period through the completion of this Contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

This provision also obligates any tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; structures or improvements thereon.

In these cases the provision obligates the party or any transferee for the longer of the following periods:

- A. The period during which the property is used by the Owner or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or
- B. The period during which the Owner or any transferee retains ownership or possession of the property.

6.0 CIVIL RIGHTS – TITLE VI ASSURANCES

A. Compliance with Nondiscrimination Requirements

During the performance of this Contract, the Design Professional, for itself, its assignees, and successors in interest (hereinafter referred to as the “Design Professional”) agrees as follows:

1. **Compliance with Regulations:** The Design Professional (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Statutes and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this Contract.
2. **Non-discrimination:** The Design Professional, with regard to the work performed by it during the Contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subconsultants, including procurements of materials and leases of equipment. The Design Professional will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the Contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Design Professional for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subconsultant or supplier will be notified by the Design Professional of the Design Professional’s obligations under this Contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The Design Professional will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Owner or the Federal Aviation Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Design Professional will so certify to the Owner or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Nondiscrimination provisions of this Contract, the Owner will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the Design Professional under the Contract until the Design Professional complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. Incorporation of Provisions: The Design Professional will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Design Professional will take action with respect to any subcontract or procurement as the Owner or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Design Professional becomes involved in, or is threatened with litigation by a subconsultant, or supplier because of such direction, the Design Professional may request the Owner to enter into any litigation to protect the interests of the Owner. In addition, the Design Professional may request the United States to enter into the litigation to protect the interests of the United States.

B. Title VI List of Pertinent Nondiscrimination Authorities

During the performance of this Contract, the Design Professional, for itself, its assignees, and successors in interest (hereinafter referred to as the "Design Professional") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
2. 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
3. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
5. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
6. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or

sex);

7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
8. Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
9. The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, Design Professional must take reasonable steps to ensure that LEP persons have meaningful access to Design Professional’s programs (70 Fed. Reg. at 74087 to 74100); and
12. Title IX of the Education Amendments of 1972, as amended, which prohibits Design Professional from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

7.0 CLEAN AIR AND WATER. POLLUTION CONTROL - 49 CFR § 18.36(i)(12)

Design Professional and subconsultants agree:

- A. That any facility to be used in the performance of this Contract or subcontract or to benefit from the Contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
- B. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42

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U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued thereunder;

- C. That, as a condition for the award of this Contract, the Design Professional or subconsultant will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the Contract is under consideration to be listed on the EPA List of Violating Facilities; and
- D. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

8.0 CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS

A. Overtime Requirements.

No contractor or subconsultant contracting for any part of the Contract Work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

B. Violation; Liability for Unpaid Wages; Liquidated Damages.

In the event of any violation of the clause set forth in paragraph A. above, any Design Professional and any subconsultant responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subconsultant shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph A. above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph A. above.

C. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any monies payable on account of work performed by the Design Professional or subconsultant under any such contract or any other Federal contract with the same prime Design Professional, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Design Professional, such sums as may be determined to be necessary to satisfy any liabilities of

such contractor or subconsultant for unpaid wages and liquidated damages as provided in the clause set forth in paragraph B. above.

D. Subconsultants.

The Design Professional or subconsultant shall insert in any subcontracts the clauses set forth in paragraphs A. through D. and also a clause requiring the subconsultant to include these clauses in any lower tier subcontracts. The Design Professional shall be responsible for compliance by any subconsultant or lower tier subconsultant with the clauses set forth in paragraphs A. through D. of this section.

9.0 COPELAND “ANTI-KICKBACK” ACT - 2CFR § 200 Appendix II(D), 29 CFR parts 3 & 5

The United States Department of Labor Wage and Hours Division oversees the Copeland “Anti-Kickback” Act requirements. All contracts and subcontracts must meet comply with the Occupational Safety and Health Act of 1970.

United States Department of Labor Wage and Hours Division can provide information regarding any specific clauses or assurances pertaining to the Copeland “Anti-Kickback” Act requirements required to be inserted in solicitations, contracts or subcontracts.

10.0 DAVIS-BACON REQUIREMENTS - 2 CFR § 200 Appendix II (D)

A. Minimum Wages

1. All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Design Professional and such laborers and mechanics.
 - a. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without

regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Design Professional and its subconsultants at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

2. The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - b. The classification is utilized in the area by the construction industry; and
 - c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

If the Design Professional and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

In the event the Design Professional, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt

and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs 2 or 3 of this paragraph, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

3. Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Design Professional shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
4. If the Design Professional does not make payments to a trustee or other third person, the Design Professional may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the Design Professional, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Design Professional to set aside in a separate account assets for the meeting of obligations under the plan or program.

B. Withholding.

The Federal Aviation Administration or the Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Design Professional under this Contract or any other Federal contract with the same Design Professional, or any other Federally-assisted Contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Design Professional, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Design Professional or any subconsultant the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the Contract, the Federal Aviation Administration may, after written notice to the Design Professional, Owner, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

C. Payrolls and basic records.

1. Payrolls and basic records relating thereto shall be maintained by the Design Professional during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such

worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Design Professional shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

2. a. The Design Professional shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the Contract, but if the agency is not such a party, the Design Professional will submit the payrolls to the Owner for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The Design Professional is responsible for the submission of copies of payrolls by all subconsultants. Contractors and subconsultants shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Federal Aviation Administration if the agency is a party to the Contract, but if the agency is not such a party, the Design Professional will submit them to the applicant, Owner, or owner, as the case may be, for transmission to the Federal Aviation Administration, the Design Professional, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a Design Professional to require a subconsultant to provide addresses and social security numbers to the Design Professional for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or Owner).

- b. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Design Professional or subconsultant or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:
 - i. That the payroll for the payroll period contains the information required to be provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i) and that such information is correct and complete;
 - ii. That each laborer and mechanic (including each helper, apprentice and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3; and
 - iii. That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.
 - c. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (C)(2)(b) of this section.
 - d. The falsification of any of the above certifications may subject the Design Professional or subconsultant to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
3. The Design Professional or subconsultant shall make the records required under paragraph (3)(i) of this section available for inspection, copying or transcription by authorized representatives of the Owner, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Design Professional or subconsultant fails to submit the required records or to make them available, the Federal agency may, after written notice to the Design Professional, Owner, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

D. Apprentices and Trainees.

1. Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Design Professional as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Design Professional's or subconsultant's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Design Professional will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
2. Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the

Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Design Professional will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

3. Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

E. Compliance with Copeland Act Requirements.

The Design Professional shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this Contract.

F. Subcontracts.

The Design Professional or subconsultant shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subconsultants to include these clauses in any lower tier subcontracts. The Design Professional shall be responsible for the compliance by any subconsultant or lower tier subconsultant with all the contract clauses in 29 CFR Part 5.5.

G. Contract Termination: Debarment.

A breach of the Contract clauses in paragraph A through J of this section may be grounds for termination of the Contract, and for debarment as a Design Professional and a subconsultant as provided in 29 CFR 5.12.

H. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this Contract.

I. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the Design Professional (or any of its subconsultants) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

J. Certification of Eligibility.

1. By entering into this Contract, the Design Professional certifies that neither it (nor he or she) nor any person or firm who has an interest in the Design Professional's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
2. No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
3. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

11.0 DEBARMENT AND SUSPENSION (NON-PROCUREMENT) - 2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility

A. CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (RESPONDENT)

By submitting a response under this solicitation, the Design Professional certifies that at the time the Design Professional submitted its response that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

B. CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL RESPONDENT REGARDING LOWER TIER PARTICIPANTS)

The successful Respondent, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from

participation in this federally assisted project. The successful Respondent will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Respondent), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

12.0 DISADVANTAGED BUSINESS ENTERPRISE - 49 CFR part 26

- A. Contract Assurance (§ 26.13) - The Design Professional or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Design Professional shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Design Professional to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy, as the recipient deems appropriate.
- B. Prompt Payment (§26.29) - The Design Professional agrees to pay each subconsultant under this prime Contract for satisfactory performance of its Contract no later than ten (10) days from the receipt of each payment the Design Professional receives from Owner. The Design Professional agrees further to return retainage payments to each subconsultant within ten (10) days after the subconsultant's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Owner. This clause applies to both DBE and non-DBE subconsultants.

13.0 ENERGY CONSERVATION REQUIREMENTS - 2 CFR § 200 Appendix II(H)

The Design Professional agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

14.0 EQUAL OPPORTUNITY CLAUSE AND SPECIFICATIONS - 41 CFR § 60-1.4, Executive Order 11246

During the performance of this Contract, the Design Professional agrees as follows:

- A. The Design Professional will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Design Professional will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Design Professional agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. The Design Professional will, in all solicitations or advertisements for employees placed by or on behalf of the Design Professional, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- C. The Design Professional will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Design Professional's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The Design Professional will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- E. The Design Professional will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- F. In the event of the Design Professional's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Design Professional may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The Design Professional will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (G) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that

such provisions will be binding upon each subconsultant or vendor. The Design Professional will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Design Professional becomes involved in, or is threatened with, litigation with a subconsultant or vendor as a result of such direction by the administering agency the Design Professional may request the United States to enter into such litigation to protect the interests of the United States.

15.0 STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

A. As used in these specifications:

1. "Covered area" means the geographical area described in the solicitation from which this Contract resulted;
2. "Director" means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, or any person to whom the Director delegates authority;
3. "Employer identification number" means the Federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
4. "Minority" includes:
 - a. Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);
 - c. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
 - d. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - e. American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

B. Whenever the Design Professional, or any subconsultant at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Contract resulted.

- C. If the Design Professional is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Design Professional shall be able to demonstrate its participation in and compliance with the provisions of any such Hometown Plan. Each Design Professional or subconsultant participating in an approved plan is individually required to comply with its obligations under the EEO clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other design professionals or subconsultants toward a goal in an approved Plan does not excuse any covered contractor's or subconsultant's failure to take good faith efforts to achieve the Plan goals and timetables.
- D. The Design Professional shall implement the specific affirmative action standards provided in paragraphs G.1 through G.16 of these specifications below. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Design Professional should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in a geographical area where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Design Professional is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- E. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Design Professional has a collective bargaining agreement to refer either minorities or women shall excuse the Design Professional's obligations under these specifications, Executive Order 11246 or the regulations promulgated pursuant thereto.
- F. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Design Professional during the training period and the Design Professional shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained pursuant to training programs approved by the U.S. Department of Labor.
- G. The Design Professional shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Design Professional's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Design Professional shall document these efforts fully and shall implement affirmative

action steps at least as extensive as the following:

1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Design Professional's employees are assigned to work. The Design Professional, where possible, will assign two or more women to each construction project. The Design Professional shall specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Design Professional's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Design Professional or its unions have employment opportunities available, and maintain a record of the organizations' responses.
3. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Design Professional by the union or, if referred, not employed by the Design Professional, this shall be documented in the file with the reason therefore along with whatever additional actions the Design Professional may have taken.
4. Provide immediate written notification to the Director when the union or unions with which the Design Professional has a collective bargaining agreement has not referred to the Design Professional a minority person or female sent by the Design Professional, or when the Design Professional has other information that the union referral process has impeded the Design Professional's efforts to meet its obligations.
5. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Design Professional's employment needs, especially those programs funded or approved by the Department of Labor. The Design Professional shall provide notice of these programs to the sources compiled under G.1 above.
6. Disseminate the Design Professional's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Design Professional in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all

management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
8. Disseminate the Design Professional's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Design Professional's EEO policy with other Design Professionals and subconsultants with whom the Design Professional does or anticipates doing business.
9. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students; and to minority and female recruitment and training organizations serving the Design Professional's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Design Professional shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Design Professional's workforce.
11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel, for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
13. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Design Professional's obligations under these specifications are being carried out.

14. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 16. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Design Professional's EEO policies and affirmative action obligations.
- H. Design Professionals are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (G.1 through G.16). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the Design Professional is a member and participant, may be asserted as fulfilling any one or more of its obligations under G.1 through G.16 of these specifications provided that the Design Professional actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Design Professional's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Design Professional. The obligation to comply, however, is the Design Professional's and failure of such a group to fulfill an obligation shall not be a defense for the Design Professional's noncompliance.
- I. A single goal for minorities and a separate single goal for women have been established. The Design Professional, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, if the particular group is employed in a substantially disparate manner (for example, even though the Design Professional has achieved its goals for women generally,) the Design Professional may be in violation of the Executive Order if a specific minority group of women is underutilized.
- J. The Design Professional shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- K. The Design Professional shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- L. The Design Professional shall carry out such sanctions and penalties for violation of these

specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Design Professional who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

- M. The Design Professional, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 18.7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Design Professional fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- N. The Design Professional shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee, the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- O. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16.0 FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE) - 29 USC § 201, et seq.

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text: Federal Fair Labor Standards Act (29 USC 201), U.S. Department of Labor –Wage and Hour Division

The Design Professional has full responsibility to monitor compliance to the referenced statute or regulation. The Design Professional must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

17.0 LOBBYING AND INFLUENCING FEDERAL EMPLOYEES - 49 CFR part 20, App. A

The Design Professional certifies by signing and submitting a response, to the best of his or her knowledge and belief, that:

TPA / Taxiway A and MRO Taxiway Extension
Authority Project Nos. 8220 18 and 8825 18

- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the Respondent, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

18.0 NONSEGREGATED FACILITIES REQUIREMENT - 41 CFR § 60-1.8

A. Notice to Prospective Federally Assisted Construction Contractors

- 1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.
- 2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subconsultants for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
- 3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

B. Notice to Prospective Subconsultants of Requirements for Certification of Non-Segregated Facilities

- 1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subconsultants for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.
3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

C. CERTIFICATION OF NONSEGREGATED FACILITIES

The Design Professional certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Design Professional certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Design Professional agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The Design Professional agrees that (except where she or he has obtained identical certifications from proposed subconsultants for specific time periods) she or he will obtain identical certifications from proposed subconsultants prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

19.0 OCCUPATIONAL SAFETY 19. AND HEALTH ACT OF 1970 - 20 CFR part 1910

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text: Occupational Safety and Health Act of 1970 (20 CFR Part 1910), U.S. Department of Labor – Occupational Safety and Health Administration. The Design Professional has full responsibility to monitor compliance to the referenced statute or regulation. The Design Professional must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

20.0 RIGHT TO INVENTIONS - 2 CFR § 200 Appendix II(F)

All rights to inventions and materials generated under this Contract are subject to requirements and regulations issued by the FAA and the Owner of the Federal grant under which this Contract is

executed.

21.0 TERMINATION OF CONTRACT - 2 CFR § 200 Appendix II(B)

- A. The Owner may, by written notice, terminate this Contract in whole or in part at any time, either for the Owner's convenience or because of failure to fulfill the Contract obligations. Upon receipt of such notice services must be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this Contract, whether completed or in progress, delivered to the Owner.
- B. If the termination is for the convenience of the Owner, an equitable adjustment in the Contract price will be made, but no amount will be allowed for anticipated profit on unperformed services.
- C. If the termination is due to failure to fulfill the Design Professional's obligations, the Owner may take over the work and prosecute the same to completion by contract or otherwise. In such case, the Design Professional is liable to the Owner for any additional cost occasioned to the Owner thereby.
- D. If, after notice of termination for failure to fulfill Contract obligations, it is determined that the Design Professional had not so failed, the termination will be deemed to have been effected for the convenience of the Owner. In such event, adjustment in the Contract price will be made as provided in paragraph 2 of this clause.
- E. The rights and remedies of the Owner provided in this clause are in addition to any other rights and remedies provided by law or under this Contract.

22.0 TRADE RESTRICTION - 49 CFR part 30

- A. The Design Professional or subconsultant, by submission of an offer and/or execution of a contract, certifies that it:
 - 1. Is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
 - 2. Has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list; and
 - 3. Has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.
- B. Unless the restrictions of this clause are waived by the Secretary of Transportation in

accordance with 49 CFR 30.17, no contract shall be awarded to a Design Professional or subconsultant who is unable to certify to the above. If the Design Professional knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Owner cancellation of the Contract at no cost to the Government.

- C. Further, the Design Professional agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Design Professional may rely on the certification of a prospective subconsultant unless it has knowledge that the certification is erroneous.
- D. The Design Professional shall provide immediate written notice to the Owner if the Design Professional learns that its certification or that of a subconsultant was erroneous when submitted or has become erroneous by reason of changed circumstances. The subconsultant agrees to provide written notice to the Design Professional if at any time it learns that its certification was erroneous by reason of changed circumstances.
- E. This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Design Professional or subconsultant knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Owner cancellation of the Contract or subcontract for default at no cost to the Government.
- F. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- G. This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

23.0 TEXTING WHEN DRIVING - Executive Order 13513, and DOT Order 3902.10

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

The Design Professional must promote policies and initiatives for employees and other work personnel that decrease crashes by distracted drivers, including policies to ban text messaging while driving. The Design Professional must include these policies in each third party subcontract involved on this project.

24.0 VETERAN'S PREFERENCE - 49 USC § 47112(c)

In the employment of labor (except in executive, administrative, and supervisory positions), preference must be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Title 49 United States Code, Section 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

25.0 TRAFFICKING IN PERSONS

A. Prohibitions: The prohibitions against trafficking in persons (Prohibitions) that apply to any entity other than State, local government, Indian tribe, or foreign public entity. This includes private Sponsors, public Sponsor employees, subrecipients of private or public Sponsors (private entity) are:

1. Engaging in severe forms of trafficking in persons during the period of time that the agreement is in effect;
2. Procuring a commercial sex act during the period of time that the agreement is in effect; or
3. Using forced labor in the performance of the agreement, including subcontracts or subagreements under the agreement.

B. In addition to all other remedies for noncompliance that are available to the FAA, Section 106(g) of the Trafficking Victims Protections Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), allows the FAA to unilaterally terminate this agreement, without penalty, if a private entity:

1. Is determined to have violated the Prohibitions through conduct that is either:
 - a. Associated with performance under this agreement; or
 - b. Imputed to the Sponsor or subrecipient using 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by the FAA at 49 CFR Part 29.

26.0 CONSISTENCY WITH LOCAL PLANS

A. Design Professional agrees that the Program is reasonably consistent with plans (existing at the time of the design) of public agencies that are authorized by governing authorities to plan for the development of the area surrounding the Airport.

27.0 CONSIDERATION OF LOCAL INTEREST

- A. Design Professional agrees that it will give fair consideration to the interest of communities in or near where the Program's projects may be located.

28.0 CONSULTATION WITH USERS

- A. In making a decision to undertake any airport development project under Title 49, United States Code, Design Professional agrees that it will facilitate reasonable consultations with affected parties using the Airport at which the Program's projects are proposed.

29.0 PUBLIC HEARINGS

- A. In projects involving the location of an airport, an airport runway, or a major runway extension, Design Professional agrees it will facilitate the opportunity for public hearings for the purpose of considering the economic, social, and environmental effects of the airport or runway location and its consistency with goals and objectives of such planning as has been carried out by the community and it shall, when requested by the Secretary of the Department of Transportation, submit a copy of the transcript of such hearings to the Secretary of the Department of Transportation.

30.0 METROPOLITAN PLANNING ORGANIZATION

- A. In projects involving the location of an airport, an airport runway, or a major runway extension at a medium or large hub airport, the Design Professional has facilitated the availability of and the provision upon request to the metropolitan planning organization in the area in which the Airport is located, if any, a copy of the proposed amendment to the airport layout plan to depict the projects and a copy of any airport master plan in which the projects are described or depicted.

31.0 PAVEMENT PREVENTATIVE MAINTENANCE

- A. With respect to a project approved after January 1, 1995, for the replacement or reconstruction of pavement at the airport, Design Professional agrees that it will cooperate with the maintenance of the airport pavement maintenance-management program and it assures that it will provide such cooperation to the Owner for use during the useful life of any pavement constructed, reconstructed or repaired with Federal financial assistance at the Airport. It will cooperate with providing such reports on pavement condition and pavement management programs as the Secretary of the Department of Transportation determines may be useful.

32.0 TERMINAL DEVELOPMENT PREREQUISITES

- A. For projects which include terminal development at a public use airport, as defined in Title 49, Design Professional will specify all the safety equipment required for certification of

such airport under section 44706 of Title 49, United States Code, and all the security equipment required by rule or regulation, and Airport Sponsor Assurances 3/2014 and has provided for access to the passenger enplaning and deplaning area of such airport to passengers enplaning and deplaning from aircraft other than air carrier aircraft in its design.

33.0 ACCOUNTING SYSTEM, AUDIT, AND RECORD KEEPING REQUIREMENTS

- A. In addition to all other Accounting System, Audit and Record Keeping Requirements contained elsewhere in the Contract, Design Professional shall keep all project accounts and records which fully disclose the total cost of the project and such other financial records pertinent to the project. The accounts and records shall be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984.
- B. In addition to all other Accounting System, Audit and Record Keeping Requirements contained elsewhere in the Contract, Design Professional shall make available to the Owner, Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination, any books, documents, papers, and records of the recipient that are pertinent to these projects. The Secretary may require that an appropriate audit be conducted. In any case in which an independent audit is made of the accounts of a sponsor relating to the disposition of the proceeds of a grant or relating to these projects in connection with this Contract, a certified copy of such audit may be required to be filed with the Comptroller General of the United States not later than six (6) months following the close of the fiscal year for which the audit was made.

34.0 CONSTRUCTION INSPECTION AND APPROVAL

- A. Design Professional will provide and maintain competent technical supervision at the construction site throughout the projects to assure that the work conforms to the plans, specifications, and schedules approved by the Secretary of the Department of Transportation for the projects. Such works shall be subject to inspection and approval by the Secretary and such work shall be in accordance with regulations and procedures prescribed by the Secretary of the Department of Transportation. Design Professional agrees to facilitate such cost and progress reporting of such projects as the Secretary shall deem necessary.

35.0 PLANNING PROJECTS

In carrying out planning projects, Design Professional:

- A. Will execute the project in accordance with the approved program narrative contained in any project application or with the modifications similarly approved.

- B. Will furnish the Secretary of the Department of Transportation with such periodic reports as required pertaining to the planning project and planning work activities.
- C. Will include in all published material prepared in connection with the planning project a notice that the material was prepared under a grant provided by the United States.
- D. Will make such material available for examination by the public, and agrees that no material prepared with funds under this project shall be subject to copyright in the United States or any other country.
- E. Will give the Secretary of the Department of Transportation unrestricted authority to publish, disclose, distribute, and otherwise use any of the material prepared in connection with this grant.
- F. Will grant the Secretary of the Department of Transportation the right to disapprove the employment of specific consultants and their subcontractors to do all or any part of this project as well as the right to disapprove the proposed scope and cost of professional services.

36.0 OPERATION AND MAINTENANCE

- A. The Airport and all facilities which are necessary to serve the aeronautical users of the Airport, other than facilities owned or controlled by the United States, shall be operated at all times in a safe and serviceable condition and in accordance with the minimum standards as may be required or prescribed by applicable Federal, state and local agencies for maintenance and operation. Design Professional will not cause or permit any activity or action thereon which would interfere with its use for Airport purposes. It will suitably design for the maintenance of the Airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the Airport for non-aeronautical purposes must first be approved by the Secretary of the Department of Transportation. In furtherance, the Design Professional will perform its services so as to assist the Owner to:
 - a. Promptly mark and light hazards resulting from airport conditions, including temporary conditions; and
 - b. Promptly notify airmen of any condition affecting aeronautical use of the Airport. Nothing contained herein shall be construed to require that the Airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the Owner.

- B. Design Professional will assist the Owner to suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

37.0 HAZARD REMOVAL AND MITIGATION

- A. Design Professional will assist the Owner in taking appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the Airport (including established minimum flight altitudes) will be adequately cleared and protected through its design activities by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future Airport hazards.

END OF SECTION



Hillsborough County Aviation Authority
PO Box 22287
Tampa, FL 33622
Telephone: 813-870-8700

E-Verify Certification

Solicitation No. 17-411-828

Taxiway A and MRO Taxilane Extension

This certification is required in accordance with the State of Florida, Office of the Governor, Executive Order Number 11-116 (Verification of Employment Status).

The State of Florida, Office of the Governor, Executive Order Number 11-116 (Verification of Employment Status), and any projects with Florida Department of Transportation (FDOT) funding as part of a Joint Participation Agreement between FDOT and the Authority, require, as a condition of all contracts for the provision of goods or services, an express requirement that contractors utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor during the term of the contract, and an express requirement that contractors include in subcontracts the requirement that subcontractors performing work or providing services pursuant to the contract utilize the E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

Company: _____ FID or EIN No.: _____

Address: _____ City/State/Zip: _____

I, _____, as a representative of _____,
certify and affirm that this company will comply with the E-Verification requirements of Executive
Order Number 11-116.

Signature Title

Printed Name Date

[Affix Corporate Resolution if not signed by the President or Vice President of the Company]