



HILLSBOROUGH COUNTY AVIATION AUTHORITY

PART 2 CONTRACT FOR DESIGN-BUILD SERVICES

BETWEEN

HILLSBOROUGH COUNTY AVIATION AUTHORITY

AND

HENSEL PHELPS CONSTRUCTION CO.

PROJECT NOS. 8200 18, 8205 18, 8900 18, 8230 18 and
8310 19

MAIN TERMINAL CURBSIDE EXPANSION, NEW
ENERGY PLANT AND RELATED WORK

DATED: JUNE 6, 2019

TABLE OF ARTICLES
PART 2 CONTRACT

		<u>PAGE</u>
1.	GENERAL PROVISIONS	4
2.	OWNER RESPONSIBILITIES	10
3.	DESIGN-BUILDER'S SERVICES AND RESPONSIBILITIES	13
4.	PAYMENTS	28
5.	TIME	42
6.	COMPLETION	45
7.	PROTECTION OF PERSONS AND PROPERTY	49
8.	CHANGES IN THE WORK	51
9.	CORRECTION OF WORK	53
10.	DISPUTE RESOLUTION	55
11.	SUBCONTRACTS	58
12.	WORK BY OWNER OR OWNER'S CONTRACTORS	60
13.	INDEMNIFICATION	61
14.	SUCCESSORS AND ASSIGNS	63
15.	TERMINATION OF PROFESSIONAL DESIGN SERVICES	63
16.	MUTUAL RESPONSIBILITY	64
17.	RIGHTS AND REMEDIES	64
18.	TESTS AND INSPECTIONS	65
19.	TERMINATION OR SUSPENSION OF THE CONTRACT	66
20.	OWNER'S RIGHT TO CARRY OUT THE WORK	72
21.	BASIS OF COMPENSATION	73
22.	OWNER'S RIGHT TO PERFORM AUDITS, INSPECTIONS, OR ATTESTATION ENGAGEMENTS	79
23.	GUARANTEED COMPLETION DATE	82
24.	PERFORMANCE BOND AND PAYMENT BOND	82
25.	GOVERNING LAW AND VENUE	84
26.	RESTRICTED VENDOR LISTS	84
27.	NON-DISCRIMINATION	85
28.	WOMAN AND MINORITY OWNED BUSINESS ENTERPRISE (W/MBE) ASSURANCES	88
29.	TRUTH IN NEGOTIATIONS	90
30.	PROHIBITED INTEREST	91
31.	PROHIBITION AGAINST CONTINGENT FEES	91
32.	CERTIFICATION OF NON-SEGREGATED FACILITIES	91
33.	PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES	92
34.	E-VERIFY REQUIREMENT/UNAUTHORIZED ALIENS	92
35.	HAZARDOUS MATERIAL	92
36.	INSURANCE	94
37.	DIVISION 01, GENERAL REQUIREMENTS STATEMENT	95
38.	DESIGN CRITERIA MANUAL	95
39.	LOBBYING	95
40.	COMPLETE CONTRACT	95
41.	CONTRACT	96

ATTACHMENTS:

- 1: GUARANTEED MAXIMUM PRICE PROPOSAL
- 2: COMMON LAW PERFORMANCE BOND AND STATUTORY PAYMENT BOND
- 3: INSURANCE REQUIREMENTS
- 4: DIVISION 01: GENERAL REQUIREMENTS
- 5: DESIGN CRITERIA MANUAL
- 6: E-VERIFY CERTIFICATION
- 7: OWNER DIRECT PURCHASE

Main Terminal Curbside Expansion, New Energy Plant and Related Work
Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

- 8: SAMPLE CHANGE ORDER
- 9: DISPUTE AVOIDANCE AND RESOLUTION PANEL

PART 2 CONTRACT

This Contract for design-build services is made and entered into this 6th day of June, 2019 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 Hensel Phelps Construction Co., a Delaware Corporation, authorized to do business in the State of Florida, hereinafter referred to as the "Design-Builder".

For the following Program: Main Terminal Curbside Expansion, New Energy Plant and Related Work

Authority Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

(Project No. 8200 18 – FAA Parking Lot, Project No. 8205 18 – Central Utility Plant/Loading Dock, Project No. 8900 18 – Demolition of Administration Building, Project 8230 18 – Blue and Red Curbsides, Project No. 8310 19 – Ceiling Replacement)

The design services described in Article 3 will be provided contractually through the Design-Builder by the following person or entity who is lawfully licensed to practice architecture/engineering:

HNTB Corporation

Normal architectural, roadway, structural, subsurface utility investigations, civil, utilities, mechanical, electrical, environmental, sustainability design, fire protection system, plumbing, signage design, interior design, security access control/CCTV design, telephone, data wiring and wireless networks, public address system, industrial hygiene, surveying, geotechnical, materials testing and landscape design engineering services will be provided contractually through the Design-Builder as indicated below:

HNTB Corporation

The Beck Group

Ayres Associates, Inc.

ECHO UES, Inc.

TLC Engineering for Architecture

VoltAir Consulting Engineers, Inc.

Selbert Perkins Design

Terracon Consultants, Inc.

Vivid Consulting Group, Inc.

AREHNA Engineering, Inc.

H2R Corp.

L.A. Design, P.A.

The Owner and Design-Builder agree as set forth below.

Main Terminal Curbside Expansion, New Energy Plant and Related Work
Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

TERMS AND CONDITIONS—PART 2 CONTRACT

ARTICLE 1 GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

- 1.1.1 The Program consists of the design and construction of Main Terminal Curbside Expansion, New Energy Plant and Related Work
- 1.1.2 The Contract Documents consist of this Contract between Owner and Design-Builder and the following documents, but only to the extent they are not modified by this Contract: Part 1 Contract, the Design-Builder's Guaranteed Maximum Price (GMP) Proposal, the Authority's Design Criteria Manual (Attachment 5), the Project Documents accepted by the Owner in accordance with Paragraph 3.3.2, payment and performance bonds, and Modifications issued after execution of this Contract.
- 1.1.3 A Modification is a written amendment to this Contract signed by both parties, or a change order, work order, or written order for a minor change in the Work issued by the Owner in accordance with the terms of Article 8 herein.
- 1.1.4 The term Day as used in the Contract Documents will mean calendar day, unless otherwise indicated.
- 1.1.5 The GMP Contract Sum as stated in this Contract is the maximum amount payable by the Owner to the Design-Builder for performance of the Work under the Contract Documents, including authorized adjustments. When the Contract Documents state "no cost to the Owner", it means that those costs are the responsibility of the Design-Builder and are not reimbursable through the Contract Sum. When the Contract Documents state "no additional cost to the Owner", it means that those costs are reimbursable up to the Contract Sum.
- 1.1.6 The term Work means the construction and services provided by the Design-Builder to fulfill the Design-Builder's obligations under this Contract. For the sole purpose of Professional Liability coverage, the term Work as used in the Express Warranties herein, excludes professional design services.
- 1.1.7 The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, to the extent approved by Owner, showing the design, location and dimensions of the Work, and generally include plans, elevations, sections, details, models, electronic data, BIM, schedules and diagrams.
- 1.1.8 The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards,

and workmanship for the Work and performance of related services, to the extent approved by Owner.

1.1.9 Notice means written notice by certified return receipt mail addressed to:

The Owner:
Hillsborough County Aviation Authority
Attn: Chief Executive Officer
P.O. Box 22287
Tampa, FL 33622

Copy to: General Counsel
Vice-President of Planning and Development

The Design-Builder:
Hensel Phelps Construction Co.
Attn: Vice President / District Manager
6557 Hazeltine National Dr., Suite One
Orlando, FL 32822

Copy to: Program Director

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 It is the intent of the Owner and Design-Builder that the Contract Documents include all items necessary for proper execution and completion of the Work. The Contract Documents are complementary and what is required by one will be as binding as if required by all. Words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.2 The parties will not be bound by, or be liable for, any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein. No changes, amendments or Modifications of any of the terms or conditions of this Contract will be valid unless reduced to writing and signed by both parties. This Contract may be amended or changed only by Modification.

1.2.3 If the Design-Builder believes, or is advised by another licensed design professional retained by the Owner to provide services on the Project, that implementation of any instruction received from the Owner would cause a violation of any applicable law, the Design-Builder will notify the Owner in writing. The Design-Builder will not be obligated to perform any act which will violate any applicable law.

- 1.2.4 Nothing contained in this Contract will create a contractual relationship between the Owner and any person or entity other than the Design-Builder, unless otherwise provided in this Contract.
- 1.2.5 Execution of this Contract by the Design-Builder is a representation and warranty that the Design-Builder (a) is particularly experienced and skilled in the construction of structures and improvements of the type described in the Contract Documents, and (b) has, by careful examination, satisfied itself as to and has taken into account (i) the nature, location and character of the Project Site, including but not limited to, the surface and subsurface condition of the land and all structures and obstructions thereon, both natural and man-made, and all surface and subsurface water conditions of the project site and the surrounding area; (ii) the nature, location and character of the general area in which the Project sites are located included, but not limited to, weather and climate; and (iii) all other matters or things which, in the reasonable judgment of the Design-Builder, could in any manner affect the performance of the Work.
- 1.2.6 All Work mentioned or indicated in the Contract Documents will be performed by the Design-Builder as part of this Contract unless it is specifically indicated in the Contract Documents that such Work is to be performed by others. In the event of any conflict(s) among the Contract Documents, the Design-Builder will present conflict for resolution to the Owner.
- 1.2.7 All indications or notations which apply to one of a number of similar situations, materials or processes will be deemed to apply to all such situations, materials or processes wherever they appear in the Work, except where a contrary result is clearly indicated by the Contract Documents.
- 1.2.8 Where codes, standards, requirements and publications of public and private bodies are referred to in Division 01 - General Requirements and the Specifications, except to the extent otherwise expressly noted in the Contract Documents, references will be understood to be the latest edition, including all amendments thereto, in effect on the date applicable permits were issued by appropriate governmental authorities having jurisdiction or the date this Contract was executed, whichever is later.
- 1.2.9 Where no explicit quality or standards for materials or workmanship are established for Work, such Work is to be of suitable quality for the intended use and consistent with the quality of the surrounding Work.
- 1.2.10 All manufactured articles, materials and equipment will be applied, installed, connected, erected, started-up, tested, cleaned and conditioned in accordance with the manufacturer's written or printed directions and instructions unless otherwise indicated in the Contract Documents.

- 1.2.11 The mechanical, electrical and fire protection work will be installed, without additional cost to the Owner, to clear all obstructions, permit proper clearances for the Work of other trades and present an orderly appearance where exposed. Prior to beginning such Work, the Design-Builder will prepare coordination Drawings and complete detailed layout Drawings showing the exact alignment, physical location and configuration of the mechanical, electrical and fire protection installations and demonstrating to the Owner's satisfaction that the installations will comply with the preceding sentence. Design-Builder will comply with this requirement with BIM. Coordination Drawings and complete detailed layout Drawings will be submitted to the Owner for Owner's review and acceptance prior to the commencement of the Work.
- 1.2.12 Where the Work is to fit with existing conditions or construction to be performed by others, the Design-Builder will fully and completely join the Work with such conditions or construction, unless otherwise specified. Any existing condition disturbed in whole or in part by Design-Builder's Work will be restored to the Owner's satisfaction at the Design-Builder's expense and is not included in the Contract Sum.
- 1.2.13 The Design-Builder is responsible for dimensions to be confirmed and correlated at the Project site, for information processes, for techniques of construction, and for coordination of the Work of all trades.
- 1.2.14 Press releases or other specialized publicity documents, including the Design-Builder's and subcontractor's advertising and news bulletins, which are related to this Contract and are intended by the Design-Builder and subcontractors for the press, broadcasting, or television, will be drawn up in consultation with the Owner. Except as otherwise required by law or regulation, the Design-Builder and subcontractors will not release or distribute any materials or information relating to this Contract or containing the name of the Owner or any of its employees without prior written approval by Vice President of Planning and Development. This requirement must be included in all subcontractor agreements entered into under this Project.
- 1.2.15 During the duration of the Project, other construction and/or design-build projects will be underway at Tampa International Airport. It will be the responsibility of the Design-Builder to coordinate its Work with these other projects, however, Design-Builder shall not, by coordinating its Work with these other projects, assume any responsibility for the performance on or timely completion of any of these other projects unless the Design-Builder's failure to coordinate results in increased costs or claims to the other projects. Rather, any problems with such coordination will be brought to the attention of the Owner who will direct the affected parties accordingly.

1.2.16 The Design-Builder will conduct all Work in this Contract in accordance with the Owner's Policy P150, Code of Ethics and Ethics Program.

1.3 OWNERSHIP AND USE OF DOCUMENTS

1.3.1 Design-Builder acknowledges and agrees that all records, documents, drawings, notes, tracings, plans, specifications, maps, evaluations, reports, models, renderings and other technical data, electronic data and Architectural Works of the Project as defined by the Federal Architectural Works Copyright Protection Act, other than working papers, prepared, developed or furnished by Design-Builder or the design professional(s) employed or retained by the Design-Builder under this Contract will be conveyed, assigned and transferred from the Design-Builder to the Owner and remain the property of the Owner. Project Documents will consist of all Drawings, Specifications, electronic data and other documents sufficient to establish the size, quality and character of the entire Project, its architectural, civil, geotechnical, structural, mechanical and electrical systems, materials and such other elements of the Project as may be appropriate. 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-Builder will take all actions necessary to secure for Owner all such right, title and interest. Design-Builder warrants that all materials comprising the Project Documents are original with Design-Builder 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-Builder 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-Builder will assign to Owner any and all rights, including any copyrights, in the Project Documents that Design-Builder or the design professional(s) employed or retained by the Design-Builder on this Project may possess now or in the future, and Design-Builder and its design professional(s) will claim no rights adverse to Owner in the Project Documents.

1.3.1.1 The Project as designed by Design-Builder 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. The Owner's use of the Documents without the Design-Builder's involvement on other projects unrelated to the Work of the Design-Builder is at Owner's sole risk. Design-Builder hereby grants its consent to reuse of the Project Documents by Owner for any and all such purposes. The Design-Builder will incorporate the terms of this Paragraph in all contracts with design professionals employed or retained by the Design-Builder to perform services on the Work covered by this Contract.

1.3.1.2 In the event of any termination for cause, the Design-Builder consents to the Owner's selection of a successor Design Professional of the Owner's choice to assist the Owner in completing the Project. The Design-Builder further agrees to cooperate and provide any information reasonably requested by the Owner in connection with the completion of the Project and consents to and authorizes the making of any reasonable changes to the Project Documents as the Owner may desire. However, the Owner's use of the revised Documents without the Design-Builder's involvement on other projects unrelated to the Work of the Design-Builder shall be at the Owner's sole risk. The Design-Builder shall not use or allow to be used the Project Documents or any part thereof or any unique design aspects of this Project in any other project without the prior written approval of the Owner. The Design-Builder's use of standard specification text and details are specifically excluded from the provisions of this Section.

1.3.2 Submission or distribution of the Design-Builder's 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 1.3.1.

1.3.3 CHAPTER 119 FLA. STATUTES REQUIREMENTS

IF THE DESIGN-BUILDER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE DESIGN-BUILDER'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-Builder agrees in accordance with Florida Statute Section 119.0701 to comply with public records laws including the following:

1.3.3.1 Keep and maintain public records required by the Owner in order to perform the Work contemplated by this Contract.

1.3.3.2 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.

1.3.3.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract Term and following

completion of the Contract.

- 1.3.3.4 Upon completion of this Contract, keep and maintain public records required by the Owner to perform the Work. Design-Builder 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 the Owner.

ARTICLE 2 OWNER RESPONSIBILITIES

2.1 GENERAL RESPONSIBILITIES

- 2.1.1 The Owner is the person or entity identified as such in this Contract and is referred to throughout the Contract Documents as if singular in number.
- 2.1.2 This Contract will be administered by the Owner's Chief Executive Officer or designee.
- 2.1.3 The Owner may designate a representative authorized to act on the Owner's behalf with respect to the Project. The Owner or such authorized representative will render decisions in a timely manner pertaining to documents submitted by the Design-Builder in order to avoid unreasonable delay in the orderly and sequential progress of the Design-Builder's services. The Owner may obtain independent review of the documents by a separate architect, engineer, design-builder, or cost estimator under contract to or employed by the Owner. Such independent review will be undertaken in a timely manner so as to not unreasonably delay the orderly progress of the Design-Builder's services.
- 2.1.4 The Owner may appoint an on-site Project representative to observe and inspect the Work and to have such other responsibilities as the Owner may authorize. If the Owner has actual knowledge of a fault or defect in the Work or nonconformity with the Contract Documents, the Owner will give prompt written notice to the Design-Builder. Such observations and inspections by the Owner will not relieve the Design-Builder of its obligations to the Owner; the Design-Builder's obligations are non-delegable.
- 2.1.5 The Owner will cooperate with the Design-Builder in securing building and other permits, licenses and inspections. The Design-Builder is ultimately responsible for securing all permits, licenses and inspections. All fees for such permits, licenses and inspections are included in the GMP.

- 2.1.6 To the extent known to and in the possession of the Owner, the Owner will provide copies of the results and reports of prior tests, inspections or investigations conducted for the Project involving: structural or mechanical systems; chemical, air and water pollution; hazardous materials; or other environmental and subsurface conditions upon written request by the Design-Builder. The Owner will disclose information actually known to the Owner regarding the presence of pollutants at the Project's site, upon written request by the Design-Builder. In regards to the two previous sentences, the Owner does not warrant the accuracy or completeness of any such results, reports or information and accepts no responsibility for them and the Design-Builder will be solely responsible for all assumptions made in reliance thereupon.
- 2.1.7 The results, reports and information required by Paragraph 2.1.6 which are within the Owner's control, and to the extent requested by Design-Builder, will be furnished at the Owner's expense. The Owner does not warrant the accuracy and completeness thereof and they are not part of the Contract Documents.
- 2.1.8 The Owner will communicate with persons or entities employed or retained by the Design-Builder through the Design-Builder, unless otherwise authorized by the Design-Builder or in the event of an emergency requiring immediate action.
- 2.1.9 If the Design-Builder fails to correct Work, upon notice and opportunity to cure, which is not in accordance with the requirements of the Contract Documents as required by Article 9 or persistently fails to carry out Work in accordance with the Contract Documents, the Owner or authorized representatives may, in writing, order the Design-Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work will not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Design-Builder or any other person or entity, except to the extent required by Paragraph 12.4. Nothing in this paragraph limits the Owner's other rights and remedies including, but not limited to, the right to terminate the Contract.

2.2 ADMINISTRATION OF THE CONTRACT

- 2.2.1 At all times the Design-Builder will provide Owner with full and adequate access to the Work, whether on or off site, so that Owner can become generally familiar with the progress and quality of the completed Work and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. However, the Owner will not be required to make exhaustive or continuous on-site inspections as to the quality or quantity of the Work. The Design-Builder will provide the Owner's personnel training and use of equipment on site to facilitate inspections.

- 2.2.2 The Owner will not have control over, be in charge of, or be responsible for coordination, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Design-Builder's responsibility. In the event the Owner implements an Owner Controlled Insurance Program (OCIP) on this Project, the Owner may implement a safety program that the Design-Builder will follow and coordinate.
- 2.2.3 The Owner will not be responsible for the Design-Builder's failure to carry out the Work in accordance with the Contract Documents. The Owner will not have control over, be in charge of, or be responsible for acts or omissions of the Design-Builder, Design-Builder's licensed design professionals, consultants, subcontractors, or any of their agents or employees, or of any other persons performing portions of the Work.
- 2.2.4 The Owner will have authority to reject Work which does not conform to the Contract Documents. Whenever the Owner considers it necessary or advisable for implementation of the intent of the Contract Documents, the Owner will have authority to require additional inspection or testing of the Work in accordance with Article 18, whether or not such Work is fabricated, installed or completed. If the inspection or testing determines the Work is non-conforming, the Design-Builder shall be responsible for such inspection or testing expense. However, neither this authority of the Owner nor a decision made in good faith either to exercise or not to exercise such authority will give rise to a duty or responsibility of the Owner to the Design-Builder, Design-Builder's licensed design professionals, consultants, subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work (of any tier).
- 2.2.5 The Design-Builder will submit draft Change Orders and Work Orders to the Owner for consideration. The Owner will prepare Change Orders and Work Orders as provided in Paragraphs 8.1 and 8.2.
- 2.2.6 Upon request by the Design-Builder, the Owner will conduct inspections to determine the date(s) of Substantial Completion and the date of Final Completion and Acceptance. The Design-Builder will submit to the Owner for review written warranties, electronic data and other documents required by this Contract. The Owner will issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.
- 2.2.7 Interpretations and decisions of the Owner will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of Drawings.

ARTICLE 3
DESIGN-BUILDER'S SERVICES AND RESPONSIBILITIES

3.1 GENERAL SERVICES

- 3.1.1 The Design-Builder will furnish services of all architectural design and all engineering related to civil, structural, mechanical, plumbing, fire protection, electrical, electronic and information technology systems, and including land surveyors, geotechnical engineers and other consultants for subsoil, air and water conditions, or any other services in addition to those provided under the Part 1 Contract when such services are deemed necessary by the Design-Builder to properly carry out the design services required by this Contract.
- 3.1.2 The design and construction services that the Design-Builder will provide to the Owner under this Contract will be as follows, and in general accordance with the Owner's Request for Qualifications, dated October 4, 2017, entitled "Request for Qualifications for Main Terminal Curbside Expansion, New Energy Plant and Related Work at Tampa International Airport", which is incorporated by reference herein to the extent they are not in conflict with this Contract, and the Design-Builder's GMP Proposal dated May 22, 2019, entitled "Early Enabling Work (GMP 01) Submission – REVISION 3, TPA – Main Terminal Curbside Expansion Project", which is incorporated by reference and attached hereto as Attachment 1.
- 3.1.3 Design-Builder designates Joseph Giunta, whose business address is 6557 Hazeltine National Dr., Suite One, Orlando FL 32822, to serve as the Program Director. The Program Director will be authorized and responsible to act on behalf of the Design-Builder with respect to directing, coordinating and administering all aspects of the Work to be provided and performed under this Contract. Design-Builder designates Kirk J. Hazen, whose title is Vice President/District Manager, whose business address is 6557 Hazeltine National Dr., Suite One, Orlando FL 32822, and who will have full authority to bind and obligate the Design-Builder on all matters arising out of or relating to this Contract. The Design-Builder agrees that the Project Director will devote whatever time is required to satisfactorily manage the services to be provided and performed by the Design-Builder hereunder. Any replacement of the Project Director will be subject to the prior written approval and acceptance of the Owner.
- 3.1.4 The Design-Builder, as soon as practicable after execution by the Owner of this Contract, will furnish in writing to the Owner the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) that bid on and are proposed for each principal portion of the Work and their respective bid packages of the bids received with their bid tabulations. The Owner will promptly reply to the Design-Builder in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner to reply within 10 days will constitute notice

of no reasonable objection. Upon receipt and approval, such writing by Design-Builder, and any subsequent changes thereto, will be incorporated into the Contract Documents by reference.

- 3.1.5 Except to the extent otherwise expressly provided in the Contract Documents, the Design-Builder will provide, or cause to be provided, and will pay for, all design services, labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- 3.1.6 At all times the Design-Builder will keep the Owner informed of the progress and quality of the Work and the Owner will have access to all records and components of the Work at all times.
- 3.1.7 Any agreements between the Design-Builder and the persons or entities identified in this Contract and any subsequent modifications thereto will be in writing. These agreements, including financial arrangements with respect to this Project, will be promptly and fully disclosed to the Owner via Adobe pdf format. Though the contractual obligations of such professional persons or entities are undertaken and performed in the interest of the Design-Builder, it is expressly acknowledged and agreed by Design-Builder that the Owner will be identified as an intended third party beneficiary of the agreements between Design-Builder and the design professionals and Design-Builder and subcontractors.
- 3.1.8 The Design-Builder will be responsible to the Owner for acts and/or omissions of the Design-Builder's employees, consultants, contractors, subcontractors, sub-subcontractors, suppliers, materialmen, or agents of any tier or their respective employees, and other persons, including the licensed design professionals performing any portion of the Design-Builder's obligations under this Contract. Nothing herein shall waive or relieve any other individuals or entities who may have liability to the Owner.
- 3.1.9 The Design-Builder agrees that all documents relied upon in making or supporting their GMP Proposal Documents and subcontracts have been and will continue to be retained in escrow commencing from the date they were first prepared, assembled or received by Design-Builder prior to the date this Contract is executed by the Owner and Design-Builder will continue to preserve and update them during the course of the Work until five years after Substantial Completion. The Owner will have the right to inspect any and all such GMP Proposal Documents and subcontract documents and to verify that such GMP Proposal Documents and subcontract documents have been and are properly escrowed as required above commencing prior to the time this Contract is executed by the Owner, and at any time thereafter during the course of the Work.

3.1.10 Design-Builder may self-perform portions of the Work at Owner’s sole discretion. The Design-Builder shall submit a proposal for the self-performed work in the same manner as all other subcontractors. The Owner, in its sole discretion, will determine whether the Design-Builder’s proposal provides the best value for the Owner. This determination is final. Design-Builder shall perform all approved self-performed Work in accordance with the same terms and conditions as its subcontractors. The Design-Builder shall account for all self-performed Work in the same manner as all subcontractor costs.

3.1.11 Upon written request, the Design-Builder is required to provide all Contract information and supporting documentation required to enable the Owner to receive any applicable state or federal grants.

3.2 PREFERENCE TO FLORIDA STATE RESIDENTS:

3.2.1 Design-Builder will give preference to the employment of state residents in the performance of the Work on this Contract if state residents have substantially equal qualifications to those of non-residents. The term “substantially equal qualifications” means the qualifications of two or more persons among whom the Design-Builder cannot make a reasonable determination that the qualifications held by one person are better suited for the position than the qualifications held by the other person or persons. If required to employ state residents, Design-Builder must contact the Agency for Workforce Innovation to post the Design-Builder’s employment needs in the state’s job bank system.

3.3 DESIGN PROFESSIONAL SERVICES

3.3.1 All design services required by this Contract will be performed by appropriately licensed architects, engineers and other licensed design professionals according to the standard of care ordinarily used by such design professionals performing similar services under similar conditions. The contractual obligations of such professional persons or entities are undertaken and performed in the interest of the Design-Builder and the Owner.

3.3.2 The Design-Builder has provided 100% Project Documents for review, comment and approval by the Owner under the Part 1 Contract. If additional design services are required under the Part 2 Contract, design documents prepared will consist of all Drawings, Specifications, electronic data and other documents sufficient to establish the size, quality and character of the entire Project, its architectural, civil, structural, mechanical and electrical systems, materials and such other elements of the Project as may be appropriate and will:

- 3.3.2.1 Be consistent with the intent of the Design-Builder's GMP Proposal Documents
- 3.3.2.2 Provide information for the use of those in the building trades;
- 3.3.2.3 Include documents customarily required for regulatory agency approvals;
- 3.3.2.4 Be consistent with the intent of the current version Owner's Design Criteria Manual.

Any deviations from the Owner's Design Criteria Manual must be separately highlighted and disclosed by Design-Builder and approved in writing by Owner with each applicable submittal. Owner approval of Project Documents does not relieve or release Design-Builder of any of its responsibilities or liability for the Project Documents.

- 3.3.3 Prior to starting the Work and at frequent intervals during the progress thereof, the Design-Builder will carefully study and compare the Contract Documents with each other and with the information furnished by the Owner and will at once report to the Owner any error, inconsistency or omission the Design-Builder may discover. Any necessary change will be accomplished as provided in Article 8.
- 3.3.4 The Design-Builder will take field measurements and verify field conditions and will carefully compare such field measurements, field conditions and other information known to the Design-Builder with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered will be reported to the Owner at once.
- 3.3.5 The Design-Builder will give the Owner timely written notice of all additional information or instructions required from the Owner to define the Work in greater detail or to permit the proper progress of the Work.
- 3.3.6 If the Design-Builder proceeds with the Work without such notice to the Owner, having discovered such errors, inconsistencies or omissions, or if by reasonable study of the Contract Documents the Design-Builder could have discovered such, the Design-Builder will bear all increased or additional costs arising therefrom without reimbursement from the Owner.
- 3.3.7 In the event that Design-Builder seeks to change the staffing of the Project Manager(s) or Superintendent(s) named in the GMP proposal, the Design-Builder shall provide written notice no later than 30 days prior to the proposed staffing change with the proposed change, detailed resume and work history for the proposed replacement, the reasoning for the proposed change and a detailed transition plan. The Owner shall approve or disapprove the proposed change within

10 days following the date of receipt of Design-Builder's notice. Such approval shall not be unreasonably withheld. The Owner reserves the right to declare Design-Builder in breach if it fails to use proposed or approved staffing.

3.4 CONSTRUCTION PHASE SERVICES

- 3.4.1 The Design-Builder will not proceed with any Work not clearly and consistently defined in detail in the Contract Documents. If the Design-Builder proceeds with such Work, the Design-Builder will correct Work incorrectly done at the Design-Builder's own expense and without reimbursement from Owner.
- 3.4.2 The Design-Builder will be responsible for correcting Work which does not conform to the Contract Documents so that it conforms with the Contract Documents at the Design-Builder's own expense and without reimbursement from Owner. No additional payment will include costs of Work associated with Work required to be redone as a result of non-conformance with the Contract Documents.
- 3.4.3 The Design-Builder warrants that the materials and equipment furnished under this Contract will be merchantable, new and of recent manufacture unless otherwise specified and that all Work, will be of good quality, free from faults and defects and in conformance with the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Design-Builder shall furnish satisfactory evidence as to kind and quality of materials and equipment. The Owner reserves the right to reject any materials that are damaged and/or not in new condition.
- 3.4.4 The Design-Builder will keep the Project site free from accumulation of waste materials or rubbish caused by Design-Builder's operations on a daily basis. The Design-Builder will keep areas used by the public or exposed to public view in such a state of cleanliness so as not to reflect unfavorably upon the Owner. The Design-Builder will keep areas near aircraft operations free from materials which could possibly be ingested into aircraft engine or which could cause damage by being blown by aircraft engine blast effects. If the Design-Builder fails to clean-up, the Owner may do so and the cost thereof will be withheld from the Design-Builder. Refer to General Requirements Section 01110 - AIRPORT PROJECT PROCEDURES, Item 1.07 DAILY CLEAN-UP AND TRASH REMOVAL for additional requirements.
- 3.4.5 The Design-Builder will maintain at the Project site one current copy of the Project Manual. Project Manual is defined as the current working set of all Project Documents as well as all Drawings, Specifications, Product Data, electronic data, Samples, Shop Drawings, Change Orders and other Modifications, in good order and regularly updated to record the completed construction. The Design-Builder will make the Project Manual and such other record documents available for inspection

by the Owner. If approved by the Owner, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records, documents and electronic data. If the Design-Builder fails to make the records, documents and electronic data available, the Owner may, after written notice to the Design-Builder, take such action as may be necessary including the withholding of any further payment. Furthermore, failure to make such records, documents and electronic data available may be grounds for termination pursuant to Article 19.

- 3.4.6 The Owner intends to implement a building information modeling (“BIM”) approach to the design and construction of the Project. Design-Builder agrees to cooperate with the Owner in the implementation of that BIM approach and to comply with the protocols, processes and technologies established by Owner, per the BIM Execution Plan submitted by the Design-Builder and approved by the Owner during the performance of the Part 1 Contract, to fully utilize such an approach (as they may be modified by Owner from time to time), including with limitation the BIM parameters, standards and technological requirements. As indicated in the BIM Execution Plan, Design-Builder agrees (1) the design will be developed in a digital representation of the physical and functional characteristics of the Project (the “Model”), (2) constructability, cost and schedule information will be incorporated through the Model, (3) conflict resolution will occur through the Model, (4) shop drawings will be incorporated through the Model, and (5) Model will be kept current to reflect as-built conditions. In the event of any conflict between the BIM models and signed and sealed Drawings, the signed and sealed Drawings shall control.
- 3.4.7 The Design-Builder shall provide a copy of its daily field reports to the Owner no later than 2 business days following the day of the performed work. The Design-Builder’s daily field reports shall include the subcontractors and others on site; manpower of each subcontractor and others on site; equipment on site; Design-Builder staffing on site; weather; construction activities and other information as required by Owner. Daily reports must make clear distinctions between construction activities performed for base scope, change orders, or disputed work/potential insurance claims.
- 3.4.8 The Design-Builder will submit all record documents in accordance with General Requirements Section 01700 – PROJECT CLOSEOUT.
- 3.4.9 The Design-Builder will provide coordination of the Work with construction performed by the Owner’s own forces or separate contractors employed by the Owner and coordination of services required in connection with construction performed and equipment supplied by the Owner. This will include an Owner approved coordinated phasing plan that will minimize Owner impacts. This phasing plan will be updated monthly and submitted with the pay application.

- 3.4.10 The Design-Builder will supervise, direct and inspect the Work, using the Design-Builder's best skill and attention. The Design-Builder will be solely responsible for and have control over construction means, methods, techniques, sequences, safety, quality control, and procedures and for coordinating all portions of the Work under this Contract. All Work by the Design-Builder will be performed in a manner satisfactory to the Owner.
- 3.4.11 The Design-Builder will be responsible for inspection of all portions of Work performed under this Contract to determine that such portions are in proper condition to be put to the intended use or receive subsequent work of others.
- 3.4.12 The Design-Builder will enforce strict discipline and good order among the Design-Builder's employees and other persons carrying out this Contract. The Design-Builder will not permit employment of unfit persons or persons not skilled in tasks assigned to them.
- 3.4.13 The Design-Builder will employ a competent Project management team (Team) acceptable to the Owner, consisting of at least one Project manager, Project superintendents and other representatives, as necessary, who will be in attendance at the Project site full time during the progress of the Work until the date of Substantial Completion of the whole Work, or for such additional time thereafter as the Owner may determine to be necessary for the expeditious completion of the Work. The Team will represent the Design-Builder and communications given to the Team will be as binding as if given to the Design-Builder. It is agreed and understood that if a Team member is found to be unsatisfactory to the Owner for whatever reason, the Design-Builder will replace that member of the Team with another qualified representative within 14 calendar days.
- 3.4.14 Should the Owner find any person(s) employed on the Project by Design-Builder or by anyone for whom Design-Builder is responsible to be incompetent, unfit, or otherwise objectionable, the Design-Builder will immediately cause the employee to be removed from the Project at no additional cost and said employee will not be re-employed on this Project without written consent of the Owner.

3.5 LEGAL REQUIREMENTS

- 3.5.1 The Design-Builder will pay all sales, consumer, use and similar taxes which had been legally enacted at the time this Contract was executed by the Owner and will secure and pay for building and other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work which are either customarily secured by a contractor or design-builder or otherwise were legally required at the time this Contract was executed by the Owner.

- 3.5.2 Pursuant to Sales and Use Tax Law Chapter 212, Florida Statutes, the Hillsborough County Aviation Authority is exempt from the payment of sales tax. The Hillsborough County Aviation Authority Certificate Number is 39-00-143184-53C. Work performed by all subcontractors for the Design-Builder and supplies provided to all subcontractors or Design-Builder are not exempt from state sales tax.
- 3.5.3 The Design-Builder will comply fully with all applicable federal, state, county, municipal and other governmental laws, executive orders, wage, hour and labor, equal employment opportunity, disadvantaged business enterprises, pollution control and environmental regulations, applicable national and local codes, FDOT Standards, Manual or Uniform Traffic Control Devices and requirements, FAA Advisor Circulars and Owner's Rules and Regulations. Any projects with FDOT funding require the Design-Builder to comply with all applicable provisions of the FDOT Public Transportation Grant Agreement. Owner shall notify Design-Builder in writing if FDOT funding will be used on the Project. The Design-Builder will obtain all necessary permits, pay all required charges, fees and taxes and otherwise perform these services in a legal manner.
- 3.5.3.1 The Design-Builder will give all notices necessary for the lawful prosecution of the Work so as not to delay the completion of the Work.
- 3.5.4 The Design-Builder will obtain permission and pay any applicable royalties and license fees for patents, copyrights and trademarks in anyway involved in the Work.
- 3.5.4.1 If the Design-Builder has reason to believe the use of a required design, process or product is an infringement, the Design-Builder will be responsible for such loss unless such information is promptly furnished to the Owner prior to its use and Owner expressly directs Design-Builder to use it anyway.
- 3.5.5 It is the Design-Builder's responsibility that the Project Documents are in accordance and compliance with all applicable laws, statutes, ordinances, building codes and rules and regulations. If the Design-Builder observes that portions of the Project Documents are at variance therewith, the Design-Builder will promptly notify the Owner in writing and any necessary changes will be accomplished by Design-Builder.
- 3.5.6 If the Design-Builder performs Work contrary to any laws, statutes, ordinances, building codes and rules and regulations, Owner's Design Criteria, the Design-Builder will assume full responsibility for such Work and will bear the attributable costs without reimbursement from Owner.
- 3.5.7 The Design-Builder will keep fully informed of all Federal and State Laws, including but not limited to ADA requirements, all local laws, ordinances and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which in any manner affect those engaged or employed on the Work, or which in

any way affect the conduct of the Work. The Design-Builder will at all times observe and comply with all such laws, ordinances, regulations, orders and decrees.

3.5.8 The Design-Builder is required to hire a qualified consultant for the design phase of the Project.

3.6 **GOVERNMENT APPROVALS AND PERMITS**

3.6.1 The Design-Builder, with the cooperation of the Owner, will file all documents required to obtain necessary permits and approvals of governmental authorities having jurisdiction over the Project.

3.6.2 The Design-Builder will obtain and pay for all license and permits, all fees and charges for connection to outside services and parking for Contractor's vehicles; abide by FAA, TSA, and Owner's safety and security regulations and procedures relative to access to, and work in, Airport Operations Areas and secured facilities; and comply with the requirements of Authorities Having Jurisdiction (AHJ).

3.7 **ADDITIONAL SERVICES**

3.7.1 The additional services described below are not included in the Work and will be paid for, if authorized in writing by the Owner, as provided in this Contract.

3.7.1.1 Revisions to Drawings, Specifications and other documents or electronic data when such revisions are required by the enactment or revision of codes, laws or regulations subsequent to the issuance of applicable permits by appropriate governmental authorities having jurisdiction or the execution of this Contract, whichever is later.

3.7.1.2 Consultation concerning replacement of Work damaged by fire or other casualty covered by Builder's Risk, OCIP or other insurance policy and furnishing of services required in connection with the replacement of such Work.

3.7.1.3 Services in connection with a public hearing, arbitration proceeding, mediation, other alternative resolution proceeding or litigation, except where the Design-Builder is a party thereto.

3.7.1.4 Any Owner requested changes to the Drawings, Specifications, or other design services performed under the Part 1 Contract; provided the basis for any such change is unrelated to a non-compliance with the Contract Documents nor a design error or omission.

3.7.2 Services related to any required approvals by the AHJ are included in the GMP not additional services.

3.8 WARRANTY

3.8.1 In addition to its general warranty obligations under Paragraph 3.4.3 and elsewhere in the Contract Documents, the Design-Builder warrants it will correct any defective Work or Work found not to be in compliance with the requirements of the Contract Documents, or applicable laws, building codes, rules or regulations for one year from the date of Substantial Completion. All defective Work or Work found not to be in compliance with the requirements of the Contract, or applicable laws, building codes, rules or regulations appearing within this one-year period will be promptly corrected by the Design-Builder at the Design-Builder's own cost, without reimbursement from the Owner. Any Work corrected during this one-year period will be warranted for one year from the date of accepted correction. With respect to any portion of Work performed after Substantial Completion, the one year correction period shall be extended by the period of time between Substantial Completion and the actual performance of the later Work.

3.8.2 The warranty provided under this Paragraph 3.8 will be in addition to and not in limitation of any other warranty required by the Contract Documents or otherwise prescribed by law.

3.8.3 The Design-Builder will procure and deliver to the Owner, prior to Final Completion and Acceptance, all warranties required by the Contract Documents. Delivery by the Design-Builder will constitute the Design-Builder's guarantee to the Owner that the warranty will be performed in accordance with its terms and conditions. Refer to General Requirements Sections 01700 - PROJECT CLOSEOUT and 01740 - WARRANTIES for additional requirements.

3.8.4 The warranties set out herein are not in lieu of any other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose.

3.8.5 If the Design-Builder fails to correct any defective Work or Work found not to be in compliance with the requirements of the Contract Documents, or applicable laws, building codes, rules or regulations within a reasonable time after receipt of written notice from the owner, the Owner may correct it in accordance with the Owner's right to carry out the Work. If such case occurs prior to final payment, the Design-Builder agrees that an appropriate Change Order shall be issued deducting the cost of correcting such deficiencies from payments then or thereafter due to the Design-Builder. If payments then or thereafter due Design-Builder are not sufficient, the Design-Builder agrees to pay the difference to the Owner. All claims, costs, losses, and damages arising out of or relating to such correction or repair or such removal

and replacement (including but not limited to all costs of repair or replacement of work by others) will be paid by Design-Builder.

- 3.8.6 If the Design-Builder's correction or removal of Defective Work causes damage to or destroys other completed or partially completed construction, the Design-Builder shall be responsible for the cost of correcting the destroyed or damaged construction.
- 3.8.7 Nothing contained in Article 3.8 shall be construed to establish a period of limitations with respect to other obligations the Design-Builder has under this Contract. Establishment of the one-year period for correction of Work as described in this Article relates only to the specific obligation of the Design-Builder to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than to specifically correct the Work.
- 3.8.8 If after the one year correction period, but before the applicable limitations period, the Owner discovers any defective Work or Work found not to be in compliance with the requirements of the Contract Documents, or applicable laws, building codes, rules or regulations, the Owner shall unless the defective Work or Work found not to be in compliance with the requirements of the Contract Documents, or applicable laws, building codes, rules or regulations requires emergency correction, notify the Design-Builder. If the Design-Builder elects to correct the Work, it shall provide written notice of such intent within fourteen (14) days of its receipt of notice from the Owner. The Design-Builder shall complete the correction of Work within a mutually agreed time frame. If the Design-Builder does not elect to correct the Work, the Owner may have the Work corrected by itself or others and the Design-Builder shall pay the Owner for the reasonable costs of the correction no later than fourteen (14) days following its receipt of the invoice. The Owner shall provide Design-Builder an accounting of correction costs it incurs.
- 3.8.9 Design-Builder's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of the Work that is not in accordance with the Contractor Documents or release the Design-Builder's obligation to perform the Work in accordance with the Contract Documents: (1) observations by the Owner or the Owner's agents; (2) recommendations for payment made to the Owner or payment by the Owner (whether progress or final); (3) issuance of Certificates of Substantial or Final Completion; (4) use or occupancy of the Work or any part thereof by the Owner; (5) any review and approval of a Shop Drawing or sample submittal; (6) any inspection, test or approval by others; or (7) any correction of defective Work by the Owner

3.9 DESIGN-BUILDER'S DESIGN AND CONSTRUCTION SCHEDULES

- 3.9.1 The Design-Builder will be responsible for the planning, scheduling and coordination of all Work performed under the Contract Documents and the entire Project as a whole so that materials will arrive on schedule and Work will proceed without delay.
- 3.9.2 The Design-Builder will submit preliminary and baseline design and construction schedules for Owner's review and approval in accordance with requirements specified under General Requirements Section 01315 - SCHEDULES, PHASING. These schedules will not exceed time limits set forth in the Contract Documents, will be revised at appropriate intervals as required by the conditions of the Work and Project (but not less frequently than monthly), will be related to the entire Project to the extent required by the Contract Documents and will provide for expeditious and practicable execution of the Work. These schedules and any subsequent changes thereto will be incorporated into the Contract Documents by reference.
- 3.9.3 The Design-Builder will prepare and keep current, for the Owner's approval, a schedule of submittals which is coordinated with the Design-Builder's design and construction schedule and allows the Owner reasonable time to review submittals.
- 3.9.4 The Design-Builder will conform to the most recent approved schedules.

3.10 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- 3.10.1 Shop Drawings are drawings, diagrams, calculations, models, schedules and other data (including electronic data) specially prepared for the Work by the Design-Builder or a subcontractor, sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
- 3.10.2 Product Data are illustrations, standard schedules, descriptions, performance charts, manuals, instructions, brochures, diagrams and other information furnished by the Design-Builder to illustrate materials or equipment for some portion of the Work.
- 3.10.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- 3.10.4 Shop Drawings, Product Data, Samples and similar submittals are not Project Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required the way the Design-Builder proposes to conform to the information given and the design concept expressed in the Contract Documents.

- 3.10.5 After Design-Builder's review and approval, stamped copies of all Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents will be submitted to the Owner for comments and review. This documentation will be submitted with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of its separate design-builders. The review of the submittals by the Owner will not constitute any release or discharge of Design-Builder's sole liability and responsibility for all such submittals.
- 3.10.6 The Design-Builder will not perform any portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Design-Builder's licensed design professional and reviewed by the Owner. Such Work will be in accordance with approved submittals.
- 3.10.7 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Design-Builder thereby represents to Owner that the Design-Builder has determined and verified that all dimensions, quantities, field dimensions, relations to existing work, coordination with work to be installed later, and coordination with information on previously accepted Shop Drawings, Product Data, Samples, or similar submittals are in compliance with all the requirements of the Contract Documents. The accuracy and coordination of such information is the responsibility of the Design-Builder. In reviewing Shop Drawings, Product Data, Samples and similar submittals, the Owner will be entitled to rely upon the Design-Builder's representation that such information is correct and accurate.
- 3.10.8 The Design-Builder is not authorized to deviate from requirements of the Contract Documents unless the Design-Builder has specifically informed the Owner and Design-Builder's licensed design professional in writing of such deviation at the time of submittal and the Owner has given written approval to the specific deviation. Even if the deviation is authorized as provided above, the Design-Builder will not be relieved of its responsibility for any errors or omissions in Shop Drawings, Product Data, Samples or similar submittals.
- 3.10.9 The Design-Builder will keep one clean copy of each submittal brochure and each Shop Drawing, bearing the Design-Builder's licensed design professional's review stamp and all review comments, including the Owner's, at the Project site.
- 3.10.10 The Design-Builder will ensure that all products, materials, Shop Drawings, Product Data, Samples and other submittals comply with the Contract Documents in every respect.

- 3.10.11 The Design-Builder will coordinate all products, materials, Shop Drawings, Product Data, Samples and other submittals with any other design-builders or contractors working in direct relation to the Work in this Contract.
- 3.10.12 The Design-Builder warrants that any substitutions, variations, deviations or modifications to any products or materials and any substitutions, variation, deviations or modifications depicted in any Shop Drawings, Product Data, Samples or other submittals will work in coordination and harmony and will serve the intended purpose.
- 3.10.13 The Design-Builder will be responsible for determining that all materials furnished for the Work meet all requirements of the Contract Documents. The Owner may require the Design-Builder to produce reasonable evidence that a material meets such requirements, such as certified reports of past tests by qualified testing laboratories, reports of studies by qualified experts, or other evidence, which, in the opinion of the Owner, would lead to a reasonable certainty that any material used, or proposed to be used, in the Work meets the requirements of the Contract Documents. All such data will be furnished at the Design-Builder's expense. This provision will not require the Design-Builder to pay for periodic testing of different batches of the same material, unless such testing is specifically required by the Contract Documents to be performed at the Design-Builder's expense.
- 3.10.14 In all cases in which a manufacturer's name, trade name or other proprietary designation is used in connection with materials or articles to be furnished under this Contract, whether or not the phrase "or equal" is used after such name, the Design-Builder will furnish the product of the named manufacturer(s) without substitution, unless a written request for a substitution has been submitted by the Design-Builder and approved by the Owner as provided in Paragraph 3.10.13. Refer to General Requirements Section 01605 - PRODUCTS AND SUBSTITUTIONS for additional requirements.
- 3.10.15 If the Design-Builder proposes to use a material which, while suitable for the intended use, deviates in any way from the detailed requirements of the Contract Documents or Owner Design Criteria Manual, the Design-Builder will inform the Owner in writing of the nature of such deviations at the time the material is submitted for approval and will request written approval of the deviation from the requirements of the Contract Documents.
- 3.10.16 In requesting approval of deviations or substitutions, the Design-Builder will provide, evidence leading to a reasonable certainty that the proposed substitution or deviation will provide a quality or result at least equal to that otherwise attainable. If, in the sole discretion of the Owner, the evidence presented by the Design-Builder does not provide a sufficient basis for such certainty, the Owner may reject such substitution or deviation without further investigation.

- 3.10.17 Any additional cost, or any loss or damage arising from the substitute of any material or any method from those originally specified, will be borne by the Design-Builder without reimbursement from Owner, notwithstanding approval or acceptance of such substitution by the Owner, unless such substitution was made at the written request or written direction of the Owner. Design-Builder waives its rights to claim Economic Waste or Betterment for any substituted material or method subsequently discovered.
- 3.10.18 Refer to General Requirements Section 01340 - SHOP DRAWINGS, PRODUCT DATA AND SAMPLES for additional requirements.

3.11 USE OF SITE

- 3.11.1 Design-Builder will be responsible for coordination with Owner for site access. The right of possession of the Project site and the improvements made thereon by the Design-Builder will remain at all times with the Owner. The Design-Builder's right to entry and use thereof arises solely from the permission granted by the Owner under the Contract Documents. The Owner reserves the right to direct the Design-Builder with respect to the security of the site and access points.
- 3.11.2 The Design-Builder will confine the Design-Builder's apparatus, the storage of materials and the operations of the Design-Builder's workmen to areas permitted by law, ordinances, the Contract Documents and permits and/or directions of the Owner and will not unreasonably encumber the Project site with the Design-Builder's materials. The Owner will not be liable to the Design-Builder, the Design-Builder's licensed design professional, consultants, subcontractors, their employees (of any tier) or anyone else with respect to the conditions of the Project site.
- 3.11.3 Material will be arranged and maintained in an orderly manner with the unencumbered use of walks, drives, roads and entrances. Design-Builder will store, place and handle material and equipment delivered to the Project site so as to preclude inclusion of foreign substances or causing of discoloration or deterioration. Design-Builder will pile materials neatly and compactly, barricade all storage and work areas from public view and shield them to protect the public from injury and protect materials as required to prevent damage from weather or ground. Should it be necessary to move material, sheds or storage platforms at any time, the Design-Builder will move them as and when required at no additional cost to the Owner.
- 3.11.4 The Owner assumes no responsibility for materials stored in building or on the Project site. The Design-Builder will assume full responsibility for damage due to storing of materials. Restoring of areas used for placing of sheds, offices and storage of materials will be performed by the Design-Builder.

3.12 CUTTING AND PATCHING

- 3.12.1 The Design-Builder will be responsible for all cutting, fitting or patching required to complete the Work or to make its parts fit together properly.
- 3.12.2 The Design-Builder will not damage or endanger a portion of the Work on fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Design-Builder will not cut or otherwise alter such construction by the Owner or a separate contractor except with prior written consent of the Owner and such separate contractor. Such consent will not be unreasonably withheld. The Design-Builder will not unreasonably withhold from the Owner or a separate contractor the Design-Builder's consent to cutting or otherwise altering the Work.
- 3.12.3 Refer to General Requirements Section 01045 - CUTTING AND PATCHING for additional requirements.

3.13 MOBILIZATION

- 3.13.1 The Work specified as Mobilization consists of preparatory work and operations in mobilizing for beginning work on the Project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the Project site, building permit costs, and for the establishment of temporary offices, building facilities, utilities, safety equipment and first aid supplies, sanitary and other facilities, as required by these Contract Documents and State and local laws and regulations. The costs of bonds and all required insurance and other preconstruction expense necessary for the start of the Work, excluding the cost of construction materials, will also be included in Mobilization.

ARTICLE 4 PAYMENTS

- 4.1 The schedule of values will be approved by the Owner prior to Design-Builder submitting the initial and subsequent application for payments. The schedule of values and any subsequent changes thereto will be incorporated into the Contract Documents by reference.
- 4.2 Refer to General Requirements Section 01370 - SCHEDULE OF VALUES for additional information.
- 4.3 The schedule of values will be prepared in such a form and supported by such data to substantiate its accuracy in reflecting the breakdown for administrative and payment purposes as the Owner may require and will be revised later if found by the Owner to be inaccurate. The schedule of values will be further arranged to conform

- to the Construction Specifications Institute (CSI) Standard Format for Divisions and Sections with overhead and profit on separate lines. If the Contract involves multiple projects, phases, or airports, then project, phase and airport sub-totals will be required. The schedule of values must be sent electronically in Excel format along with the application for payment.
- 4.4 The cost of General Conditions as detailed in Design-Builder's GMP Proposal will be paid monthly based on actual Cost of the Work or agreed upon labor rates incurred as part of the Design-Builder's application for payment. Retainage will not be withheld for Design Costs, Construction Administration, General Conditions, Payment & Performance Bonds and Insurance.
- 4.5 The application for payment, in a format satisfactory to the Owner, will constitute a representation by the Design-Builder to the Owner that the design and construction have progressed to the point indicated; the quality of the Work covered by the application is in accordance with the Contract Documents; and the Design-Builder is entitled to payment in the amount requested.
- 4.6 The administrative actions and submittals which will be a condition precedent to payment of the Design-Builder's initial application for payment will include but not be limited to:
- 4.6.1 Listing of subcontractors, principal suppliers and fabricators.
 - 4.6.2 Schedule of Values (electronic in Excel format with submission).
 - 4.6.3 Initial CPM (or Bar Chart) Design and Construction Schedule, in the format required by the Contract Documents.
 - 4.6.4 Schedule of submittals including testing and inspections.
 - 4.6.5 W/MBE form.
 - 4.6.6 Stored Material spreadsheet (electronically in Excel format with submission and verification form).
 - 4.6.7 Fully executed subcontractor contracts electronically by pdf.
 - 4.6.8 Submission detail will be organized by order using required standard section dividers identifying the supporting information or an electronic means acceptable to the Owner.
 - 4.6.9 A detailed payroll report showing each of the Design-Builder's employees including burdens and breakdowns satisfactory to the Owner.

- 4.6.10 E-Verify compliance plans for Design-Builder and subcontractors per Article 34, E-Verify Requirement. Subsequent applications for payment will include E-Verify compliance plans for subcontractors not included with the initial application for payment.
 - 4.6.11 E-Verify Certifications for subcontractors. Subsequent applications for payment will include E-Verify Certifications for subcontractors not included with the initial application for payment.
 - 4.6.12 E-Verify reports for any new employees hired by the Design-Builder and subcontractors since the start of the Contract Term. Subsequent applications for payment will include E-Verify reports for any new employees hired by the Design-Builder and subcontractors not included with the initial application for payment. E-Verify reports will only be required when the Design-Builder and subcontractors hire new employees and will not be required if the Design-Builder and subcontractors do not hire any new employees.
- 4.7 The Design-Builder will submit an application for payment to the Owner as a condition to receiving any monthly payment.
- 4.8 For performance of this Contract, the Owner will make payments in U.S. Dollars to the Design-Builder in accordance with the schedule of values approved by the Owner, which will be based on the GMP Contract Sum amount contained in Paragraph 21.2.1.
- 4.9 With the exception of the month of September, all applications for payment will be submitted to the Authority by the third of each month. In the event that the third of the month falls on a Saturday, Sunday or holiday, applications for payment are due the prior business day. Payment will be made by the 25th of the month. 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, Sunday or holiday, applications for payment are due the prior business day and subsequent payments will be made the second Friday of October. The Owner requires the Design-Builder to have a pencil copy review and approval of all applications for payment with the Owner's Construction Project Manager prior to submittal.
- 4.10 The Design-Builder will submit to the Owner, via the Owner's Records Management Department, an electronic copy of a sworn executed and notarized original and an electronic copy of an itemized application for payment prepared on a form by the Owner at the pre-construction meeting and based on the agreed schedule of values, supported by such data substantiating the Design-Builder's right to payment as the Owner may require and reflecting retainage for all Work performed through the last day of the previous month or agreed upon date. The application for payment will be

certified by a person duly authorized in writing to execute contractual instruments on behalf of the Design-Builder. Accompanying the Application for Payment shall be Lien Waivers (if applicable) and Waivers of Right to Claim against the Payment Bond for each subcontractor or vendor who has rights to claim against the Payment Bond for the Work covered by the Application for Payment. Incomplete applications for payment will be returned by the Owner without action. If deficiencies are found, a standard deficiency e-mail will be sent to the Design-Builder to resolve within one business day. If the deficiency is not resolved within that time, the application for payment will be returned. The original complete sworn, executed and notarized application for payment with all attachments shall be retained by the Design-Builder for five years following Substantial Completion and delivered to the Owner upon request.

- 4.11 The Owner will make payment according to the Owner's standard payment procedures. The Design-Builder agrees to pay each subcontractor for satisfactory performance of its subcontract within 10 days after receipt of the Design-Builder's payment from the Owner. After the subcontractor's work is satisfactorily completed, the Design-Builder agrees further to release all retainage payments to each Subcontractor within 10 days after receipt of the Design-Builder's payment from the Owner. 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 DBE or W/MBE and non-DBE or non-W/MBE subcontractors.
- 4.12 Each application for payment will include the Design-Builder's signed statement certifying previous payments, based on the agreed schedule of values of the value of the Work. The total payment for each month will be broken down according to the specific items from the schedule of values that have been completed/delivered for which payment is requested. Payment will be made only for Work in place with the exception of stored materials as defined in this Contract. All such payments will be commensurate with the actual progress of the Work which will be substantiated and itemized in the Monthly Construction Schedule. Payments will not be made for any Work which cannot be so substantiated. Refer to General Requirements Section 01315 - SCHEDULES, PHASING.
- 4.13 Each application for payment will be based upon the most recent updated schedule of values approved by the Owner in accordance with the Contract Documents. The schedule of values will allocate the entire GMP among the various portions of the Work, except that the Design-Builder's Fee will be shown as a single separate item. The schedule of values will be prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. If the Contract involves multiple projects, phases or airports, then project, phase and airport sub-totals will be required. This schedule of values, unless objected to by the Owner, will be used as a basis for reviewing the Design-Builder's application for payment. Schedule of values will include amounts of each fully executed Change Order approved by the Owner

prior to the last day of the period of Work covered by the application for payment. The schedule of values must be sent electronically in Excel format along with the application for payment.

4.14 Applications for payment will show the percentage completion of each portion of the Work as of the end of the period covered by the application for payment. The percentage completion will be the percentage obtained by dividing (a) the expense which has actually been incurred by the Design-Builder on account of that portion of the Work for which the Design-Builder has made by (b) the share of the GMP Contract Sum allocated to that portion of the Work in the schedule of values. Applications for payment will not include costs of Work associated with Work required to be redone as a result of construction errors or defects.

4.15 The Design-Builder will submit with each application for payment an electronic copy of a detailed accounting of the value of Work performed to date by certified W/MBEs on Owner provided forms. The Owner will not make payment on an application for payment without the Design-Builder's submission of the detailed W/MBE accounting. If deficiencies are found, a standard deficiency e-mail will be sent to the Design-Builder to resolve within one business day. If the deficiency is not resolved within that time, the application for payment may be rejected in writing and such rejection will specify the deficiency and the action necessary to make the application for payment proper.

4.15.1 This accounting will include:

4.15.1.1 The names and addresses of W/MBE firms that have participated under this Contract;

4.15.1.2 A description of the Work each named W/MBE firm has performed;

4.15.1.3 The value of Work performed by each named W/MBE firm;

4.15.1.4 Addition or replacement of approved W/MBE firms; and

4.15.1.5 At 50% completion, a written plan of action properly reflecting anticipated W/MBE achievement of commitment.

4.16 The Design-Builder will submit with each application for payment a detailed accounting of the value of Work performed to date by their subcontractors. The Owner will not make payment on an application for payment without the Design-Builder's submission of the detailed subcontractor accounting.

- 4.16.1 This accounting will include:
 - 4.16.1.1 The names and addresses of their subcontractors that have participated under this Contract;
 - 4.16.1.2 A description of the Work each of their subcontractors has performed;
 - 4.16.1.3 The value of Work performed by each of their subcontractors: and
 - 4.16.1.4 Complete fully signed subcontractor contracts, subcontractor change orders with detailed cost back-up documentation and purchase orders in electronic pdf format.
 - 4.16.1.5 Submission detail will be organized by order using required standard section dividers identifying the supporting information.
 - 4.16.1.6 Equipment purchased for and paid by the Owner must be identified when being paid so that an asset tag can be attached to that equipment. A detail listing in Excel format must be submitted when equipment is purchased. Final accounting for all assets will be performed at the completion of the project. Any assets unaccounted for will be reimbursed to the Owner.

- 4.17 Subject to other provisions of the Contract Documents, the amount of each progress payment will be computed as follows:
 - 4.17.1 Take that portion of the GMP properly allocated to completed Work as determined by detailed supporting documentation of each portion of the Work of the GMP listed in the schedule of values.
 - 4.17.2 Add that portion of the GMP properly allocated to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work or, if approved in advance by the Owner, suitably stored off site at a location agreed upon in writing.
 - 4.17.3 Add the Design-Builder's overhead and fee.
 - 4.17.4 Subtract the aggregate of previous payments made by the Owner.

- 4.17.5 Subtract the shortfall, if any, indicated by the Design-Builder in the documentation required by Paragraph 4.12 to substantiate prior applications for payment, or resulting from errors subsequently discovered by the Owner in such documentation.
 - 4.17.6 Subtract any applicable liquidated damages.
 - 4.17.7 Subtract any applicable retainage.
 - 4.17.8 Subtract any other applicable contractual amounts owed the Owner.
- 4.18 All payments will be subject to correction following the discovery of an error, misrepresentation, or unallowable cost in any previous application for payment. Approval of such erroneous application for payment will not in any respect be taken as an admission by the Owner of the amount of Work completed or as the release of the Design-Builder from any of its responsibility under this Contract or a waiver of any of the Owner's rights. If deficiencies are found, a standard deficiency e-mail will be sent to the Design-Builder to resolve within one business day. If the deficiency is not resolved within that time, the application for payment will be rejected in writing and such rejection will specify the deficiency and the action necessary to make the application for payment proper.
- 4.19 The Design-Builder's design and construction schedule will be updated on a monthly basis and a copy thereof submitted with each of the Design-Builder's applications for payment. This schedule update shall include a thirty (30) day "look-ahead schedule", projected variances and calculation of the number of days difference between the as-built critical path and the Project Schedule critical path. Design-Builder shall, with each application for Payment, provide completed monthly updated information for the previous month on the Project Schedule and updated information on manpower indicated as-built and as-planned conditions. The updated information on the Project Schedule shall not modify any milestone dates in the Project Schedule that Owner has previously approved. In its sole and absolute discretion, the Owner may withhold whole or partial payment of an application for payment not containing the Design-Builder's submission of an approved monthly design and construction schedule update. Refer to General Requirements Section 01315 - SCHEDULES, PHASING.
- 4.20 In addition to the schedule updates required above, at a minimum of once per month, Design-Builder shall, in addition to documentation required under the Contract, and as a condition precedent to payment, submit the following information including a monthly status report concisely but completely describing in narrative form, the current status of the Work including, without limitation:

- 4.20.1 A review of actual progress during the month in comparison to the Project Schedule and, if actual progress is behind schedule, discussion of any “work around” or “catch up plan” that Design-Builder has employed or will employ to recover the original Project Schedule;
 - 4.20.2 A concise statement of the outlook for meeting future Project Schedule dates, and the reasons for any change in outlook from pervious report;
 - 4.20.3 A concise statement of significant progress on major items of Work during the report period, and progress photographs and aerial photographs as necessary to document the current status of the Work;
 - 4.20.4 A review of any significant technical problems encountered during the pay application period and the resolution or plan for resolution of the problems;
 - 4.20.5 An explanation of any corrective action taken or proposed;
 - 4.20.6 A complete review of the status of Change Orders, including a review of any changes in the critical path of the Project Schedule which result from Change Orders approved by Owner during the month, as well as a review of the schedule impact of Change Order requests then pending;
 - 4.20.7 A summary of any claims anticipated by the Design-Builder with respect to the Work, including the anticipated cost and schedule impacts of any such claims;
 - 4.20.8 A cumulative summary of the number of days of, and the extent to which the progress of the Work was delayed by, any of the causes for which Design-Builder believes it could be entitled to an extension of the Contract Time;
 - 4.20.9 An updated material purchase log;
 - 4.20.10 An updated phasing plan;
 - 4.20.11 An updated and approved schedule of values;
 - 4.20.12 All daily reports from the previous month; and
 - 4.20.13 Updated submittal and testing logs.
- 4.21 The Owner may withhold or suspend payments or portions thereof, to such extent as may be reasonably necessary to fully protect its interests, on account of:

- 4.21.1 Work or execution thereof not performed or not in accordance with the Contract Documents;
 - 4.21.2 Work performed by the Owner, or contracted to others by the Owner, on behalf of the Design-Builder where said Work, or the costs thereof, are identified in the Contract Documents as the responsibility of the Design-Builder;
 - 4.21.3 Work remaining to be corrected or completed; or
 - 4.21.4 Design-Builder's noncompliance with the Owner's W/MBE Program and Policy or failure to meet the prescribed W/MBE expectancy set forth in this Contract, or to establish a good faith effort to do so.
 - 4.21.5 Design-Builder's noncompliance with provisions of this Contract.
- 4.22 Until 50% of the total GMP Contract Sum has been expended, the Owner will pay to Design-Builder 90% of all Applications for Payment submitted by Design-Builder. The Applications for Payment will represent the actual value, based on the Contract amount, of the Work satisfactorily performed on the Schedule of Values, less the aggregate of all previous payments and will reflect a retainage of 10% of the total amount payable for Work satisfactorily completed to date. Upon written request from the Design-Builder, retainage may be released to the Design-Builder, in the sole discretion of the Owner, for the Work or designated portions thereof upon reaching Substantial Completion, as defined in Article 6, Completion. Any amounts that are the subject of a good-faith dispute, the subject of a claim brought pursuant to F.S. § 255.05, or are otherwise the subject of a claim or demand, will not be released. Retainage will not be withheld on design and construction administration fees. After 50% completion, the retainage withheld may be reduced to 5% from each subsequent application for payment.

The Design-Builder is required to pay all subcontractors for satisfactory performance of their contracts no later than 10 days after the Design-Builder has received a partial payment. The Design-Builder is required to fully pay retainage to the subcontractor within 10 days after the Design-Builder is paid the retainage for such subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when (1) all the tasks called for in the subcontract have been accomplished and documented as required by the Owner, (2) the Work or a designated portion of the Work which the subcontractor worked on has reached Substantial Completion (incremental acceptance) and (3) no good-faith disputes or claims involving the subcontractor have manifested.

Notwithstanding the foregoing, at the Owner's sole option, when at least 95% of the Work has been completed, the Design-Builder shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. Subject to Fla. Stat. 255.078 (if applicable), the Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. Upon written request from the Design-Builder, the remainder (if any) may be released to the Design-Builder.

Notwithstanding the foregoing, at the Design-Builder's option, the Design-Builder may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

- a. The Design-Builder shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.
- b. The Design-Builder shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.
- c. The Design-Builder shall enter into an escrow agreement satisfactory to the Owner.
- d. The Design-Builder shall obtain the written consent of the surety to such agreement.

4.23 Payments may be made for nonperishable materials or equipment not incorporated in the Work upon the following conditions being met:

- 4.23.1 The materials or equipment have been stored or stockpiled in a manner acceptable to the Owner at the project site.
- 4.23.2 The Design-Builder has furnished the Owner with satisfactory evidence that the material and transportation costs have been paid.
- 4.23.3 The Design-Builder has furnished the Owner with acceptable evidence of the quantity and quality of such stored or stockpiled materials or equipment.
- 4.23.4 The Design-Builder has furnished the Owner legal title (free of liens or encumbrances of any kind) to materials so stored or stockpiled upon receipt of said materials or equipment.

- 4.23.5 The Design-Builder has furnished to the Owner copies of vendor invoices for stored materials or equipment, proof of payment, stored material or equipment listed in Excel format and a stored material verification form. All supporting backup must be labeled with the schedule of values item number and calculation of item number listed on the schedule of values.
- 4.23.6 The Design-Builder has furnished to the Owner documentation that all materials or equipment meet Specifications requirements.
- 4.23.7 The Design-Builder is responsible for all loss or damage of any type to such materials or equipment and will make suitable replacement or repair as necessary at the Design-Builder's own expense.
- 4.23.8 The Design-Builder is responsible for security with respect to all such stored materials or equipment.
- 4.23.9 The Design-Builder has furnished to the Owner evidence that the material or equipment so stored or stockpiled is insured against loss by damage to, or disappearance of, such materials or equipment at any time prior to use in the Work.
- 4.23.10 Payments for material on hand or for delivered material to be used in one item of Work will exceed \$3,000.00 and not be scheduled to be incorporated into the Work within 60 days after delivery.
- 4.23.11 It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials or equipment will in no way relieve the Design-Builder of its responsibility for furnishing and placing such materials or equipment in accordance with the requirements of the Contract Documents.
- 4.23.12 No partial payment will be made for stored or stockpiled living or perishable plant materials.
- 4.23.13 The Design-Builder will bear all costs associated with the partial payment of stored or stockpiled materials or equipment in accordance with the provisions of this subsection.
- 4.23.14 Raw or unfabricated materials will not be accepted as stored materials.

Notwithstanding the foregoing, the Owner may in its sole and absolute discretion, in special circumstances approve in writing in advance the waiver of one or more of

the above conditions for payment of non-perishable materials or equipment not incorporated in the Work.

- 4.24 The Design-Builder warrants that title to all Work covered by an application for payment will pass to the Owner when the Design-Builder receives payment. The Design-Builder further warrants that upon submittal of an application for payment, all Work for which applications for payment have been previously issued and payments received from the Owner, will, to the best of the Design-Builder's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances, in favor of the Design-Builder, subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and/or equipment relating to the Work.
- 4.25 The approval of the application for payment does not constitute a representation by the Owner that the Work has progressed to the point indicated nor that the quality of the Work is in accordance with the Contract Documents. Any approvals by Owner of any application for payment are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, subsequent audits or attestation engagements and to specific qualifications expressed by the Owner. The approval of the application for payment will not be a representation that the Owner has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed data requested by the Owner to substantiate the Design-Builder's right to payment, or (4) made examination to ascertain how or for what purpose the Design-Builder has used money previously paid on account of the GMP Contract Sum.
- 4.26 In taking action on the Design-Builder's applications for payment, the Owner will be entitled to rely on the accuracy and completeness of the information furnished by the Design-Builder and will not be deemed to represent that the Owner has made a detailed examination, audit or arithmetic verification of the documentation submitted. Such examinations, audits, attestation engagements, and verifications, if required by the Owner, will be performed by the Owner acting in the sole interest of the Owner.
- 4.27 The Owner may decide not to approve payment and may withhold an application for payment, in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Owner's opinion the representations required from Design-Builder cannot be made. If the Owner is unable to approve payment in the amount of the application, the Owner will notify the Design-Builder in writing of the Owner's reasons for withholding approval in whole or in part. If the Design-Builder and Owner cannot agree on a revised amount, the Owner will approve payment for the amount for which the Owner is able to make such representations. The Owner may

also decide not to approve payment or, because of subsequently discovered evidence or subsequent observations, may not approve the whole or a part of an application for payment previously issued, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss because of:

- 4.27.1 Defective work not remedied;
 - 4.27.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;
 - 4.27.3 Damage to the Owner or another contractor;
 - 4.27.4 Evidence that the Work will not be completed within the Contract Time;
 - 4.27.5 Evidence that the unpaid balance would not be adequate to complete the Work;
 - 4.27.6 Evidence that the unpaid balance would not be adequate to cover actual or liquidated damage for the anticipated delay; or
 - 4.27.7 Failure of the Design-Builder to carry out the Work in accordance with the Contract Documents.
- 4.28 When the above reasons for withholding approval are removed, payment will be made for amounts previously withheld.
- 4.29 The Design-Builder will receive and accept compensation provided for in this Contract as full payment for furnishing all materials, for performing all Work under this Contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the Work or the prosecution thereof.
- 4.30 The Design-Builder will promptly pay the licensed design professionals, suppliers and each subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Design-Builder on account of such licensed design professional's, supplier's and subcontractor's portion of the work, the amount to which said licensed design professional, supplier and subcontractor is entitled, reflecting percentages actually retained from payments to the Design-Builder on account of such licensed design professional's, supplier's and subcontractor's portion of the Work. The Design-Builder will, by appropriate agreement with the licensed design professionals, suppliers and each subcontractor, require each design professional, supplier and subcontractor to make payments to sub-subcontractors, sub-contractors, design professional of lower tiers in similar manner.

- 4.31 The Owner may pay but shall not be obligated to pay or to be responsible in any way for payment to licensed design professionals, subcontractors, or suppliers.
- 4.32 Any payment made prior to the Final Acceptance of the Work will in no way bind the Owner to the acceptance of any materials or work in place as to quality or quantity. The Design-Builder will be responsible to correct any damage, defects or imperfections discovered on or before Final Acceptance.
- 4.33 Provision for assessment of liquidated damages for delay will in no manner affect the Owner's right to terminate this Contract as provided in Article 19. The Owner's exercise of the right to terminate will not release the Design-Builder from its obligation to pay said liquidated damages in the amounts set out in this Contract.
- 4.34 Design-Builder's Contingency Fund. A Design-Builder's contingency fund may be included as a specified amount in the GMP. It is further understood and agreed that such contingency funds are to be used for costs to complete work considered to be within the original scope of work, including issued change orders, but which exceed the established estimated costs. Use of contingency funds is authorized for unanticipated or unaccounted for costs incurred by the Design-Builder, for the following:
- 4.34.1 Those items that were included in the proposal drawings and specifications that the Design-Builder missed in proposing the GMP.
 - 4.34.2 Those items that were included in the proposal drawings and specifications that the Design-Builder underpriced in proposing the GMP.
 - 4.34.3 Schedule acceleration as required to meet contract milestones, or as deemed necessary by the Design-Builder to improve the project schedule when required.
 - 4.34.4 Increased general conditions or general requirements costs.
 - 4.34.5 Higher costs for replacing a subcontractor which are not covered by surety.
 - 4.34.6 Costs associated with changes required by Authorities having jurisdiction following establishment of the GMP.
 - 4.34.7 Construction costs associated with changes in design affecting completed Work.
 - 4.34.8 Design costs associated with design errors or omissions related to the design work in the Part 2 Contract with prior approval by Owner.

4.34.9 Costs for repairs for unassignable damage to Work.

All contingency fund charges will be tracked in a log by the Design-Builder. This log will be submitted, reviewed and approved prior to the monthly application for payment. All payment of contingency funds is subject to good faith approval by Owner. All remaining funds in the Design-Builder's contingency upon completion shall revert to the Owner. Design-Builder's contingency fund will not be used to fund liquidated damages.

- 4.35 Assets, including, but not limited to, supplies, temporary facilities, furniture, machinery, equipment and hand tools purchased for and paid by the Authority (not included in pre-negotiated lump sum General Requirements or General Conditions) for items exceeding \$100.00 in value must be identified when being purchased. Any items exceeding \$1,000.00 in value must also be identified so that an asset tag can be attached to that equipment. A detail listing in Excel format must be submitted with each application for payment. Final accounting for all assets will be performed at the completion of the project. Any assets unaccounted for will be reimbursed to the Owner at full purchase price.

Assets including, but not limited to, supplies, temporary facilities, furniture, machinery, equipment and hand tools purchased through the GMP by the Design-Builder and not fully consumed in the performance of the Work may be sold by the Design-Builder with the written approval of the Owner. The Value for those items not fully consumed, whether sold to others or retained by the Design-Builder will be based on current fair market value as approved by Owner, and credited to the Owner via deductive Change Order.

**ARTICLE 5
TIME**

- 5.1 Contract Time(s) is the period of time allocated in the Contract Documents for Substantial Completion of the Work or designated portion thereof.
- 5.2 The date of Substantial Completion is the date certified by the Owner in accordance with General Requirements Section 01700 - PROJECT CLOSEOUT.
- 5.3 The Owner and the Design-Builder will perform their respective obligations as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Project.
- 5.4 Time limit(s) stated in this Contract are of the essence. The Work to be performed under this Contract will commence upon receipt of a Notice to Proceed and subject to authorized Modifications, Substantial Completion will be achieved on or before the date established in Article 23.

- 5.5 By executing this Contract, the Design-Builder confirms that the Contract Time is a reasonable period for performing the Work. In the event the Design-Builder fails to promptly complete the Work herein within the Contract Time(s) provided, liquidated damages will accrue in the amount(s) and manner specified in Paragraph 23.2 if liquidated damages are provided.
- 5.6 The date of commencement of the Work is the date established in a written Notice to Proceed. Work under this Contract will not commence until the Owner has issued a written Notice to Proceed. Notwithstanding the previous sentence, preliminary Work such as, design, procuring insurance policy endorsements, certificates of insurance and payment and performance bonds can proceed after this Contract is signed and prior to the Notice to Proceed. The Design-Builder will begin the Work to be performed under this Contract within ten (10) days of the date set by the Owner in a written Notice to Proceed. In any event, the Design-Builder will notify the Owner at least 48 hours in advance of the time actual construction on Project site will begin. The date will not be postponed due to any failure of the Design-Builder.
- 5.7 Based on the Contract Time(s), a design and construction schedule, including time required for the Owner's review and for approval of submissions by authorities having jurisdiction over the Project, will be provided consistent with Paragraphs 5.4 above and 23.1 below.
- 5.8 The Design-Builder will furnish sufficient forces, materials and equipment and will work such hours, including weekends, night shifts and overtime, as may be necessary to insure prosecution of the Work in accordance with the design and construction schedule specified under General Requirements Section 01315 - SCHEDULES, PHASING.
- 5.9 Should the Work, in whole or in part, fall behind the design and construction schedule or should the progress of the Work reasonably appear to Owner to be inadequate to assure completion within the Contract Time(s) specified in this Contract unless solely caused by actions of the Owner or Owner's separate contractor, the Design-Builder will, upon written notice from the Owner, provide a recovery plan including a schedule describing the measures Design-Builder will take to address such inadequacies within seven days of such notice of the Owner to put the Work back on schedule and meet the specified Substantial Completion date(s) in accordance with General Requirements Section 01315 - SCHEDULES, PHASING.
- 5.10 Should the Design-Builder fail to provide a recovery plan including a schedule within seven days, or should the measures in the recovery plan and schedule fail to put the Work back on schedule, the Owner may, but will not be required to, supplement the Design-Builder's forces, materials and/or equipment with other forces, materials and/or equipment furnished by the Owner. The cost of such other forces, materials and/or equipment will be deducted by the Owner from the GMP Contract Sum.

Should the unpaid portion of the GMP Contract Sum be insufficient to cover all such costs incurred by Owner, Design-Builder will pay such insufficient amount to Owner within five (5) business days of Owner's demand for payment. The Owner's use of such supplemental forces, materials and/or equipment will not excuse the Design-Builder from performing all of its obligations under the Contract Documents or relieve the Design-Builder from liquidated damages. The Design-Builder will coordinate and work together with such forces, materials and/or equipment. In the event that the Design-Builder disputes the Owner's decision to supplement the Design-Builder's forces, the Design-Builder can make a claim pursuant to Article 10.

- 5.11 Failure of the Design-Builder to comply with the requirements under this Article will be grounds for determination that the Design-Builder is not prosecuting the Work with such diligence as will ensure completion within the Contract Time(s) specified and such failure will constitute a material breach of the Contract Documents. Upon such determination, the Owner may terminate for cause the Design-Builder's right to proceed with the Work, or any separate part thereof, in accordance with Article 19.
- 5.12 When the Work or a designated portion thereof is substantially complete, the Owner will prepare and sign a Certificate of Substantial Completion which will establish the date of Substantial Completion. The responsibilities for security, maintenance, HVAC, utilities, damage to the Work and insurance will transfer from the Design-Builder to the Owner. The Certificate of Substantial Completion will be submitted to the Design-Builder for their written acceptance of responsibilities assigned to it therein.
- 5.13 No claim for damages or any claim other than for an extension of time will be made or asserted against the Owner by reason of any Delay, whether such Delay is related to (i) late or early completion, (ii) delay in the commencement, prosecution or completion of the Work, (iii) hindrance or obstruction in the performance of the work, (iv) loss of productivity, or (v) other similar claims (collectively "Delay"), whether or not such Delay is foreseeable, unless the Delay is caused by acts or omissions of the Owner constituting fraud or active interference with the Contractor's performance of the Work, and only to the extent such acts continue after Contractor furnishes the Owner with notice of such fraud or interference. The Design-Builder will not be entitled to an increase in the GMP Contract Sum or payment or compensation of any kind from the Owner for direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to damages related to loss of business, loss of opportunity, impact damages, loss of financing, principal office overhead and expenses, loss of profits, loss of bonding capacity and loss of reputation; costs of acceleration or inefficiency, arising because of Delay, disruption, interference or hindrance from any cause whatsoever; provided, however, that this provision will not preclude recovery of direct and actual damages by the Design-Builder for hindrances or delays due solely to fraud, or active

interference on the part of the Owner. Otherwise, the Design-Builder may be entitled only to extensions of the Contract Time as the sole and exclusive remedy for such resulting Delay, in accordance with and to the extent specifically provided above. The Owner's exercise of any of its rights or remedies under the Contract Documents (including but not limited to: Change Orders, stop work orders, directing suspension, rescheduling or correction of the Work), regardless of the extent or frequency of Owner's exercise of such rights or remedies, shall not be construed as active interference with the Contractor's performance of the Work.

- 5.14 Claims relating to time will be made in accordance with the applicable provisions of Article 10. Design-Builder's plea that insufficient Contract Time(s) was specified will not be a valid reason for extension of Contract Time. Contract Time will not be extended for any weather related delay except as provided in Article 10.
- 5.15 Permitting the Design-Builder to continue and finish the Work, or any part of it, after the Contract Time(s) established for Substantial Completion, will in no way operate as a waiver on the part of the Owner of any of its rights under this Contract.

ARTICLE 6 COMPLETION

- 6.1 Substantial Completion is the stage in the progress of the Work when, in Owner's opinion, the Work or a designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.
- 6.2 When the Design-Builder considers that the whole Work, or a portion thereof designated in the Contract Documents for separate completion, is substantially complete and the premises comply with Paragraph 3.4.4 and the prerequisites to Substantial Completion in General Requirements Section 01700 – PROJECT CLOSEOUT are satisfied, the Design-Builder will submit to the Owner: (1) the permits and certificates referred to in Paragraph 18.5 and (2) the Design-Builder's request for inspection by the Owner.
- 6.3 Upon receipt of the Design-Builder's request for inspection, the Owner will perform an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's inspection discloses any item which is not in accordance with the requirements of the Contract Documents, the Design-Builder will then prepare and submit to the Owner a comprehensive list of items to be completed and/or corrected including all close out documentation included in General Requirements Section 01700 – PROJECT CLOSEOUT. The Owner will inform the Design-Builder of the items on the list which must be completed prior to the Work being considered substantially complete and the Design-Builder will proceed promptly to complete such items. The Design-Builder will then submit a request for

another inspection by the Owner to determine Substantial Completion. Repeat inspections, if necessary, will be performed prior to issuance of the Certificate of Substantial Completion by the Owner.

- 6.4 All Work items or Contract requirements which remain incomplete/unsatisfied at the Date of Substantial Completion will become part of the Final Acceptance punch list. For Projects with a value under \$10 million, within 30 days after Substantial Completion, the Owner will develop the Final Acceptance punch list and will provide it to the Design-Builder within five days after its completion. The Design-Builder will be allowed a minimum of 30 days after delivery of the Final Acceptance punch list to complete the items listed on the Final Acceptance punch list. However, for Projects with a value over \$10 million, within 60 days after Substantial Completion, the Owner will develop the Final Acceptance punch list and will provide it to the Design-Builder within five days after its completion. The Design-Builder will be allowed a minimum of 30 days after delivery of the Final Acceptance punch list to complete the items listed on the Final Acceptance punch list. The Owner will establish in the Final Acceptance punch list the maximum period of time within which all items on the list must be completed by the Design-Builder.
- 6.5 In accordance with all other terms and conditions of this Contract, and to the maximum extent allowed under applicable law, after Substantial Completion of the whole Work, the Owner may, at the Owner's discretion and with the consent of the Design-Builder's Surety, approve an application for payment from which will be retained an amount not less than twice the Contract value or twice the estimated cost, whichever is greater, of the Work remaining to be done.
- 6.6 Upon completion of all items on the Final Acceptance punch list, the Design-Builder will submit a written notice that the whole Work is ready for final inspection and acceptance. The Owner will promptly make such inspection. When the Owner finds the Work under this Contract fully performed, the Owner will promptly issue the Letter of Final Completion and Acceptance indicating the date and stating that to the best of the Owner's knowledge, information and belief, and on the basis of the Owner's observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents.
- 6.7 Upon receipt of the Letter of Final Completion and Acceptance, the Design-Builder may submit an application for payment for all remaining retainage withheld by Owner. If a good-faith dispute exists as to whether one or more items identified on the punch list have been completed pursuant to this Contract, the Owner may continue to withhold an amount not to exceed 150% of the total costs to complete such disputed items.
- 6.8 Neither partial, entire use nor occupancy of the Project by the Owner will constitute an acceptance of Work not in accordance with the Contract Documents.

- 6.9 The Owner or separate contractors may occupy or use any completed or partially completed portion of the Work at any stage. Such partial occupancy or use may commence whether or not the portion is substantially complete. The Owner and Design-Builder will jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- 6.10 The Owner may deduct from the balance due the Design-Builder under the provisions of the Contract Documents any liquidated damages which may have accrued.
- 6.11 Neither final payment nor amounts retained, if any, will be paid until the Design-Builder submits to the Owner (1) an affidavit that all payrolls, bills for materials and equipment and other indebtedness connected with the Work (less amounts withheld by the Owner) have been paid or otherwise satisfied; (2) a certificate and/or endorsements as applicable evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days prior written notice has been given to the Owner; (3) a sworn statement that the Design-Builder knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents; (4) consent of surety, if any, to final payment and (5) if required by the Owner, other documentation establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of this Contract, to the extent and in such form as may be designated by the Owner. The receipt of the aforementioned documentation shall be a material inducement for final payment.
- 6.12 The Design-Builder will furnish releases or waivers as may be required to satisfy the Owner that there are no outstanding claims or liens. To the maximum extent permitted by Florida Law, the Owner may require the Design-Builder, at the Design-Builder's expense, to furnish a bond satisfactory to the Owner to indemnify the Owner, its board members, officers, employees, agents, servants and volunteers against any such claims or liens and the attorney's fees and legal costs that could be incurred defending against such claims or liens. This obligation to furnish a bond will be construed separately and independently. It is the parties mutual intent that if this clause is found to be in conflict with applicable law, the clause will be considered modified by such law to the extent necessary to remedy the conflict. Upon satisfactory Final Completion and Acceptance of the whole Work required by the Contract Documents, the Design-Builder will make application for final payment in the same format as progress payments.
- 6.13 After Substantial Completion, all closeout documents must be submitted to the Owner. The Owner may provide a detailed list of the close out documents required after receipt and acceptance of the Final Acceptance punch list.

- 6.14 All closeout documentation shall be furnished at least seven days before submission of final application for payment. Sufficient evidence of testing of all systems and equipment shall be provided at least seven days before submission of final application for payment.
- 6.15 Final payment will be made by the Owner to the Design-Builder when (1) this Contract has been fully performed by the Design-Builder and (2) a final application for payment and the substantiated final accounting for the Cost of the Work and the Design-Builder's Fee have been submitted by the Design-Builder and approved by the Owner.
- 6.16 The amount of the final payment will be calculated as follows:
- 6.16.1 Take the sum of the Cost of the Work substantiated by the Design-Builder's final accounting and the Design-Builder's Fee, but not more than the GMP Contract Sum.
 - 6.16.2 Subtract any amounts withheld by the Owner under the provisions of the Contract Documents.
 - 6.16.3 Subtract the aggregate of previous payments made by the Owner.
- 6.17 If the aggregate of previous payments made by the Owner exceeds the amount due the Design-Builder, the Design-Builder will reimburse the difference to the Owner within five (5) business days of the Owner's demand for payment.
- 6.18 The making of final payment will not constitute a waiver of claims by the Owner including, but not limited to, those arising from:
- 6.18.1 Unsettled claims, security interests or encumbrances arising out of this Contract;
 - 6.18.2 Negligence or misrepresentation related to or arising from this Contract;
 - 6.18.3 Failure of the Work to comply with the requirements of the Contract Documents;
 - 6.18.4 Terms of warranties required by the Contract Documents;
 - 6.18.5 Claims discovered during audit or attestation engagements;
 - 6.18.6 Latent defects; or
 - 6.18.7 Claims covered by insurance required by this Contract.

- 6.19 Acceptance of final payment will constitute a waiver of all claims by the Design-Builder except those previously made in writing and identified by the Design-Builder as unsettled at the time of final application for payment.
- 6.20 As part of the Final Acceptance punch list, the Design-Builder will comply with the project close out provisions of General Requirements Section 01700 – PROJECT CLOSEOUT. The Design-Builder will submit all documentation required under General Requirements Section 01700 – PROJECT CLOSEOUT promptly and before Final Acceptance.

ARTICLE 7
PROTECTION OF PERSONS AND PROPERTY

- 7.1 The Design-Builder will be responsible for all damage or injury to property of any character during the prosecution of the Work resulting from any act, omission, neglect or misconduct in the Design-Builder’s manner or method of executing the Work, or at any time due to defective Work or materials, and said responsibility will not be released until the Project has been completed and accepted. No payment for correcting any damage or injury will be paid for from the GMP.
- 7.2 The Design-Builder will be responsible for initiating, maintaining and providing supervision of all safety precautions and programs in connection with the performance of this Contract including Owner mandated program for safety management and enforcement.
- 7.3 The Design-Builder will designate, in writing to the Owner, competent person in the Design-Builder’s organization whose sole duty will be safety, protection of persons and property and the prevention of accidents at the Project site. The competent person will be required to be at the Project site full time. This requirement may be waived or modified at Owner’s sole discretion in writing.
- 7.4 The Design-Builder will take reasonable precautions for the safety of and will provide reasonable protection to prevent damage, injury or loss to: (1) employees on the Project site, general public, passengers, other employees at the airport, volunteers, invitees, and other persons who may be affected thereby; (2) the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Design-Builder; (3) other property at or adjacent to the Project site, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal relocation or replacement in the course of construction; and (4) any other property.,

- 7.5 The Design-Builder will comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury or loss.
- 7.6 The Design-Builder will promptly remedy damage and loss to property at the Project site caused in whole or in part by the Design-Builder, or by anyone for whose acts it may be liable. The foregoing obligations of the Design-Builder are in addition to the Design-Builder's obligations under Paragraph 16.4.
- 7.7 The Design-Builder will erect and maintain reasonable safeguards for safety and protection, including barricades, fencing and posting danger signs and other warnings against hazards, and will give appropriate notice and warnings to Owner and users of adjacent sites and utilities.
- 7.8 When use or storage of explosives, hazardous materials, equipment, or other unusual methods are necessary for execution of the Work, the Design-Builder will provide owner with prior written notice of such and will exercise utmost care and carry on such activities under the supervision of properly qualified personnel.
- 7.9 The Design-Builder will comply with the provisions of the Occupational Safety and Health Act of 1970, 84 Stat. 1190, 29 U.S.C. 651 et. seq. (as amended), 29 C.F.R. 1926 (as amended) and applicable regulations and requirements under said Act. The Design-Builder will maintain an accurate record of all accidents causing death, traumatic injury, occupational disease, or damage to property, materials, supplies and equipment incidental to Work performed under this Contract. Design-Builder will notify Owner immediately and as soon as practicable in writing, of an occurrence of all accidents involving serious injuries to or death or persons, criminal activity or damage to or loss of property occurring on the project site. The notification will be sent to the Owner's Project Manager. The Design-Builder, its subcontractors and sub-subcontractors will cooperate with the Owner's insurers in the reporting, investigation, and resolution of claims for property damage, personal injury, or industrial injury that may arise during the construction of the project.
- 7.10 The Design-Builder will be responsible for the preservation of all public and private property and will protect carefully from disturbance or damage all land monuments and property markers until the Owner has witnessed or otherwise referenced their location and will not move them until directed.
- 7.11 When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct, whether or not in the execution of the Work, by the Design-Builder, Design-Builder will restore such property, at the Design-Builder's own expense, to a condition similar or equal to that existing before such damage or injury was done, by repairing or otherwise

restoring as may be directed by Owner, or Design-Builder will make good such damage or injury in a manner acceptable to Owner.

7.12 Existing property or Work that is to remain in place which is damaged or defaced by reason of Work performed under this Contract will be restored at no cost to the Owner.

7.13 Until final acceptance, the Design-Builder will be in charge and care of the Work and will take every precaution against injury or damage due to the action of the elements or any other cause, whether arising from the execution or from the nonexecution of the Work. The Design-Builder will rebuild, repair, restore and make good all damages to any portion of the Work resulting from any of the above causes and will bear all expenses, at no cost to the Owner.

ARTICLE 8 CHANGES IN THE WORK

8.1 CHANGES

8.1.1 Changes in the Work may be accomplished, after execution of this Contract and without invalidating this Contract, by Change Order or Work Order.

8.1.2 The Design-Builder, by executing this Contract, acknowledges and agrees that the Design-Builder will not be entitled to payment for changes in the Work unless such changes are specifically authorized in writing by the Owner in advance. The terms of this Article may not be waived by the Owner unless such waiver is in writing and makes specific reference to this Article.

8.1.3 A Change Order will be based upon written agreement between the Owner and the Design-Builder. A Work Order may be issued by the Owner without the agreement of the Design-Builder.

8.1.4 Design-Builder will promptly proceed with the changes in the Work, unless otherwise provided in the Change Order or Work Order.

8.2 CHANGE ORDERS

8.2.1 A Change Order is a written instrument prepared by the Owner and signed by the Owner and the Design-Builder, stating their agreement upon all of the following:

8.2.1.1 A change in the scope of the Work;

8.2.1.2 The amount of the adjustment, if any, to the GMP Contract Sum;

- 8.2.1.3 The extent of the adjustment, if any, to the Contract Time; and
 - 8.2.1.4 Changes to the terms and conditions of this Contract, including the W/MBE percentage, if any.
 - 8.2.1.5 Waiver (CO form)
- 8.2.2 If a Change Order provides for an additive or deductive adjustment to the GMP Contract Sum, the adjustment will be based on one of the following methods:
- 8.2.2.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
 - 8.2.2.2 Unit prices stated in the Contract Documents or unit prices otherwise mutually agreed upon;
 - 8.2.2.3 Cost estimated by the Design-Builder plus mark-up, if applicable, as accepted by the Owner; or
 - 8.2.2.4 Cost to be determined in a manner agreed upon by the parties plus mark-up, if applicable.
- 8.2.3 If the Owner requests a proposal for a change in the Work from the Design-Builder and subsequently elects not to proceed with the change, a Change Order will be issued to reimburse the Design-Builder for reasonable costs incurred for estimating services, design services or preparation of proposed revisions to the Contract Documents.
- 8.2.4 The maximum percentage for total overhead and profit and any other expense which is not included in the cost of the Work will be as follows:
- 8.2.4.1 For the Design-Builder, 10% and the agreed upon Design-Builder's Fee of any net increase of costs of any Work performed by the Design-Builder's own forces;
 - 8.2.4.2 For the subcontractor, 15% of any net increase of cost of any Work performed by the subcontractor's own forces, and 5% for each subcontractor tier above the subcontractor performing the work plus the agreed upon Design-Builder's Fee of any net increase in the cost of the Work for the Design-Builder; and/or
 - 8.2.4.3 For designers and other professional services providers, Part 1 Contract rates will be used for any additional design services performed by the designer's and professional services provider's own forces, plus the

agreed upon Design-Builder's Fee of any net increase in the cost of the Work for the Design-Builder; and/or

8.2.4.4 Per the Change Order negotiations.

8.2.5 Subcontractor costs, other than overhead and profit, must be itemized costs and not identified as a percentage or percentages.

8.3 Work Orders

Refer to Section 01020, Owner's Allowance for requirements.

8.4 MINOR CHANGES IN THE WORK

8.4.1 Minor changes in the Work do not involve an adjustment to the GMP Contract Sum or extension of the Contract Time and do not materially and adversely affect the Work, including the design, quality, performance and workmanship required by the Contract Documents. Design-Builder may make minor changes in the Work consistent with the intent of the Contract Documents, provided, however, prior to making any such change, Design-Builder must inform Owner, in writing, of any such changes and, if approved by the Owner record such changes on the record documents maintained by Design-Builder.

8.5 REGULATORY CHANGES

8.4.1 The Design-Builder will perform changes in the construction necessitated by the enactment or revision by appropriate governmental authorities having jurisdiction of codes, laws or regulations subsequent to the issuance of applicable permits or execution of this Contract by the Owner, whichever occurs last at no additional cost to the Owner.

ARTICLE 9 CORRECTION OF WORK

9.1 UNCOVERING OF WORK

9.1.1 If a portion of the Work is covered contrary to the Owner's request or to requirements specifically expressed in the Contract Documents, that portion of the Work will be uncovered for the Owner's examination if required in writing by the Owner, and will be restored at no cost to the Owner without change in the Contract Time.

9.1.2 If a portion of the Work has been covered which the Owner has not specifically requested to observe prior to it being covered, the Owner may request to see such

Work and it will be uncovered by the Design-Builder. If such Work is in accordance with the Contract Documents, costs of uncovering and restoration will be at the Owner's expense. If such Work is not in accordance with the Contract Documents, the Design-Builder will pay the costs of uncovering, correction and restoration at no cost to the Owner.

9.2 CORRECTION

9.2.1 The Design-Builder will promptly correct Work rejected by the Owner or known by the Design-Builder to be defective or failing to conform to the requirements of the Contract Documents, whether discovered before or after Final Completion and Acceptance and whether or not fabricated, installed or completed. The Design-Builder will bear all costs of correcting such rejected Work, including additional testing and inspections at no cost to the Owner.

9.2.2 If within one year after the Date of Substantial Completion of the whole Work or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any Work is found to be defective or not in accordance with the Contract Documents, the Design-Builder will correct it promptly after receipt of a written notice from the Owner to do so at no cost to the Owner. This obligation will survive termination of this Contract.

9.2.3 The Design-Builder will remove from the site Work which is not in accordance with the requirements of the Contract Documents and which is neither corrected by the Design-Builder nor accepted by the Owner at no cost to the Owner.

9.2.4 The Design-Builder will bear the cost of correcting destroyed or damaged construction or property of the Owner or separate contractors caused by the Design-Builder's correction or removal of Work which is not in accordance with the requirements of the Contract Documents at no cost to the Owner.

9.2.5 Nothing contained in Article 9 will be construed to establish a period of limitation with respect to other obligations which the Design-Builder might have under the Contract Documents. Establishment of the time period of one year as described in Paragraph 9.2.2 relates only to the specific obligation of the Design-Builder to correct the Work and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, or to the time within which proceedings may be commenced to establish the Design-Builder's liability with respect to the Design-Builder's obligations other than specifically to correct the Work.

9.2.6 If the Design-Builder fails to correct nonconforming Work as required or fails to carry out Work in accordance with the Contract Documents, the Owner, by written order,

may order the Design-Builder to stop the Work or any portion thereof until the cause for such order has been eliminated; however, the Owner's right to stop the Work will not give rise to a duty on the part of the Owner to exercise that right for the benefit of the Design-Builder or other persons or entities.

9.3 ACCEPTANCE OF NONCONFORMING WORK

9.3.1 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the GMP Contract Sum will be reduced, if appropriate, as determined by the Owner in its reasonable discretion. Such reduction will be effective whether or not final payment has been made.

ARTICLE 10 DISPUTE RESOLUTION

10.1 CLAIMS AND DISPUTES

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

10.1.2 If for any reason the Design-Builder deems that an increase to the GMP Contract Sum or Contract Time is due the Design-Builder for work not provided for in the Contract Documents or previously authorized changes in the Work, the Design-Builder will notify the Owner in writing of its intention to claim such increases to the GMP Contract Sum or Contract Time. The Design-Builder will maintain, and give the Owner the opportunity to keep, strict account of actual cost and/or time associated with the claim. The failure to give proper notification as required herein will constitute a waiver of any claim.

10.1.3 Written notice from the Design-Builder of its intention to claim will be made within 21 days after it first recognizes the condition giving rise to the claim or before the Work begins on which the Design-Builder bases the claim, whichever is earlier. The failure to give proper notice as required herein will constitute a waiver of any claim.

10.1.4 When the Work on which the claim for an increase to the GMP Contract Sum or Contract Time is based has been completed, the Design-Builder will, within sixty days, submit the Design-Builder's written claim to the Owner. Such claim by the Design-Builder and the fact that the Owner has kept account of the cost or time of the Work will not in any way be construed as proving or substantiating the validity of

the claim. The failure to provide the written claim as required herein will constitute a waiver of any claim. Owner shall provide Design-Builder with a written response to such claims within ninety (90) calendar days of Owner's receipt.

- 10.1.5 Pending final resolution of a claim, unless otherwise agreed in writing, the Design-Builder will proceed diligently with performance of this Contract and maintain effective progress to complete the Work within the Contract Time(s) set forth in the Contract Documents.
- 10.1.6 For claims related to concealed or unknown conditions, the Design-Builder will take the following into consideration when preparing its GMP Proposal and will not be entitled to any additional compensation on account of concealed conditions except as specifically set forth in Paragraph 10.1.7. The Owner will make available to the Design-Builder, prior to and during the performance of the Work, record documents and drawings pertaining to the existing buildings and/or facilities relative to this Project. Those record documents and drawings will not be considered a part of the Contract Documents. Owner does not warrant to the Design-Builder the accuracy of such record documents and drawings and the Design-Builder will be solely responsible for all assumptions made in reliance thereupon. Those record documents and drawings are not warranted or intended to be complete depictions of existing conditions, nor do they necessarily indicate concealed conditions. The locations of electrical conduit, telephone lines and conduit, computer cables, FAA cables, storm lines, sanitary lines, irrigation lines, gas lines, structural members, mechanical apparatus and appurtenances, HVAC piping/ductwork and plumbing may only appear schematically, if at all, and the actual location is in many cases unknown.
- 10.1.7 Should the Design-Builder encounter concealed conditions in an existing structure or below the surface of the ground not discoverable by a careful inspection and differing materially from conditions ordinarily encountered and generally recognized in or about a Project site of that type, the Design-Builder shall stop work at the location when the concealed condition was discovered, give immediate written notice of the condition to the Owner. The Owner shall investigate the alleged concealed condition if the Design-Builder's notice was made no later than ten days after the Design-Builder's first observance of the conditions. The Owner may direct the Design-Builder to proceed with the Work or adjust the Work and Design-Builder shall follow the claims procedure outlined in the Contract if it believes it is entitled to additional Contract Time or an increase to the GMP Contract Sum. Nothing herein is intended to limit or modify the obligations of the Design-Builder set forth in General Requirements Section 01545 - UTILITIES. Design-Builder shall not be entitled to a change order for the GMP Contract Sum and/or Time if the Design-Builder knew of the existence of such conditions at the time Contractor submitted the GMP or the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study

of the Site and contiguous areas as required by the Contract Documents; or if Design-Builder failed to give written notice as required by this Article.

- 10.1.8 Notice of intention to claim is not required for claims relating to an emergency endangering life or property. Claims associated with emergencies will be filed in accordance with the procedure established in this Article.
- 10.1.9 The GMP Contract Sum or Contract Time will not be increased for any reasonably anticipated weather related delay. The Owner may consider adverse weather conditions not reasonably anticipated as a basis of a claim for additional Contract Time.
- 10.1.10 If the Design-Builder wishes to make claim for an increase in the Contract Time a written notice of intention to claim as provided herein must be given. The Design-Builder will have the burden of demonstrating the effect of the claimed delay on the Contract Time and its adverse impact on the critical path of the Design or Construction Schedule, and will furnish the Owner with such documentation relating thereto as the Owner will reasonably require. In the case of a continuing delay only one claim is necessary.

10.2 RESOLUTION OF CLAIMS AND DISPUTES

- 10.2.1 The following shall occur as a condition precedent to the Owner's review of a claim unless waived in writing by the Owner:

10.2.1.1 Field Representatives' Meeting: Within five days (5) after a dispute or claim occurs, the Design-Builder's senior project management personnel who have authority to resolve the dispute or claim shall meet with the Owner's project representative who has authority to resolve the dispute or claim in a good faith attempt to resolve the dispute or claim. If a party intends to be accompanied at a meeting by legal counsel, the other party shall be given at least three (3) working days' notice of such and also may be accompanied by legal counsel. All negotiations pursuant to this clause are confidential and shall be treated as compromise and settlement negotiations for purposes of rules of evidence.

10.2.1.2 Management Representatives' Meeting: If the Field Representatives' Meeting fails to resolve the dispute or claim or if they fail to meet, a senior executive for the Design-Builder and for the Owner, neither of which have day to day Project Management responsibilities, shall meet, within ten days (10) after a dispute or claim occurs, in an attempt to resolve the dispute or claim and any other identified disputes or any unresolved issues that may lead to disputes or claims. If a party intends to be accompanied at a meeting by legal counsel, the other party shall be given at least three (3) working days' notice of such and also may be accompanied by legal counsel. All negotiations pursuant to this clause are confidential and shall

be treated as compromise and settlement negotiations for purposes of rules of evidence.

10.2.1.3 Following the Field Representatives' Meeting and the Management Representatives' Meeting, the Owner will review the Design-Builder's disputes or claims and may (1) request additional information from the Design-Builder which will be immediately provided to Owner, or (2) render a decision on all or part of the dispute or claim. The Owner will notify the Design-Builder in writing of the disposition of the dispute or claim within 21 days following the receipt of such dispute or claim or receipt of additional information requested.

10.2.2 If the Owner decides that the Work relating to such claim should proceed regardless of the Owner's disposition of such claim, the Owner will issue to the Design-Builder a written directive to proceed. The Design-Builder will proceed as directed.

10.2.3 For any claim made pursuant to this Contract, the Design-Builder will provide at the Owner's request all escrowed GMP Proposal Documents referenced in Paragraph 3.1.9. If the Owner requests to review the escrowed GMP Proposal Documents and the Design-Builder fails to timely provide them or has failed to preserve them, the subject claim will be deemed waived and no claim by the Design-Builder will be honored by the Owner.

10.2.4 Escrowed GMP Proposal Documents referred to in this Contract may be subject to an audit by the Owner. In the event the audit supports all of the Design-Builder's claim, the Owner will pay for the audit. Otherwise, the Design-Builder will pay for the audit.

10.2.5 If a dispute or claim is not resolved by the above procedure, the Design-Builder or the Owner agree to refer it to the Dispute Resolution Board in accordance with the terms of Attachment 9.

10.2.6 Any action initiated by either party associated with a claim or dispute will be brought in the Circuit Court in and for Hillsborough County, Florida, such Court having sole and exclusive jurisdiction. Mediation with a mediator approved by the Owner shall be a condition precedent to litigation.

ARTICLE 11 SUBCONTRACTS

11.1 A subcontractor is a person or entity who has a direct or indirect agreement with the Design-Builder to perform or provide a portion of the Work.

11.2 The Owner does not have any contractual relationship with any subcontractor on the Work. The Design-Builder will at all times, when Work is in progress, be

represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Owner.

- 11.3 The Owner reserves the right to investigate the qualifications and responsibility of proposed or actual subcontractors and to prohibit same from performing Work under this Contract where such investigation, in the judgment of the Owner, reveals that such subcontractors are unqualified and/or non-responsible. The Owner's criteria for such determination may include, but is not limited to, financial condition, experience, character of workers, condition of equipment and/or past performance. If the Owner has reasonable objection to any such proposed person or entity, the Design-Builder will submit a substitute to whom the Owner has no reasonable objection. The Design-Builder will not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection. The Design-Builder will not be required to contract with anyone whom the Design-Builder has reasonable objection.
- 11.4 The Design-Builder will not change a subcontractor, person or entity listed in Design-Builder's subcontractors list without permission of the Owner. Design-Builder will notify the Owner in writing within 48 hours of such change. The Owner will have three (3) business days to object to such change in writing.
- 11.5 By appropriate agreement, written where legally required for validity, the Design-Builder will require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Design-Builder by the terms and conditions of this Contract and to assume toward the Design-Builder all the obligations and responsibilities which the Design-Builder, by these Contract Documents, assumes toward the Owner. Design-Builder shall require all subcontractors and suppliers to comply with Owner's safety plan. Nothing herein shall limit the Design-Builder from imposing more stringent safety requirements than the Owner's safety plan on subcontractors and suppliers. Each subcontract agreement will preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the subcontractor so that subcontracting thereof will not prejudice such rights and will allow to the subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Design-Builder that the Design-Builder, by the Contract Documents, has against the Owner. Where appropriate, the Design-Builder will require each subcontractor to enter into similar agreements with sub-subcontractors. The Design-Builder will make available to each proposed subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the subcontractor will be bound and upon written request of the subcontractor identify to the subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract

Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed sub-subcontractors

- 11.6 The Design-Builder will provide to the Owner fully signed copies of all subcontracts and proposals with the submission of the subcontractor's first billing in the submitted application for payment. The Design-Builder will provide to the Owner fully signed copies of all Change Orders with subcontractors with the submission of all applicable subcontractor billings.
- 11.7 The Owner reserves the right, but does not assume the obligation to, pay any and all subcontractors and suppliers directly or via joint check if a dispute arises with the Design-Builder, after providing the Design-Builder with five (5) days written notice in writing of its intention to make such payment and an explanation of the reason(s) for making such payment.
- 11.8 At the sole discretion of the Owner, the Design-Builder may provide subcontractor default insurance (SDI) in lieu of subcontractor bonds. The budget for SDI will be included in the GMP as an allowance. At the end of the project, the SDI allowance will be reconciled to the actual cost of the premium plus the Design-Builder's Fee. The Design-Builder will be responsible for all deductible and co-insurance amounts.

ARTICLE 12 WORK BY OWNER OR OWNER'S SEPARATE CONTRACTORS

- 12.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces and to award separate agreements in connection with other portions of the Project or other construction or operations on the Project site.
- 12.2 The Design-Builder will afford the Owner and Owner's separate contractor reasonable opportunity for delivery and storage of materials and equipment and performance of activities and will connect and coordinate the Design-Builder's construction and operations with the Owner or Owner's contractor as required in the Contract Documents at no additional cost to the Owner.
- 12.3 Costs or damages arising out of delays or defective construction will be borne by the party responsible subject to the terms of this Contract.
- 12.4 The Design-Builder, with the Owner's assistance, will coordinate the Work of the Design-Builder with each separate contractor, who will cooperate with them. The Owner will provide for the coordination of the Owner's own forces with the Work of the Design-Builder, who will cooperate with them. The Design-Builder will coordinate with other separate contractors and/or the Owner in reviewing their respective construction schedules. The Design-Builder will make any revisions to the

construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules will then constitute the schedules to be used by the Design-Builder, separate contractors and/or Owner until subsequently revised.

ARTICLE 13 INDEMNIFICATION

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

1. Presence on, use or occupancy of Owner 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-Builder or the Design-Builder'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.

13.2 In addition to the duty to indemnify and hold harmless, Design-Builder 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, royalties, 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 Owner 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-Builder or the Design-Builder's officers, employees, agents, volunteers, subcontractors, invitees, or any other person directly or indirectly employed or utilized by the Design-Builder 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-Builder by a party entitled to a defense hereunder.

- 13.3 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, Design-Builder agrees to the following: To the maximum extent permitted by Florida law, Design-Builder 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-Builder and persons employed or utilized by the Design-Builder in the performance of this Contract.
- 13.4 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.
- 13.5 Design-Builder'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.

- 13.6 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.
- 13.7 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 Design-Builder of any of its obligations under this Article.
- 13.8 If the above Article 13.1-13.7 or any part of Article 13.1-13.7 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 14 SUCCESSORS AND ASSIGNS

- 14.1 The Owner and Design-Builder respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Contract and to the partners, successors, legal representatives and assigns of such other party with respect to all terms and conditions of this Contract.
- 14.2 Except as hereinafter provided, neither party to this Contract will assign this Contract or sublet it, in whole or in part, without the written consent of the other, nor will the Design-Builder assign any monies due or to become due hereunder, without the previous written consent of the Owner. If the Design-Builder attempts to make such an assignment without such consent, the Design-Builder will nevertheless remain legally responsible for all obligations under this Contract.
- 14.3 The Owner reserves the right to transfer its interests herein to any other governmental body authorized by law to operate the airport(s).

ARTICLE 15 TERMINATION OF PROFESSIONAL DESIGN SERVICES

Prior to termination of the services of any licensed design professional employed by the Design-Builder, the Design-Builder will identify to the Owner in writing another licensed design professional with respect to whom the Owner has no reasonable objection, who will provide the services originally to have been provided by the licensed design professional whose services are being terminated.

ARTICLE 16
MUTUAL RESPONSIBILITY

- 16.1 If any part of the Design-Builder's Work depends for proper execution or operation upon the work or any applicable portion thereof of any other separate contractor, the Owner will give the Design-Builder written notice of the date when the other contractor will have completed its construction or any applicable portion thereof and the Design-Builder will have 15 days from that date within which to inspect the other contractor's construction or any applicable portion thereof and to accept said construction or to reject said construction in writing to the Owner, reciting all discrepancies or defects which affect Design-Builder's Work and therefore will need remediation. Upon receipt of such statement, the Owner will see that necessary remediation is made and will notify the Design-Builder when remedial work is complete. The Design-Builder will have 15 days from the completion date of remedial work to reinspect and report again to Owner, in order to determine that discrepancies or defects complained of have been corrected.
- 16.2 Failure of the Design-Builder to inspect and report as required will constitute an acceptance of the other contractor's construction, or any applicable portion thereof, as fit and proper to receive Design-Builder's Work, except as to latent defects which may develop in the other separate contractor's construction or any applicable portion thereof after the execution of the Design-Builder's Work.
- 16.3 Upon completion of the other contractor's construction or any applicable portion thereof the area will be turned over to the Design-Builder.
- 16.4 The Design-Builder will promptly remedy damage wrongfully caused by the Design-Builder to completed or partially completed construction or to property of the Owner or separate contractor at no cost to the Owner.

ARTICLE 17
RIGHTS AND REMEDIES

- 17.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder will be in addition to duties, obligations, rights and remedies imposed or available by law and not a limitation thereon.
- 17.2 No action or failure to act by the Owner or Design-Builder will constitute a waiver of a right or duty afforded them under this Contract, nor will such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.
- 17.3 Continued performance by the Design-Builder as to the terms and conditions of this Contract after default of the Design-Builder will not be deemed a waiver by the

Owner of the right to cancel for any subsequent default. Inspections, measurements or certificates issued by the Owner, payments of money, acceptance of any Work, grants of any extension of time, or any other action taken by the Owner will not operate as a waiver of any provisions of this Contract or any power therein reserved to the Owner of any rights to damages therein provided.

- 17.4 Final acceptance of the Work will not preclude or estop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the whole Work, nor will the Owner be precluded or estopped from recovering from the Design-Builder or Design-Builder's surety, or both, such overpayment as may be sustained by the failure on the part of the Design-Builder to fulfill Design-Builder's obligations under this Contract. A waiver, on the part of the Owner, of any breach of any part of this Contract by Design-Builder will not be held to be a waiver of any other breach by Design-Builder.
- 17.5 The Design-Builder, without prejudice to the terms and conditions of this Contract, will be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as relates to the Owner's rights under any warranty or guaranty.
- 17.6 The Design-Builder's remedies are limited to those remedies specified herein. To the fullest extent permitted by law, Design-Builder agrees that it is not entitled to nor will it seek equitable adjustment of any of the terms if this contract including but not limited to the Contract Time and Contract Sum. This provision shall take precedence over any conflicting contract provisions.

ARTICLE 18 TESTS AND INSPECTIONS

- 18.1 In addition to quality control, which is the Design-Builder's sole responsibility, tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction will be made at appropriate times.
- 18.2 The Design-Builder will make arrangements and pay for such tests, inspections and approvals with an independent testing laboratory or entity selected by the Design-Builder and acceptable to the Owner or with the appropriate public authority other than the Owner. The Design-Builder will give the Owner no less than 24 hours' notice of when and where tests, inspections and approvals are to be made so that the Owner may observe such.
- 18.3 If the Owner or other public authority having jurisdiction determines that portions of the Work require additional testing, inspection or approval not included under Paragraph 18.1, the Owner will, in writing, instruct the Design-Builder to make arrangements for such additional testing, inspection or approval and the Design-

Builder will give Owner no less than 24 hours' notice of when and where such tests, inspections and approvals are to be made so the Owner may observe such.

- 18.4 If such procedures for testing, inspection or approval under this paragraph reveal failure of portions of the Work to comply with requirements established by the Contract Documents, any additional testing, inspection or approval will be borne by the Design-Builder at no cost to the Owner. In addition, the Design-Builder will bear, at no cost to the Owner, all costs made necessary by such failure, including those of corrective Work, repeated procedures and compensation for the Owner's services and expenses.
- 18.5 The Design-Builder will secure and promptly deliver to the Owner within seven (7) days, any required certificates of testing, inspection or approval, any occupancy permits, any certificates of final inspection of any part of the Design-Builder's Work and any operating permits for any mechanical apparatus, such as elevators, boilers, air compressors, etc. which may be required by law to permit full use and occupancy of the premises by the Owner. Receipt of such permits or certificates by the Owner will be a condition precedent to Substantial Completion of the Work or designated portion thereof.
- 18.6 Management and documented tracking and control of all tests, inspections or approvals conducted pursuant to the Contract Documents will be the sole responsibility of the Design-Builder and all records will be verified, tracked, documented and conducted to avoid unreasonable delay in the Work. All tests, inspections and approvals documentation will be made available to the Owner for review upon request.

ARTICLE 19 TERMINATION OR SUSPENSION OF THE CONTRACT

19.1 WRITTEN NOTICE FOR TERMINATION OR SUSPENSION

- 19.1.1 Written notice will be deemed to have been duly served if delivered at or sent by certified mail to the address provided in Article 1.

19.2 TERMINATION BY THE OWNER FOR CAUSE

- 19.2.1 Owner may terminate this Contract if the Design-Builder:

19.2.1.1 Fails to commence the Work within the time specified, fails to maintain adequate progress toward completion of the Work, discontinues the prosecution of the Work, abandons the prosecution of the Work, or fails to resume Work which has been discontinued within a reasonable time after notice to do so; or

- 19.2.1.2 Fails to perform the Work, fails to provide a sufficient number of adequately skilled workers or supervisory staff who actively staff the Project and prosecute the Work, or fails to have available at the site proper equipment or materials to assure completion of the Work in accordance with the terms of the Contract Documents; or
- 19.2.1.3 Performs the Work unsuitably, or neglects or refuses to remove materials or to perform anew such Work as may be rejected by Owner as unacceptable or unsuitable; or
- 19.2.1.4 Fails to comply with Contract requirements regarding minimum wage payments, EEO or W/MBE requirements; or
- 19.2.1.5 Disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction; or
- 19.2.1.6 Allows any final judgment against it to remain unsatisfied for a period of 30 days; or
- 19.2.1.7 Becomes insolvent, is declared bankrupt, files for reorganization under the bankruptcy code or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily; or
- 19.2.1.8 Makes an assignment or attempts to assign its rights or obligations under this Contract or any part thereof to any third-party without the prior written consent of the Owner; or
- 19.2.1.9 Consents to or is the subject of any order or decree of any court or governmental authority or agency having jurisdiction appointing a receiver, trustee, or liquidator to take possession or control of all or substantially all of the Design-Builder's property for the benefit of creditors; or
- 19.2.1.10 Materially breaches any provision in this Contract; or
- 19.2.1.11 If at any time the Surety executing the bonds is determined to be insolvent or has an AM Best rating below "A" and the Design-Builder fails to furnish an acceptable substitute Surety within thirty days after notice from the Owner; or
- 19.2.1.12 Fails or refuses to perform any other obligation under the Contract, and fails to remedy such nonperformance within ten days after notice of the occurrence by the Owner; or

- 19.2.1.13 Fails to achieve the required Interim, Substantial or Final Completion dates.
- 19.2.2 When any of the above reasons exist, the Owner may without prejudice to any other rights or remedies available give notice, in writing, to the Design-Builder and the Design-Builder's Surety. If the Design-Builder within a period of ten days after receiving such notice has not commenced in good faith to cure such cause or breach, or if having commenced such cure is not proceeding diligently to complete the cure, the Owner will have full power and authority, without violating this Contract, collectively or individually:
- 19.2.2.1 To immediately take the prosecution of the Work out of the hands of the Design-Builder; or
- 19.2.2.2 Declare the Design-Builder in default; or
- 19.2.2.3 Terminate, in whole or in part, this Contract; or
- 19.2.2.4 Exercise any other remedy available to it at law or under the Contract.
- 19.2.3 Upon termination of this Contract, the Owner may, subject to any prior rights of the Design-Builder's Surety:
- 19.2.3.1 Take possession of the site and of all materials and equipment to be incorporated into the Work and owned by the Design-Builder; and
- 19.2.3.2 Finish the Work by whatever method the Owner may deem expedient and necessary.
- 19.2.4 When the Owner terminates this Contract for cause, the Owner will be entitled to hold all amounts due the Design-Builder at the date of termination until completion of the Work and final evaluation of the Owner's damages associated with the termination. The Design-Builder will be liable to the Owner for costs and expenses incurred by the Owner in completing the Work, and also for losses, damages, costs and expenses including, but not limited to, direct, indirect and consequential damages. If such costs and expenses exceed the sum that would have been payable under this Contract, then the Design-Builder and the Surety will be liable and will pay to the Owner the amount of such excess. If the unpaid balance of the GMP Contract Sum exceeds the cost of finishing the Work, including any and all additional costs and expenses to the Owner, such excess to the extent earned will be paid to the Design-Builder and/or Design-Builder's Surety.

- 19.2.5 Upon termination of this Contract, the Owner has no liability for anticipated profits for unfinished work.
- 19.2.6 Termination of this Contract, or any portion thereof, will not relieve the Design-Builder or the Design-Builder's Surety of their liability for past and future damages, losses or claims on Work performed or on account of any act, omission, or breach by the Design-Builder. Liability for liquidated damages, if any, will continue to accrue as set forth in the Contract Documents.
- 19.2.7 The Owner's right of termination, as set forth herein, shall be in addition to and not a limitation of any and all other rights and remedies available to the Owner, at law, or under the terms of the Contract. If the Owner improperly terminates this Contract for cause, this termination for cause will be converted to and deemed to be a termination for convenience in accordance with the provisions of Paragraph 19.3 and Design-Builder shall only be entitled to those rights and remedies expressly stated in Paragraph 19.3 and in no event shall Design-Builder be entitled to any damages or remedies for wrongful termination.

19.3 TERMINATION BY THE OWNER FOR CONVENIENCE

- 19.3.1 Notwithstanding anything else in this Contract, the Owner, in its sole and absolute discretion, may at any time terminate the Work under this Contract, in whole or in part, for the Owner's convenience and without cause by written notice to the Design-Builder specifying the extent of the termination and the effective date.
- 19.3.2 Upon receipt of the written notice from the Owner of such termination, the Design-Builder will immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due:
- 19.3.2.1 Complete performance of the Work not terminated and cease operations as directed by the Owner in the notice;
 - 19.3.2.2 Take actions necessary, or as directed by the Owner, for the protection and preservation of the Work;
 - 19.3.2.3 Except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and orders for materials, services or facilities and enter into no further subcontracts and orders, unless otherwise directed by the Owner;
 - 19.3.2.4 With approval or ratification to the extent required by the Owner, settle outstanding liabilities and termination settlement proposals, if any, arising out of the termination of subcontracts;

- 19.3.2.5 As directed by the Owner, transfer title and deliver to the Owner (1) the fabricated or unfabricated parts, Work in progress, completed Work, supplies and other material produced or acquired for the portion of the terminated Work, and (2) the completed or partially completed plans, Drawings, electronic data, information and other property that, if this Contract had been completed, would be required to be furnished to the Owner; and
- 19.3.2.6 Use its best effort to sell, as directed or authorized by the Owner, any property of the types referred to in Paragraph 19.3.2.5 of this clause; provided, however, that the Design-Builder (1) is not required to extend credit to any purchaser and (2) may acquire the property under the conditions prescribed by and at prices approved by the Owner. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Owner under this Contract, credited to the price or cost of the Work, or paid in any manner directed by the Owner.
- 19.3.3 The Design-Builder will submit to the Owner a complete list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Owner, within 30 days of the termination. Within 30 days, the Owner will accept title to those items and remove them or enter into a storage agreement. The Owner may verify the list upon removal of the items, or if stored, within 45 days from submission of the list and will correct the list, as necessary, before final settlement.
- 19.3.4 When the Owner terminates this Contract or any portion thereof for convenience, the Design-Builder will be entitled to payment for Work finished, installed or in process which is acceptable to the Owner up to the date of termination, including reasonable profit on the completed Work and for the Design-Builder's reasonable increased direct costs incurred as a result of the termination and for reasonable increased direct costs as described in Section 19.3.5. The agreed amount may not exceed the total GMP Contract Sum as reduced by the amount of payments previously made. No payment of any kind or amount will be made for items of Work not started. The Design-Builder shall not be entitled to and expressly waives any claim for loss of anticipated profit, overhead of any kind, including home office and jobsite overhead, or other indirect impacts.
- 19.3.5 The reasonable increased direct costs incurred as a result of the terminated Work include:
- 19.3.5.1 Reasonable non-legal expenses including accounting and clerical expenses necessary only for the preparation of termination settlement proposals and support data; and

- 19.3.5.2 Storage, transportation and other costs incurred, which are reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- 19.3.6 In arriving at the amount due the Design-Builder, the following amounts may be deducted:
 - 19.3.6.1 All advances or other payments to the Design-Builder under the terminated portion of this Contract;
 - 19.3.6.2 Any claim which the Owner has against the Design-Builder under this Contract;
 - 19.3.6.3 The agreed price for, or the proceeds from, the sale of materials, supplies, or any other asset acquired by the Design-Builder or sold under the provisions of this Contract and not recovered by or credited to the Owner; and
 - 19.3.6.4 The value, as determined by the Owner, for property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Owner.
- 19.3.7 Unless otherwise provided in this Contract or by statute, the Design-Builder will maintain all records and documents (including but not limited to subcontracts, subcontractor change orders, purchase orders, bid tabulations, proposals and all other documents associated with the project) relating to the terminated portion of this Contract for five years after final settlement. This includes all books, records, documents, electronic data and other evidence bearing on the Design-Builder's costs and expenses under this Contract. The Design-Builder will make these records, documents and electronic data available to the Owner, at the Design-Builder's office, at reasonable times without any direct charge to the Owner. If approved by the Owner, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.
- 19.3.8 The Owner will terminate this Contract or portion thereof by written notice when the Design-Builder is prevented from proceeding with this Contract as a direct result of an Executive Order of the President of the United States.
- 19.3.9 Termination of this Contract, or portion thereof, under this Paragraph 19.3 does not relieve the Design-Builder or the Design-Builder's Surety of its responsibilities for the completed portion of the Work or its obligation for and concerning any just claims arising out of the Work performed.

19.4 SUSPENSION BY OWNER FOR CONVENIENCE

- 19.4.1 The Owner may, without cause, by written order, direct the Design-Builder to suspend, delay or interrupt all or any part of the Work for such period as the Owner may determine to be appropriate for the convenience of the Owner.
- 19.4.2 If it should become necessary to suspend Work for any period, the Design-Builder will be granted an appropriate extension to the Contract Time for the period of suspension, which will not exceed the day-for-day period of suspension. The Owner may adjust the GMP Contract Sum for reasonable increases in the direct cost of performance of the Work necessarily caused by such suspension, delay or interruption.
- 19.4.3 The Design-Builder will maintain and secure the Project, properly store all materials, provide for suitable drainage and provide any temporary structures that may be required during the suspension period. All established living material will be properly and continuously maintained in an acceptable growing condition throughout the suspension period.
- 19.4.4 No adjustments will be made for any suspension, delay or interruption to the extent that:
- 19.4.4.1 Performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Design-Builder is responsible; or
 - 19.4.4.2 An adjustment is made or denied under another provision of this Contract.

ARTICLE 20 OWNER'S RIGHT TO CARRY OUT THE WORK

- 20.1 If the Design-Builder neglects to carry out the Work in accordance with the Contract Documents and fails within a seven day period after receipt of written notice from the Owner to commence and continue correction of such Work with diligence and promptness, the Owner may, without prejudice to other remedies, correct such deficiencies. In such case an appropriate Change Order will be issued deducting from payments then or thereafter due the Design-Builder the cost of correcting such deficiencies, including compensation for the Owner's additional services and expenses made necessary by such default, neglect or failure to perform. Such Change Order will be deemed signed by the Design-Builder for purposes stated in Paragraph 8.2 even if the Design-Builder fails to physically sign such Change Order. If payments then or thereafter due the Design-Builder are not sufficient to cover such amounts, the Design-Builder will pay the difference to the Owner within ten (10) days of Owner's demand for same.

20.2 The Owner may remove such nonconforming Work and store the salvageable materials or equipment at the Design-Builder's expense. If the Design-Builder does not pay costs of such removal and storage within ten days after written notice, the Owner may sell such materials and equipment at auction or a private sale and will account for the proceeds thereof after deducting costs and damages that should have been borne by the Design-Builder, including compensation for the Owner's services and expenses made necessary. If such proceeds of sale do not cover costs which the Design-Builder should have borne, the GMP Contract Sum will be reduced by the deficiency. If payments then or thereafter due the Design-Builder are not sufficient to cover such amount, the Design-Builder will pay the difference to the Owner within ten days.

**ARTICLE 21
BASIS OF COMPENSATION**

21.1 The Owner will compensate the Design-Builder for services rendered under this Contract, as described below:

The sum of the Cost of the Work and the Design-Builder's Fee are guaranteed by the Design-Builder not to exceed the amount provided in Paragraph 21.2.1, subject to additions and deductions by changes in the Work as provided in the Contract Documents. Such maximum sum as adjusted by approved changes in the Work is referred to in the Contract Documents as the GMP Contract Sum.

21.2 COMPENSATION

21.2.1 For the Design-Builder's successful performance of the Work as described in the Contract Documents, the Owner will pay the Design-Builder the Cost of the Work plus Design-Builder's 5.125% Fee up to the GMP Contract Sum of Thirty One Million Five Hundred Thirty Five Thousand Seven Hundred Twenty Three and No One Hundredth Dollars (\$31,535,723.00), subject to additions and deductions by changes in the Work as provided in the Contract Documents.

21.2.2 Costs which would cause the GMP Contract Sum to be exceeded will be paid by the Design-Builder without reimbursement by the Owner.

21.2.3 The Design-Builder's GMP Proposal on which the GMP Contract Sum is based includes allowance items, assumptions, clarifications, the Drawings, Specifications and addenda made in preparing the GMP Contract Sum.

21.2.4 Compensation for additional services under this Contract will be based on the scope of work required, all in accordance with the terms of Article 8.

21.3 COST OF THE WORK

21.3.1 The term “Cost of the Work” will mean costs necessarily incurred by the Design-Builder in the proper performance of the Work. Such costs will be at rates not higher than those customarily paid at the place of the Project, except with prior consent of the Owner. The reimbursable Cost of the Work is limited to the following:

21.3.1.1 LABOR COSTS

21.3.1.1.1 Wages of construction workers directly employed by the Design-Builder to perform the Work at the site or at off-site workshops.

21.3.1.1.2 Wages or salaries of the Design-Builder’s supervisory and administrative personnel stationed at the site with the Owner’s concurrence.

21.3.1.1.3 Only with the Owner’s prior written approval, salaries of technical and professional employees of the Design-Builder when engaged at the Design-Builder’s off-site office performing Work required in the areas of project management, estimating, engineering, accounting and purchasing.

21.3.1.1.4 Wages and salaries of the Design-Builder’s supervisory or administrative personnel engaged, at factories, workshops or on the road in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

21.3.1.1.5 Costs paid or incurred by the Design-Builder for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, Design-Builder’s customary benefits, including but not limited to, sick leave, medical and health benefits, holidays, vacations, provided that such costs are based on wages and salaries included in the Cost of the Work under Paragraphs 21.3.1.1.1 through 21.3.1.1.4. In lieu of the above Costs, agreed upon burden rate(s) for the above Costs may be paid. Sick leave, holidays and vacations will not be included in the labor burden rate but will be paid for directly.

21.3.1.2 SUBCONTRACT COSTS

21.3.1.2.1 Payments made or owed by the Design-Builder to subcontractors for Work performed in accordance with the requirements of this Contract.

21.3.1.3 COSTS OF MATERIALS AND EQUIPMENT INCORPORATED IN TO THE WORK

21.3.1.3.1 Costs, including transportation, of materials and equipment incorporated or to be incorporated in to the Work.

21.3.1.3.2 Costs of materials described in the preceding paragraph in excess of those actually installed but required to provide reasonable allowance for waste and for spoilage. Unused excess materials, if any, will be handed over to the Owner at the completion of the Work or, at the Owner's option, will be sold by the Design-Builder. Amounts realized from such sales will be credited to the Owner as a deduction from the Cost of the Work.

21.3.2 COSTS OF OTHER MATERIALS AND EQUIPMENT, TEMPORARY FACILITIES AND RELATED ITEMS

21.3.2.1 Costs, including transportation, of installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by the construction workers which are provided by the Design-Builder at the Project site and fully consumed in the performance of the Work. Costs for those items not fully consumed less salvage value, whether sold to others or retained by the Design-Builder. Cost will be based on current fair market value. These costs must be supported by field usage records.

21.3.2.2 Rental charges for temporary facilities, machinery, equipment and hand tools not owned by the construction workers which are provided by the Design-Builder at the Project site, whether rented from the Design-Builder or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented will be subject to the Owner's approval. Rental rates or charges for equipment owned by Design-Builder or a Design-Builder's affiliates will not exceed rates or charges for equipment supplied by a rental agency. Owner shall not pay more than 75% of the replacement value of the each piece of equipment or hand tool as a rental charge. Any rental charges in excess of 75% of replacement value of each piece of equipment or hand tools shall be borne by Design-Builder. The terms of this Article may not be waived by the Owner unless such waiver is in writing and makes specific reference to this Article.

21.3.2.3 Costs of removal of debris from the Project site.

21.3.2.4 Reproduction costs, including plotting, facsimile transmissions, long-distance telephone calls, internet service, field office postage, express

delivery charges, cellular and telephone service, at the Project site and reasonable petty cash expenses of the Project site office.

21.3.2.5 With the Owner's prior approval, expenses for parking at Tampa International Airport and transportation related to the Project outside of Hillsborough, Pinellas and Pasco Counties, including airplane and automobile travel and the cost of meals and lodging in the event overnight travel related to the Project is required. Only travel expenses related to the performance of the Work are reimbursable. The most efficient and economical means of transportation is required. Travel included in Attachment 1, Guaranteed Maximum Price Proposal is to be considered approved by execution of this Contract. Any additional travel will require pre-approval by the Owner. Employee expense sheets are required as well as supporting originals or legible copies of all receipts.

21.3.3 OWNER'S ALLOWANCES

21.3.3.1 The Design-Builder has included in the GMP Contract Sum all Owner's Allowances stated in the Contract Documents. Items covered by allowances will be supplied for such amounts and by such persons or entities as the Owner may direct, but the Design-Builder will not be required to employ persons or entities against which the Design-Builder makes reasonable objection.

21.3.3.2 Unless otherwise provided in the Contract Documents:

21.3.3.2.1 Owner's Allowances will cover the cost to the Design-Builder of materials and equipment delivered at the site and all required taxes, less applicable trade discounts.

21.3.3.2.2 The Design-Builder's mark-up costs are included in the Owner's Allowance amount for authorized work and are not included in the Design-Builder's Fee.

21.3.3.2.3 Whenever costs are more than or less than the Owner's Allowance, the GMP Contract Sum will be adjusted accordingly by Change Order.

21.3.3.3 The maximum percentage for total overhead and profit and any other expense items covered by the Owner's Allowance will be as follows:

21.3.3.3.1 For the Design-Builder, 10% and the agreed upon Design-Builder's Fee of any items covered by the Owner's Allowance performed by the Design-Builder's own forces;

21.3.3.3.2 For the subcontractor, 15% of any items covered by the Owner's Allowance performed by the subcontractor, plus the agreed upon Design-Builder's Fee for the Design-Builder; and/or

21.3.3.3.3 For designers and other professional services providers, Part 1 Contract rates will be used for any additional design services performed by the designer's and professional services provider's own forces, plus the agreed upon Design-Builder's Fee of any net increase in the cost of the Work for the Design-Builder; and/or

21.3.3.3.4 Per the Work Order negotiations.

21.3.4 MISCELLANEOUS COSTS

21.3.4.1 That portion of insurance and bond premiums directly attributable to this Contract.

21.3.4.2 Sales or other similar taxes imposed by a governmental authority which are related to the Work and for which the Design-Builder is liable.

21.3.4.3 Fees and assessments for permits, licenses and inspections for which the Design-Builder is required to pay in accordance with the Contract Documents.

21.3.4.4 Fees of testing laboratories for tests required by the Contract Documents, except those related to nonconforming Work.

21.3.4.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents.

21.3.4.6 Data processing labor costs for scheduling and estimating services related to the Work.

21.3.4.7 Deposits lost for causes other than the Design-Builder's negligence.

21.3.4.8 The costs incurred in repairing and/or correcting damaged Work performed by the Design-Builder or the Design-Builder's subcontractors or suppliers, provided that such damaged Work was not caused by the negligence or failure of others and only to the extent that the cost of repair or correction is not recoverable by the Design-Builder from insurance, bonds, subcontractors or suppliers.

21.3.5 OTHER COSTS

Other costs that may be incurred in the performance of the Work, if any, to the extent approved in writing by the Owner.

21.4 COSTS NOT INCLUDED IN THE COST OF THE WORK

21.4.1 The Cost of the Work will not include:

21.4.1.1 Salaries and other compensation of the Design-Builder's personnel stationed at the Design-Builder's principal office or offices other than the site office, except as specifically provided in Paragraphs 21.3.1.1.1 thru 21.3.1.1.4.

21.4.1.2 Expenses of the Design-Builder's principal office and offices other than the Project site office except as specifically provided in Paragraph 21.3.

21.4.1.3 Overhead and general expenses, except as may be expressly included in this Article 21.

21.4.1.4 The Design-Builder's capital expenses, including interest on the Design-Builder's capital employed for the Work.

21.4.1.5 Rental costs of machinery and equipment, except as specifically provided in Paragraph 21.3.2.

21.4.1.6 Costs incurred in the performance of the Part 1 Contract.

21.4.1.7 Costs which would cause the GMP Contract Sum to be exceeded.

21.4.1.8 Interest payments of any kind.

21.4.1.9 The cost of defending suits or claims for royalties, licenses, infringement of patent or other intellectual property rights arising from requirements of the Contract Documents, payments made in accordance with legal judgments against the Design-Builder resulting from such suits or claims and payments of settlements made with the Owner's consent.

21.4.1.10 Costs due to the negligence or failure of the Design-Builder, contractors, subcontractors or suppliers or any one directly or indirectly employed by any of them to fulfill a specific responsibility of the Design-Builder, contractors, subcontractors and suppliers or any one directly or indirectly employed by any of them for whose acts any of them may be liable.

21.4.1.11 Costs to repair or replace damaged or stolen material, equipment, temporary facilities and related items.

- 21.4.1.12 Bonuses and/or profit sharing for any employee of the Design-Builder.
- 21.4.1.13 Software and IT support, unless identified elsewhere in the GMP.
- 21.4.1.14 Costs associated with construction warranties.
- 21.4.1.15 Costs to remedy defective, rejected or nonconforming Work, materials or equipment.
- 21.4.1.16 Costs arising from Design-Builder's contractual indemnification and defense obligations.
- 21.4.1.17 Liquidated or actual damages imposed by the Owner.
- 21.4.1.18 Attorney fees, expert witness fees and Costs incurred by the Design-Builder in any dispute with the Owner except as otherwise required by law.

21.5 DISCOUNTS, REBATES AND REFUNDS

- 21.5.1 Discounts obtained on payments made by the Design-Builder will accrue to the Owner if (1) before making the payment, the Design-Builder included them in an application for payment and received payment from the Owner, or (2) the Owner has deposited funds with the Design-Builder with which to make payments; otherwise, discounts will accrue to the Design-Builder. Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment will accrue to the Design-Builder and the Design-Builder will make provisions so that they can be secured. All premiums for any insurance and bonds required for the Project shall reflect the net actual costs to Design-Builder after taking into consideration cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, Owner Direct Purchase Program, and other savings.
- 21.5.2 Amounts which accrue to the Owner in accordance with the provisions of Paragraph 21.5.1 will be credited to the Owner as a deduction from the GMP.

ARTICLE 22

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

- 22.1 In connection with payments to the Design-Builder under this Contract, it is agreed the Design-Builder will maintain full, accurate and detailed books of account and records customarily used in this type of business operation in accordance with generally accepted accounting principles. The Owner, Federal Aviation Administration, Federal

Highway Administration, Florida Department of Transportation, 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, may have the right to audit the Design-Builder's records for the purpose of making audits, examinations, excerpts, and/or transcriptions and to determine payment eligibility under this Contract and compliance with this Contract. The Owner also has the right to perform inspections or attestation engagements. Access will be to any and all of the Design-Builder's records, including books, documents, papers, accounting procedures and practices, and any other supporting evidence the Owner deems pertinent to this Contract as well as records of parent, affiliate and subsidiary companies. The Design-Builder shall maintain such books and records for five years after the end of the term of this Contract.

- 22.2 If the records are kept at locations other than the Airport, Design-Builder will arrange for said records to be brought to a location convenient to Owner's auditors to conduct the engagement as set forth in this Article. Or, Design-Builder may transport Owner's team to location of records for purposes of undertaking said engagement. In such event, Design-Builder will pay reasonable costs of transportation, food and lodging for Owner's team.
- 22.3 In the event the Design-Builder maintains its accounting or Project information in electronic format, upon request by the Owner's auditors, the Design-Builder will provide a download of its accounting or Project information in an electronic format allowing readership in Microsoft Office products or Adobe Acrobat software.
- 22.4 Design-Builder 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 the engagement and to deliver or provide access to subsequent request during the engagement within 7 calendar days of each request. The parties recognize that the Owner will incur additional costs if records requested by Owner's auditors are not provided in a timely manner and that the amount of those costs is extremely difficult to determine with certainty. Consequently, the parties agree that Design-Builder may be assessed liquidated damages of \$100.00, in addition to other contractual financial requirements, for each item in a records request, per calendar day, for each time Design-Builder is late in submitting requested records to perform the engagement. Accrual of fee will continue until specific performance is accomplished. This liquidated damage 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.
- 22.5 The Owner has the right during any engagement to interview the Design-Builder's employees, subcontractors, subconsultants, suppliers or any other persons associated

with the Work or this Contract, to make photocopies, and to inspect any and all records upon request. The right to initiate an engagement, inspection or attestation engagement will extend during the contract period and for five years after the completion date of the Work, or five years after the termination of this Contract, whichever occurs later.

- 22.6 The Design-Builder will provide all information and reports that could reasonably relate to the project requested by the Owner, or any of their duly authorized representatives, or directives issued pursuant thereto, and will permit access, for the purpose of performing an audit, examination, inspection, or attestation engagement, to the Design-Builder's books, records, accounts, documents, papers, or other sources of information, and its facilities as may be determined by the Owner to be pertinent to ascertain compliance with this Article. The Design-Builder will keep all Project accounts and records which fully disclose the amount of the Design-Builder's GMP Proposal. The accounts and records will be kept in accordance with an accounting system that will facilitate an effective audit in accordance with the Single Audit Act of 1984, as amended.
- 22.7 In the event the Design-Builder has overcharged the Owner, the Design-Builder will repay the Owner the amount of the overcharge, plus interest on the overcharge amount up to 12% per year from the date the overcharge occurred. In addition, if the Design-Builder has overcharged the Authority by more than 3% of the correct reimbursable amount, the Owner may assess and the Design-Builder will pay for the entire cost of the audit.
- 22.8 The Design-Builder will include in all subcontractor, subconsultant and supplier contracts a provision which provides the Owner the same rights to audit as provided in this Article.
- 22.9 Approvals by Owner's staff for any services not included in this Contract do not act as a waiver or limitation of the Owner's right to perform audits, inspections, or attestation engagements.
- 22.10 The Design-Builder will notify the Owner no later than seven days after receiving knowledge that it is subject to any other audit, inspection or attestation engagement related to this Contract and provide a copy of any audit documents so received.
- 22.11 The Design-Builder agrees to comply with Section 20.055(5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with Section 20.055(5), Florida Statutes.

ARTICLE 23
GUARANTEED COMPLETION DATE

- 23.1 The Design-Builder will commence the Work within 10 days of the date set by the Owner in a written Notice to Proceed. The Design-Builder will achieve Substantial Completion of the Work no later than the Guaranteed Completion Date of December 31, 2019 subject to authorized adjustments and in accordance with the Contract Documents.
- 23.2 It is mutually agreed between the parties hereto that time is of the essence of this Contract and in the event the Work has not achieved Substantial Completion by the Guaranteed Completion Date herein specified, it is agreed that from any money due or to become due the Design-Builder or the Design-Builder's Surety, the Owner may retain the sum of Five Thousand and No One Hundredth Dollars (\$5,000.00) per day, for each day thereafter, Sundays and holidays included, until the Work is substantially completed, not as a penalty but as liquidation of a reasonable portion of loss that will be incurred by the Owner if Work is not completed on or before the Guaranteed Completion Date. Multiple Substantial Completion Dates may be defined as part of this Contract. In addition, the Owner may retain different sums as liquidated damages if Work is not completed on or before the Substantial Completion Dates.

ARTICLE 24
PERFORMANCE BOND AND PAYMENT BOND

- 24.1 The Design-Builder will furnish a Statutory Payment Bond and a Common Law Performance Bond (Bonds) for the full and faithful performance of the Work, meeting the standards specified herein, on the bond forms attached to this Contract as Attachment 2, with a certified Power of Attorney Affidavit attached, each in the full amount of the GMP Contract Sum.
- 24.2 All Bonds required under this Contract will be written through a reputable and responsible surety bond agent, licensed to do business in the State of Florida and with an acceptable Surety company which holds a Certificate of Authority authorizing it to write surety bonds in Florida. Bonds will be furnished to the Owner not later than seven days after Notice of Award. Prior to the commencement of any of the Work, but not later than 30 days from the date of Notice of Award, the Design-Builder will record the Bonds in the public records of Hillsborough County, Florida.
- 24.3 An acceptable Surety company must meet all of the following requirements:
- 24.3.1 Hold a Certificate of Authority authorizing it to write surety bonds in Florida.

- 24.3.2 Have been in business and have a record of successful continuous operations for the last five years.
- 24.3.3 Be listed and maintain a current Certificate of Authority as acceptable surety on federal bonds and as acceptable reinsuring companies in accordance with U.S. Department of Treasury Circular 570, current revision. The amount of Bonds issued pursuant to this Contract will not exceed the underlying limitation in the Federal Register for that Surety.
- 24.3.4 Have a current rating by A.M. Best Company of "B+" up to \$2,500,000.00 bond amount and "A" or better if over \$2,500,000.00 bond amount.
- 24.3.5 Be a responsible Surety company at the time of the Bond execution.

Should the Surety lose its Certificate of Authority according to the current Federal Register published by the U.S. Department of the Treasury, and/or should its Best rating be reduced below the rating required in Paragraph 24.3.4, the Owner will have the right to require Design-Builder to change the Surety to an acceptable Surety company, all at Design-Builder's expense without reimbursement from Owner.

- 24.4 The Surety company will have a Florida licensed agent who is authorized to execute bonds for the Surety company and whose name is listed in the prescribed space on the bond forms and affidavit for all Bonds required by the Owner.
- 24.5 Upon the request of any person or entity appearing to be a potential beneficiary of the Bonds covering payment of obligations arising under this Contract, the Design-Builder will promptly furnish a copy of the Bonds or will permit a copy to be made.
- 24.6 If the Surety on any Bond furnished by the Design-Builder under this Contract is declared bankrupt, becomes insolvent, has its right to do business in the State of Florida terminated, ceases to be licensed to conduct business in the State of Florida, if the Owner deems the Surety upon any Bond to be unsatisfactory, or if for any reason such Bond ceases to be adequate, the Design-Builder will, at its expense, within five days after such occurrence, furnish additional or replacement Bond or Bonds in such form, amount, and with such Surety or Sureties as will be acceptable to the Owner. In such event, no further payment to the Design-Builder will be deemed to be due under this Contract until such new or additional security for the faithful performance of the Work is furnished in a manner and form acceptable to the Owner.
- 24.7 In the event the Bonds required in this Article are not provided, the Owner will have the right to terminate this Contract for cause.

- 24.8 Bond coverage shall be adjusted during the term of this Contract to reflect additions or deductions made by Change Orders or Work Orders.
- 24.9 The Owner is entitled to receive any refunded bond premiums resulting from Bond coverage adjustments.
- 24.10 The provisions of Attachment 2 – COMMON LAW PERFORMANCE BOND AND STATUTORY PAYMENT BOND are incorporated by reference into this Contract.

**ARTICLE 25
GOVERNING LAW AND VENUE**

This Contract has been made in and will be construed in accordance with the laws of the State of Florida. Any litigation involving this Contract and all rights and obligations hereunder will lie exclusively in the Thirteenth Judicial Circuit Court in and for Hillsborough County, Florida.

**ARTICLE 26
RESTRICTED VENDOR LIST**

- 26.1 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 a contract to provide any goods or services to a public entity, may not submit a bid on a contract 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 Design-Builder, supplier, subcontractor, or consultant under a contract with any public entity and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of the Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- 26.2 A person or affiliate who has been placed on the discriminatory vendor list kept by the Florida Department of Management Services may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract 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 Design-Builder, supplier, subcontractor, or consultant under a contract with any public entity and may not transact business with any public entity as provided in Section 287.134, Florida Statutes.
- 26.3 An entity or affiliate who has had its Certificate of Qualification suspended, revoked, denied, or have further been determined by FDOT to be a non-responsible contractor, may not perform work under this Contract.

ARTICLE 27
NON-DISCRIMINATION

27.1 During the performance of this Contract, the Design-Builder, for itself, its assignees and successors in interest (hereinafter in this Article 27 being collectively referred to as 'Design-Builder') agrees as follows:

27.1.1 The Design-Builder will 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 amended from time to time (hereinafter referred to as the Regulations), which are incorporated herein by reference and made a part of this Contract.

27.1.2 Civil Rights. The Design-Builder, with regard to the work performed by it under the Contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Design-Builder 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. During the performance of this Contract, Design-Builder, for itself, its assignees, and successors in interest agrees to comply with the following nondiscrimination statutes and authorities, including but not limited to:

27.1.2.1 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);

27.1.2.2 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);

27.1.2.3 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);

27.1.2.4 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;

27.1.2.5 The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);

27.1.2.6 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);

27.1.2.7 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);

27.1.2.8 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;

27.1.2.9 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);

27.1.2.10 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination 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;

27.1.2.11 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-Builder must take reasonable steps to ensure that LEP persons have meaningful access to Design-Builder’s programs (70 Fed. Reg. at 74087 to 74100); and

27.1.2.12 Title IX of the Education Amendments of 1972, as amended, which prohibits Design-Builder from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

- 27.1.3 In all solicitations either by competitive bidding or negotiation made by the Design-Builder 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-Builder of the Design-Builder's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color or national origin.
- 27.1.4 The Design-Builder will 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-Builder is in the exclusive possession of another who fails or refuses to furnish this information, the Design-Builder will so certify to the Owner or the FAA, as appropriate, and will set forth what efforts it has made to obtain the information.
- 27.1.5 In the event of the Design-Builder'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-Builder under this Contract until the Design-Builder complies, and/or cancellation, termination or suspension of this Contract, in whole or in part.
- 27.1.6 The Design-Builder will include the provisions of Paragraphs 18.1.1 through 18.1.5 in every subcontract and subconsultant contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Design-Builder will 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-Builder becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of such direction, the Design-Builder may request the Owner to enter into such litigation to protect the interests of the Owner and, in addition, the Design-Builder may request the United States to enter into such litigation to protect the interests of the United States.
- 27.1.7 Design-Builder assures that, in the performance of its obligations under this Contract, it will fully comply with the requirements of 14 CFR Part 152, Subpart E (Non-Discrimination in Airport Aid Program), as amended from time to time, to the extent applicable to Design-Builder, to ensure, among

other things, that no person will be excluded from participating in any activities covered by such requirements on the grounds of race, creed, color, national origin, or sex. Design-Builder, if required by such requirements, will provide assurances to the Owner that Design-Builder will undertake an affirmative action program and will require the same of its subconsultants.

ARTICLE 28
WOMAN AND MINORITY OWNED BUSINESS ENTERPRISE (W/MBE) ASSURANCES

- 28.1 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.
- 28.1.1 The Design-Builder and any subcontractor of the Design-Builder will not discriminate on the basis of race, color, national origin, or sex in the performance of the Contract. The Design-Builder will carry out applicable requirements of the Authority's W/MBE Policy and Programs in the award and administration of contracts. Failure by the Design-Builder 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 Authority deems appropriate which may include, but not limited to:
- 28.1.1.1 Withholding monthly progress payments;
 - 28.1.1.2 Assessing sanctions;
 - 28.1.1.3 Liquidated damages; and/or
 - 28.1.1.4 Disqualifying the contractor from future bidding as non-responsible.
- 28.1.2 The Design-Builder 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.
- 28.1.3 The Design-Builder 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.

- 28.2 The Design-Builder 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-Builder 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.
- 28.3 W/MBE Goals. In compliance with the Owner's W/MBE Policy and Program, the Design-Builder's minimum W/MBE commitment is established as the sum total of the verified Letter(s) of Intent for each portion of the Project submitted with their response. The W/MBE goal stated below is the sum total of the certified W/MBE's listed in the Design-Builder's fee and scope proposal which is attached hereto and which will be enforceable under the terms of this Contract. The Design-Builder will subcontract to certified W/MBEs at least 17.0% of the cumulative dollar value for the design Work earned under the Part 1 and this Part 2 Contract, and at least 15.1% of the dollar value of the construction Work earned under this Part 2 Contract.
- 28.4 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-Builder 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.
- 28.5 Reporting Requirements: The Design-Builder 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-Builder'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.
- 28.6 Monitoring: The Owner will monitor the compliance and good faith efforts of the Design-Builder 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-Builder and the W/MBE participant, and other records pertaining to the W/MBE participation plan, which the Design-Builder 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-Builder for the achievement of these

goals.

28.7 Design-Builder agrees to indemnify the Owner from the loss of any funds or other damages that may result from Design-Builder'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-Builder or good faith investigation by Owner. Failure of Design-Builder to make a good faith effort to achieve W/MBE goals will be a material breach of this Contract. The determination of whether Design-Builder'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.

28.8 In the event of the Design-Builder'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:

28.9.1 Withholding of payments to the Design-Builder under this Contract until the Design-Builder complies; and/or

28.9.2 Assessing sanctions; and/or

28.9.3 Liquidated damages; and/or

28.9.4 Cancellation, termination or suspension of this Contract in whole or in part; and/or

28.9.3 Suspension or debarment of Design-Builder 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 29 TRUTH IN NEGOTIATIONS

The Design-Builder certifies that the wage rates and other factual unit costs supporting the compensation described herein are accurate, complete and current as of the date of this Contract and that the original compensation and any additions thereto will be adjusted to exclude any significant sums where the Owner determines the GMP Contract Sum amount was increased due to inaccurate, incomplete or non-current wage rates and other factual unit costs. All such Contract adjustments must be made within five years following the end of the Contract.

**ARTICLE 30
PROHIBITED INTEREST**

The following provision is made a part of this Contract and will be inserted in each of the Design-Builder's subcontracts:

"No member, officer, or employee of the Hillsborough County Aviation Authority during their tenure or for two years thereafter will have any interest, direct or indirect, in this Contract or the proceeds thereof."

**ARTICLE 31
PROHIBITION AGAINST CONTINGENT FEES**

The Design-Builder warrants that Design-Builder has not employed or retained any company or person, other than a bona fide employee working solely for the Design-Builder, to solicit or secure this Contract and that the Design-Builder 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-Builder, 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-Builder violates this provision, the Owner may terminate this Contract without liability and, at its discretion, deduct from this Contract, or otherwise recover, the full amount of any fee, commission, percentage, gift, or consideration.

**ARTICLE 32
CERTIFICATION OF NON-SEGREGATED FACILITIES**

The Design-Builder certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that Design-Builder does not permit its employees to perform their services at any location under Design-Builder's control where segregated facilities are maintained. The Design-Builder certifies that it will not maintain or provide for its employees segregated facilities at any of its establishments and that Design-Builder will not permit its employees to perform their services at any location under Design-Builder's control where segregated facilities are maintained. The Design-Builder 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 room, 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-Builder agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award

of subcontracts exceeding \$10,000.00 (U.S.) which are not exempt from the provisions of the equal opportunity clause and that Design-Builder will retain such certifications in its files.

ARTICLE 33
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 the Design-Builder 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 or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

ARTICLE 34
E-VERIFY REQUIREMENT/UNAUTHORIZED ALIENS

- 34.1 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 Programs with Florida Department of Transportation (FDOT) funding will contain this assurance as a condition for any new Joint Participation Agreements dated after January 4, 2011. The Design-Builder 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.
- 34.2 FDOT considers the employment by any contractor of unauthorized aliens a violation of Section 274A(e) of the Immigration and Nationality Act. If the Design Builder knowingly employs unauthorized aliens, such violation will be cause of unilateral cancellation of this Contract.

ARTICLE 35
HAZARDOUS MATERIALS

- 35.1 A Hazardous Material is any substance or material identified now or in the future as hazardous under any federal, state or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirement governing handling, disposal or cleanup. The Design-Builder shall not be obligated to commence or continue work until any Hazardous Material

discovered at the Worksite has been removed, rendered or determined to be harmless by the Owner as certified by an independent testing laboratory and approved by the appropriate government agency.

If after commencement of the Work, Hazardous Material is discovered at the Worksite, the Design-Builder shall be entitled to immediately stop Work in the affected area. The Design-Builder shall report the condition to the Owner and if required, the government agency with jurisdiction.

Regardless of fault and regardless of any other clause in this Contract, the Design-Builder shall not, as a result of the Hazardous Materials encountered on site, be entitled to any compensatory damages, including but not limited to, damages for delay, disruption, liquidated damages, consequential damages of any type, including lost profits. If the Hazardous Material introduction is caused by the Owner or was located at the Worksite before Work commenced on the Project, the Design-Builder shall only be entitled to an extension of the Contract Time and associated increase in the General Conditions if it impacts the Critical Path and the Owner shall assume responsibility for the remediation of such substances.

- 35.2 If the Design-Builder, or any of its subcontractors or suppliers of any tier, or any person or entity under the control of the Design-Builder or any of its subcontractors or suppliers of any tier, is responsible for (i) introducing and discharging Hazardous Material onto the site which was not otherwise specified by the plans and specifications; and/or (ii) disturbing Hazardous Material clearly identified in the Contract Documents, the Design-Builder shall hire a qualified remediation Design-Builder at Design-Builder's sole cost to eliminate the condition as soon as possible. Under no circumstances shall the Design-Builder perform Work for which it is not qualified. Owner, in its sole discretion, may require the Design-Builder to retain at its cost an independent testing laboratory.

Material Safety Data Sheets as required by law and pertaining to materials or substances used or consumed in the performance of the Work, whether obtained by the Design-Builder, subcontractors, the Owner or Others, shall be maintained at the Worksite by the Design-Builder and made available to the Owner, subcontractors and Others.

The Design-Builder shall be responsible for the proper delivery, handling, application, storage, removal and disposal of all materials and substances brought to the Worksite by the Design-Builder in accordance with the Contract Documents and used or consumed in the performance of the Work.

- 35.3 To the maximum extent permitted by applicable law, The Design-Builder shall indemnify and hold harmless the Owner and its board members, officers, employees, agents, servants and volunteers or any of them from and against claims,

damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from (a) use, disturbance or storage of Hazardous Materials for execution of the Work; and (b) disturbing any Hazardous Materials found on the site, provided that Design-Builder had prior notice of the existence and location of the Hazardous Materials. The terms of this paragraph survive the completion of the Work or any termination of this Contract. This obligation to indemnify and hold harmless will be construed separately and independently. It is the parties mutual intent that if this clause is found to be in conflict with applicable law, the clause will be considered modified by such law to the extent necessary to remedy the conflict. Design-Builder's obligations to indemnify under this Contract will survive the expiration or earlier termination of this Contract until it is determined by final judgment that an action against the Owner or an indemnified party for the matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

- 35.4 In addition to the duty to indemnify and hold harmless the Owner, Design-Builder will have the separate duty to defend Owner and its board members, officers, employees, agents, servants and volunteers or any of them from and against claims, damages, losses and expenses, arising out of or resulting from (a) use, disturbance or storage of Hazardous Materials for execution of the Work; and (b) disturbing any Hazardous Materials found on the site, provided that Design-Builder had prior notice of the existence and location of the Hazardous Materials. Design-Builder's obligations to defend under this Contract will survive the expiration or earlier termination of this Contract until it is determined by final judgment that an action against the Owner or party for whom the Design-Builder owes the duty to defend for a matter for which the Design-Builder owes the duty to defend is fully and finally barred by the applicable statute of limitations.

ARTICLE 36 INSURANCE

- 36.1 The provisions of Attachment 3 - INSURANCE REQUIREMENTS are incorporated by reference into this Contract.
- 36.2 The Design-Builder will comply with the insurance requirements and coverage limits detailed in Attachment 3- INSURANCE REQUIREMENTS. Such insurance will protect the Owner and Design-Builder from claims which may arise out of or result from operations under this Contract by the Design-Builder, by a subcontractor of the Design-Builder, by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.
- 36.3 Pursuant to Fla. Stat. 255.0517(2)(d), nothing contained herein prohibits the Design-Builder or subcontractor from purchasing any additional insurance coverage that the Design-Builder or subcontractor believes is necessary for protection against any

liability arising out of the contract. However, in the event that the Design-Builder or subcontractor elects to purchase additional insurance, the cost of any additional insurance procured by the Design-Builder or subcontractor must be disclosed to the Owner.

36.4 If implemented, the Owner OCIP Wrap Up Manual, is incorporated into this Contract by reference and the terms of OCIP Wrap Up Manual are terms of this Contract.

ARTICLE 37
DIVISION 01, GENERAL REQUIREMENTS

The provisions of Attachment 4 - DIVISION 01, GENERAL REQUIREMENTS are incorporated by reference into this Contract.

ARTICLE 38
DESIGN CRITERIA MANUAL

The provisions of Attachment 5 - DESIGN CRITERIA MANUAL, dated September 18, 2007, are incorporated by reference into this Contract.

ARTICLE 39
LOBBYING

No funds received pursuant to this Contract may be expended for lobbying the Florida Legislature, judicial branch, or any state agency, in accordance with Section 216.347, Florida Statutes.

ARTICLE 40
COMPLETE CONTRACT

This Contract represents the entire agreement between the Owner and the Design-Builder and supersedes prior negotiations, representations or agreements, either written or oral. This Contract may be amended only by written instrument signed by both the Owner and the Design-Builder.

**ARTICLE 41
CONTRACT**

This Contract entered into as of the day and year first written above.

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-Builder this _____ day of _____, 2019.

ATTEST:

Hensel Phelps Construction Co.

By: _____

Title: _____

Print Name

Print Address

Signed, sealed, and delivered
in the presence of:

Witness

Print Name

Witness

Print Name

Notary for Hensel Phelps Construction Co.

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 2019,
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 Authority this _____ day of _____, 2019.

HILLSBOROUGH COUNTY AVIATION AUTHORITY

(Affix Corporate Seal)

By: _____
Robert I. Watkins, Chairman

ATTEST:

Lesley "Les" Miller, Jr., Secretary

Signed, sealed, and delivered
in the presence of:

Witness

Print Name

Witness

Print Name

**APPROVED AS TO FORM FOR LEGAL
SUFFICIENCY:**

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 _____, 2019, by Robert I. Watkins, in the capacity of Chairman, and by Lesley "Les" Miller, Jr., 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

ATTACHMENT 1

To

Contract Between Owner and Design-Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

**GUARANTEED MAXIMUM
PRICE PROPOSAL**



HENSEL PHELPS

Plan. Build. Manage.

6557 Hazeltine National Drive
Suite One
Orlando, Florida 32822
407.856.2400

May 22th, 2019

Mr. Tom Thalheimer
Director of Procurement, Capital Program
Tampa International Airport
P.O. Box 22287
Tampa, FL 33622

Subject: Early Enabling Work (GMP 01) Submission – REVISION 3
TPA – Main Terminal Curbside Expansion Project

Dear Mr. Thalheimer:

Hensel Phelps is pleased to submit Revision 3 of the GMP 01 Enabling scope of services for the TPA Main Terminal Curbside Expansion Project. This GMP Revision is based upon our recent meetings and submitted for your approval.

The intention of this Early Enabling work is to begin the process of clearing away existing infrastructure in the vicinity of the Blue Side project, the Central Utility Plant, and the Electrical Services Building while the design of said projects progresses towards completion. The goal is a seamless and expedited transition from Enabling Work to full construction as soon as design allows. The work specifically included in this package is as follows:

- Design/Builder Trailer Complex
- Pedestrian Control Measures
- Demolition of Blue Rental Car bldg. and Pedestrian Bridges
- Civil Development, Utility Relocation, and Roadway Modifications
- MEPFP Support for Demolition and Construction

We hope the information provided herein meets your approval and should you have any questions please call me at your convenience.

Regards,

Joseph A. Giunta
Program Director

TPA – Main Terminal Curbside Expansion Project

GMP 01 – Enabling Work

May 22, 2019

Table of Contents

1. Cover Letter

2. Bid Documents

- a. Link to Bid Documents
- b. Bid Package Solicitation

3. Estimate

- a. Narrative
- b. Schedule of Values
- c. Proposal Summaries

4. General Conditions / General Requirements

- a. General Conditions Report
- b. Staff Schedule
- c. General Requirements Report
- d. Backup Documentation

5. W/MBE Program

- a. W/MBE Participation Summary
- b. W/MBE Solicitation

6. Project Schedule

7. Clarifications & Assumptions

100% Enabling: Bid Package Documents

Bid Package 01 for the Enabling Work of this project was released to the bidding community on February 20 through Building Connected. All files associated with this Bid Package release are located on SharePoint and available for review at the discretion of the Tampa Airport Authority. They may be found at *Owner Files > 05_GMP Packages > Bid Package 01*, or through the following link:

https://hpcc2013.sharepoint.com/:f:/t/TIA/ErZ025TZiLFCnWo3g6KN3jMB96xkk2SiJWO_gxxBW4Mlrg?e=Rm4Eqy

Hensel Phelps - Southeast District



TPA - MTCE: Enabling Work

Name	Email	Phone	Cell	Status	Bid
1.00: General		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Aviman Management LLC		--		Not Bidding	--
Wallace Coleman	levi@avimanmanagement.com	(302) 377-5788	--	Viewed	
F & C Eaton Enterprises, LLC		--		Undecided	--
Charles Eaton	charles@fceatonenterprises.com	(254) 283-5252	--	Invited	
ISEC, Inc.		(813) 422-5100		Not Bidding	--
Daniel Biernat	djbiernat@isecinc.com	(813) 422-5745	--	Viewed	
John Morton	jcmorton@isecinc.com	(714) 620-5022	(714) 620-5022	Viewed	
Nicholas Reaume	ntreaume@isecinc.com	(813) 422-5759	--	Viewed	
Indcon, Inc.		--		Undecided	--
Ashley Hartsell	ashleyh@indconinc.com	(864) 626-5520	--	Viewed	
J.A.B. and Associates		--		Undecided	--
Jacy Bussey	jacybussey@gmail.com	(727) 318-7168	(727) 318-7168	Invited	
L & S Diversified LLC		(407) 681-3836		Not Bidding	--
Fabiana Pouso	fabiana.pouso@lssurveyor.com	(407) 681-3836	--	Viewed	

Odyssey Global		(407) 605-5900		Bid Submitted	
Carl Leneis	carll@odysseyglobal.com	(407) 605-5900x2	(407) 777-6620	Viewed	
Carl Leneis (vendor)	carl@hacontracting.com	(305) 591-9212	(407) 777-6620	Viewed	
Jimmy Frye	jimmyf@odysseyglobal.com	--	--	Viewed	
SimRobotics Corp. BIM Services		(407) 926-4129		Undecided	--
Kelly Humphrey	khumphrey@bci-online.com	(302) 325-2700	--	Invited	
Ronald Gaines	rong@simrobotics.com	(407) 926-4129	(407) 334-3066	Viewed	
i+icon Southeast		--		Undecided	--
Paul Johnson	pjohnson@iiconsoutheast.com	(813) 512-8642	--	Viewed	
1.01: Trailer Compound		Lead: Marybel Arcentales		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Acton Mobile Industries		--		Not Bidding	--
Ash Mote	ashley.mote@actonmobile.com	(813) 413-6729	--	Invited	
Allied Trailers Sales & Rentals		--		Bidding	--
Elizabeth Barron	ebarron@alliedtrailers.com	(800) 240-1119	--	Invited	
Contract Furniture Inc. (CFI)		--		Not Bidding	--
Kristin Mamula	sales@contractfurniturefl.com	(813) 247-6622	--	Viewed	
Mobile Mini		--		Bid Submitted	\$564
Jessica Adebanjo	jadebanjo@mobilemini.com	(813) 241-9273	--	Viewed	
Mobile Modular		--		Bidding	--
Carolyn Prescott	carolyn.prescott@mobilemodular.com	(863) 965-3700	--	Viewed	
Kevin Berry	kevin.berry@mgrc.com	(863) 508-6859	--	Invited	

Modular Building Systems International				--	Bid Submitted	\$666,281
Crystal Myers (vendor)	cmyers@southeastmodular.com	(352) 728-2930	--		Viewed	
John Marzicola (vendor)	jmarzicola@southeastmodular.com	(727) 376-0668	--		Viewed	
Patricia Berk	pberk@mbsi.com	(407) 905-9951	--		Viewed	
Rich Chan	rchan@mbsi.com	(407) 615-0606	--		Viewed	
Steven Mogil	smogil@mbsi.com	(727) 272-6766	--		Viewed	

Williams Scotsman, Inc.				--	Bidding	--
Christopher Ahr	christopher.ahr@as.willscot.com	(813) 626-2862	(813) 376-8027		Viewed	

1.01a: Trailer Cleaning Services

Lead: Marybel Arcentales

Bids Due: Mar 28, 2019 - 3:00pm EDT

Go Green				--	Not Bidding	--
Glen Diston	glen@ggdsi.com	(305) 205-6503	--		Viewed	

M&G Investors Llc DBA: M&G Janitorial Services				(813) 380-2880	Bid Submitted	\$3,478
Max Volmar Jr	info@mg-cleaningservices.com	(813) 380-2880	(813) 380-2880		Viewed	

MDT, LLC Commercial Services				--	Not Bidding	--
Sunney Martínez	momanddaughter@yahoo.com	(727) 657-5576	--		Viewed	

Modern Cleaning Solutions LLC				(813) 638-2507	Bid Submitted	\$2,200
Jana Korabecna	gogreen@moderncleaningsolutions.com	(813) 638-2507	--		Viewed	

Moses Wourman Maintenance Inc				(813) 244-7134	Bidding	--
Cornel Moses	ctmoses11@msn.com	(813) 244-7134	--		Viewed	

Promise Construction And Repair Solution LLC				(813) 988-8633	Bid Submitted	\$109,479
Carol Dolland	cdolland@promisecarefl.com	(813) 988-8633	(813) 650-7319		Viewed	

1.01b: Horizontal Cabling at Trailer Compound

Lead: Marybel Arcentales

Bids Due: Mar 28, 2019 - 3:00pm EDT

ALL IN ONE ELECTRIC, INC		--		Bid Submitted	\$35,000
--	hello@aioelectric.com	--	--	Viewed	
Bay McGhee	bmcghee@aioelectric.com	(813) 849-6331	(216) 926-8945	Viewed	
Bill Gingras (vendor)	bill.gingras@technologease.net	(727) 735-3263	--	Viewed	
Rodney Jones	rjones@aioelectric.com	(813) 849-6331	--	Viewed	
APG Electric		(727) 530-0077		Bidding	--
John La Fuze	estimating@apg.company	(727) 530-0077	--	Viewed	
Aireko Abroad LLC		--		Not Bidding	--
Rodolfo Puig	rpuig@aireko.com	(407) 267-7730	--	Invited	
Aireko Energy Solutions US, LLC		(407) 706-2800		Not Bidding	--
Brian Morris	brianjm1@aol.com	--	--	Invited	
Fernando Francia	fnfrancia@aireko.com	(787) 653-6300	(407) 666-1087	Viewed	
Francisco Birriel	fbirriel@aireko.com	(407) 706-2800	--	Invited	
Harry Irizarry	hirizarry@aireko.com	(407) 706-2800	(407) 401-2524	Viewed	
Hector Rivera Russe	hrivera@aireko.com	--	--	Invited	
MCS of Tampa		--		Bidding	--
Rob Duncan	rduncan@mcsoftampa.com	(813) 865-1065	--	Viewed	
Vincent Lendoiro	vlendoiro@mcsoftampa.com	(813) 865-1079	--	Viewed	
Prime Electrical Services		--		Bid Submitted	\$122,005
Jorge Rivera	pes.bids@pesiec.com	--	--	Viewed	
Lynetta Johnson	lynetta.j@pesiec.com	(407) 574-5177	--	Invited	
Secure2Ware		(813) 425-5900		Bidding	--
Keith Ware	keith@secure2ware.com	(813) 425-5900	(813) 842-6941	Viewed	

ECS, LLC		--		Undecided	--
Chris Haley	chaley@ecslimited.com	(813) 302-1644	(813) 618-0739	Invited	
Rey Ruiz	rruiz1@ecslimited.com	(813) 638-1585	--	Invited	
KTA-Tator, Inc.		--		Not Bidding	--
Ed Moore	emoore@kta.com	--	--	Viewed	
Mc Squared Inc.		--		Bid Submitted	
Lance Croft	lcroft@mc2engineers.com	(813) 623-3399	--	Viewed	
Lauren Sabol	lsabol@mc2engineers.com	(813) 623-3399	--	Viewed	
NOVA Engineering & Environmental LLC		--		Undecided	--
Mark Cincotta	mcincotta@usanova.com	(813) 765-0458	--	Invited	
Professional Service Industries, Inc. (PSI), an Intertek Company		(813) 886-1075		Undecided	--
Bob Kennedy	bob.kennedy@psiusa.com	(813) 886-1075	--	Invited	
Roberts Consulting Services, Inc.		--		Bid Submitted	\$54,690
Aaron Roberts	aaron.roberts@rcseng.net	--	--	Viewed	
Hannah Simmons	hsimmons@rcseng.net	--	(863) 307-8993	Viewed	
Kenneth Roberts	kenny.roberts@rcseng.net	(863) 259-0270	--	Viewed	
SEP		--		Undecided	--
Joel Figueroa Vallines	joelfv@sepengineers.com	(407) 562-3929	--	Viewed	
Test Lab, Inc.		(813) 872-7821		Bidding	--
David Carron	dave@testlabinc.net	(813) 363-1983	--	Viewed	
Mark Cornwell	markc@testlabinc.net	(813) 872-7821	--	Invited	

Tierra Inc.		(813) 989-1354		Bid Submitted	\$18,946
James Gibbs	jgibbs@tierraeng.com	(813) 989-1354	(407) 288-2350	Viewed	
Universal Engineering Sciences, Inc.		(813) 740-8506		Undecided	--
Doug Ross	dross@universalengineering.com	(813) 740-8506	--	Invited	
Mark Burgess	mburgess@universalengineering.com	(813) 740-8506	(813) 471-7028	Invited	
1.03: Pedestrian Control Logistics		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Black & Son Remodeling, LLC		--		Bidding	--
Zaheer Black	blacksonremodeling@gmail.com	(407) 334-1873	--	Viewed	
Building Beautiful Construction Inc		--		Not Bidding	--
Jason Crowther	jason@bbcinc.co	(919) 274-5472	--	Invited	
Commercial Interiors Inc		--		Not Bidding	--
Brendan Sterker	commintinc@aol.com	(813) 872-6100	--	Invited	
Cornerstone Barricades Inc		(352) 373-8001		Bidding	--
Christopher Falade	chris@cornerstonebarricades.com	(352) 373-8001	--	Invited	
Seun Falade	seun@cornerstonebarricades.com	(352) 373-8001	--	Viewed	
Seun Falade	estimating@cornerstonebarricades.com	(352) 373-8001	--	Viewed	
Seyi Falade	seyi.falade@cornerstonebarricades.com	(352) 373-8001	(352) 575-5013	Viewed	
Fish Construction		(281) 261-3375		Undecided	--
Adam Fish	adam.fish@fishconstruction.com	(713) 206-0227	--	Invited	
Michael Shelley	michael.shelley@fishconstruction.com	(281) 261-3375 x208	--	Viewed	

Foresight Construction Group, Inc.		(813) 304-2620		Bidding	--
Adam Boudreaux	aboudreaux@foresightcgi.com	(813) 304-2620	--	Invited	
Anthony Italiano (vendor)	anthony@sebsenelectric.com	(813) 579-7440	--	Viewed	
Brian Long	blong@foresightcgi.com	(352) 335-6352	--	Invited	
Mike Treadway	mtreadway@foresightcgi.com	(352) 335-6352	--	Viewed	
KHS&S - East		--		Bidding	--
Erik Santiago	erik.santiago@khss.com	(813) 628-9330	(813) 493-9273	Invited	
Mila Glushin	mila.glushin@khss.com	(813) 628-9330	--	Viewed	
Ted Malone	ted.malone@khss.com	(813) 628-9330	(813) 628-9330	Invited	
Ted Malone	ted@khss.com	(813) 628-9330	(813) 493-9282	Viewed	
1.04: Project Fencing		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Bravo Fence		--		Not Bidding	--
Estimator @ Bravo Fence	estimating@bravofence.com	(813) 885-2777	--	Viewed	
BroadFence		(855) 993-0499		Bid Submitted	
Junior Deayton	junior@broadfence.com	(855) 993-0499	--	Viewed	
Good Neighbor Fence Company		--		Bid Submitted	
Paul Shook	pshook@fence4u.biz	(813) 968-1921	(813) 468-5335	Viewed	
KMG Fence, LLC		--		Undecided	--
Joe Freeman	kmgfence.joe.freeman@gmail.com	(407) 654-7600 x6	(407) 848-9031	Viewed	
Joseph Grimsley	kmgfence.josephgrimsley@gmail.com	(407) 488-7262	--	Invited	
Smith Fence		(727) 573-5440		Bid Submitted	\$58,202
Tommy Smith	tsmith@smithfence.com	(727) 573-5440	--	Viewed	
brandon knight	bknight@smithfence.com	(727) 647-1273	--	Viewed	

West Florida Fence	--			Undecided	--
Matt Hendrix	matt@westfloridafence.com	(813) 507-0640	--	Invited	
1.05: Demolition		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Ace Rebar & Construction	--			Bidding	--
Cornerstone Barricades Inc		(352) 373-8001		Undecided	--
Seyi Falade	seyi.falade@cornerstonebarricades.com	(352) 373-8001	(352) 575-5013	Invited	
Cross Environmental Services, Inc.		(813) 783-1688		Not Bidding	--
Cross Environmental	ces@crossenv.com	(813) 783-1688	--	Invited	
Eric Morgan	emorgan@crossenv.com	(813) 714-0456	(813) 714-0456	Invited	
Molly Burchette	mburchette@crossenv.com	(813) 244-0822	(813) 244-0822	Invited	
EHG		(678) 394-5380		Bid Submitted	
Bob Landrum	blandrum@ehgllc.com	(813) 579-4300	(813) 309-9437	Viewed	
Phillip Johns	pjohns@ehgllc.com	(813) 579-4300	(813) 295-0499	Viewed	
Rick Folan	rfolan@ehgllc.com	(678) 394-5380	(678) 710-5540	Viewed	
H & H Environmental Services, Inc.	--			Not Bidding	--
Thomas Hall	hhenvironmental2@gmail.com	(813) 252-6296	--	Viewed	
Interior Specialists, Inc. d/b/a ISI Demolition		(321) 697-3764		Bid Submitted	\$1,164,375
Mike Doherty	mikedoherty@isidemo.com	(443) 435-4773	--	Viewed	
Paul Harkins	paulharkins@isidemo.com	(410) 335-0381	(443) 243-0554	Invited	
Kimmins Contracting Corp.		(813) 248-3878		Not Bidding	--
Chuck Gray	cgray@kimmins.com	(813) 805-8652	(813) 569-8703	Viewed	
Jeffery Meigs	jmeigs@kimmins.com	(813) 579-1097	(813) 367-4223	Viewed	

Northstar Demolition and Remediation, LP		--		Bid Submitted	
John Jenkins	wrihel@northstar.com	(407) 855-2365	--	Invited	
John Jenkins	jjenkins@northstar.com	(407) 855-2365	--	Viewed	
Mary Jo Pilkinton	maryjo@northstar.com	(407) 855-2365	--	Viewed	
Neal Johnson	njohnson@northstar.com	(407) 427-4650	--	Viewed	
OHC Environmental Engineering Inc.		(813) 626-8156		Bid Submitted	
James Rizk	jrizek@ohcnet.com	(813) 626-8156	(813) 376-2005	Invited	
Michael Huxel (vendor)	michael@adsenviro.com	(816) 679-5664	--	Viewed	
Patryk Obiedzinski (vendor)	patryk@adsenviro.com	(813) 875-4600	(646) 764-1840	Viewed	
PAW Materials Demolition		--		Bid Submitted	
Leo Caraballo	leoc@pawdemo.com	(727) 919-0058	--	Viewed	
Pece of Mind Demolition		(407) 568-3456		Bid Submitted	
Brandon Shoaf	bshoaf@peceofmind.com	(407) 279-8975	--	Viewed	
Jeniffer Rivera-Castro	jriviera@peceofmind.com	(407) 568-3456 x106	(407) 924-6232	Viewed	
Steve Pece	spece@peceofmind.com	(407) 568-3456	--	Invited	
Steve Pece	steve@peceofmind.com	(407) 568-3456	--	Viewed	
Signs of Tampa Bay, LLC		(813) 994-0101		Bidding	--
Rob Gatian	robgatian@signsoftampabay.com	(813) 994-0118 x408	(813) 594-4412	Viewed	
Spaulding Decon		--		Not Bidding	--
Rebecca Grissom	rgrissom@spauldingdecon.com	(813) 298-7122	--	Invited	
1.06: Precast		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Ace Rebar & Construction		--		Bidding	--
JAJA WADE	jwade@aceconstructionmanagement.com	(407) 704-7803	(321) 689-2680	Viewed	

Black & Son Remodeling, LLC		--		Bidding	--
Zaheer Black	blacksonremodeling@gmail.com	(407) 334-1873	--	Viewed	
Denson Construction Inc.		--		Bidding	--
Ralph F. ("Pete") Denson, Jr.	pete@denson-construction.com	(863) 709-1001	--	Viewed	
Theresa Denson	theresa@denson-construction.com	(863) 709-1001	--	Invited	
Gate Precast Company		--		Not Bidding	--
Alvey Carrillo	acarrillo@gateprecast.com	--	--	Viewed	
Brian Griffis	bgriffis@gateprecast.com	(904) 813-6525	--	Invited	
Jimmy Hardin	jhardin@gateprecast.com	(251) 575-2803	--	Viewed	
Michael Trosset	mtrosset@gateprecast.com	(254) 266-0526	(254) 266-0526	Viewed	
Intrepid Precast Technologies LLC		--		Undecided	--
Mark Witt	mwitt@intrepidprecast.com	--	--	Invited	
Mark Witt (vendor)	mwitt@ciflorida.com	(305) 900-8506	--	Viewed	
Leesburg Concrete Company, Inc.		(352) 787-4177		Bidding	--
George Wilson	gwilson@leesburgconcrete.com	(352) 787-4177	--	Invited	
Victor Vallejo	victor@leesburgconcrete.com	(352) 530-6866	--	Viewed	
Metromont		(863) 440-5441		Undecided	--
Jamie Grimmelsman	jgrimmelsman@metromont.com	(614) 940-5452	--	Invited	
Stabil Concrete Products		(727) 321-6000		Not Bidding	--
Christopher Tolliver	ctolliver@stabilconcrete.com	(727) 321-6000	--	Viewed	
1.07: Civil Development		Lead: Douglas Taylor		Bids Due: Mar 28, 2019 - 3:00pm EDT	

ASAP Installations		--		Bidding	--
Jessica Daza	jdaza@asapinstallations.com	(954) 613-4828	--	Viewed	
Kiam Knowles	kknowles@asapinstallations.com	(813) 789-0977	--	Viewed	
Ace Rebar & Construction		--		Undecided	--
JAJA WADE	jwade@aceconstructionmanagement.com	(407) 704-7803	(321) 689-2680	Invited	
Airport Contractors Services, LLC		--		Undecided	--
George Houghton	ghoughton415@gmail.com	(407) 722-1735	(407) 861-6100	Viewed	
Alto Construction Company, Inc.		--		Not Bidding	--
Jack Miller	jmiller@altoconstruction.com	(813) 241-2586 x209	(813) 525-1968	Viewed	
Robert King	rking@altoconstruction.com	(813) 241-2586	--	Invited	
Blacktip		(954) 324-5300		Undecided	--
Gina Spencer	blacktipemail@yahoo.com	--	--	Invited	
Civil and Environmental Services Inc.		(813) 317-3888		Bidding	--
Jay Chen	jchen@cesengineers.net	(813) 317-3888	--	Viewed	
Cornerstone Barricades Inc		(352) 373-8001		Bidding	--
Seyi Falade	seyi.falade@cornerstonebarricades.com	(352) 373-8001	(352) 575-5013	Invited	
Crisdel Group, Inc.		--		Bidding	--
Berry Wheeler	bwheeler@crisdel.com	(813) 734-2272	--	Viewed	
Dixie Lamoureux	dlamoureux@crisdel.com	(813) 940-3434	--	Viewed	
Don Bell Signs, LLC		(386) 788-8084		Bidding	--
Izzie Enwall	ienwall@donbellsigns.com	(386) 763-4744	(386) 547-6421	Viewed	

Highway Safety Devices		--		Not Bidding	--
Jim Smith	jims@highwaysafetydevices.com	(813) 759-1559	(239) 253-0914	Viewed	
Hubbard Construction Company		--		Not Bidding	--
Larry Shotwell	larry.shotwell@hubbard.com	(407) 623-3825	--	Viewed	
Wendy Vickery	wendy.vickery@hubbard.com	(407) 623-3845	--	Viewed	
Kiewit		(954) 835-2228		Not Bidding	--
Cody Jensen	cody.jensen@kiewit.com	(407) 563-7524	--	Viewed	
Tom Thorn	tom.thorn@kiewit.com	(512) 633-7948	--	Invited	
Kimmins Contracting Corp.		(813) 248-3878		Not Bidding	--
Jeffery Meigs	jmeigs@kimmins.com	(813) 579-1097	(813) 367-4223	Invited	
John Baron	jbaron@kimmins.com	(813) 579-1104	(813) 924-5023	Viewed	
John Zemina	jzemina@kimmins.com	(813) 579-1097	--	Invited	
Ryan Moran	rmoran@kimmins.com	(813) 255-1511	--	Viewed	
Mc Kenzie Contracting LLC		(813) 454-4429		Undecided	--
Eric Newman	enewman@mckenziecontractingllc.com	(813) 454-4429	(941) 302-6562	Viewed	
Middlesex Corporation		(407) 515-3566		Bidding	--
Evelyn Sergeant	esergeant@middlesexco.com	(407) 515-3566	--	Viewed	
Taylor Cox	tcox@middlesexco.com	(407) 515-3594	(508) 340-6853	Viewed	
Phillips & Jordan Inc.		--		Undecided	--
Christie Ford	cford@pandj.com	(813) 780-4308	--	Invited	
Jason Spivey	jspivey@pandj.com	(813) 780-4316	--	Invited	
Kayla Soden	ksoden@pandj.com	(813) 780-4333	--	Invited	
Tina Eddings	teddings@pandj.com	(813) 783-1132	--	Invited	

RWH Construction, Inc.	--			Bidding	--
Russell henderson	russellh@rwhfabrication.com	(352) 267-6224	--	Viewed	
SiteCrafters of Florida, Inc.	--			Not Bidding	--
Sean Howell	sean.howell@sitecraftersfl.com	(813) 955-0117	--	Viewed	
Superior Construction	--			Not Bidding	--
Ryan Hamrick	rhamrick@superiorconstruction.com	(813) 781-1930	--	Viewed	
Unisource Sign Connection	--			Undecided	--
Gina Hyon	info@unisourcesigns.com	(239) 288-6951	--	Invited	
1.08: Mechanical	Lead: Deen Lui			Bids Due: Mar 28, 2019 - 3:00pm EDT	
ADE Systems, Inc.	--			Bidding	--
Kristen Berg	kberg@adehvac.com	(813) 539-4376	--	Viewed	
BCH Mechanical, Inc.	--			Bidding	--
Chris Johnson	chrisjohnson@bchmechanical.com	(727) 546-3561	--	Viewed	
Julia Klaiber	jklaiber@bchmechanical.com	(727) 546-3561	(727) 546-3561	Viewed	
Tom Johnson	tomjohnson@bchmechanical.com	(727) 639-2519	(727) 639-2519	Invited	
Blume Mechanical, LLC	--			Not Bidding	--
Chuck Perry	cperry@blumemechanical.com	(727) 544-5993	--	Viewed	
Larry Pritchett	lpritchett@blumemechanical.com	(727) 330-9114	--	Viewed	
Coastal Mechanical Services, LLC	--			Not Bidding	--
James Dilley	jdilley@coastalmechanical.com	(813) 856-7321	--	Invited	
Keith Kunkel	kkunkel@coastalmechanical.com	(321) 725-3061 x1406	(813) 267-7135	Invited	

Kirlin Group, LLC		(957) 670-1051		Bidding	--
Jim Bordeau	jbordeau@jjkllc.com	(954) 739-8100	--	Viewed	
Jim Tozier	jtozier@jjkllc.com	(813) 347-4556	(813) 927-8361	Viewed	
MIELKE Mechanical		(813) 833-3687		Not Bidding	--
Deirdre Taylor	dtaylor@mwmielke.com	(813) 833-3687	(813) 447-9668	Viewed	
Spectrum Mechanical		--		Not Bidding	--
Steven Schwersky	steve@spectrum-mechanical.com	(727) 535-1202	(727) 612-4204	Viewed	
Superior Mechanical Systems		--		Not Bidding	--
Clint Dulin	clint.dulin@superiormechnical.net	(727) 548-1711	(727) 410-8754	Invited	
Tom Stone	tom.stone@superiormechnical.net	(727) 548-1711 x209	--	Viewed	
1.09: Fire Protection		Lead: Deen Lui		Bids Due: Mar 28, 2019 - 3:00pm EDT	
Cox Fire Protection, Inc.		(813) 980-3282		Bidding	--
Mike Zondlo	mzondlo@coxfire.com	(813) 980-3282	(813) 326-6595	Viewed	
Nathan Cress	ncress@coxfire.com	(813) 980-3282	(631) 901-9557	Viewed	
Fire & Life Safety America		--		Not Bidding	--
Carrie Nickell	canickell@flsamerica.com	(813) 513-9331	--	Viewed	
Rick Johnson	rljohnson@flsamerica.com	(407) 709-5864	--	Invited	
Fire Safety, Inc.		--		Bidding	--
Mina Bayood	estimating@firesafety-inc.com	(727) 523-1843	(727) 224-5768	Viewed	
Milton J. Wood		--		Bid Submitted	\$19,387
Glenn Painter	gpainter@mjwood.com	(863) 648-0775	--	Viewed	
Matt Jones	mjones@mjwood.com	(863) 648-0775	(863) 307-5092	Viewed	

National Fire Protection LLC		(813) 347-4585		Not Bidding	--
Darryl Jewell	djewell@natlfire.com	(954) 739-8107	(786) 441-7053	Invited	
Duane Barry	dbarry@natlfire.com	(813) 401-3010	(813) 401-3010	Invited	
Neal Segal	nsegal@natlfire.com	(954) 739-8107	--	Viewed	
Proline Fire Protection, Inc.		(954) 778-3700		Not Bidding	--
William Marshall Pitts	estimating@prolinefire.com	(954) 778-3700	--	Invited	
St Petersburg Fire Protection, LLC		--		Not Bidding	--
Geoff Dyce	ghdyce@verizon.net	(727) 644-8872	(727) 644-8872	Viewed	
VSC Fire & Security		--		Bidding	--
Randy Conklin	rrconklin@vscfs.com	(727) 456-5247	--	Invited	
Randy Conklin	rrconklin@vscfire.com	(727) 456-5247	--	Viewed	
1.10: Electrical		Lead: Deen Lui		Bids Due: Mar 28, 2019 - 3:00pm EDT	
AFL Enterprise Services, Inc.		--		Bid Submitted	\$73,631
Adam Lane	adam.lane@aflglobal.com	(919) 795-8661	--	Viewed	
Lewis Barkley	lewis.barkley@aflglobal.com	(443) 924-1352	--	Viewed	
APG Electric		(727) 530-0077		Bidding	--
John La Fuze	estimating@apg.company	(727) 530-0077	--	Viewed	
terry ryan	terry.ryan@apgelectric.com	(727) 530-0077	(727) 423-9769	Invited	
Aireko Abroad LLC		--		Not Bidding	--
Rodolfo Puig	rpuig@aireko.com	(407) 267-7730	--	Invited	
Aireko Energy Solutions US, LLC		(407) 706-2800		Not Bidding	--
Brian Morris	brianjm1@aol.com	--	--	Invited	

Borrell Electric		--		Bidding	--
Adrian Keener	akeener@borrellelectric.com	(727) 692-1841	--	Viewed	
Kyle Young (vendor)	kyle.young@convergint.com	(813) 210-1408	--	Viewed	
Mike Pavlikovic	mpavlikovic@borrellelectric.com	(813) 223-2727	(813) 728-7195	Viewed	
Rob Duncan (vendor)	rduncan@mcsoftampa.com	(813) 865-1065	--	Viewed	
Electric Services, Inc.		(352) 787-1322		Not Bidding	--
Greg Kirk	gkirk@electric-services.com	(352) 787-1322	--	Viewed	
Erwin Electric, Inc.		(813) 855-0048		Bidding	--
Brian Smith	brian@erwinelectric.com	(813) 855-0048 x227	--	Viewed	
Lloyd Mitchell	lloyd@erwinelectric.com	(813) 855-0048	--	Viewed	
Integrated Security Consultants		--		Bidding	--
Kenneth Stewart	kstewart@iscsecurity.net	(813) 817-7288	--	Invited	
Kevin Cioffi (vendor)	kcioffi@allcomgs.com	(646) 265-6093	--	Viewed	
Johnson Controls		--		Bidding	--
David Futral	dfutral@simplexgrinnell.com	(813) 626-5482	--	Invited	
David Futral	david.futral@jci.com	(813) 626-5482	--	Viewed	
MCS of Tampa		--		Not Bidding	--
Rob Duncan	rduncan@mcsoftampa.com	(813) 865-1065	--	Viewed	
Vincent Lendoiro	vlendoiro@mcsoftampa.com	(813) 865-1079	--	Viewed	
MJM Electric, Inc.		(813) 248-1711		Not Bidding	--
Scott Barber	scott.barber@mjmelect.com	(813) 248-1711	(813) 478-0769	Viewed	

Pelican Electrical Group, Inc.		--		Bidding	--
Arnie Solomon (vendor)	asolomon@mcsoftampa.com	(813) 549-7768	(727) 742-0205	Viewed	
Bob Gaitens (vendor)	bobgaitens@eaton.com	(941) 350-2634	--	Viewed	
Brian Bauer (vendor)	brian.bauer@worldelectricsupply.com	(813) 774-7454	--	Viewed	
Brittany Williams	bwilliams@pelicanelectricalgroup.com	(813) 855-0114 x103	--	Viewed	
Bruce vitale (vendor)	bvitale@asg-av.com	(813) 628-6100	(813) 927-3372	Viewed	
Chris Merimee (vendor)	chris.merimee@graybar.com	(727) 456-4313	--	Viewed	
Dan Spada (vendor)	dspada@hubbell.com	(813) 390-7699	--	Viewed	
David Futral (vendor)	david.futral@jci.com	(813) 626-5482	--	Viewed	
David Williams	dwilliams@pelicanelectricalgroup.com	(813) 855-0114	(727) 463-1067	Viewed	
Greg Quintana (vendor)	gregq@atechtampa.com	(813) 887-1178	--	Viewed	
Jeff Mortimer (vendor)	jeff.mortimer@ces-co.com	(941) 358-3303	--	Viewed	
Jeremy Thomas (vendor)	jeremy.thomas@avispl.com	(813) 884-7168	--	Viewed	
John Clemons (vendor)	johnc@accicable.com	(813) 978-0101	--	Viewed	
Laura Woolington (vendor)	lwoolington@mayerelectric.com	(407) 857-0650	--	Viewed	
Olev Isak (vendor)	olevi@cfcsystems.com	(727) 530-4521	(727) 214-8072	Viewed	
Robert Kelly (vendor)	rob.kelly@kci.com	(813) 386-2943	(727) 657-9335	Viewed	
Tampa Quotes (vendor)	tampa_quotes@graybar.com	--	--	Viewed	
Tony Birnstihl (vendor)	tbirnstihl@mayerelectric.com	(407) 367-7895	--	Viewed	
Will Nemetz (vendor)	williamnemetz@eaton.com	--	--	Viewed	
PowerLogics, Inc.		--		Undecided	--
Jennifer Aldrich	jenniferaldrich@powerlogics.com	(813) 857-7321	--	Invited	
Prime Electrical Services		--		Bidding	--
Jorge Rivera	pes.bids@pesiec.com	--	--	Viewed	

100% Enabling: Estimate Narrative

Bid Package 01 for the Enabling Work of this project was released to the bidding community on February 20 through Building Connected. A total of 230 contacts were made across 112 different companies for the 12 scopes of work that made up this initial GMP proposal. The Bid Package included the 75% Enabling Work drawings, which were updated to 100% and released to the bidding community via addenda on March 16th. Bids were received on March 28 for this first solicitation.

After a period of proposal evaluation, Purchase Interviews were conducted with the apparent best value subcontractors. These interviews occurred during the week of April 1 and included all major bid package trades over approximately \$50,000 in value. Having representation from the Tampa Airport at these Purchase Interviews has been a positive experience and sends a great message of collaboration and unity to the subcontracting community. Regarding proposed selections of best value subcontractors:

- **Trailers:** Bidder 3, while having the lowest value, was not in compliance with the contracting requirements of the Bid Package and provided no W/MBE participation. Therefore, Bidder 2 was interviewed and found to be complete and responsible.
- **Trailer Cleaning:** Interviews have not been conducted for this scope of work. Bidder 3 has submitted a proposal on the appropriate forms and appears complete and responsible. UPDATE: During the purchase interview, Bidder 3 was found to be significantly incomplete and non-compliant. Bidder 2 was then interviewed and selected as the best value.
- **Trailer Cabling:** Bidder 7 was interviewed because they also submitted a proposal under the Electrical Subsystem, and while they were complete and responsible, Bidder 4 was selected because the cost difference is negligible and provides full W/MBE participation.
- **Verification Testing:** Bidder 2 was interviewed and found to be complete and responsible, as well as provide full W/MBE participation.
- **Pedestrian Controls:** Bidder 3 was interviewed and found to be complete and responsible, as well as provide full W/MBE participation.
- **Project Fencing:** Bidder 3 was the only responsible bidder, as interviewed and found to be complete.
- **Demolition:** Bidders 2 was interviewed because they had the lowest cost, and Bidder 3 was interviewed because they offered the highest W/MBE participation. After discussions with Bidder 2, they were able to increase their W/MBE participation closer to the goal without increasing their proposal cost and were selected as the best value subcontractor.
- **Precast:** Bidder 2 was interviewed and found to be complete and responsible, as well as provide full W/MBE participation.
- **Civil Development:** Bidders 1 and 5 were interviewed as the two low bidders. Both were found to be complete and responsible, thus Bidder 5 was selected.
- **Mechanical:** Bidder 2 was interviewed but was found to not be in compliance with the contracting requirements. This scope of work will continue to be evaluated with the responding bidders and may be rebid prior to the start of work. For this GMP, Hensel Phelps proposes an estimated value of \$750k.
- **Fire Protection:** Bidder 1 was interviewed and found to be complete and responsible, as well as provide full W/MBE participation.
- **Electrical:** Bidders 3 and 5 were interviewed as the two low bidders. Both were found to be complete and responsible, but Bidder 3 offered the highest W/MBE participation. Thus Bidder 3 was selected.

Schedule of Values GMP 01 - Enabling Work

REVISION 3a

Owner: Hillsborough County Aviation Authority

Architect: HNTB Corporation

DIV.		AMOUNT	WMBE Amount	Comments:
	Subcontract Amounts			
1.01	Trailer Compound	656,000	656,000	
1.01a	Trailer Cleaning Services	100,000	100,000	
1.01b	Trailer Horizontal Cabling	19,000	19,000	
1.02	Verification Testing	40,000	40,000	
1.03	Pedestrian Controls	318,000	318,000	
1.04	Project Fencing	68,000	-	
1.05	Demolition	983,000	243,667	
1.06	Precast	80,000	80,000	
1.07	Civil Development	3,248,000	525,000	
1.08	Mechanical	750,000	-	
1.09	Fire Protection	7,000	7,000	
1.10	Electrical	532,000	161,801	
	Total Subcontract Amounts	6,801,000	2,150,468	
	Unbought Scope			
US01	Pedestrian Controls	37,000		From Proposal Summary 1.03
US02	Demolition	140,000		From Proposal Summary 1.05
US03	Civil Development	304,000		From Proposal Summary 1.07
US04	General Requirements	557,999		From General Requirements Report
	Total Unbought Scope	1,038,999		
	Contractor's Allowances			
AL01	Contaminated Soil/Groundwater Remediation	125,000		Refer to C&A 1.0h
AL02	Misc Trailer Complex / Site Repairs @ Demobilization	250,000		Refer to C&A 1.0i
	Total Allowances	375,000		Refer to C&A 1.0j
	Cost of Trade Work: SUBTOTAL	8,214,999	2,150,468	
	Cost of Work Markups			
GC	Design/Build Contingency (10%)	821,500		10% of Cost of Trade Work Subtotal
	Subcontractor Bonds (1.5%)	123,225		1.5% of Cost of Trade Work Subtotal
	General Conditions - Hensel Phelps	10,085,319		From General Conditions Report
	Ariel Business Group - Minority Business Support	428,341	428,341	From General Conditions Report
	CMTS - CQC Support	1,979,568	1,979,568	From General Conditions Report
	Beck Group - Project Administration Support	5,433,492		From General Conditions Report
	HPS - MEP Coordination / Commissioning	725,000		From General Conditions Report
	Design Fees for Construction Administration	78,743		From HNTB CA Backup
	Total Cost of Work Markups	19,675,188	2,407,909	
	Cost of Work: SUBTOTAL	27,890,187	4,558,377	
	Indirect Costs			
	*Fee (5.125%)	1,429,372		5.125% of Cost of Work Subtotal
	*GL/PL Insurance (0.4701%)	131,112		0.47% of Cost of Work Subtotal
	Building Permit Fee (0.50%)	139,451		0.5% of Cost of Work Subtotal
	Builders Risk Insurance (1.0%)	278,902		1.0% of Cost of Work Subtotal
	Payment & Performance Bond (0.5977%)	166,700		0.5977% of Cost of Work Subtotal
	Total Indirect Costs	2,145,536		
	CONSTRUCTION TOTAL	30,035,723	4,558,377	
	Escalation	-		
	Owner's Allowance	1,500,000	200,000	
	GMP 01 Total	31,535,723	4,758,377	



Footnote:

* Negotiated percentage. All other Indirect Costs are to be billed as actual expenses.

Estimator: Doug Taylor

May 22, 2019

1.01

Proposal Summary

Trailer Compound

Small Business: W/MBE →

W/MBE

PROJECT:		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	BIDDER 5
MTCE Enabling Work							
TIA - Tampa, FL							
SEC.	DESCRIPTION						
	Bid Amount	434,000	14,100	656,000	645,527	NO BID	224,200
	Bondable Rate	✓	---	1.50%	✓	1.25%	✓
	Sales Tax (8.5%)	✓	---		✓		✓
	WMBE Participation	---	---	100%	✓	0%	---
	Addendums 1-3	✓	---		✓		
	Subsystem 1.01	✓	---		✓		
	Exhibit 1: Trailer 1, 72x60	✓	---		✓		
	Exhibit 1: Trailer 2, 24x60	✓	---		✓		
	Exhibit 1: Trailer 3, 24x60	150,000	---		✓		
	Exhibit 2 Elevated Walkway and Canopy	50,000	---		✓		
	Final Cleaning and Waxing of Units VCT Flooring	2,000	---		✓		
	---	---			---		
	Site Development @ Trailers	w/ GCs	No-Ok	No-Ok	No-Ok	No-Ok	
	Site Utilities @ Trailers	w/ MEP	No-Ok	No-Ok	No-Ok	No-Ok	
	Horizontal Cabling Of Trailers	w/ 1.01b	No-Ok	No-Ok	No-Ok	No-Ok	
	---	---			---		
	---	---			---		
	Complete	✓		✓	✓		NO
	TOTAL	636,000	INCOMPLETE	656,000	646,000	NO BID	INCOMPLETE

Not in compliance with contracting requirements

1.01a

Proposal Summary

1.01a

Trailer Cleaning Services

Small Business: W/MBE →

DBE

WBE

MBE

W/MBE

PROJECT:		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	
MTCE Enabling Work							
TIA - Tampa, FL							
SEC.	DESCRIPTION						
	Bid Amount	75,000	93,000	57,000	44,000	109,000	
	Bondable Rate	✓	No-Ok	No-Ok	No-Ok	No-Ok	
	Sales Tax (8.5%)	✓	✓	✓	✓	✓	
	WMBE Participation	----	100%	100%	100%	100%	
	Addendums 1-3	✓	✓	✓	✓	✓	
	Subsystem 1.01a	✓	✓	✓	✓	✓	
	Cleaning Of Unit To Be Between 6PM And 10PM	✓	✓	✓	✓	✓	
	VCT Strip & Wax, biannually (4ea @ 3,000)	✓	✓	12,000	✓	✓	
	Additional Monthly Cleaning (8Mo @ 2,387)	----	----	19,000	----	----	
	Owner Trailer Cleaning (25Mo @ 477)	----	----	12,000	----	----	
	----	----	----	----	----	----	
	----	----	----	----	----	----	
	Complete		✓	✓	✓	✓	
	TOTAL	75,000	93,000	100,000	44,000	109,000	-

Non-compliant

1.01b Proposal Summary

1.01b

Horizontal Cabling At Trailer

Small Business: W/MBE →

		MBE/DBE			MBE/DBE		MBE		
PROJECT:		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	BIDDER 5	BIDDER 6	BIDDER 7
MTCE Enabling Work									
TIA - Tampa, FL									
SEC.	DESCRIPTION								
	Bid Amount	15,000	35,000	41,000	119,000	19,000	73,000	45,000	18,000
	Bondable Rate	✓	✓	1.0%	✓	1.8%	✓	0.8%	1.0%
	Sales Tax (8.5%)	✓	✓	✓	✓	✓	✓	✓	✓
	WMBE Participation (75%)	---	100%	✓	21%	---	100%	✓	0.0%
	Addendums 1-3	✓	✓	✓	✓	✓	✓	✓	✓
	Subsystem 1.01b	✓	✓	✓	✓	✓	✓	✓	✓
	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---
	Fiber termination from Backbone Cables to LIU's	NIC	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok
	Connecting FF&E Equipment	w/ HPCC	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok
	In-wall Conduits	w/ Trailers	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok
	Outlet boxes as indicated on plan	w/ Trailers	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok
	Network switches, patch panels, WAP	w/ HPCC	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok	No-Ok
	---	---	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	---	---
	Complete	✓	✓	✓	✓	✓	✓	✓	✓
	TOTAL	15,000	35,000	41,000	119,000	19,000	73,000	45,000	18,000

1.02 Proposal Summary

1.02

Verification Testing

Small Business: W/MBE →

PROJECT:		Quantity		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	BIDDER 5		
MTCE Enabling Work											
TIA - Tampa, FL											
SEC.	DESCRIPTION	UN		UP		UP		UP			
	Bid Amount		BELOW		BELOW		BELOW		BELOW		
	Bondable Rate		✓		No-Ok		No-Ok		No-Ok		
	Sales Tax (8.5%)		✓		✓		✓		✓		
	WMBE Participation (10%)		---		---		---		---		
	Addendums 1-3		✓		✓		✓		✓		
	Subsystem 1.02		✓		✓		✓		✓		
	Field Technician (4hr/d, 7mo)	600	HR	50.00	30,000	62.00	37,200	40.00	24,000	55.00	33,000
	Project Management	60	HR	125.00	7,500	155.00	9,300	85.00	5,100	125.00	7,500
	Modified Proctor Testing	10	EA	150.00	1,500	140.00	1,400	90.00	900	100.00	1,000
	Load Bearing Ratio (LBR) Testing	10	EA	300.00	3,000	425.00	4,250	250.00	2,500	350.00	3,500
	Soil Analysis	10	EA	300.00	3,000	395.00	3,950	300.00	3,000	50.00	500
	Concrete Materials Testing (4 Cylinders per set)	30	SET	75.00	2,250	72.00	2,160	50.00	1,500	120.00	3,600
	Pavement Materials Testing	20	EA	150.00	3,000	175.00	3,500	136.00	2,720	200.00	4,000
	---		---		---		---		---		---
	---		---		---		---		---		---
	Complete		✓		✓		✓		✓		✓
TOTAL				50,000		62,000	40,000	NO BID	NO BID		53,000

1.03 Proposal Summary

1.03

Pedestrian Control Logistics

Small Business: W/MBE →

W/MBE

W/MBE

W/MBE

PROJECT:		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4
MTCE Enabling Work						
TIA - Tampa, FL						
SEC.	DESCRIPTION					
	Bid Amount	280,000	1,044,000		226,000	816,000
	Bondable Rate	✓	3.0%	✓	1.3%	✓
	Sales Tax (8.5%)	✓		✓		✓
	WMBE Participation (30%)	----	100.0%	✓	100%	27%
	Addendums 1-3	✓		✓		✓
	Subsystem 1.03	✓		✓		✓
	Doors, Frames, & Hardware	✓		✓		✓
	Florida PE Engineering	✓		✓		✓
	Tan Windscreen above walls	✓		✓		✓
	Signage Allowance per RFI 08	✓		✓		✓
	Panelized Mesh Partitions @ Bridge (2,520sf)	25,000	NO	92,000	92,000	NO
	Demolition	w/ Demo		No-Ok	No-Ok	No-Ok
	Concrete Vehicle Barriers	w/ Civil		No-Ok	No-Ok	No-Ok
	Project Fencing	w/ Fencing		No-Ok	No-Ok	No-Ok
	Maintenance of Demising Walls	w/ GRs		No-Ok	No-Ok	No-Ok
	----	----		----	----	----
	Complete	✓		✓	✓	✓
TOTAL		305,000	1,136,000	INCOMPLETE	318,000	908,000
UNBOUGHT SCOPE						
	Acoustical Ceiling Replacement @ Admin	4,000	NO	4,000	NO	4,000
	Window Film @ Suites A-C	12,000	NO	12,000	NO	12,000
	FAA - New 8' Demising Wall (18')	4,000	NO	4,000	NO	4,000
	FAA - Repaint Walls (200sqft)	1,000	NO	1,000	NO	1,000
	FAA - Pressure Wash Stairs / Landings	1,000	NO	1,000	NO	1,000
	FAA - New Canopy at Sidewalk (600sqft)	15,000	NO	15,000	NO	15,000
	----	----		----	----	----
	Complete	✓		✓	✓	✓
TOTAL		37,000	37,000	INCOMPLETE	37,000	37,000

1.04 Proposal Summary

1.04

Project Fencing

Small Business: W/MBE →

PROJECT:					
MTCE Enabling Work		HPCC	BIDDER 1	BIDDER 2	BIDDER 3
TIA - Tampa, FL					
SEC.	DESCRIPTION				
	Bid Amount	55,000	Material Only	32,000	61,000
	Bondable Rate	✓			✓
	Sales Tax (8.5%)	✓			✓
	WMBE Participation (30%)	---			---
	Addendums 1-3	✓			✓
	Subsystem 1.04 (3,100 Inft, 8'h)	✓			✓
	MOT for Fence Installation	✓			✓
	Tan Windscreen per RFI's	✓		✓	✓
	Top Rail @ Temp Fencing (3,100 Inft)	6,000		✓	7,000
	Fencing at LTG, Level 1 (725 Inft)	18,000		✓	✓
	Grounding & Bonding	NIC		No-Ok	No-Ok
	Maintenance of Fencing	w/ GR's		No-Ok	No-Ok
	---	---		---	---
	---	---		---	---
	Complete	✓		NO	✓
	TOTAL	79,000			68,000

1.06 Proposal Summary		PRECAST				1.06
Small Business: W/MBE →		W/MBE	DBE/MBE		W/MBE	
PROJECT:						
MTCE Enabling Work		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4
TIA - Tampa, FL						
SEC.	DESCRIPTION					
	Bid Amount	52,000		78,000	42,000	
	Bondable Rate	✓		1.9	✓	---
	Sales Tax (8.5%)	✓		✓	✓	
	WMBE Participation (10%)	---		100	✓	---
	Addendums 1-3	✓		✓	✓	
	Subsystem 1.06	✓		✓	✓	
	Water Repellant Coatings	✓		✓	NO	10,000
	Fall Protection Install & Removal	✓		✓		
	Installation	✓		✓	NO	50,000
	Cast in place Sidewalk	✓		✓		No-Ok
	300 sqft of Patch & Repair	✓		✓	NO	10,000
	X-Ray of LTPG	---		2,000		---
		---		---		---
	Complete	---		✓	✓	
TOTAL		52,000	NO BID	80,000	112,000	-

1.07 Proposal Summary		CIVIL DEVELOPMENT							1.07	
Small Business: W/MBE →									MBE	
PROJECT:										
MTCE Enabling Work		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	BIDDER 5	BIDDER 6		
TIA - Tampa, FL										
SEC.	DESCRIPTION									
	Bid Amount	2,751,000	4,999,000	NO BID	NO BID	7,574,000	3,041,000			
	Bondable Rate	✓ 1%	✓			0.5% ✓	1% ✓			
	Sales Tax (8.5%)	✓	✓			✓	✓			
	WMBE Participation (30%)	✓ 12.0%	---			6.5% ---	18% ---	Y		
	Addendums 1-3	✓	✓			✓	✓			
	Subsystem 1.07	✓	✓			✓	✓			
	Demo of FAA Lot, pavement & Site Features	✓	✓			✓	✓			
	Sheet Piling @ Red side Roads	264,000	351,000			✓	✓	264,000		
	3rd Party FDOT Testing	✓	✓			✓	✓			
	Additional Red side Pavement	83,000	✓			✓	✓			
	Site Electrical	No-Ok	No-Ok			No-Ok	No-Ok			
	Site Mechanical	No-Ok	No-Ok			No-Ok	No-Ok			
	Project Fencing	No-Ok	No-Ok			No-Ok	No-Ok			
	K Barriers Purchase (~1,000 Inft)	---	✓			✓	40,500			
	Gravel @ Laydown Yard (690cy @ 3")	---	✓			✓				
	Special Field Supervision	---	✓			✓	NO 166,500			
	Maintenance of Barriers	w/ GR's	No-Ok			No-Ok	No-Ok			
	Complete	✓	✓			✓	✓			
TOTAL		3,098,000	5,350,000	NO BID	NO BID	7,574,000	3,248,000	INCOMPLETE	-	
UNBOUGHT SCOPE										
	Irrigation Sleeves	5,000	NO 5,000			NO 5,000	NO 5,000			
	TECO Backfill & Compact	60,000	NO 60,000			NO 60,000	NO 60,000			
	Additional Subsurface Exploration (Pot Holing)	20,000	NO 20,000			NO 20,000	NO 20,000			
	Temp Services during Utility Transition	15,000	NO 15,000			NO 15,000	NO 15,000			
	Temp Hydrant for Site Water	15,000	NO 15,000			NO 15,000	NO 15,000			
	Blue Tunnel Cast-in-Place Wall (16'x9')	25,000	NO 25,000			NO 25,000	NO 25,000			
	Soil Tracking Devices @ Entrances	5,000	NO 5,000			NO 5,000	NO 5,000			
	Gravel Infill @ CT#4	1,000	NO 1,000			NO 1,000	NO 1,000			
	FAA - Temporary Guard Shack	15,000	NO 15,000			NO 15,000	NO 15,000			
	FAA - Relo. Equipment (Honeywell)	20,000	NO 20,000			NO 20,000	NO 20,000			
	FAA - New Sidewalk (480sqft)	4,000	NO 4,000			NO 4,000	NO 4,000			
	FAA - Restriping @ 10 Spaces	1,000	NO 1,000			NO 1,000	NO 1,000			
	FAA - Flashing Pedestrian Signs (2 each)	1,000	NO 1,000	001		NO 1,000	NO 1,000			
	FAA - Restriping Crosswalks (2 each)	2,000	NO 2,000			NO 2,000	NO 2,000			
	Landscaping Repair @ FAA Bldg (Comm)	15,000	NO 15,000			NO 15,000	NO 15,000			
	Access Road & Fill @ South CUP (500cy)	25,000	NO 25,000			NO 25,000	NO 25,000			
	FAA / CUP Site Access Logistics	75,000	NO 75,000			NO 75,000	NO 75,000			
	Complete	✓	✓			✓	✓			
TOTAL		304,000	304,000	NO BID	NO BID	304,000	304,000	INCOMPLETE	-	

1.08 Proposal Summary

1.08

MECHANICAL

Small Business: W/MBE →

PROJECT:						
MTCE Enabling Work		HPCC	BIDDER 1	BIDDER 2		
TIA - Tampa, FL						
SEC.	DESCRIPTION					
	Bid Amount	615,000	2,677,000	601,000		
	Bondable Rate	✓	0.85%	✓	1.25%	✓
	Sales Tax (8.5%)	✓		✓		✓
	WMBE Participation (20%)	----	15.5%	----	0%	----
	Addendums 1-3	✓		✓		✓
	Subsystem 1.08	✓		✓		✓
	Cutting, capping and making safe of all utilities	✓		✓		✓
	Mechanical lines at Red Side Crossing	✓		✓		✓
	Temp Mechanical @ Admin	75,000		✓		✓
	Pre-Test and Balance @ Admin	15,000		✓		✓
	Relocation of 6" Grease Lines	45,000		✓		✓
	Dewatering	✓		✓	NO	
	----	----		----		----
	----	----		----		----
	Demolition of CT #4	w/ Demo		No-Ok		No-Ok
	Demo of Blue RAC Bldg	w/ Demo		No-Ok		No-Ok
	Demo of Site Utilities	w/ Civil		No-Ok		No-Ok
	Electrical Demo of Mechanical	w/ Elec		No-Ok		No-Ok
	----	----		----		----
	Complete			✓		NO
	TOTAL	750,000	2,677,000			-

Not in compliance with contracting requirements

1.09 Proposal Summary

1.09

FIRE PROTECTION

Small Business: W/MBE →

W/MBE

PROJECT:		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4
MTCE Enabling Work						
TIA - Tampa, FL						
SEC.	DESCRIPTION					
	Bid Amount	10,000	7,000	18,000	19,000	NO BID
	Bondable Rate	✓ 2.00%	✓	✓ 1.25%	✓	
	Sales Tax (8.5%)	✓	✓	✓	✓	
	WMBE Participation (20%)	--- 100%	✓	---	---	
	Addendums 1-3	✓	✓	✓	✓	
	Subsystem 1.09	✓	✓	✓	✓	
	Site Fire Main at Red-side crossing	w/ Site	No-Ok	No-Ok	YES (10,000)	
	Nightwork	✓	✓	NO 5,000	✓	
	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	Complete	✓	✓	✓	✓	
TOTAL		10,000	7,000	23,000	9,000	NO BID

1.10 Proposal Summary

1.10

ELECTRICAL

Small Business: W/MBE →

		W/MBE			W/MBE		
PROJECT:							
MTCE Enabling Work		HPCC	BIDDER 1	BIDDER 2	BIDDER 3	BIDDER 4	BIDDER 5
TIA - Tampa, FL							
SEC.	DESCRIPTION						
	Bid Amount	328,000	NO BID	618,000	532,000	292,000	539,000
	Bondable Rate	✓		1.0% ✓	0.7% ✓	2.6% ✓	1.0% ✓
	Sales Tax (8.5%)	✓		✓	✓	✓	✓
	WMBE Participation (20%)	---		21% ✓	29% ✓	100% ✓	19% ---
	Addendums 1-3	✓		✓	✓	✓	✓
	Subsystem 1.10	✓		✓	✓	NO	✓
	Underground electrical and technology	✓		✓	✓	NO	✓
	Cut / Cap / Safing for Demo	✓		✓	✓	NO	✓
	Electrical Demolition of Mechanical Equipment	✓		✓	✓	✓	✓
	Reroute of Comm at Blue Side RAC	✓		✓	✓	✓	✓
	Installation of FAA Cabling	145,000		✓	✓	NO	✓
	Vertical Chase Scaffold	30,000		✓	✓	NO 30,000	✓
	Power at Trailer Compound	✓		✓	YES ✓	NO	✓
	Comm at Trailer Compound	w/ 1.01b		YES (41,000)	No-Ok	No-Ok	No-Ok
	---	---		---	---	---	---
	---	---		---	---	---	---
	Complete	✓		✓	✓	NO	✓
TOTAL		503,000	NO BID	577,000	532,000	Incomplete	539,000

TPA - Main Terminal Curbside Expansion

Hensel Phelps
6557 Hazeltine National Drive, Suite One
Orlando, FL 32822
Phone: 407.856.2400 Fax: 407.856.6111

Estimator: DET
Primary Project Qty: SQFT
Estimate UM: Imperial
3:26:32 PM

General Conditions

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Item Code	Description	Quantity		UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$
				Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$		
Major Item Code 01000.000 General Requirements		654.00 MO											
Minor Item Code 01000.000 Administrative & Supervision													
01000.101	PROGRAM DIRECTOR	29.00 MO	V	14,698.00				426,242				\$14,698.00	\$426,242
01000.102	DESIGN MANAGER	12.00 MO	V	14,965.00				179,580				\$14,965.00	\$179,580
01000.103	PROJECT ENGINEER Pre Con	12.00 MO	A	9,558.00				114,696				\$9,558.00	\$114,696
01000.104	SENIOR ESTIMATOR	12.00 MO	V	12,162.00				145,944				\$12,162.00	\$145,944
01000.105	LEAD ESTIMATOR	12.00 MO	A	10,559.00				126,708				\$10,559.00	\$126,708
01000.106	ESTIMATOR	12.00 MO		9,555.00				114,660				\$9,555.00	\$114,660
01000.107	CHANGE ORDER MANAGER	29.00 MO	A	9,558.00				277,182				\$9,558.00	\$277,182
01000.108	JOBSITE ACCOUNTANT/ODP ADMIN	29.00 MO		9,358.00				271,382				\$9,358.00	\$271,382
01000.109	VDC MANAGER	6.75 MO	V	11,227.00				75,782				\$11,227.00	\$75,782
01000.110	SCHEDULER	27.00 MO	A	13,230.00				357,210				\$13,230.00	\$357,210
01000.111	DOCUMENT CONTOLLER (OE)	24.00 MO		8,690.00				208,560				\$8,690.00	\$208,560
01000.112	OFFICE ADMINISTRATOR	29.00 MO		6,554.00				190,066				\$6,554.00	\$190,066
01000.113	OFFICE ADMINISTRATOR	26.00 MO		6,554.00				170,404				\$6,554.00	\$170,404
01000.114	SAFETY ENGINEER	31.00 MO		9,001.00				279,031				\$9,001.00	\$279,031
01000.115	GENERAL SUPERINTENDENT (70%) THRU JUNE 2020	5.60 MO	V	14,573.00				81,609				\$14,573.00	\$81,609
01000.116	GENERAL SUPERINTENDENT (100%)	21.00 MO	V	14,573.00				306,033				\$14,573.00	\$306,033
01000.117	SUMMER INTERN	9.00 MO		4,483.00				40,347				\$4,483.00	\$40,347
01000.118	SUMMER INTERN	6.00 MO		4,483.00				26,898				\$4,483.00	\$26,898
01000.119	SUMMER INTERN	6.00 MO		4,483.00				26,898				\$4,483.00	\$26,898
01000.120	SUMMER INTERN	6.00 MO		4,483.00				26,898				\$4,483.00	\$26,898
ENABLING													
01000.103	PROJECT MANAGER - ENABLING	5.00 MO	V	12,162.00				60,810				\$12,162.00	\$60,810
01000.103	PROJECT ENGINEER - ENABLING	8.00 MO	A	9,558.00				76,464				\$9,558.00	\$76,464
01000.115	AREA SUPERINTENDENT ENABLING	8.00 MO	V	11,015.00				88,120				\$11,015.00	\$88,120
01000.126	FIELD ENGINEER #1	8.00 MO		10,538.00				84,304				\$10,538.00	\$84,304
01000.127	FIELD ENGINEER #2	8.00 MO		10,538.00				84,304				\$10,538.00	\$84,304
CEILING REPLACEMENT													
01000.137	OFFICE ENGINEER	7.00 MO		8,690.00				60,830				\$8,690.00	\$60,830
01000.112	AREA SUPERINTENDENT	7.00 MO	V	11,015.00				77,105				\$11,015.00	\$77,105
01000.127	FIELD ENGINEER #3	7.00 MO		10,538.00				73,766				\$10,538.00	\$73,766
LOADING DOCK													
01000.112	AREA SUPERINTENDENT	12.00 MO	V	11,015.00				132,180				\$11,015.00	\$132,180
01000.137	OFFICE ENGINEER	12.00 MO		8,690.00				104,280				\$8,690.00	\$104,280
01000.127	FIELD ENGINEER #4	12.00 MO		10,538.00				126,456				\$10,538.00	\$126,456
BLUE SIDE													
01000.106	PROJECT MANAGER	29.00 MO	V	12,162.00				352,698				\$12,162.00	\$352,698
01000.141	OFFICE ENGINEER	28.00 MO		8,690.00				243,320				\$8,690.00	\$243,320
01000.141	OFFICE ENGINEER	29.00 MO		8,690.00				252,010				\$8,690.00	\$252,010
01000.109	PROJECT SUPERINTENDENT	29.00 MO	V	13,264.00				384,656				\$13,264.00	\$384,656
01000.118	AREA SUPERINTENDENT	21.00 MO	V	11,015.00				231,315				\$11,015.00	\$231,315
01000.126	FIELD ENGINEER #1	26.00 MO		10,538.00				273,988				\$10,538.00	\$273,988

Estimator: DET
 Primary Project Qty: SQFT
 Estimate UM: Imperial
 3:26:32 PM

General Conditions

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Item Code	Description	Quantity	UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$
			Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$		
01000.127	FIELD ENGINEER #5	21.00 MO	10,538.00				221,298				\$10,538.00	\$221,298
CUP/ESB/FAA LOT												
01000.129	PROJECT ENGINEER	19.00 MO	9,558.00				181,602				\$9,558.00	\$181,602
01000.143	OFFICE ENGINEER	21.00 MO	8,690.00				182,490				\$8,690.00	\$182,490
01000.144	OFFICE ENGINEER	14.00 MO	8,690.00				121,660				\$8,690.00	\$121,660
01000.118	AREA SUPERINTENDENT	16.00 MO	11,015.00				176,240				\$11,015.00	\$176,240
01000.122	AREA SUPERINTENDENT MEP SWITCH OVER	13.00 MO	11,015.00				143,195				\$11,015.00	\$143,195
01000.126	FIELD ENGINEER #2	16.00 MO	10,538.00				168,608				\$10,538.00	\$168,608
01000.127	FIELD ENGINEER #6	16.00 MO	10,538.00				168,608				\$10,538.00	\$168,608
Total Administrative & Supervision							\$7,516,437	\$0	\$0	\$0		\$7,516,437
Minor Item Code 01000.180 Travel, Moving & TDY Expenses												
01000.181	JOBSITE PERSONNEL TRAVEL EXPENSES	654.00 MO		200.00				130,800			\$200.00	\$130,800
01000.500	MOVING AND RELOCATE(PM/SM)	1.00 EACH			50,000.00				50,000		\$50,000.00	\$50,000
01000.501	MOVING & RELOCATE(SUPT)	1.00 EACH			30,000.00				30,000		\$30,000.00	\$30,000
01000.502	MOVING & RELOCATE(PE, AS)	6.00 EACH			25,000.00				150,000		\$25,000.00	\$150,000
01000.503	MOVING & RELOCATE(FE/OE/INTERN)	15.00 EACH			15,000.00				225,000		\$15,000.00	\$225,000
01000.520	INTERN TEMPORARY HOUSING	27.00 MO			1,500.00				40,500		\$1,500.00	\$40,500
Total Travel, Moving & TDY Expenses							\$0	\$130,800	\$495,500	\$0		\$626,300
Minor Item Code 01100.000 Fees & Plan Expense												
01100.922	ELECTRONIC MEDIA FILES	37.00 MO			1,500.00					55,500	\$1,500.00	\$55,500
01100.930	DRAWING PRINTING	1.00 LSUM	10,000.00					10,000			\$10,000.00	\$10,000
Total Fees & Plan Expense							\$0	\$10,000	\$55,500	\$0		\$65,500
Minor Item Code 01300.000 Offices & Temporary Facilities												
01300.105	OWNER TRAILER 36'X60' (JUNE 2020 TO JUNE 2022)	25.00 MO				2,200.00				55000	\$2,200.00	\$55,000
01300.106	OWNER TRAILER 36'X60' Removal	1.00 LSUM									\$0.00	\$0
01300.106	OFFICE TRAILER-PERMITTING/DESIGN	1.00 LSUM			30,000.00				30000		\$30,000.00	\$30,000
01300.106	TRAILER SIGNAGE	1.00 LSUM			5,000.00				5000		\$5,000.00	\$5,000
01300.106	TRAILER MAINTENANCE	32.00 MO	250.00				8000				\$250.00	\$8,000
01300.113	PROFESSIONAL AERIAL PHOTOS	37.00 EACH			500.00				18500		\$500.00	\$18,500
01300.114	WEB CAM TECHNOLOGY (EARTHCAM)	2.00 EACH			20,000.00				40000		\$20,000.00	\$40,000
01300.115	STRUCTIONSITE & REPORTING APP	37.00 MO			1,000.00				37000		\$1,000.00	\$37,000
01300.115	PRECONSTRUCTION VIDEO SURVEY	1.00 LSUM			10,000.00				10000		\$10,000.00	\$10,000
Total Offices & Temporary Facilities							\$0	\$8,000	\$260,500	\$55,000		\$323,500
Minor Item Code 01300.160 Office Supplies & Equipment												
01300.160	OFFICE SUPPLIES & EQUIP.	37.00 MO		800.00				29,600			\$800.00	\$29,600
01300.162	OFFICE SUPPLIES & EQUIP.- OWNER	25.00 MO		600.00				15,000			\$600.00	\$15,000
01300.163	COPIER MACHINE PURCHASE	0.00 EACH				15,000.00						
01300.163	COPIER MACHINE SERVICE	37.00 MO							83,250		\$2,250.00	\$83,250
01300.164	DESKTOP COMPUTER	2.00 EACH	1,300.00					2,600			\$1,300.00	\$2,600
01300.164	IPAD	34.00 EACH	750.00					25,500			\$750.00	\$25,500
01300.165	LAPTOP COMPUTER	47.00 EACH	3,000.00					141,000			\$3,000.00	\$141,000
01300.165	BIM COMPUTER STATION	1.00 EACH	5,000.00					5,000			\$5,000.00	\$5,000
01300.167	PLOTTER	1.00 EACH	10,000.00					10,000			\$10,000.00	\$10,000
01300.171	OFFICE NETWORK EXPENSE w/ SERVER	1.00 LSUM			20,000.00				20,000		\$20,000.00	\$20,000

Estimator: DET
 Primary Project Qty: SQFT
 Estimate UM: Imperial
 3:26:32 PM

General Conditions

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Item Code	Description	Quantity	UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$	
			Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$			
01300.172	OFFICE TRAILER FURNITURE	33.00 EACH		2,500.00				82,500				\$2,500.00	\$82,500
01300.172	CONFERENCE ROOM FURNITURE	3.00 EACH		15,000.00				45,000				\$15,000.00	\$45,000
01300.172	CONFERENCE ROOM TECHNOLOGY	1.00 LSUM		25,000.00				25,000				\$25,000.00	\$25,000
01300.172	JOBSITE TECHNOLOGY & SOFTWARE	654.00 MO		250.00				163,500				\$250.00	\$163,500
01300.175	POSTAGE & SHIPPING	37.00 MO			250.00				9,250			\$250.00	\$9,250
01300.181	CELLULAR PHONE PURCHASES	10.00 EACH			700.00				7,000			\$700.00	\$7,000
01300.183	CELLULAR PHONE SERVICE	654.00 MO			82.00				53,628			\$82.00	\$53,628
01300.186	TELEPHONE EQUIP. PURCHASE	45.00 EACH				150.00				6,750		\$150.00	\$6,750
01300.187	JOBSITE SECURITY SERVICE	37.00 MO				500.00				18,500		\$500.00	\$18,500
01300.187	JOBSITE INTERNET SET-UP	2.00 LSUM										\$0.00	\$0
01300.188	JOBSITE INTERNET SERVICE- Owner Provided	37.00 MO										\$0.00	\$0
01300.188	JOBSITE INTERNET SERVICE - CRADLE POINTS	4.00 LSUM			1,500.00				6,000			\$1,500.00	\$6,000
Total Office Supplies & Equipment								\$0	\$544,700	\$95,878	\$108,500		\$749,078
Minor Item Code 01300.190 Temporary Services													
01300.230	TEMPORARY FENCING	1,200.00 LNFT			25.00				30,000			\$25.00	\$30,000
01300.250	TEMP WATER, SEWER SERVICE & STUB OUTS	1.00 LSUM			95,000.00				95,000			\$95,000.00	\$95,000
01300.250	TEMP WATER & SEWER: XFER TO SKYCENTER	-1.00 LSUM			95,000.00				(95,000)			\$95,000.00	(\$95,000)
	FIRE PROTECTION AT TRAILER COMPLEX	1.00 LSUM			25,000.00				25,000			\$25,000.00	\$25,000
01300.112	SANITARY HOLDING TANKS & PUMPING	1.00 LSUM			90,000.00				90,000			\$90,000.00	\$90,000
01300.252	TEMP WATER USEAGE COST	37.00 MO			300.00				11,100			\$300.00	\$11,100
01300.260	TEMP POWER & DATA HOOK-UP	1.00 LSUM			200,000.00				200,000			\$200,000.00	\$200,000
01300.260	TEMP POWER & DATA: XFER TO SKYCENTER	-1.00 LSUM			200,000.00				(200,000)			\$200,000.00	(\$200,000)
01300.265	TEMP POWER USAGE COST - TRAILERS	37.00 MO			3,500.00				129,500			\$3,500.00	\$129,500
01300.270	TEMP PARKING AREA	2.00 LSUM			25,000.00				50,000			\$25,000.00	\$50,000
Total Temporary Services								\$0	\$0	\$335,600	\$0		\$335,600
Minor Item Code 01700.000 Equipment & Transportation													
01700.520	STAFF VEHICLES (Cars & Trucks)	227.00 MO		450.00		800.00		102,150		181,600		\$1,250.00	\$283,750
01800.000	VEHICLE STIPEND (PE Equivalent positions)	107 MO		759.64				81,281.48				\$759.64	\$81,281
Total General Conditions								\$7,516,437	\$876,931 \$74,539	\$1,242,978	\$345,100 \$29,334		\$9,981,447
HP GENERAL CONDITIONS TOTAL								\$7,516,437	\$951,471	\$1,242,978	\$374,434		\$10,085,319

Total Anticipated COW (w/o Contingency): \$105,826,000 9.53%
 Total Anticipated COW (w/ Contingency): \$116,409,000 8.66%

SUB CONSULTANTS													
ARIEL													
01000.162	Project Executive/Administrator	2.77 MO	0.00	0.00	23,701.00	0.00				65,760		\$23,701.00	\$65,760
	Project Manager/ WMBE Outreach/Compliance	3.47 MO	0.00	0.00	13,321.00	0.00				46,200		\$13,321.00	\$46,200
	WMBE Outreach/ Compliance Coordinator	19.05 MO	0.00	0.00	11,591.00	0.00				220,765		\$11,591.00	\$220,765
	WMBE Project Support	4.44 MO	0.00	0.00	10,726.00	0.00				47,616		\$10,726.00	\$47,616
	WMBE Compliance Software	1.00 LSUM	0.00	0.00	0.00	24,000.00				24,000		\$24,000.00	\$24,000
	Community Engagement and Outreach	1.00 LSUM	0.00	0.00	0.00	24,000.00				24,000		\$24,000.00	\$24,000
TOTAL													
CMTS													
01000.133	CQC MANAGER - CMTS	29.00 MO	0	0.00	23,408.63	0.00				678,850		\$23,408.63	\$678,850

Estimator: DET
 Primary Project Qty: SQFT
 Estimate UM: Imperial
 3:26:32 PM

General Conditions

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Item Code	Description	Quantity	UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$
			Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$		
01000.136	CQC CEI - CMTS	34.00 MO	0	0.00	21,678.63	0.00			737,073		\$21,678.63	\$737,073
01000.135	CQC LEAD - CMTS	26.00 MO	0	0.00	21,678.63	0.00			563,644		\$21,678.63	\$563,644
	TOTAL											\$1,979,568
	BECK											
01000.104	PROJECT MANAGER - CUP/ESB	21.00 MO	0.00	0.00	30,564.80	0.00			641,861		\$30,564.80	\$641,861
01000.105	PROJECT SUPERINTENDENT - CUP, ENABLING	23.00 MO	0.00	0.00	27,758.81	0.00			638,453		\$27,758.81	\$638,453
01000.106	PROJECT ENGINEER - BLUE SIDE	25.00 MO	0.00	0.00	22,589.28	0.00			564,732		\$22,589.28	\$564,732
01000.107	SAFETY MANAGER	29.00 MO	0.00	0.00	28,600.44	0.00			829,413		\$28,600.44	\$829,413
01000.108	DOCUMENT CONTROL MANAGER	29.00 MO	0.00	0.00	27,758.81	0.00			805,006		\$27,758.81	\$805,006
01000.109	AREA SUPERINTENDENT NIGHTS BLUE SIDE	27.00 MO	0.00	0.00	16,050.85	0.00			433,373		\$16,050.85	\$433,373
01000.110	AREA SUPERINTENDENT - LOGISTICS	26.00 MO	0.00	0.00	23,698.70	0.00			616,166		\$23,698.70	\$616,166
01000.111	LEAD VDC ENGINEER	29.00 MO	0.00	0.00	28,292.73	0.00			820,489		\$28,292.73	\$820,489
01000.113	PROJECT VEHICLE EXPENSES	112.00 MO	0.00	0.00	750.00	0.00			84,000		\$750.00	\$84,000
	TOTAL											\$5,433,492
	HP Services											
01000.114	MEP COORDINATOR	29.00 MO	25,000.00	0.00	0.00	0.00	725,000				\$25,000.00	\$725,000
GRAND TOTAL												\$18,651,720

TPA - Main Terminal Curbside Expansion

Hensel Phelps
6557 Hazeltine National Drive, Suite One
Orlando, FL 32822
Phone: 407.856.2400 Fax: 407.856.6111

Estimator: DET
Primary Project Qty: SQFT
Estimate UM: Imperial
3:26:32 PM

General Requirements

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Excel Version

5/21/2019

Item Code	Description	Quantity	UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$
			Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$		
Major Item Code 01000.000 General Requirements												
Minor Item Code 01000.000 Administrative & Supervision												
01000.131	FIELD ENGINEERS' EQUIPMENT	118.00 MO	0.00	100.00	0.00	450.00		11,800		53,100	\$550.00	\$64,900
01000.157	PROFESSIONAL SURVEYOR - Blue Side	1.00 LSUM	0.00	0.00	10,000.00	0.00			10,000		\$10,000.00	\$10,000
01000.157	PROFESSIONAL SURVEYOR - CUP/FAA	1.00 LSUM	0.00	0.00	10,000.00	0.00			10,000		\$10,000.00	\$10,000
Total Administrative & Supervision							\$0	\$11,800	\$20,000	\$53,100		\$84,900
Minor Item Code 01200.000 Safety												
01200.100	SAFETY EQUIPMENT	1.00 LSUM	0.00	15,000.00	0.00	0.00		15,000			\$15,000.00	\$15,000
01200.105	AED	2.00 EACH	0.00	0.00	2,500.00	0.00			5,000		\$2,500.00	\$5,000
01200.110	SAFETY AWARDS	8.00 MO	0.00	500.00	0.00	0.00		4,000			\$500.00	\$4,000
01200.200	FIRST AID CABINETS	2.00 EACH	0.00	200.00	0.00	0.00		400			\$200.00	\$400
01200.210	FIRST AID SUPPLIES	8.00 MO	0.00	50.00	0.00	0.00		400			\$50.00	\$400
01200.310	FIRE EXT (1EA/3,000 SF)	24.00 EACH	10.00	115.00	0.00	0.00	240	2,760			\$125.00	\$3,000
01200.400	BACKRAILS	LNFT	2.50	2.50	0.00	0.00						
01200.401	TOE BOARDS	LNFT	1.25	1.25	0.00	0.00						
01200.405	INSTALL STEEL SAFETY CABLE	LNFT	1.50	1.50	0.00	0.00						
01200.410	REMOVE STL SAFETY CABLE	LNFT	0.75	0.00	0.00	0.00						
01200.411	REMOVAL OF TOE BOARDS	LNFT	0.75	0.00	0.00	0.00						
01200.420	HORIZ OPENING PROTECTION	SQFT	2.50	2.50	0.00	0.00						
01200.430	TEMP DUST & SECURITY BARRIERS	LSUM	0.00	0.00	0.00	0.00						
01200.435	SAFE-T-STRAPS (EMBED IN CONC)	EACH	1.50	15.00	0.00	0.00						
01200.450	EXCAVATION BARRICADES	LNFT	0.50	0.50	0.00	0.00						
Total Safety							\$240	\$22,560	\$5,000	\$0		\$27,800
Minor Item Code 01300.000 Offices & Temporary Facilities												
01300.115	MOBILE-MINI FIELD OFFICE	8.00 MO	0.00	0.00	0.00	850.00				6,800	\$850.00	\$6,800
01300.130	TEMPORARY TOILETS	80.00 MO	0.00	0.00	95.00	0.00			7,600		\$95.00	\$7,600
01300.132	HANDWASHING STATION	75.00 MO	0.00	0.00	150.00	0.00			11,250		\$150.00	\$11,250
01300.150	BULLETIN BOARDS	4.00 EACH	150.00	0.00	500.00	0.00	600		2,000		\$650.00	\$2,600
01300.151	MISC JOBSITE SIGNS	1.00 LSUM	0.00	4,000.00	0.00	0.00		4,000			\$4,000.00	\$4,000
01300.152	PROJECT SIGN	4.00 EACH	200.00	3,000.00	0.00	0.00	800	12,000			\$3,200.00	\$12,800
Total Offices & Temporary Facilities							\$1,400	\$16,000	\$20,850	\$6,800		\$45,050
Minor Item Code 01300.190 Temporary Services												
01300.191	SECURITY ESCORTS	WEEK	0.00	0.00	0.00	0.00						
01300.192	TRAFFIC CONTROL - FLAGMAN (1 MAN, FULL TIME)	8.00 MO	4,844.00	0.00	0.00	0.00	38,752				\$4,844.00	\$38,752
01300.192	MAINT. OF TEMP WALLS, FENCE, BARRICADES (1 MAN, FULL TIM	8.00 MO	4,844.00	0.00	0.00	0.00	38,752				\$4,844.00	\$38,752
01300.200	WATER & ICE SERVICE	8.00 MO	0.00	250.00	0.00	0.00		2,000			\$250.00	\$2,000
01300.220	TEMP ROADWAYS & ACCESS	LSUM	0.00	0.00	0.00	0.00						
01300.222	TEMP ROAD MAINTENANCE	LNFT	0.00	0.00	0.00	0.00						
01300.230	TEMPORARY FENCING	LNFT	0.00	0.00	10.00	0.00						

Estimator: DET
 Primary Project Qty: SQFT
 Estimate UM: Imperial
 3:26:32 PM

General Requirements

Report includes appropriate wage burdens in accordance with Burden sheet, including payroll taxes, WC insurance, health & life insurance, and qualified retirement. Project level insurance and indirect costs such as General Liability, Auto Insurance, and Builder's Risk insurance is not included in this report.

Excel Version

5/21/2019

Item Code	Description	Quantity	UNIT COST				TOTAL COST				Line Item Unit \$	Item Total \$	
			Labor \$	Material \$	Sub \$	Equipt \$	Labor \$	Material \$	Sub \$	Equipt \$			
01300.235	TEMP DEBRIS PROTECTION/BARRICADE	LSUM	0.00	0.00	0.00	0.00							
01300.236	MISC FINISH PROTECTION	1.00 LSUM	0.00	25,000.00	0.00	0.00		25,000				\$25,000.00	\$25,000
01300.240	TEMPORARY WALKWAYS	LNFT	0.00	0.00	0.00	0.00							
01300.250	TEMP WATER SERVICE (BY PLUMB SUB)	LSUM	0.00	0.00	0.00	0.00							
01300.252	TEMP WATER USEAGE COST	MO	0.00	0.00	200.00	0.00							
01300.260	TEMP POWER HOOK-UP (BY ELEC. SUB)	LSUM	0.00	0.00	0.00	0.00							
01300.266	TEMP POWER USAGE COST - BUILDING	0.00 MO	0.00	0.00	0.00	0.00							
01300.267	TEMP POWER USAGE COST - START UP	0.00 MO	0.00	0.00	0.00	0.00							
01300.270	TEMP LAYDOWN AREA	LSUM	0.00	0.00	0.00	0.00							
Total Temporary Services								\$77,504	\$27,000	\$0	\$0		\$104,504
Minor Item Code 01400.000 Job Cleaning & Hauling													
01400.100	WEEKLY CLEAN-UP (2 MEN, FULL TIME)	8.00 MO	9,688.00	0.00	0.00	0.00		77,504				\$9,688.00	\$77,504
01400.106	DUMPSTER DUMP FEES	69.00 DUMP	0.00	0.00	475.00	0.00				32,775		\$475.00	\$32,775
01400.140	HOISTING FOR SUBS	MO	0.00	0.00	0.00	0.00							
Total Job Cleaning & Hauling								\$77,504	\$0	\$32,775	\$0		\$110,279
Minor Item Code 01500.000 Inspection & Quality Control													
01500.000	QUALITY AWARDS PROGRAM	8.00 LSMU	0.00	500.00	0.00	0.00			4,000			\$500.00	\$4,000
01500.001	THRESHOLD TESTING (~0.5%)	LSUM	0.00	0.00	0.00	0.00							
01500.100	CONCRETE TESTING WORK	LSUM	0.00	0.00	0.00	0.00							
01500.120	SOILS TESTING WORK	LSUM	0.00	0.00	0.00	0.00							
01500.122	ASPHALT TESTING WORK	LSUM	0.00	0.00	0.00	0.00							
01500.130	NOISE/SOUND MONITORING	LSUM	0.00	0.00	0.00	0.00							
01500.140	VIBRATION MONITORING	1.00 LSUM	0.00	0.00	20,000.00	0.00				20,000		\$20,000.00	\$20,000
01500.152	HAZARDOUS ABATEMENT REVIEW AGENT	LSUM	0.00	0.00	0.00	0.00							
Total Inspection & Quality Control								\$0	\$4,000	\$20,000	\$0		\$24,000
Minor Item Code 01700.000 Equipment & Transportation													
01700.610	FIELD TRUCKS	114.00 MO	0.00	250.00	0.00	500.00			28,500		57,000	\$750.00	\$85,500
01710.000	DEWATERING EQUIP. RENTAL	MO	0.00	0.00	0.00	0.00							
01710.050	RADIO BASE STATION	2.00 EACH	0.00	2,500.00	0.00	0.00			5,000			\$2,500.00	\$5,000
01710.051	RADIOS	15.00 EACH	0.00	950.00	0.00	0.00			14,250			\$950.00	\$14,250
01710.051	RADIO BANK CHARGERS	2.00 EACH	0.00	250.00	0.00	0.00			500			\$250.00	\$500
01710.400	MISC. POWER EQUIPMENT	1.00 LSUM	0.00	0.00	0.00	15,000.00					15,000	\$15,000.00	\$15,000
01710.500	SMALL TOOLS	1.00 LSUM	0.00	7,500.00	0.00	0.00			7,500			\$7,500.00	\$7,500
01710.600	REPAIRS & MAINTENANCE	1.00 LSUM	0.00	0.00	0.00	10,000.00					10,000	\$10,000.00	\$10,000
Total Equipment & Transportation								\$0	\$55,750	\$0	\$82,000		\$137,750
Total General Requirements								\$156,648	\$137,110	\$98,625	\$141,900		\$534,283
SALES TAX		8.50%							\$11,654		\$12,062		
ESTIMATE TOTALS								\$156,648	\$148,764	\$98,625	\$153,962		\$557,999

Scope purchased with Trades:



Salaried Billing Rate Calculator

Project TPA - Main Terminal Curbside Expansion: Part 2
 Location Tampa International Airport (Tampa, FL)
 Duration 37 Mos

(backup pages) 1 2 3 4 5 6 7 8 9 10 11

Position Description	Base Rate/Mo	Payroll Taxes	Worker's Comp Ins	Benefit Health Insurance	Benefit Salaried Bonus	Benefit Salaried Pension	Benefit Vehicle + Fuel	IT Network Cost	Comp. Replace. Expense	Phone	Total Burdens	G&A	Profit	General Liability Insurance	Total Rate/Mo
Program Director	10,908	929	11	1,214	NA	1,636	pd monthly	NA	w/ GC's	pd monthly	3,790	-	-	-	14,698
Program Manager for Const.	10,368	883	10	1,214	NA	1,555	pd monthly	NA	w/ GC's	pd monthly	3,663	-	-	-	14,031
General Superintendent	10,746	916	86	1,214	NA	1,612	pd monthly	NA	w/ GC's	pd monthly	3,827	-	-	-	14,573
Project Manager	8,856	755	8.86	1,214	NA	1,328	pd monthly	NA	w/ GC's	pd monthly	3,306	-	-	-	12,162
Project Superintendent	9,693	826	78	1,214	NA	1,454	pd monthly	NA	w/ GC's	pd monthly	3,571	-	-	-	13,264
Area Superintendent	7,884	672	63	1,214	NA	1,183	pd monthly	NA	w/ GC's	pd monthly	3,131	-	-	-	11,015
Project Engineer	6,750	575	7	1,214	NA	1,013	pd monthly	NA	w/ GC's	pd monthly	2,808	-	-	-	9,558
Safety Manager	8,532	727	68	1,214	NA	1,280	pd monthly	NA	w/ GC's	pd monthly	3,289	-	-	-	11,821
Safety Engineer	6,264	534	50	1,214	NA	940	pd monthly	NA	w/ GC's	pd monthly	2,737	-	-	-	9,001
CQC Manager	10,260	874	82	1,214	NA	1,539	pd monthly	NA	w/ GC's	pd monthly	3,709	-	-	-	13,969
CQC Lead	7,101	605	57	1,214	NA	1,065	pd monthly	NA	w/ GC's	pd monthly	2,941	-	-	-	10,042
CQC Assistant	6,559	559	52	1,214	NA	984	pd monthly	NA	w/ GC's	pd monthly	2,809	-	-	-	9,368
Office Engineer	6,048	515	6	1,214	NA	907	pd monthly	NA	w/ GC's	pd monthly	2,642	-	-	-	8,690
Field Engineer	7,500	639	60	1,214	NA	1,125	pd monthly	NA	w/ GC's	pd monthly	3,038	-	-	-	10,538
Rodman	5,425	462	43	1,214	NA	814	pd monthly	NA	w/ GC's	pd monthly	2,533	-	-	-	7,958
Intern*	1,700	145	14	1,214	NA	255	pd monthly	NA	w/ GC's	pd monthly	1,627	-	-	-	3,327
Preconstruction Manager	11,124	948	11	1,214	NA	1,669	pd monthly	NA	w/ GC's	pd monthly	3,841	-	-	-	14,965
MEP Coordinator	9,072	773	9	1,214	NA	1,361	pd monthly	NA	w/ GC's	pd monthly	3,357	-	-	-	12,429
VDC Manager	8,100	690	8	1,214	NA	1,215	pd monthly	NA	w/ GC's	pd monthly	3,127	-	-	-	11,227
Lead VDC Engineer	6,880	586	7	1,214	NA	1,032	pd monthly	NA	w/ GC's	pd monthly	2,839	-	-	-	9,718
VDC Engineer	6,426	547	6	1,214	NA	964	pd monthly	NA	w/ GC's	pd monthly	2,732	-	-	-	9,158
Estimating Director	11,448	975	11	1,214	NA	1,717	pd monthly	NA	w/ GC's	pd monthly	3,918	-	-	-	15,366
Senior Estimator	8,856	755	9	1,214	NA	1,328	pd monthly	NA	w/ GC's	pd monthly	3,306	-	-	-	12,162
Lead Estimator	7,560	644	8	1,214	NA	1,134	pd monthly	NA	w/ GC's	pd monthly	2,999	-	-	-	10,559
Estimator	6,748	575	7	1,214	NA	1,012	pd monthly	NA	w/ GC's	pd monthly	2,808	-	-	-	9,555
Scheduling Manager	10,584	902	11	1,214	NA	1,588	pd monthly	NA	w/ GC's	pd monthly	3,714	-	-	-	14,298
Scheduler	9,720	828	10	1,214	NA	1,458	pd monthly	NA	w/ GC's	pd monthly	3,510	-	-	-	13,230
Office Manager	4,860	414	5	1,214	NA	729	pd monthly	NA	w/ GC's	pd monthly	2,362	-	-	-	7,222
Admin / Secretary	4,320	368	4	1,214	NA	648	pd monthly	NA	w/ GC's	pd monthly	2,234	-	-	-	6,554
Time Keeper / Checker	3,780	322	4	1,214	NA	567	pd monthly	NA	w/ GC's	pd monthly	2,107	-	-	-	5,887
Job Site Accountant	6,588	561	7	1,214	NA	988	pd monthly	NA	w/ GC's	pd monthly	2,770	-	-	-	9,358
TBD															

W/C Office
 W/C Field

Burden Summary	Range	Name
PRT Salaried	0.0852	prt
W/C Insurance - Office	0.0010	wcio
W/C Insurance - Field	0.0080	wcif
Health Insurance	1213.82	health
Bonus		
Salaried Pension	0.15	pen
Vehicle + Fuel PM/PS	1250	vfo
Vehicle + Fuel PD/GS	1250	vff
Vehicle Allowance	700	vpe
Vehicle Allowance	700	vle
IT Fee / MH	\$ 1.40	itfee
Comp. Replacement	\$ -	comp
Phone Allowance	81.39	phone
G & A	0.00%	ga
Profit	0.00%	profit
General Liability Ins.	0.0047010	gli
Hrs/Mo	173	hrs
Base Wage Multiplier	1.00	bwm
State	FL	
Exec. Super Comp %	0.80%	F (Field)
Clerical Comp %	0.10%	O (Office)
W/C Ins %	100.00%	Ins

- *** Avg Employee Rate
- *** \$800 vehicle, \$450 FOG
- *** \$800 vehicle, \$450 FOG
- *** \$75 allowance, subject to Payroll Tax
- *** Carried elsewhere in GMP
- *** Carried elsewhere in GMP
- *** Carried elsewhere in GMP
- *** Not Used for Part 1

Estimated General Conditions for the Tampa International Airport Curbside Check-in Expansion Project, Part 2 Agreement

Jennifer Scholz
 Chief Financial Officer
 Hensel Phelps

MTCE Enabling Project

MTCE Enabling Project Construction Administration fee budget

CUP/FAA Lot/Redside Roadway Exit Package

<u>Discipline</u>	<u>Lump sum fee budget</u>
HNTB Civil	29,254.09
HNTB Arch	3000
MCE	7966.17
TLC	4904
VoltAir	1931
Aryres	1400
TOTAL	48,455.26

Blue Side Package

<u>Discipline</u>	<u>Lump sum fee budget</u>
HNTB Civil	11,106.03
HNTB Arch	3000
MCE	
TLC	6549.33
VoltAir	1261
Aryres	1400
Total	23,316.36

Note: 1) This is a maximum budget from the HNTB design team for all CA services for the Enabling Project
2) Any un-used CA fees from the Enabling Project from the Enabling package will be reallocated for future projects

CA: CUP/FAA - \$ 48,455
CA: Blue Side - \$ 23,316
CA: Blue Tunnel - \$ 6,972
CA: Total Enabling - \$ 78,743

Hensel Phelps Construction Co.
Current payroll and insurance percentages
and fringe benefit information

Effective
From 1/1/2019
To 12/31/2019

Florida

Revised 1/3/2019

Percentage based on labor

Craft	Compensation	Insurance	Payroll Taxes	Total
Masonry	5022	5.75	8.52	14.27
Ironworker	5057	3.70	8.52	12.22
Plumbing	5183	2.40	8.52	10.92
Electrical	5190	2.62	8.52	11.14
Carpenter	5213	5.12	8.52	13.64
Finisher/Laborer	5221	3.93	8.52	12.45
Millwright	5403	5.13	8.52	13.65
HVAC	5537	3.28	8.52	11.80
Exec Supervisor	5606	0.80	8.52	9.32
Operator/Excavation	6217	3.60	8.52	12.12
Drivers	7380	3.21	8.52	11.73
Yard & Shop	8227	3.67	8.52	12.19
Salesperson	8742	0.21	8.52	8.73
Clerical	8810	0.10	8.52	8.62
Buildings Operation	9014	2.26	8.52	10.78

Payroll Taxes

FICA	7.650
Federal unemployment	0.6
State unemployment	0.27
Total Payroll Taxes	8.52

GL Rate

General liability	0.0019970
Umbrella	0.0014131
Professional / Pollution	0.0012909
Total GL Rate	0.0047010

*All residential or student housing projects
must contact legal to determine specific GL
rate

Experience Mod.: 0.53

Fringe Benefit Information

<u>Union & Davis Bacon / Pre.D.</u>	<u>Non Union</u>
Refer to relevant labor agreements or Pre D. wage data for medical and pension information	Health Insurance Employee \$4.78 / Work Hour Emp. + Dependent \$11.66 / Work Hour Avg. (Emp/Dep) \$8.54 / Work Hour (Premium on first 130 hrs worked / month)
Salary IT Charge \$1.40 / Salary Work Hour	Craft Vacation 6.45%
Salary Vacation 10.50%	
Salary Medical, Life, Disability	
Employee \$ 679.06	
Emp. + Dependent \$ 1,541.49	
Avg. (Emp/Dep) \$ 1,213.82	

WMBE Participation Summary

Company Name	Total Value	MWBE Value	%
1.01 - Trailer Compound:	\$ 656,000	\$ 656,000	100%
1.01a - Trailer Cleaning Service:	\$ 100,000	\$ 100,000	100%
1.01b - Horizontal Cabling at Trailers:	\$ 19,000	\$ 19,000	100%
1.02 - Verification Testing:	\$ 40,000	\$ 40,000	100%
1.03 - Pedestrian Controls:	\$ 318,000	\$ 318,000	100%
1.05 - Demolition:	\$ 983,000		25%
Subtier 1:		\$ 50,600	5%
Subtier 2:		\$ 81,900	8%
Subtier 3:		\$ 45,000	5%
Subtier 4:		\$ 22,000	2%
Subtier 5:		\$ 7,000	1%
Subtier 6:		\$ 25,000	3%
Subtier 7:		\$ 12,167	1%
1.06 - Precast:	\$ 80,000	\$ 80,000	100%
1.07 - Civil Development:	\$ 3,248,000		16%
Subtier 1:		\$ 450,000	14%
Subtier 2:		\$ 30,000	1%
Subtier 3:		\$ 25,000	1%
Subtier 4:		\$ 20,000	1%
1.09 - Fire Protection:	\$ 7,000	\$ 7,000	100%
1.10 - Electrical:	\$ 532,000		30%
Subtier 1:		\$ 161,801	30%
Minority Participation Support: Ariel Business Group	\$ 428,341	\$ 428,341	100%
CQC Support: CMTS	\$ 1,979,568	\$ 1,979,568	100%
Owner Allowance - Red RAC	\$ 1,500,000	\$ 200,000	13%
Totals (GMP / WMBE Contracts)	\$ 31,535,723	\$ 4,758,377	
Percentage Achieved			15.09%

Notwithstanding the information stated above, Hensel Phelps is committed to achieving 19% WMBE participation on Construction Services for the overall program.

<u>Bid Package</u>		<u>Company</u>	<u>First Name</u>	<u>Last Name</u>	<u>Phone</u>	<u>Enterprise Type</u>
1.00	General	ISEC, Inc.	Daniel	Biernat	(813) 422-5745	None
1.00	General	SimRobotics Corp. BIM Services	Kelly	Humphrey	(302) 325-2700	Minority Business Enterprise (MBE), Other
1.00	General	Odyssey Global	Carl	Leneis	(305) 591-9212	Women Business Enterprise (WBE)
1.00	General	Odyssey Global	Jimmy	Frye		Women Business Enterprise (WBE)
1.00	General	Odyssey Global	Carl	Leneis	(407) 605-5900 x2	Women Business Enterprise (WBE)
1.00	General	L & S Diversified LLC	Fabiana	Pouso	(407) 681-3836	Minority Business Enterprise (MBE), Disadvantaged Bu
1.00	General	J.A.B. and Associates	Jacy	Bussey	(727) 318-7168	Women Business Enterprise (WBE), Disadvantaged Bu
1.00	General	SimRobotics Corp. BIM Services	Ronald	Gaines	(407) 926-4129	Minority Business Enterprise (MBE), Other
1.00	General	ISEC, Inc.	John	Morton	(714) 620-5022	None
1.00	General	ISEC, Inc.	Nicholas	Reaume	(813) 422-5759	None
1.00	General	Indcon, Inc.	Ashley	Hartsell	(864) 626-5520	Women Business Enterprise (WBE)
1.00	General	i+icon Southeast	Paul	Johnson	(813) 512-8642	None
1.00	General	F & C Eaton Enterprises, LLC	Charles	Eaton	(254) 283-5252	Disadvantaged Business Enterprise (DBE)
1.00	General	Aviman Management LLC	Wallace	Coleman	(302) 377-5788	
1.01	Trailer Compound	Modular Building Systems International	Patricia	Berk	(407) 905-9951	Women Business Enterprise (WBE)
1.01	Trailer Compound	Modular Building Systems International	John	Marzicola	(727) 376-0668	Women Business Enterprise (WBE)
1.01	Trailer Compound	Modular Building Systems International	Steven	Mogil	(727) 272-6766	Women Business Enterprise (WBE)
1.01	Trailer Compound	Modular Building Systems International	Crystal	Myers	(352) 728-2930	Women Business Enterprise (WBE)
1.01	Trailer Compound	Mobile Modular	Kevin	Berry	(863) 508-6859	Other, None
1.01	Trailer Compound	Mobile Modular	Carolyn	Prescott	(863) 965-3700	Other, None
1.01	Trailer Compound	Acton Mobile Industries	Ash	Mote	(813) 413-6729	None
1.01	Trailer Compound	Allied Trailers Sales & Rentals	Elizabeth	Barron	(800) 240-1119	Other
1.01	Trailer Compound	Williams Scotsman, Inc.	Christopher	Ahr	(813) 626-2862	None
1.01	Trailer Compound	Contract Furniture Inc. (CFI)	Kristin	Mamula	(813) 247-6622	Women Business Enterprise (WBE), Minority Business
1.01	Trailer Compound	Modular Building Systems International	Rich	Chan	(407) 615-0606	Women Business Enterprise (WBE)
1.01	Trailer Compound	Mobile Mini	Jessica	Adebanjo	(813) 241-9273	None
1.01a	Trailer Cleaning Services	Promise Construction And Repair Solution LLC	Carol	Dolland	(813) 988-8633	Women Business Enterprise (WBE), Disadvantaged Bu
1.01a	Trailer Cleaning Services	Moses Wourman Maintenance Inc	Cornel	Moses	(813) 244-7134	Minority Business Enterprise (MBE)
1.01a	Trailer Cleaning Services	Modern Cleaning Solutions LLC	Jana	Korabecna	(813) 638-2507	Women Business Enterprise (WBE)
1.01a	Trailer Cleaning Services	MDT, LLC Commercial Services	Sunney	MartÃ-nez	(727) 657-5576	Women Business Enterprise (WBE), Minority Business
1.01a	Trailer Cleaning Services	M&G Investors Llc DBA: M&G Janitorial Services	Max	Volmar Jr	(813) 380-2880	Disadvantaged Business Enterprise (DBE)
1.01a	Trailer Cleaning Services	Go Green	Glen	Diston	(305) 205-6503	Women Business Enterprise (WBE)
1.01b	Horizontal Cabling at Trailer Compound	Prime Electrical Services	Jorge	Rivera		Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	Aireko Energy Solutions US, LLC	Harry	Irizarry	(407) 706-2800	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Aireko Energy Solutions US, LLC	Brian	Morris		Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Aireko Energy Solutions US, LLC	Hector	Rivera Russe		Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Aireko Energy Solutions US, LLC	Francisco	Birriel	(407) 706-2800	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Aireko Energy Solutions US, LLC	Fernando	Francia	(787) 653-6300	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Aireko Abroad LLC	Rodolfo	Puig	(407) 267-7730	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	MCS of Tampa	Vincent	Lendoiro	(813) 865-1079	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	APG Electric	John	La Fuze	(727) 530-0077	None
1.01b	Horizontal Cabling at Trailer Compound	ALL IN ONE ELECTRIC, INC				Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	ALL IN ONE ELECTRIC, INC	Rodney	Jones	(813) 849-6331	Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	ALL IN ONE ELECTRIC, INC	Bay	McGhee	(813) 849-6331	Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	ALL IN ONE ELECTRIC, INC	Bill	Gingras	(727) 735-3263	Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	Prime Electrical Services	Lynetta	Johnson	(407) 574-5177	Disadvantaged Business Enterprise (DBE), Minority Bu:
1.01b	Horizontal Cabling at Trailer Compound	MCS of Tampa	Rob	Duncan	(813) 865-1065	Minority Business Enterprise (MBE)
1.01b	Horizontal Cabling at Trailer Compound	Secure2Ware	Keith	Ware	(813) 425-5900	Minority Business Enterprise (MBE)
1.02	Testing & Inspections	SEP	Joel	Figueroa Vallines	(407) 562-3929	Minority Business Enterprise (MBE), Small Business En
1.02	Testing & Inspections	Roberts Consulting Services, Inc.	Kenneth	Roberts	(863) 259-0270	Disadvantaged Business Enterprise (DBE)
1.02	Testing & Inspections	Roberts Consulting Services, Inc.	Hannah	Simmons		Disadvantaged Business Enterprise (DBE)
1.02	Testing & Inspections	ECS, LLC	Rey	Ruiz	(813) 638-1585	Other
1.02	Testing & Inspections	ECS, LLC	Chris	Haley	(813) 302-1644	Other
1.02	Testing & Inspections	NOVA Engineering & Environmental LLC	Mark	Cincotta	(813) 765-0458	None
1.02	Testing & Inspections	Mc Squared Inc.	Lauren	Sabol	(813) 623-3399	Disadvantaged Business Enterprise (DBE)
1.02	Testing & Inspections	Mc Squared Inc.	Lance	Croft	(813) 623-3399	Disadvantaged Business Enterprise (DBE)

1.02	Testing & Inspections	Tierra Inc.	James	Gibbs	(813) 989-1354	Minority Business Enterprise (MBE)
1.02	Testing & Inspections	Universal Engineering Sciences, Inc.	Mark	Burgess	(813) 740-8506	Minority Business Enterprise (MBE), Small Business En
1.02	Testing & Inspections	Universal Engineering Sciences, Inc.	Doug	Ross	(813) 740-8506	Minority Business Enterprise (MBE), Small Business En
1.02	Testing & Inspections	Professional Service Industries, Inc. (PSI), an Intertek Cr	Bob	Kennedy	(813) 886-1075	None, Other
1.02	Testing & Inspections	Test Lab, Inc.	David	Carron	(813) 363-1983	Minority Business Enterprise (MBE), Disadvantaged Bu
1.02	Testing & Inspections	Test Lab, Inc.	Mark	Cornwell	(813) 872-7821	Minority Business Enterprise (MBE), Disadvantaged Bu
1.02	Testing & Inspections	KTA-Tator, Inc.	Ed	Moore		Other
1.02	Testing & Inspections	Roberts Consulting Services, Inc.	Aaron	Roberts		Disadvantaged Business Enterprise (DBE)
1.03	Pedestrian Control Logistics	Cornerstone Barricades Inc	Seyi	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Cornerstone Barricades Inc	Seun	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Commercial Interiors Inc	Brendan	Sterker	(813) 872-6100	Minority Business Enterprise (MBE), Women Business
1.03	Pedestrian Control Logistics	Fish Construction	Adam	Fish	(713) 206-0227	None
1.03	Pedestrian Control Logistics	Building Beautiful Construction Inc	Jason	Crowther	(919) 274-5472	Small Business Enterprise (SBE)
1.03	Pedestrian Control Logistics	Fish Construction	Michael	Shelley	(281) 261-3375 x208	None
1.03	Pedestrian Control Logistics	Foresight Construction Group, Inc.	Adam	Boudreaux	(813) 304-2620	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Foresight Construction Group, Inc.	Brian	Long	(352) 335-6352	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Foresight Construction Group, Inc.	Mike	Treadway	(352) 335-6352	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Cornerstone Barricades Inc	Seun	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Black & Son Remodeling, LLC	Zaheer	Black	(407) 334-1873	Minority Business Enterprise (MBE), Women Business
1.03	Pedestrian Control Logistics	Cornerstone Barricades Inc	Christopher	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	Foresight Construction Group, Inc.	Anthony	Italiano	(813) 579-7440	Minority Business Enterprise (MBE), Disadvantaged Bu
1.03	Pedestrian Control Logistics	KHS&S - East	Mila	Glushin	(813) 628-9330	Other, None
1.03	Pedestrian Control Logistics	KHS&S - East	Ted	Malone	(813) 628-9330	Other, None
1.03	Pedestrian Control Logistics	KHS&S - East	Erik	Santiago	(813) 628-9330	Other, None
1.03	Pedestrian Control Logistics	KHS&S - East	Ted	Malone	(813) 628-9330	Other, None
1.04	Project Fencing	Smith Fence	Tommy	Smith	(727) 573-5440	Other
1.04	Project Fencing	Good Neighbor Fence Company	Paul	Shook	(813) 968-1921	Small Business Enterprise (SBE)
1.04	Project Fencing	Bravo Fence	Estimator	@ Bravo Fence	(813) 885-2777	Other
1.04	Project Fencing	KMG Fence, LLC	Joe	Freeman	(407) 654-7600 x6	Minority Business Enterprise (MBE), Women Business
1.04	Project Fencing	KMG Fence, LLC	Joseph	Grimsley	(407) 488-7262	Minority Business Enterprise (MBE), Women Business
1.04	Project Fencing	West Florida Fence	Matt	Hendrix	(813) 507-0640	Other
1.04	Project Fencing	Smith Fence	brandon	knight	(727) 647-1273	Other
1.04	Project Fencing	BroadFence	Junior	Deayton	(855) 993-0499	Small Business Enterprise (SBE)
1.05	Demolition	Pece of Mind Demolition	Steve	Pece	(407) 568-3456	None
1.05	Demolition	Pece of Mind Demolition	Jeniffer	Rivera-Castro	(407) 568-3456 x106	None
1.05	Demolition	Pece of Mind Demolition	Brandon	Shoaf	(407) 279-8975	None
1.05	Demolition	Northstar Demolition and Remediation, LP	John	Jenkins	(407) 855-2365	None, Other
1.05	Demolition	Northstar Demolition and Remediation, LP	Mary Jo	Pilkinton	(407) 855-2365	None, Other
1.05	Demolition	Northstar Demolition and Remediation, LP	John	Jenkins	(407) 855-2365	None, Other
1.05	Demolition	Northstar Demolition and Remediation, LP	Neal	Johnson	(407) 427-4650	None, Other
1.05	Demolition	PAW Materials Demolition	Leo	Caraballo	(727) 919-0058	Small Business Enterprise (SBE)
1.05	Demolition	EHG	Rick	Folan	(678) 394-5380	None
1.05	Demolition	EHG	Bob	Landrum	(813) 579-4300	None
1.05	Demolition	EHG	Phillip	Johns	(813) 579-4300	None
1.05	Demolition	Cross Environmental Services, Inc.	Eric	Morgan	(813) 714-0456	None
1.05	Demolition	Cross Environmental Services, Inc.	Molly	Burchette	(813) 244-0822	None
1.05	Demolition	Cross Environmental Services, Inc.	Cross	Environmental	(813) 783-1688	None
1.05	Demolition	H & H Environmental Services, Inc.	Thomas	Hall	(813) 252-6296	
1.05	Demolition	Interior Specialists, Inc. d/b/a ISI Demolition	Mike	Doherty	(443) 435-4773	None
1.05	Demolition	Interior Specialists, Inc. d/b/a ISI Demolition	Paul	Harkins	(410) 335-0381	None
1.05	Demolition	Kimmins Contracting Corp.	Chuck	Gray	(813) 805-8652	None
1.05	Demolition	Kimmins Contracting Corp.	Jeffery	Meigs	(813) 579-1097	None
1.05	Demolition	OHC Environmental Engineering Inc.	James	Rizk	(813) 626-8156	Disadvantaged Business Enterprise (DBE), Small Busine
1.05	Demolition	OHC Environmental Engineering Inc.	Michael	Huxel	(816) 679-5664	Disadvantaged Business Enterprise (DBE), Small Busine
1.05	Demolition	OHC Environmental Engineering Inc.	Patryk	Obiedzinski	(813) 875-4600	Disadvantaged Business Enterprise (DBE), Small Busine
1.05	Demolition	Signs of Tampa Bay, LLC	Rob	Gatian	(813) 994-0118 x408	Women Business Enterprise (WBE), Minority Business
1.05	Demolition	Spaulding Decon	Rebecca	Grissom	(813) 298-7122	Women Business Enterprise (WBE), Small Business Ent
1.05	Demolition	Cornerstone Barricades Inc	Seyi	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu

1.05	Demolition	Pece of Mind Demolition	Steve	Pece	(407) 568-3456	None
1.06	Precast	Ace Rebar & Construction	JAJA	WADE	(407) 704-7803	Minority Business Enterprise (MBE), Disadvantaged Bu
1.06	Precast	Denson Construction Inc.	Ralph F. ("Pete")	Denson, Jr.	(863) 709-1001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.06	Precast	Intrepid Precast Technologies LLC	Mark	Witt	(305) 900-8506	None
1.06	Precast	Intrepid Precast Technologies LLC	Mark	Witt		None
1.06	Precast	Stabil Concrete Products	Christopher	Tolliver	(727) 321-6000	Other
1.06	Precast	Metromont	Jamie	Grimmelsman	(614) 940-5452	Other
1.06	Precast	Denson Construction Inc.	Theresa	Denson	(863) 709-1001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.06	Precast	Leesburg Concrete Company, Inc.	George	Wilson	(352) 787-4177	None
1.06	Precast	Gate Precast Company	Jimmy	Hardin	(251) 575-2803	None
1.06	Precast	Gate Precast Company	Alvey	Carrillo		None
1.06	Precast	Gate Precast Company	Michael	Trosset	(254) 266-0526	None
1.06	Precast	Gate Precast Company	Brian	Griffis	(904) 813-6525	None
1.06	Precast	Black & Son Remodeling, LLC	Zaheer	Black	(407) 334-1873	Minority Business Enterprise (MBE), Women Business
1.06	Precast	Leesburg Concrete Company, Inc.	Victor	Vallejo	(352) 530-6866	None
1.07	Civil Development	Middlesex Corporation	Taylor	Cox	(407) 515-3594	None
1.07	Civil Development	Middlesex Corporation	Evelyn	Sergeant	(407) 515-3566	None
1.07	Civil Development	RWH Construction, Inc.	Russell	henderson	(352) 267-6224	Disadvantaged Business Enterprise (DBE)
1.07	Civil Development	SiteCrafters of Florida, Inc.	Sean	Howell	(813) 955-0117	None
1.07	Civil Development	Superior Construction	Ryan	Hamrick	(813) 781-1930	
1.07	Civil Development	Unisource Sign Connection	Gina	Hyon	(239) 288-6951	Minority Business Enterprise (MBE), Disadvantaged Bu
1.07	Civil Development	Hubbard Construction Company	Larry	Shotwell	(407) 623-3825	Other
1.07	Civil Development	Hubbard Construction Company	Wendy	Vickery	(407) 623-3845	Other
1.07	Civil Development	Ace Rebar & Construction	JAJA	WADE	(407) 704-7803	Minority Business Enterprise (MBE), Disadvantaged Bu
1.07	Civil Development	Alto Construction Company, Inc.	Jack	Miller	(813) 241-2586 x209	Other
1.07	Civil Development	Alto Construction Company, Inc.	Robert	King	(813) 241-2586	Other
1.07	Civil Development	Mc Kenzie Contracting LLC	Eric	Newman	(813) 454-4429	Disadvantaged Business Enterprise (DBE)
1.07	Civil Development	ASAP Installations	Kiam	Knowles	(813) 789-0977	Small Business Enterprise (SBE)
1.07	Civil Development	ASAP Installations	Jessica	Daza	(954) 613-4828	Small Business Enterprise (SBE)
1.07	Civil Development	Phillips & Jordan Inc.	Kayla	Soden	(813) 780-4333	None
1.07	Civil Development	Phillips & Jordan Inc.	Tina	Eddings	(813) 783-1132	None
1.07	Civil Development	Phillips & Jordan Inc.	Christie	Ford	(813) 780-4308	None
1.07	Civil Development	Phillips & Jordan Inc.	Jason	Spivey	(813) 780-4316	None
1.07	Civil Development	Blacktip	Gina	Spencer		Disadvantaged Business Enterprise (DBE)
1.07	Civil Development	Civil and Environmental Services Inc.	Jay	Chen	(813) 317-3888	Disadvantaged Business Enterprise (DBE)
1.07	Civil Development	Cornerstone Barricades Inc	Seyi	Falade	(352) 373-8001	Minority Business Enterprise (MBE), Disadvantaged Bu
1.07	Civil Development	Crisdel Group, Inc.	Berry	Wheeler	(813) 734-2272	None
1.07	Civil Development	Crisdel Group, Inc.	Dixie	Lamoureux	(813) 940-3434	None
1.07	Civil Development	Don Bell Signs, LLC	Izzie	Enwall	(386) 763-4744	None
1.07	Civil Development	Highway Safety Devices	Jim	Smith	(813) 759-1559	Other
1.07	Civil Development	Kiewit	Tom	Thorn	(512) 633-7948	None
1.07	Civil Development	Kiewit	Cody	Jensen	(407) 563-7524	None
1.07	Civil Development	Kimmins Contracting Corp.	John	Zemina	(813) 579-1097	None
1.07	Civil Development	Kimmins Contracting Corp.	Jeffery	Meigs	(813) 579-1097	None
1.07	Civil Development	Kimmins Contracting Corp.	Ryan	Moran	(813) 255-1511	None
1.07	Civil Development	Airport Contractors Services, LLC	George	Houghton	(407) 722-1735	Disadvantaged Business Enterprise (DBE)
1.07	Civil Development	Kimmins Contracting Corp.	John	Baron	(813) 579-1104	None
1.08	Mechanical	Blume Mechanical, LLC	Larry	Pritchett	(727) 330-9114	Other
1.08	Mechanical	ADE Systems, Inc.	Kristen	Berg	(813) 539-4376	Women Business Enterprise (WBE)
1.08	Mechanical	MIELKE Mechanical	Deirdre	Taylor	(813) 833-3687	None
1.08	Mechanical	Superior Mechanical Systems	Clint	Dulin	(727) 548-1711	Minority Business Enterprise (MBE)
1.08	Mechanical	Superior Mechanical Systems	Tom	Stone	(727) 548-1711 x209	Minority Business Enterprise (MBE)
1.08	Mechanical	Kirlin Group, LLC	Jim	Tozier	(813) 347-4556	Small Business Enterprise (SBE), Women Business Ente
1.08	Mechanical	Kirlin Group, LLC	Jim	Boordeau	(954) 739-8100	Small Business Enterprise (SBE), Women Business Ente
1.08	Mechanical	BCH Mechanical, Inc.	Tom	Johnson	(727) 639-2519	None
1.08	Mechanical	BCH Mechanical, Inc.	Chris	Johnson	(727) 546-3561	None
1.08	Mechanical	BCH Mechanical, Inc.	Julia	Klaiber	(727) 546-3561	None
1.08	Mechanical	Spectrum Mechanical	Steven	Schwesky	(727) 535-1202	

1.08	Mechanical	Coastal Mechanical Services, LLC	James	Dilley	(813) 856-7321	Other
1.08	Mechanical	Coastal Mechanical Services, LLC	Keith	Kunkel	(321) 725-3061 x1406	Other
1.08	Mechanical	Blume Mechanical, LLC	Chuck	Perry	(727) 544-5993	Other
1.09	Fire Protection	National Fire Protection LLC	Darryl	Jewell	(954) 739-8107	Other
1.09	Fire Protection	VSC Fire & Security	Randy	Conklin	(727) 456-5247	None, Other
1.09	Fire Protection	Fire & Life Safety America	Carrie	Nickell	(813) 513-9331	Women Business Enterprise (WBE), Minority Business
1.09	Fire Protection	Fire & Life Safety America	Rick	Johnson	(407) 709-5864	Women Business Enterprise (WBE), Minority Business
1.09	Fire Protection	Fire Safety, Inc.	Mina	Bayood	(727) 523-1843	Small Business Enterprise (SBE)
1.09	Fire Protection	Milton J. Wood	Matt	Jones	(863) 648-0775	None
1.09	Fire Protection	Milton J. Wood	Glenn	Painter	(863) 648-0775	None
1.09	Fire Protection	VSC Fire & Security	Randy	Conklin	(727) 456-5247	None, Other
1.09	Fire Protection	National Fire Protection LLC	Neal	Segal	(954) 739-8107	Other
1.09	Fire Protection	National Fire Protection LLC	Duane	Barry	(813) 401-3010	Other
1.09	Fire Protection	Proline Fire Protection, Inc.	William Marshall	Pitts	(954) 778-3700	Small Business Enterprise (SBE)
1.09	Fire Protection	St Petersburg Fire Protection, LLC	Geoff	Dyce	(727) 644-8872	
1.09	Fire Protection	Cox Fire Protection, Inc.	Nathan	Cress	(813) 980-3282	Women Business Enterprise (WBE), Minority Business
1.09	Fire Protection	Cox Fire Protection, Inc.	Mike	Zondlo	(813) 980-3282	Women Business Enterprise (WBE), Minority Business
1.10	Electrical	Pelican Electrical Group, Inc.	Chris	Merimee	(727) 456-4313	None
1.10	Electrical	APG Electric	John	La Fuze	(727) 530-0077	None
1.10	Electrical	Pelican Electrical Group, Inc.	David	Williams	(813) 855-0114	None
1.10	Electrical	Pelican Electrical Group, Inc.	Brittany	Williams	(813) 855-0114 x103	None
1.10	Electrical	Pelican Electrical Group, Inc.	Greg	Quintana	(813) 887-1178	None
1.10	Electrical	Pelican Electrical Group, Inc.	Arnie	Solomon	(813) 549-7768	None
1.10	Electrical	AFL Enterprise Services, Inc.	Lewis	Barkley	(443) 924-1352	None
1.10	Electrical	Pelican Electrical Group, Inc.	John	Clemons	(813) 978-0101	None
1.10	Electrical	Pelican Electrical Group, Inc.	Bruce	vitale	(813) 628-6100	None
1.10	Electrical	Pelican Electrical Group, Inc.	Jeremy	Thomas	(813) 884-7168	None
1.10	Electrical	Pelican Electrical Group, Inc.	Robert	Kelly	(813) 386-2943	None
1.10	Electrical	Pelican Electrical Group, Inc.	Olev	Isak	(727) 530-4521	None
1.10	Electrical	Pelican Electrical Group, Inc.	Jeff	Mortimer	(941) 358-3303	None
1.10	Electrical	AFL Enterprise Services, Inc.	Adam	Lane	(919) 795-8661	None
1.10	Electrical	Pelican Electrical Group, Inc.	Tampa	Quotes		None
1.10	Electrical	Pelican Electrical Group, Inc.	Brian	Bauer	(813) 774-7454	None
1.10	Electrical	Pelican Electrical Group, Inc.	Will	Nemetz		None
1.10	Electrical	Pelican Electrical Group, Inc.	Bob	Gaitens	(941) 350-2634	None
1.10	Electrical	Pelican Electrical Group, Inc.	Dan	Spada	(813) 390-7699	None
1.10	Electrical	Pelican Electrical Group, Inc.	Tony	Birnstihl	(407) 367-7895	None
1.10	Electrical	Pelican Electrical Group, Inc.	Laura	Woolington	(407) 857-0650	None
1.10	Electrical	Borrell Electric	Adrian	Keener	(727) 692-1841	Other
1.10	Electrical	Borrell Electric	Rob	Duncan	(813) 865-1065	Other
1.10	Electrical	Borrell Electric	Kyle	Young	(813) 210-1408	Other
1.10	Electrical	Borrell Electric	Mike	Pavlikovic	(813) 223-2727	Other
1.10	Electrical	Johnson Controls	David	Futral	(813) 626-5482	None, Other
1.10	Electrical	Johnson Controls	David	Futral	(813) 626-5482	None, Other
1.10	Electrical	Aireko Energy Solutions US, LLC	Brian	Morris		Minority Business Enterprise (MBE)
1.10	Electrical	Aireko Abroad LLC	Rodolfo	Puig	(407) 267-7730	Minority Business Enterprise (MBE)
1.10	Electrical	Electric Services, Inc.	Greg	Kirk	(352) 787-1322	None
1.10	Electrical	Erwin Electric, Inc.	Brian	Smith	(813) 855-0048 x227	Minority Business Enterprise (MBE), Women Business
1.10	Electrical	Erwin Electric, Inc.	Lloyd	Mitchell	(813) 855-0048	Minority Business Enterprise (MBE), Women Business
1.10	Electrical	Integrated Security Consultants	Kenneth	Stewart	(813) 817-7288	Minority Business Enterprise (MBE), Small Business En
1.10	Electrical	Integrated Security Consultants	Kevin	Cioffi	(646) 265-6093	Minority Business Enterprise (MBE), Small Business En
1.10	Electrical	MCS of Tampa	Vincent	Lendoiro	(813) 865-1079	Minority Business Enterprise (MBE)
1.10	Electrical	MCS of Tampa	Rob	Duncan	(813) 865-1065	Minority Business Enterprise (MBE)
1.10	Electrical	MJM Electric, Inc.	Scott	Barber	(813) 248-1711	None
1.10	Electrical	PowerLogics, Inc.	Jennifer	Aldrich	(813) 857-7321	Minority Business Enterprise (MBE), Disadvantaged Bu
1.10	Electrical	Prime Electrical Services	Jorge	Rivera		Disadvantaged Business Enterprise (DBE), Minority Bu.
1.10	Electrical	APG Electric	terry	ryan	(727) 530-0077	None
1.10	Electrical	Pelican Electrical Group, Inc.	David	Futral	(813) 626-5482	None

Activity ID	Activity Name	Original Duration	Start	Finish	2019																												2020			
					June				July				August				September				October				November				December				January		February	
					02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	01	08	15	22	29	05
PRE-CONSTRUCTION PHASE																																				
Pricing & Value Engineering																																				
Part 1 to Part 2 Transisiton / Key Interim Board / Authority Mile:																																				
Part 1 to Part 2 Agreement - Enabling Package																																				
No A5-LEVEL																																				
PRECON23	NTP Issued for Enabling Work	0	10-Jun-19*		◆ NTP Issued for Enabling Work																															
CONSTRUCTION PHASE																																				
Enabling Package																																				
Blue Side																																				
Blueside																																				
Blue Side																																				
B-ENABLE-1	Relocated IT room	20	10-Jun-19	08-Jul-19	Relocated IT room																															
B-ENABLE-2	Relocate Fans and Traffic Signage at Curbside	7	10-Jun-19	18-Jun-19	Relocate Fans and Traffic Signage at Curbside																															
B-ENABLE-3	Install Temporary Fence w/Screen Around Site work	5	10-Jun-19	14-Jun-19	Install Temporary Fence w/Screen Around Site work																															
B-ENABLE-4	Install Temporary Fence Inside LTPG-Level1-North Half	5	10-Jun-19	14-Jun-19	Install Temporary Fence Inside LTPG-Level1-North Half																															
B-ENABLE-5	Install Initial Erosion Control Measures for Blue Enabling	5	10-Jun-19	14-Jun-19	Install Initial Erosion Control Measures for Blue Enabling																															
B-ENABLE-6	Relocate All Electrical Required to Remain	10	17-Jun-19	28-Jun-19	Relocate All Electrical Required to Remain																															
B-ENABLE-7	Relocate All Plumbing Required to Remain	10	17-Jun-19	28-Jun-19	Relocate All Plumbing Required to Remain																															
B-ENABLE-8	Relocate All Fire Protection Required to Remain	10	17-Jun-19	28-Jun-19	Relocate All Fire Protection Required to Remain																															
B-ENABLE-9	Relocate All Storm/Sanitary Required to Remain	10	17-Jun-19	28-Jun-19	Relocate All Storm/Sanitary Required to Remain																															
B-ENABLE-13	Safe Off CH/HW Lines Feeding RAC Bldg/Pedestrian Bridges	10	17-Jun-19	28-Jun-19	Safe Off CH/HW Lines Feeding RAC Bldg/Pedestrian Bridges																															
B-ENABLE-15	Create the Construction Laydown Area Inside LTPG	1	17-Jun-19	17-Jun-19	Create the Construction Laydown Area Inside LTPG																															
B-ENABLE-16	Install Demising Walls at Arrival Level-Curbside	15	19-Jun-19	10-Jul-19	Install Demising Walls at Arrival Level-Curbside																															
B-ENABLE-17	Install Demising Walls at Departure Level-Curbside	15	19-Jun-19	10-Jul-19	Install Demising Walls at Departure Level-Curbside																															
B-ENABLE-18	Install Precast Panels at LTPG - West Pedestrian Bridge	5	01-Jul-19	08-Jul-19	Install Precast Panels at LTPG - West Pedestrian Bridge																															
B-ENABLE-10	Safe Off Electrical Feeding RAC Bldg/Pedestrian Bridges	5	01-Jul-19	08-Jul-19	Safe Off Electrical Feeding RAC Bldg/Pedestrian Bridges																															
B-ENABLE-11	Safe Off Plumbing Feeding RAC Bldg/Pedestrian Bridges	5	01-Jul-19	08-Jul-19	Safe Off Plumbing Feeding RAC Bldg/Pedestrian Bridges																															
B-ENABLE-12	Safe Off Fire Protection Feeding RAC Bldg/Pedestrian Bridges	5	01-Jul-19	08-Jul-19	Safe Off Fire Protection Feeding RAC Bldg/Pedestrian Bridges																															
B-ENABLE-14	Safe Off Storm/Sanitary Feeding RAC Bldg/Pedestrian Bridges	10	01-Jul-19	15-Jul-19	Safe Off Storm/Sanitary Feeding RAC Bldg/Pedestrian Bridges																															
B-ENABLE-19	Temporary Wind Screen At East Pedestrian Bridge	5	01-Jul-19	08-Jul-19	Temporary Wind Screen At East Pedestrian Bridge																															
B-ENABLE-21	Shutdown West Pedestrian Bridge	0		08-Jul-19	◆ Shutdown West Pedestrian Bridge																															
B-ENABLE-22	Wind Screen at North Face of Long Term Parking Garage	10	09-Jul-19	22-Jul-19	Wind Screen at North Face of Long Term Parking Garage																															
B-ENABLE-20	Install Wall and Access Door at Suite B Corridor-West	5	09-Jul-19	15-Jul-19	Install Wall and Access Door at Suite B Corridor-West																															
B-ENABLE-23	Install Vehicle Barricades at Departure Level	5	11-Jul-19	17-Jul-19	Install Vehicle Barricades at Departure Level																															
B-ENABLE-24	Demo Site Lighting Hardscape, Landscape and Fountains	15	16-Jul-19	05-Aug-19	Demo Site Lighting Hardscape, Landscape and Fountains																															
B-ENABLE-25	Perform Lead/Asbestos Abatement	15	16-Jul-19	05-Aug-19	Perform Lead/Asbestos Abatement																															
B-ENABLE-26	Demo Rental Car Customer Service Bldg	30	06-Aug-19	17-Sep-19	Demo Rental Car Customer Service Bldg																															
B-ENABLE-27	Demo Walk way Bridges (East Transfer Level Bridge to Remain)	30	11-Sep-19	22-Oct-19	Demo Walk way Bridges (East Transfer Level Bridge to Remain)																															
B-ENABLE-28	Demo Planter at Departure Level	10	18-Sep-19	01-Oct-19	Demo Planter at Departure Level																															
B-ENABLE-29	Install Sheet Piles at Existing Foundations	5	23-Oct-19	29-Oct-19	Install Sheet Piles at Existing Foundations																															
B-ENABLE-30	Demo Old Baggage Tunnel	5	30-Oct-19	05-Nov-19	Demo Old Baggage Tunnel																															
B-ENABLE-31	Install End Cap at Baggage Tunnel	5	06-Nov-19	12-Nov-19	Install End Cap at Baggage Tunnel																															
B-ENABLE-32	Fill and Compact Baggage Tunnel	5	13-Nov-19	19-Nov-19	Fill and Compact Baggage Tunnel																															
B-ENABLE-33	Final Debris Removal at New VCB Site	5	20-Nov-19	28-Nov-19	Final Debris Removal at New VCB Site																															
B-ENABLE-34	Rough Grade	5	29-Nov-19	05-Dec-19	Rough Grade																															

█ Remaining Level of Effort █ Remaini...
█ Actual Level of Effort █ Critical R...
█ Actual Work ◆ ◆ Milestone



Activity ID	Activity Name	Original Duration	Start	Finish	2019																								2020																																	
					June				July				August				September				October				November				December				January		February																											
					02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19	26	02	09																					
R-ENABLE-45	Install UG Fire Protection	20	15-Nov-19	16-Dec-19																																																										
R-ENABLE-46	Install UG Storm for ESB and Cup	20	15-Nov-19	16-Dec-19																																																										
R-ENABLE-47	Install UG Chilled/Hot Water	20	15-Nov-19	16-Dec-19																																																										
R-ENABLE-41	Clear Site for New ESB and CUP	5	26-Nov-19	02-Dec-19																																																										
R-ENABLE-42	Back Fill and Rough Grade Site After Demo	5	17-Dec-19	23-Dec-19																																																										
R-ENABLE-48	Complete Grading/Site Ready for ESB Pad	3	24-Dec-19	27-Dec-19																																																										
R-ENABLE-49	Complete/ Grading Site Ready for CUP Pad	5	30-Dec-19	06-Jan-20																																																										
R-ENABLE-50	Final Inspection	5	07-Jan-20	13-Jan-20																																																										
R-ENABLE-51	Close Enabling Permit Red Side	0		13-Jan-20																																																										
R-ENABLE-52	Close GMP	0		13-Jan-20																																																										
Roadway Work		99	06-Aug-19	26-Dec-19																																																										
Phase 1		74	06-Aug-19	18-Nov-19																																																										
R-ENABLE-PH1-1	Demo Trees and Landscaping	10	06-Aug-19	19-Aug-19																																																										
R-ENABLE-PH1-2	Install Sheet Pile Walls	15	20-Aug-19	10-Sep-19																																																										
R-ENABLE-PH1-3	Install UG Storm at New Road	20	29-Aug-19	26-Sep-19																																																										
R-ENABLE-PH1-4	Rough Grade/Install Sub-base	10	27-Sep-19	10-Oct-19																																																										
R-ENABLE-PH1-5	Install Road Base New Exit Lane-Arrival Level	5	11-Oct-19	17-Oct-19																																																										
R-ENABLE-PH1-6	Install Grade Separated Barrier	10	11-Oct-19	24-Oct-19																																																										
R-ENABLE-PH1-7	Install Curbs/Barrier Footings	10	25-Oct-19	07-Nov-19																																																										
R-ENABLE-PH1-8	Install Asphalt for New Exit Lane-Arrival Level	2	08-Nov-19	11-Nov-19																																																										
R-ENABLE-PH1-9	Install Signs and Stripe for New Exit Lane-Arrival Level	5	12-Nov-19	18-Nov-19																																																										
R-ENABLE-PH1-10	New Roadway Exit Arrival Lane Available for Traffic	0		18-Nov-19																																																										
Phase 2		25	19-Nov-19	26-Dec-19																																																										
R-ENABLE-PH2-1	Make Roadway Tie-in at New Arrival Departure Exit	10	19-Nov-19	04-Dec-19																																																										
R-ENABLE-PH2-2	Demo Old Arrival Exit Lane	15	05-Dec-19	26-Dec-19																																																										

	Remaining Level of Effort		Remaini...
	Actual Level of Effort		Critical R...
	Actual Work	◆	◆ Milestone



100% Enabling: Clarifications & Assumptions

1.0 General:

- a. The development of this GMP is based upon the 100% Enabling Drawings and Specifications for the Blue Side and the CUP/ESB, dated March 15, 2019. Slight modifications have been made to the depicted scope of work to improve constructability and will be detailed within this Clarification document.
- b. There is no cost included in this GMP for the relocation of personnel and resources from the existing Administration Building.
- c. All costs associated with Frontier Project 4161916 (\$26,283.88) are excluded from this GMP.
- d. A number of construction features will be installed during the Enabling phase of work that will need to be assigned to follow-on trades during the next phase of work. Such items include the temporary demising walls, k-barrier maintenance, storm water & SWPPP management items, etc. This estimate only includes costs to manage these items during the Enabling Phase, and the Bid Package for the next phase of work will include a Chain of Custody clause to allow their assignment to future trades for maintenance and removal.
- e. Regarding the use of Prolog Sky vs Prolog Converge, this GMP does not include the administrative costs to duplicate entries of RFI's, submittals, etc. HCAA agrees to produce reports requested by Hensel Phelps within Prolog Sky including all necessary information (or provide Hensel Phelps authority/accessibility within Prolog Sky to produce the same reports).
- f. This GMP includes silica monitoring only as required by OSHA Subpart R during all concrete dust generating activities.
- g. This GMP assumes that permanent building electrical power usage cost will be by Owner and is not included in this proposal.
- h. For all Allowance values, only the work associated with that specific Allowance will be billed against the defined values. Any unused Allowance budget will be returned to HCAA at the completion of the project, or as otherwise negotiated.
- i. This GMP includes an Allowance for the removal and replacement of Unsuitable and/or Contaminated Soils and Groundwater in the amount of \$125,000.
- j. This GMP includes an Allowance for the repair and remediation of the Office Trailer Complex at the completion of the project in the amount of \$250,000. Scope of work includes the removal of abandoned utilities, patch and repair or mill and overlay of the asphalt parking lot, and other such services as HCAA requires to restore site to pre-construction conditions.
- k. All work that will take place behind temporary partitions or fencing will be performed during normal business hours. Included within the GMP is a value to perform Blue Side demolition services after hours from 10 pm to 6 am should HCAA elect to move to night time operations. All haul off of demolition debris will occur during normal business hours for the landfill receiving such debris, regardless of when the debris was generated.
- l. This GMP does not include any costs associated with "Special Inspectors," including threshold inspection. These costs will be included in future GMP.
- m. This GMP has included for egress at the Long Term Parking Garage (LTPG) the usage of blockage devices at the 2nd floor therefore not allowing the general public to the 1st floor of the LTPG. Any additional measures for egress from the LTPG required by the City of Tampa or Authority Having Jurisdiction have not been included. This clarification is only applicable to the enabling scope of work. Additional verification and planning will be incorporated into the Blue Side GMP.

2.0 General Conditions:

- a. General Conditions include all costs associated with project supervision and supporting staff, and the facilities necessary to maintain and support that staff.
- b. Items labeled with a Unit of Measure as "LSUM" are for estimating purposes only and do not intend to describe contracting terms and conditions.
- c. All bid scope for enabling has been removed from General Conditions.
- d. These General Conditions include staff for the following scopes of work:
 - i. Enabling
 - ii. Blue Side Ceiling Replacement
 - iii. Loading Dock
 - iv. Blue Side VCB with Pedestrian Bridge Phasing
 - v. Blue Side Roadways, Walkway Renovations and Suite B Renovations
 - vi. CUP/ESB/FAA Lot
 - vii. This GMP does not include any general conditions associated with Red Side Ceiling Replacement, Admin Building Demolition, Red Side construction, or Maintenance/Police space within the Long Term Parking Garage.
- e. Regarding the General Superintendent, this individual will oversee multiple projects at Tampa Airport from the start of this project through June of 2020. The billing for this individual will be split according to their actual time. Starting in July 2020, this individual will be full time on this project, however, if other projects are also ongoing, the individual's time will be billed accordingly.
- f. The staffing plan currently shows a reduction in forces at the completion of Blue Side work. Depending on when Red Side work begins, there is no guarantee that Blue Side staff will be available at the start of Red Side work. The Staff Plan will be updated when more definitive information becomes available for the start of Red Side work.
- g. This GMP includes the cost to maintain the monthly rental fees for the Owner Trailer from June 2020 through June 2022 as well as cost to remove the 36'x60' Owner Trailers. This estimate also includes the office supplies (Paper, pens and pencils, ink and toner, folders and binding, coffee, and other consumables) for the Owner staff for the same time frame. This estimate does not include cost to maintain Owner trailer utilities or copier service.
- h. Regarding Office Trailer Furniture, it is understood that HCAA has furniture from previous projects available for use on this project. After review of the existing furniture, it is assumed that only 20% of the Office Trailer Furniture needs will be met with this existing inventory.
- i. The budget for Jobsite Technology and Software includes all licensing, maintenance, service, and administration fees for the project specific software, both local and cloud-based applications. Such software includes, but is not limited to, Microsoft Office 365, BIM 365, Autodesk Revit, Navisworks, BuildingConnected, Sage Timberline, OnScreen Takeoff, Microsoft Project, Primavera P6, BlueBeam Xtreme, SketchUp, etc.
- j. Per Hensel Phelps' personnel benefits package, a cell phone allowance will be given to each salaried employee in amount of \$82 per month.
- k. This GMP includes the following clarifications for the Trailer Complex (for Curbside project only):
 - i. Sanitary: Includes holding tanks and regular servicing and maintenance for the duration of the project.
 - ii. Water: Includes metered connection to existing water distribution system, and connections to each trailer. Also includes additional fire hydrants to service the Trailer Complex, as required by the Authority Having Jurisdiction.
 - iii. Electrical: Includes connection to each trailer bank from a local subpanel at each trailer bank. Main distribution panels, connection to primary power, and infrastructure to subpanels to be provided by Skycenter Atrium project.

1. As the Skycenter Atrium project will be mobilized prior to the start of this project, the costs for Water and Electrical infrastructure are being removed from this project and transferred to Skycenter Atrium for construction efficiency.
- iv. Communications: Interconnection of the office trailer complex via fiber optic cables for comm and data service is by HCAA, including termination of cables inside of trailers. The minimum service bandwidth for communications must be 250Mbps upload speed and 250Mbps download speed.
- v. This GMP includes restriping of the parking lot to accommodate the new traffic and parking plan, along with appropriate parking signs.
- vi. This GMP includes maintenance and patching of existing asphalt at the trailer complex and a 1.5" mill and overlay at the completion of work.
- l. In accordance with Part 1 and Hensel Phelps' personnel benefits package, the following individuals receive a Company Vehicle with associated gas and maintenance: Project Director, Project Manager, General Superintendent, Project Superintendent, Area Superintendent, Senior Estimator, VDC Manager, and Preconstruction Manager.
- m. In accordance with Part 1 and Hensel Phelps' personnel benefits package, the following individuals receive a monthly Vehicle Stipend: Project Engineer, Lead Estimator, Project Scheduler, and Change Order Manager.
- n. This GMP includes Sub Consultant fees for WMBE Support, QA/QC support and Supplemental staff required to manage the work.
- o. The fees associated with design CA services are only for this enabling portion of the work.

3.0 General Requirements:

- a. General Requirements are all costs associated with managing the project within the project perimeter, and are tied directly to supporting subcontractor and field operations.
- b. General Requirements costs will only cover the 8 month duration of the Enabling Work from June 2019 through January 2020. General Requirements for GMP 02 will be included with that GMP.
- c. Vibration Monitoring is included in this GMP specifically in relation to demolition of elevated structures and is not intended to be continuous monitoring for the duration of Enabling.

4.0 Blue Side Car Rental Demolition:

- a. The underground fuel system at Blue Side rental car facility is expected to be removed and abated by Others prior to the start of this work.
- b. This estimate assumes salvage and delivery of the art fountain located within the Blue Side hardscape to a location within Airport property. Any other items for salvage or retention by Owner is expected to be completed by Others prior to starting work.
- c. The demolition and back filling of the tunnel running underneath the Long Term Parking Garage and Rental Car facility to the limits shown in the contract documents has been included as part of this enabling phase. Any tunnel beyond those limits is understood to remain or be addressed by others.
- d. A portion of the cost associated with keeping one of the level 3 pedestrian bridges open during construction has been included in this enabling phase. The remainder of these costs will be fully recognized in the Blue Side.
- e. The 100% Enabling Drawings for the Blue Side depict the demolition and removal of chilled water lines within the overhead of the Arrivals Level existing Curbside Ceilings, as well as within the Main Terminal. For construction efficiency, this work has been deferred until the next phase of construction. The chilled water lines will be demolished from the Blue Side RAC to the existing Curbside Ceilings. The remaining demolition will occur when the existing ceilings are replaced.
- f. The 100% Enabling Drawings depict the demolition of exterior doors at the Main Terminal. For construction efficiency, these doors will remain and continue to act as the protected building envelope

against weather and moisture intrusion. These doors will be locked, and then barricaded from the inside to eliminate unauthorized access. Demolition will occur during a later phase of work.

5.0 FAA Parking Lot:

- a. The GMP includes a temporary guard shack and with a connection for power and data, immediately adjacent to the FAA Building. The existing guard shack will not be used in order to maintain continuity of service. This area will also receive new parking and crosswalk striping, a sidewalk with canopy, signage, demising partition, paint, and general cleaning to facilitate FAA parking and pedestrian travel from the Short Term Garage. At the 9th floor of the Short Term Parking Garage, barricades and signage are included for the relocated FAA vehicles. No striping, fencing, or access controls are included for this area.
- b. Per direction from HCAA, this GMP includes a value for Honeywell to remove and relocate all guard shack equipment from the existing guard shack to the new temporary guard shack.
- c. This estimate is based on the FAA Parking Lot and the Central Utility Plant being constructed “concurrently”, in that the existing FAA lot is demolished to allow for construction of the CUP, followed afterward by paving of the new lot. All FAA employees will need to be relocated to other spaces prior to the commencement of the CUP and FAA lot.
- d. This GMP includes provisions for temporary roadway lighting at Red Side Arrivals exit. Permanent roadway lighting is deferred until a later phase of work.
- e. The existing FAA Parking Lot lighting is owned and serviced by TECO. During this phase of work, these lights and associated circuiting will be removed by TECO and reinstalled by TECO at a later date.
- f. In coordination with TECO, the relocation of existing power lines or installation of new primary power lines will be by TECO, with the exceptions of backfill and compaction of relocated or new lines and the removal and/or replacement of unsuitable soils (see Allowance). This backfill and compaction is included in this GMP for scope within the boundary limits as shown in the contract documents, and assumes to use all soils excavated by TECO (no import) and that all soils are adjacent to trench. This proposal does not include any costs associated with dewatering efforts associated with the installation of the TECO scope.
- g. There is an existing Gas line near the FAA building to be relocated, which is currently owned by TECO People’s Gas. This GMP does not include cost to relocate the Gas line and is assumed to be performed in accordance with the project schedule by TECO People’s Gas.

6.0 Central Utility Plant (CUP) / Electric Service Building (ESB):

- a. The partial demolition of the Admin Building includes the salvage of Cooling Tower #4. Costs associated with the salvage and resale of usable equipment is included as an offsetting cost within the Demolition scope of work.
- b. The 100% Enabling Drawings depict the demolition of exterior doors at the Admin Building. For construction efficiency, these doors will remain and continue to act as the protected building envelope against weather and moisture intrusion. These doors will be locked, and then barricaded from the inside to eliminate unauthorized access. Demolition will occur during a later phase of work.
- c. The project will utilize the existing service road for access to the CUP & FAA building scope. Hensel Phelps will strive to keep open the existing service road at all times but it is understood that it may need to be closed intermittently for safe and proper access for installation of underground utilities. Any shutdowns of this road (only as necessary) will be coordinated fully with HCAA and in compliance with HCAA’s Service Interruption Requirements.
- d. This estimate includes code required commissioning of appropriate systems but does not include independent 3rd party commissioning for work performed during the Enabling GMP.
- e. The furnishing and installation of mechanical ductwork will be performed in accordance with industry standards for precleaning and protection. This estimate does not include duct cleaning of existing ducts at the completion of construction.

7.0 Red RAC Renovation

- a. The basis of this estimate is the 50% Pricing Documents as provided by Gresham Smith, dated 4/26/2019. Project specifications were referenced in the drawings, but not available at the time of pricing. Hensel Phelps reserves the right to update the estimate when the project specifications have been reviewed.
- b. With regards to notes 102 and 103 on sheet A101, Hensel Phelps has not reviewed the drawings as compared to actual conditions. Prior to the start of work, Hensel Phelps will investigate and notify Architect or Owner of any deviations in actual conditions.
- c. STC Ratings are shown in the typical details for the partition type, but do not clarify which walls get STC ratings. No walls are currently priced as having an STC rating.
- d. Anything not expressly included in the estimate or clarifications is excluded. All FF&E and Systems Furniture is excluded.
- e. This estimate does not include salvage of any existing fixtures or equipment. Any necessary salvage will be completed prior to the start of work, by Others.
- f. Estimate does not include any Design or Construction Administration fees.
- g. Estimate assumes that Owner will carry all Contingency and Escalation. No costs have been carried for these items.
- h. Estimate does not include any Hazardous Materials testing or remediation.
- i. Estimate does not include any new fire rated partitions. The estimate includes patching of the existing 1hr perimeter wall as it relates to demolition activities but does not include correction of existing conditions in violation of the partition rating.
- j. Estimate does not include any remediation for code compliance, with the sole exception of fire sprinklers and fire alarm within the limits of the renovation. This includes any existing damage to spray applied fireproofing.
- k. Regarding the Fire Sprinkler System, it is assumed the work solely consists of relocation existing sprinkler heads and possibly the addition of minimal new heads. Significant modifications of the fire sprinkler system and/or re-engineering is not included.
- l. Regarding Telecommunications, it is assumed that there is an IT Room adjacent to the renovation area. This estimate includes the installation of a new punch panel within an existing rack system, and the termination of horizontal cabling to the new punch panel. This estimate also includes sufficient patch cables to connect the contractor furnished punch panel to an Owner Furnished, Owner Installed network switch/router.

8.0 Owner Direct Purchase Program

- a. The Owner Direct Purchase Program will be administered per Attachment 7 and the attached ODP Exhibit, dated 4/3/2019.

To clarify the Owner Direct Purchase(ODP) program for the Curbside Expansion Project, the following items will apply.

- 1) The Design Builder shall provide the Owner a list of all materials, equipment, supplies and furnishings scopes, with budget values over \$100,000 required for the project. The Design-Builder will provide the proposed suppliers, vendors and materialmen for those materials, equipment, supplies and furnishings scopes as well as the date upon which those materials, equipment, supplies and furnishings are required to be delivered to the site, and a description of the materials, estimated quantities and prices. A preliminary list shall be submitted with the Part 2 Contract GMP and then finalized within 30 days of the completion of the purchasing of subcontractors and suppliers.
- 2) The Owner will provide the Design-Builder a copy of their standard PO terms and conditions so that it may be incorporated into all bid packages.
- 3) Before the implementation and execution of any Owner Direct Purchase Agreements, the Design Builder and the Owner will review any costs associated with the Agreements to understand if there are WMBE costs associated with the requisition. If it is determined that the Agreements had included WMBE costs, the percentage requirement for WMBE participation will be reduced (or increased) accordingly for the Design-Builder (including any sub-tier(s)) based on dollars. WMBE participation in the ODP program may impact the Design-Builder's contractual percentage commitment and may cause these percentage commitments to be reduced or increased accordingly. Design-Builder will use best efforts to maintain WMBE participation while maximizing ODP savings.
- 4) The Design-Builder will include the designated Subcontractors into the ODP process to ensure they are actively involved and can support the review of terms and conditions, invoicing, payment, scheduling, warranties, and guarantees. The Design Builder shall provide a final summary of the materials, equipment, supplies and furnishings purchased directly by the Owner and the sales tax savings recognized by the Owner at the completion of a phased component of a Part 2 Contract and/or the close out of each Project. The final summary will support reconciliation with the Owner's records to determine the final tax savings. Preliminary estimates will not be used to determine final tax savings. Only actual tax savings proceeds generated from the Owner Direct Purchase process will be accounted for. During the course of the project, a quarterly reconciliation will be provided to keep all parties informed.
- 5) Items noted for Bid Projects in the ODP program may not apply on the Design-Build Curbside project.
- 6) In the event of a conflict between this exhibit and the Part 2 Contract (including but not limited to Attachment 7), the Part 2 Contract (including but not limited to Attachment 7) will govern.

ATTACHMENT 2

To

Contract Between Owner and Design-Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

**COMMON LAW
PERFORMANCE BOND
AND
STATUTORY
PAYMENT BOND**



COMMON LAW PERFORMANCE BOND

BOND NO. _____

STATE OF _____

COUNTY OF _____

BY THIS BOND, Hensel Phelps Construction Co., whose principal address is 6557 Hazeltine National Dr., Suite One, Orlando, FL 32822, business phone number is (407) 856-2400 as Principal, hereinafter "Design-Builder", and _____, whose principal business address is _____,

business phone number is _____ as Surety, hereinafter "Surety", are held and firmly bound to the Hillsborough County Aviation Authority whose principal business address is P.O. Box 22287, Tampa, Florida 33622, business phone number is (813) 870-8700, as Obligee, hereinafter "Owner", in the amount of Thirty One Million Five Hundred Thirty Five Thousand Seven Hundred Twenty Three and No One Hundredth Dollars (U.S.) (\$31,535,723.00) for the payment of which Design-Builder and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, as provided herein.

WHEREAS, Design-Builder has by written Contract dated June 6, 2019 entered into a Contract with Owner for **AUTHORITY PROJECT NUMBERS 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19 MAIN TERMINAL CURBSIDE EXPANSION, NEW ENERGY PLANT AND RELATED WORK at TAMPA INTERNATIONAL AIRPORT** to perform in accordance with the Contract, and the Contract Documents incorporated by reference in the Contract or otherwise. The Contract is incorporated by reference into this Performance Bond, hereinafter "Bond".

It is the condition of this Bond that if the Design-Builder performs its Contract obligations (the "Work"), then the Surety's obligations under this Bond are null and void, otherwise the Surety's obligations will remain in full force and effect.

The Design-Builder will perform, carry out and abide by all the terms, conditions and provisions of the Contract and complete the Work in accordance with its terms. If the Design-Builder fails to perform its Contract obligations, it will be the duty of the Surety to promptly assume responsibility for performance of the Contract and completion of the Work. The Surety must and does hereby agree to indemnify the Owner and hold it harmless of, from and against any and all liability, loss, cost, damage, expense, attorney fees, including appellate proceedings, engineering and architectural fees or other professional services which the Owner may incur or which may accrue or be imposed upon the Owner by reason of any negligence, default, breach or misconduct on the part of the Design-Builder, Design-Builder's agents, servants, subcontractors or employees, in, about, or on account of the Work or performance of the Contract. Surety will be required to repay and reimburse the Owner, promptly upon demand, all sums of money including, but not limited to, attorney, architect, engineer and any other professional fees reasonably paid out or expended by the Owner on account of the failure or refusal of the Design-Builder to carry out, perform, or comply with any of the terms, conditions or provisions of the Contract including, but not limited to, the guarantee of the Work and materials furnished under the Contract for the time specified in the Contract.

Main Terminal Curbside Expansion, New Energy Plant and Related Work
Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

The Surety hereby stipulates and agrees that any modification, omission, or addition, in or to the terms of the Contract, including the Contract Documents, will not affect the obligation of the Surety under this Bond.

Signed and sealed this _____ day of _____, _____.

DESIGN-BUILDER MUST INDICATE WHETHER CORPORATION, PARTNERSHIP, COMPANY, (OR INDIVIDUAL). THE PERSON SIGNING FOR THE DESIGN-BUILDER WILL SIGN HIS/HER OWN NAME AND SIGN CORPORATE TITLE. WHEN THE PERSON SIGNING FOR A CORPORATION IS OTHER THAN THE PRESIDENT OR VICE PRESIDENT, HE/SHE MUST FURNISH A CORPORATE RESOLUTION SHOWING HIS/HER AUTHORITY TO BIND THE CORPORATION

(Affix Design-Builder's Corporate Seal)

_____	By: _____
Name of Design-Builder	(Signature)
Type Name and Title Below: _____	Address: _____
_____	_____
_____	_____
Telephone Number	Fax Number

(Affix Surety's Corporate Seal)

_____	_____
Name of Surety	
By: _____	By: _____
Attorney in Fact for Surety (Signature)	Florida Licensed Agent (Signature)
Type name of Attorney in Fact: _____	Type name of Fla. Licensed Agent: _____
Attorney in Fact Address: _____	License Number: _____
_____	Agent Address: _____
_____	_____
Telephone Number	Fax Number
_____	_____
Telephone Number	Fax Number

(ATTACH "SURETY'S BOND AFFIDAVIT" ON COPY OF FORM BOUND IN THESE SPECIFICATIONS).
(ATTACH "POWER OF ATTORNEY" FOR SURETY COMPANY REPRESENTATIVE).

Hillsborough County Aviation Authority	THE FOREGOING BOND IS HEREBY APPROVED	FOR
	LEGAL SUFFICIENCY:	
By: _____	By: _____	
	Michael Kamprath, Assistant General Counsel	

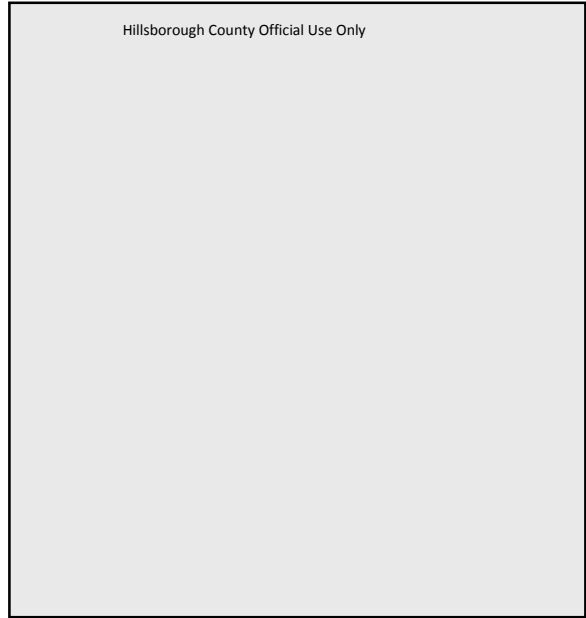
THIS BOND MUST BE RECORDED IN THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY FLORIDA PRIOR TO COMMENCING ANY WORK UNDER THE CONTRACT.

STATUTORY PAYMENT BOND

BOND NO. _____

STATE OF _____

COUNTY OF _____



BY THIS BOND, Hensel Phelps Construction Co., whose principal address is 6557 Hazeltine National Dr., Suite One, Orlando, FL 32822, business phone number is (407) 856-2400 as Principal, hereinafter "Design-Builder", and _____, whose principal address is _____, business phone number is _____

as Surety, hereinafter "Surety", are held and firmly bound to the Hillsborough County Aviation Authority whose principal business address is P.O. Box 22287, Tampa, Florida 33622, business phone number is (813) 870-8700, as Obligee, hereinafter "Owner", in the amount of Thirty One Million Five Hundred Thirty Five Thousand Seven Hundred Twenty Three and No One Hundredth Dollars (U.S.) (\$31,535,723.00) for the payment of which Design-Builder and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, as provided herein.

THE CONDITION OF THIS BOND is that if Design-Builder:

1. Performs the Contract dated June 6, 2019, between Design-Builder and Owner for design-build services of **AUTHORITY PROJECT NUMBERS 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19 FOR MAIN TERMINAL CURBSIDE EXPANSION, NEW ENERGY PLANT AND RELATED WORK at TAMPA INTERNATIONAL AIRPORT**, the Contract being made a part of this bond by reference, at the times and in the manner prescribed in the Contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Design-Builder with labor, materials, or supplies, used directly or indirectly by Design-Builder in the prosecution of the work provided for in the Contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Design-Builder under the Contract; and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract, then this bond is void; otherwise it remains in full force.

Any action instituted by claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), and (10), Florida Statutes.

Main Terminal Curbside Expansion, New Energy Plant and Related Work
Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Any changes in or under the Contract Documents and compliance or non-compliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this bond.

Signed and sealed this _____ day of _____, _____.

DESIGN-BUILDER MUST INDICATE WHETHER CORPORATION, PARTNERSHIP, COMPANY, (OR INDIVIDUAL). THE PERSON SIGNING FOR THE CONTRACTOR WILL SIGN HIS/HER OWN NAME AND SIGN CORPORATE TITLE. WHEN THE PERSON SIGNING FOR A CORPORATION IS OTHER THAN THE PRESIDENT OR VICE PRESIDENT, HE/SHE MUST FURNISH A CORPORATE RESOLUTION SHOWING HIS/HER AUTHORITY TO BIND THE CORPORATION

(Affix Design-Builder's Corporate Seal)

_____	By: _____
Name of Design-Builder	(Signature)
Type Name and Title Below:	Address: _____
_____	_____
_____	_____
Telephone Number	Fax Number

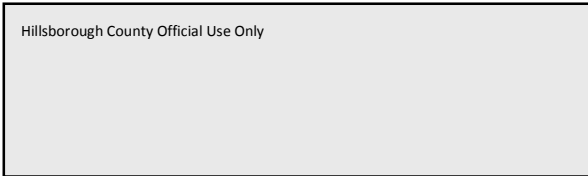
(Affix Surety's Corporate Seal)

_____	_____
Name of Surety	
By: _____	By: _____
Attorney in Fact for Surety (Signature)	Florida Licensed Agent (Signature)
Type name of Attorney in Fact: _____	Type name of Fla. Licensed Agent: _____
Attorney in Fact Address: _____	License Number: _____
_____	Agent Address: _____
_____	_____
Telephone Number	Fax Number
_____	_____
Telephone Number	Fax Number

(ATTACH "SURETY'S BOND AFFIDAVIT" ON COPY OF FORM BOUND IN THESE SPECIFICATIONS).
(ATTACH "POWER OF ATTORNEY" FOR SURETY COMPANY REPRESENTATIVE).

Hillsborough County Aviation Authority	THE FOREGOING BOND IS HEREBY	APPROVED FOR
	LEGAL SUFFICIENCY:	
By: _____	By: _____	
	Michael Kamprath, Assistant General Counsel	

THIS BOND MUST BE RECORDED IN THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY FLORIDA PRIOR TO COMMENCING ANY WORK UNDER THE CONTRACT.



SURETY PAYMENT & PERFORMANCE
BOND AFFIDAVIT

STATE OF _____

COUNTY OF _____

BEFORE ME, the undersigned authority, personally appeared _____,
who being duly sworn, deposes and says that they are a duly authorized Florida agent, properly licensed under the laws of
the State of Florida, to represent _____
a company authorized to make corporate surety bonds under the laws of the State of Florida (the "Surety").

Said _____ further certifies that as agent for the said Surety, they have
countersigned the attached bond as the Florida Licensed in the amount of Thirty One Million Five Hundred Thirty Five
Thousand Seven Hundred Twenty Three and No One Hundredth Dollars (U.S.) (\$31,535,723.00) on behalf of
to the HILLSBOROUGH COUNTY AVIATION AUTHORITY covering the **AUTHORITY PROJECT NUMBERS 8200 18, 8205 18,
8900 18, 8230 18 and 8310 19 FOR MAIN TERMINAL CURBSIDE EXPANSION, NEW ENERGY PLANT AND RELATED WORK
at TAMPA INTERNATIONAL AIRPORT**

Said _____ further certifies that the premium on the said bonds is
_____, which will be paid in full directly to them as agent
and included in their regular accounts to the said Surety, and that they will receive their regular commission as agent for
the execution of said bond and that their commission will not be divided with anyone except to
_____, who is a duly authorized insurance agent properly licensed under the laws of the State of
Florida.

SIGNED:

By: _____
Florida Licensed Agent (Signature)

Type Name or Agent Below:

Address of Agent: _____

Telephone Number: _____

FAX Number: _____

License Number: _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, _____, by
_____ who is personally known to me or who has produced the following identification
_____, and who did/did not take an oath.

Signature of Notary

END OF SURETY PAYMENT AND PERFORMANCE BOND

ATTACHMENT 3

To

Contract Between Owner and Design-Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

INSURANCE REQUIREMENTS

INSURANCE REQUIREMENTS

Design-Builder agrees to provide its full limits for every policy specified herein, without any special restriction or reduction, and shall require the same of all of its contractors, subcontractors, consultants, and subconsultants at each tier. To the extent that there is any exclusion, deficiency, reduction, or gap in a policy which results in non-conformance with these requirements, the Design-Builder agrees to remain responsible and obligated to make the Authority whole as if the Design-Builder and all of its contractors, subcontractors, consultants, and subconsultants at each tier fully met the insurance requirements of the contract. Every policy shall be maintained without interruption or amendment throughout the life of this Contract and for any period of extension described herein. In the event the Design-Builder becomes in default of any requirement the Owner reserves the right to take whatever actions deemed necessary to protect its interests. The Design-Builder shall require every policy, other than Workers' Compensation, Employer's Liability and Professional Liability, to be endorsed to include the Owner, members of the Owner's governing body, and the Owner's officers, agents, volunteers and its employees as well as the State of Florida, Department of Transportation, including the Department's officers and its employees as additional insureds. There shall be no language in any policy, endorsement, or exclusion that reduces or limits recovery to any amount less than the full policy limits. The Design-Builder will submit evidence that it and all subcontractors, consultants, and subconsultants at each tier has complied with this provision to the Owner before any work or service commences under this contract. Such evidence shall describe the full policy limits along with any deductible, retentions, attachment point, and any deviation from a fully insured program.

Workers' Compensation/Employer's Liability

The Design-Builder and its contractors, subcontractors, consultants, or subconsultants shall at each tier the following minimum limits of insurance:

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

It is the responsibility of the Design-Builder to ensure that all entities and person(s) working for or behalf of itself or any subcontractor, subconsultant, independent contractor, sole proprietorship, partner, "leased employee", person obtained through a professional employer organization ("PEO's"), operator, and any personnel obtained under an agreement, including equipment rental agreements have Workers' Compensation Insurance in accordance with Florida's Workers' Compensation law.

Commercial General Liability

The Design-Builder will maintain and ensure that all contractors, subcontractors, consultants, and subconsultants at each tier has Commercial General Liability (CGL) insurance providing continuous coverage for all liability resulting out of, or in connection with, any ongoing operations performed by, including the use or occupancy of Owner premises, or on behalf of the Design-Builder under this Contract. The CGL insurance required under this contract shall be the full policy limits without special reduction or limitation.

The general aggregate limits of coverage required shall apply fully to the work or operations performed under this Contract and may not be shared with or diminished by claims unrelated to this Contract. The

INSURANCE REQUIREMENTS

coverage cannot contain any deductible, retention or self-insurance in an amount greater than \$25,000 without prior approval of the Owner and must clearly identify any such deductible, retention or other than a fully insured plan. Any deductible, retention, or self-insurance will be the responsibility of and paid by the First Named Insured and not by the Owner.

Such coverage shall be primary as to any other available insurance and shall not be more restrictive than the coverage afforded to the Named Insured. It is to be written on an "occurrence" basis and shall include Products/Completed Operations coverage on a form no more restrictive than ISO Form CG 00 01 10 01. Additional insured coverage shall be provided on a form no more restrictive than ISO Form CG 20 10 10 01 and CG 20 37 10 01, provided, subcontractors may provide additional insured status on forms as broad as the most recent ISO CG 20 10 and 20 37 forms. The policy or policies shall not include a Contractual Liability Limitation (ISO CG 21 39), a Limitation of Coverage to Designated Premises or Project (CG 21 44), or any endorsement that similarity restricts or limits coverage to the Owner. The Design-Builder shall carry at least the following limits:

	<u>Contract Specific</u>
General Aggregate	\$25,000,000
Each Occurrence	\$25,000,000
Personal and Advertising Injury	\$25,000,000
Products and Completed Operations	\$25,000,000
XCU Risk – that is, coverage for explosion, collapse And underground liability	\$25,000,000
Asbestos abatement liability (if found)	\$25,000,000
Demolition Insurance	\$25,000,000

Products and Completed operations coverage will be maintained for a period of 10 year(s) from the date of termination of this Contract. With the exception of contractors, subcontractors, consultants and subconsultants for asbestos abatement operations or demolition operations, which are subject to the specific limits shown above, Design Builder shall require its contractors, subcontractors, consultants, and subconsultants at each tier performing work on the Project to provide general liability limits of not less than \$3 million each occurrence, \$3 million general aggregate, and \$3 million completed operations aggregate, except as approved by Owner.

Business Auto Liability

The Design-Builder agrees to provide its full policy limits for commercial auto coverage, without special restriction or reduction, on all owned, hired and non-owned vehicles and, except as approved by Owner, shall require the same of all contractors, subcontractors, consultants, and subconsultants at each tier performing work on the Project. Coverage shall be provided on a form no more restrictive than ISO Form CA 00 01. The Design-Builder and its contractors, subcontractors, consultants, or subconsultants at each tier operating vehicles at the project site shall carry at least the following minimum limits of insurance, except as approved by Owner:

Each Occurrence – Bodily Injury and Property Damage Combined	\$5,000,000
---	-------------

INSURANCE REQUIREMENTS

Builders Risk Coverage:

Builders Risk Coverage will be maintained by the Design-Builder and evidenced on the certificate during the life of the Project. The required limits for this coverage will be the Contract sum.

Limits of Coverage will be: \$(Contract sum)

Expediting/Extra Expense: \$3,000,000 / \$3,000,000

Professional Liability

The Design-Builder agrees to provide its full policy limits for its professional liability exposures, without special restriction or reduction, and shall require the same of all contractors, subcontractors, consultants, and subconsultants at each tier that provide professional services, work, or advice as it relates to this agreement. Such insurance will be maintained by the Design-Builder and by all other required contractors, subcontractors, consultants, and subconsultants at each tier without interruption or amendment throughout the life of this Contract and for a period of 10 year(s) following termination of the Contract. Any deductible, retention or self-insured amount greater than \$25,000 must be approved in writing by the Owner. All policies shall be endorsed to include contractual liability. Coverage will include all work of the Design-Builder, and all contractors, subcontractors, consultants, and subconsultants at each tier that provide professional services, work, or advice as it relates to this agreement, including but not limited to areas with possible environmental impact, without any exclusions unless approved in writing by the Owner. The Design-Builder and HNTB Corporation each shall maintain the following minimum limits of insurance:

Each Occurrence	\$10,000,000
Annual Aggregate	\$10,000,000

Design Builder shall ensure all other contractors, subcontractors, consultants, or subconsultants at each tier that provide professional services, work, or advice as it relates to this agreement maintain such a policy with limits as are customary for their scope of work, in the experience of Design Builder, but in no case less than \$1,000,000.

Design Builder and all other contractors, subcontractors, consultants, or subconsultants at each tier shall take steps necessary to reinstate such limits if they drop below or become encumbered because of claims unrelated to the Project.

Environmental Impairment (Pollution) Liability

The Design-Builder agrees to provide and maintain its full policy limits for all liability resulting from pollution or other environmental impairment, without any asbestos abatement, silica, lead, exterior insulation and finish systems (EIFS), permitted work, law, code or ordinance exclusion. The Design-Builder shall further require the same coverage, without limitation, reduction, or exclusion of all contractors, subcontractors, consultants, and subconsultants at each tier that exposes the Owner to these or related losses from services or work arising out of, or in connection with, the premises or occupancy of Owner property in the performance of this Contract.

The coverage required herein will begin at the prior to the contract's inception and work commencing, continue and respond to any claims within 10 year(s) after termination of this Contract. The Design-

INSURANCE REQUIREMENTS

Builder shall maintain at least the following minimum limits and shall take steps necessary to reinstate such limits if they drop below or become encumbered because of claims unrelated to the Project:

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

Design Builder shall ensure all other contractors, subcontractors, consultants, or subconsultants at each tier maintain such a policy with limits as are customary for their scope of work, in the experience of Design Builder, but in no case less than \$1,000,000.

Design Builder and all other contractors, subcontractors, consultants, or subconsultants at each tier shall take steps necessary to reinstate such limits if they drop below or become encumbered because of claims unrelated to the Project

Utility and Railroad Protective Liability

When work performed under this Contract is on or in the vicinity of utility-owned property or facilities the utility shall also be listed as an additional insured along with the Owner and State of Florida, Department of Transportation in the manner as described herein.

If the work performed is on or in the vicinity of a railroad right-of-way, including any encroachments thereon from such work or operations, the entities and persons involved shall require, procure, and maintain Railroad Protective Liability Coverage. Such coverage shall be no more restrictive than that provided by the latest occurrence form edition of the Railroad Protective Liability Coverage (ISO Form CG 00 35) as filed for use in the State of Florida.

Design-Builder agrees to provide its full policy limits for any Utility or Railroad, without special restriction or reduction, and shall require the same of all of its contractors, subcontractors, consultants, and subconsultants at each tier. The Design-Builder shall not allow its coverage or that of any of its contractors, subcontractors, consultants, or subconsultants at each tier required to have this coverage to drop below or become encumbered by claims unrelated to this Project below \$2,000,000 combined single limit for bodily injury and/or property damage for each occurrence or have an annual aggregate of less than a \$6,000,000, inclusive of amounts provided by an umbrella or excess policy.

The coverage shall include the railroad and utility along with the Owner and State of Florida, Department of Transportation as additional insureds in the manner as described herein.

CONTRACTUAL INSURANCE TERMS AND CONDITIONS

This Section incorporates the Owner's Standard Procedure S250.66 and establishes the insurance terms and conditions associated with contractual insurance requirements. This Section is applicable to all Design-Builders with Authority contracts including every contractor, subcontractor, consultant, and subconsultant at each tier. Unless otherwise provided herein, any exceptions to the following conditions or changes to required coverages or coverage limits must have prior written approval from the Owner.

INSURANCE REQUIREMENTS

INSURANCE COVERAGE:

A. Procurement of Coverage:

With respect to each of the required coverages, the Design-Builder will, at the Design-Builder's expense, procure, maintain and keep in force in no lesser amount and type of insurance conforming to the minimum requirements set forth in the Contract. The Design-Builder shall further require that all contractors, subcontractors, consultants, and subcontractors at each tier satisfy and meet the all requirements of this Contract and Owner's Standard Procedure S250.66. All 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, companies with AM Best ratings lower than A- or a financial size category lower than VII must be submitted for approval prior to use. Such insurance will be no more restrictive than is required by this Contract. The Owner retains the right to approve or disapprove the use of the any insurer, policy, risk-transfer or assumption program but in all cases the coverage, policy, or program should not be more restrictive than the latest edition of the Form filed for use in the State of Florida by the Insurance Services Office (ISO), without restrictive endorsements.

B. Term of Coverage:

Except as otherwise specified in the contract, the insurance will commence on or prior to the effective date of the Contract and will be maintained in force throughout the duration of the Contract and for any period of extension described herein. If a policy is written on a claims-made form, the retroactive date must be shown and this date must be before the earlier of the date of the execution of the Contract or the beginning of contract work, and the coverage must respond to all claims reported within three years following the period for which coverage is required unless a longer period of time is otherwise stated in the Contract.

C. Reduction of Aggregate Limits:

If the general or aggregate limit for any policy is exhausted, the Design-Builder and all of its contractors, subcontractors, consultants, and subconsultants at each tier will immediately take all possible steps to have it fully reinstated. The Commercial General Liability policies and any other policy that can be so endorsed shall include a per project endorsement providing that the limits of such insurance specified in the Contract shall apply solely to the work under the Contract without erosion of such limits by other claims or occurrences.

1. Cancellation Notice

Each insurance policy will be specifically endorsed to require the insurer to provide the Owner written notice within ten days of any cancellation, notice of cancellation, lapse, renewal, or proposed change to any policy or coverage described herein. The endorsement will specify that such notice will be sent to:

Hillsborough County Aviation Authority
Attn.: Chief Executive Officer
Tampa International Airport

INSURANCE REQUIREMENTS

Post Office Box 22287
Tampa, Florida 33622

D. No waiver by approval/disapproval:

The Owner accepts no responsibility for determining whether the Design-Builder or any contractor, subcontractor, consultant, or subconsultant at each tier is in full compliance with the insurance and coverage required by this Contract. The Owner's or State of Florida, Department of Transportation's approval or failure to disapprove any policy, coverage, or ACORD Certificate does not relieve or excuse any obligation to procure and maintain the insurance required herein, nor does it serve as a waiver of any rights or defenses the Owner or Department may have. To the extent that there is any exclusion, deficiency, reduction, or gap in a policy, the Design-Builder agrees to remain responsible and obligated to make the Authority whole as if the Design-Builder and all of its contractors, subcontractors, consultants, and subconsultants at each tier fully met the insurance requirements of the contract.

E. Future Modifications – Changes in Circumstances:

1. Changes in Coverage and Required Limits of Insurance

The coverage and minimum limits of insurance required by the Contract are based on circumstances in effect at the inception of the Contract. If in the opinion of the Owner, circumstances merit a change in such coverage or minimum limits of insurance required by the Contract, the Owner may change the coverage and the minimum limits of insurance required, and the Design-Builder will, within 60 days of receipt of written notice of a change in the coverage and the minimum limits required, comply with such change and provide evidence of such compliance in the manner required by the 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. Any such change or modification in coverage or limits shall also apply to the contractors, subcontractors, consultants, and subconsultants at each tier of the Design-Builder.

If in the opinion of the Owner compliance with the insurance requirements is not commercially practicable for the Design-Builder, at the written request of the Design-Builder, 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-Builder. Any such modification will be subject to the prior written approval of the Owner, and subject to the conditions of such approval.

The Design-Builder is responsible for verifying and monitoring the insurance coverage and policies of all contractors, subcontractors, consultants, and subconsultants at each tier to ensure compliance during the entire Contract and for any period of coverage extension described herein. Any circumstances that merit a change in such coverage or the minimum limits of insurance required or the requirements become commercially practicable for any contractor, subcontractor, consultant, or

INSURANCE REQUIREMENTS

subconsultant at each tier then the Design-Builder will address those in the same manner as described above.

F. Proof of Insurance – Insurance Certificate:

1. Prior to Work, Use or Occupancy of Owner’s Premises

The Design-Builder, its contractors, subcontractors, consultants, and subconsultants at each tier will not use or occupy Owner’s premises in connection with the 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-Builder to commence work or use or occupy the premises in connection with the Contract. The Design-Builder will certify that it is in compliance to Owner and will verify that all contractors, subcontractors, consultants, and subconsultants at each tier are and remain in compliance.

2. Proof of Insurance Coverage

As preliminary evidence of compliance with the insurance required by the Contract, the Design-Builder will furnish the Owner with an ACORD Certificate of Liability Insurance reflecting the required coverage described herein and it shall be provided prior to the execution of the Contract, and prior to all renewal periods which occur before final acceptance of the work. Written notice must be provided to the Owner, State of Florida, Department of Transportation, and all other additional Insureds required by this Contract within ten days of any cancellation, notice of cancellation, lapse, renewal, or proposed change to any policy or coverage described herein.

The ACORD Certificate of Liability Insurance must:

- a. Be signed by an authorized representative of the insurer. Design-Builder 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 the coverage on its behalf. If requested by the Owner, the Design-Builder 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-Builder may redact those portions of the insurance policies that are not relevant to the coverage required by the Contract. The Design-Builder will provide the Owner with renewal or replacement evidence of insurance, acceptable to the Owner, prior to expiration or termination of such insurance.
- b. State that: “Hillsborough County Aviation Authority, members of the Authority’s governing body and the Authority’s officers, volunteers, and its employees, as well as the State of Florida, Department of Transportation, including the Department’s officers and its employees are additional insureds for the coverages required by all policies as described above other than workers compensation and professional liability.”

INSURANCE REQUIREMENTS

- c. the insurers for all policies have waived their subrogation rights against the Owner, the State of Florida, Department of Transportation, and name any railroads and utilities as described in the Contract;
- b. Indicate that the certificate has been issued in connection with the Contract;
- c. Indicate the amount of any deductible or self-insured retention applicable to all coverages;
- d. Identify the name and address of the additional insured as:

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

- e. 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.

The Owner's or State of Florida, Department of Transportation's approval or failure to disapprove any policy, coverage, form, or ACORD Certificate does not relieve or excuse any obligation to procure and maintain the insurance required herein, nor does it serve as a waiver of any rights or defenses the Owner or Department may have. This provision shall apply to the Design-Builder and to every contractor, subcontractor, consultant, and subconsultant at each tier.

If requested by the Owner, the Design-Builder will, within 15 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-Builder may redact those portions of the insurance policies that are not relevant to the coverage required by the Contract. The Design-Builder will provide the Owner with renewal or replacement evidence of insurance, acceptable to the Owner, prior to expiration or termination of such insurance.

G. Deductibles, Self-Insurance, Alternative Risk or Insurance Programs:

- 1. All deductibles, as well as all self-insured retentions or any scheme, to include the use of a captive, trust, pooled program, parametric, investment-linked insurance, or any other than a fully insured program must be approved by the Owner. The Owner approves the following deductibles applicable to Design-Builder's insurance program: CGL \$1,000,000; Auto liability \$1,000,000, and works compensation/employer's liability \$1,000,000. The Owner approves the following self-insured retentions applicable to Design-Builder's insurance program: Professional \$500,000; Pollution \$500,000. The Design-Builder agrees to provide all documentation necessary for the Owner to review the deductible, self-insurance, or alternative program.

INSURANCE REQUIREMENTS

2. The Design-Builder will pay on behalf of the Owner, its members, officers, agents, employees and volunteers, or any officer or employee of the Owner, any deductible, self-insured retention (SIR), or difference from a fully insured program which, with respect to the required insurance, is applicable to any claim by or against the Owner, any member of the Owner's governing body, or any officer or employee of the Owner.
3. The agreement by the Owner to allow the use of a deductible, self-insurance program, or alternative program will be subject to periodic review by Owner. If, at any time, the Owner deems that the continued use of a deductible, self-insurance, or alternative program by the Design-Builder should not be permitted, the Owner may, upon 60 days written notice to the Design-Builder, require the Design-Builder to replace or modify the deductible, self-insurance, or alternative program in a manner satisfactory to the Owner.
4. Any deductible amount, self-insurance, or alternative program's retention 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.

H. Design-Builder's Insurance Primary:

The insurance required by this Contract will apply on a primary and noncontributory basis. The Design-Builder will ensure that it and all contractors, subcontractors, consultants, and subconsultants at each tier are and remain in compliance with this provision. Any insurance maintained by the Owner will be excess and will not contribute to the insurance provided by or on behalf of the Design-Builder.

I. Applicable Law:

With respect to any contract entered into by the Owner with a value exceeding \$10,000,000, if any required policy or program is: (i) issued to a policyholder outside of Florida or (ii) contains a "choice of law" or similar provision stating that the law of any state other than Florida shall govern disputes concerning the policy, then such policy or program must be endorsed so that Florida law (including but not limited to Part II of Chapter 627 of the Florida Statutes) will govern any and all disputes concerning the policy or program in connection with claims arising out of work performed pursuant to the Contract. The Design-Builder will ensure that all contractors, subcontractors, consultants, and subconsultants at each tier are contractually bound and remain in compliance with this provision.

J. Waiver of Subrogation:

The Design-Builder, for itself and on behalf of its insurers, to the fullest extent permitted by law without voiding the insurance required by the Contract, waives all rights against the Owner, members of the Owner's governing body and the Owner's officers, volunteers and its employees, as well as the State of Florida, Department of Transportation, including the Department's officers and its employees for damages or loss to the extent covered and paid for by any insurance maintained by the Design-Builder. The Design-Builder shall further require that all contractors, subcontractors, consultants, and subconsultants at each tier include the following in every contract and on each policy the following:

"Hillsborough County Aviation Authority, members of the Authority's governing body and the Authority's officers, volunteers, and its employees, as well as the State of Florida, Department of

INSURANCE REQUIREMENTS

Transportation, including the Department's officers and its employees are additional insureds for the coverages required by all policies as described above other than workers compensation and professional liability."

K. Design-Builder's Failure to Comply with Insurance Requirements:

1. Owner's Right to Procure Replacement Insurance

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

2. Replacement Coverage at Sole Expense of Design-Builder

The entire cost of any insurance procured by the Owner pursuant to this section will be paid by the Design-Builder. At the option of the Owner, the Design-Builder will either directly pay the entire cost of the insurance or immediately reimburse the Owner for any costs incurred by the Owner, including all premiums, fees, taxes, and 15% for the cost of administration.

a. Design-Builder to Remain Fully Liable

The Design-Builder agrees to remain fully liable for full compliance with the insurance requirements in the Contract and shall require the same of all of its contractors, subcontractors, consultants, and subconsultants at each tier. To the extent that there is any exclusion, deficiency, reduction, or gap in a policy, the Design-Builder agrees to remain responsible and obligated to make the Authority whole as if the Design-Builder and all of its contractors, subcontractors, consultants, and subconsultants at each tier fully met the insurance requirements of the contract.

b. 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-Builder or by any of its contractors, subcontractors, consultants, or subconsultants at each tier. Owner is not obligated to procure any insurance pursuant to these requirements and retains the right, at its sole discretion, to terminate or modify any such insurance which might be procured by the Owner pursuant to this section.

ATTACHMENT 4

To

Contract Between Owner and Design-Builder, Part 2 Contract as modified

For

Main Terminal Curbside Expansion, New Energy Plant and Related Work

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

DIVISION 01

GENERAL REQUIREMENTS

TABLE OF CONTENTS

SECTION NUMBER	TITLE	PAGES
01010	SUMMARY OF WORK	1 - 5
01020	OWNER'S ALLOWANCE	1 - 3
01025	FIELD OFFICES	1 - 3
01040	PROJECT COORDINATION	1 - 5
01045	CUTTING AND PATCHING	1 - 5
01050	FIELD ENGINEERING	1 - 3
01095	DEFINITIONS AND STANDARDS	1 - 13
01110	AIRPORT PROJECT PROCEDURES	1 - 12
01150	MEASUREMENT AND PAYMENT	1 - 4
01315	SCHEDULES, PHASING	1 - 15
01330	DESIGN SUBMITTALS	1 - 4
01340	SHOP DRAWINGS, PRODUCT DATA AND SAMPLES	1 - 13
01350	BUILDING INFORMATION MODELING REQUIREMENTS	1 - 8
01370	SCHEDULE OF VALUES	1 - 3
01380	PRE-CONSTRUCTION VIDEO	1
01390	CONTROL OF WORK	1 - 5
01400	QUALITY CONTROL SERVICES	1 - 19
01405	METHOD OF ESTIMATING PERCENTAGE OF MATERIAL WITHIN SPECIFICATION LIMITS (PWL)	1 - 8
01410	TESTING LABORATORY SERVICES	1 - 24
01505	TEMPORARY FACILITIES	1 - 25
01520	TEMPORARY SIGNAGE	1 - 7
01540	CONSTRUCTION SAFETY AND SECURITY REQUIREMENTS	1 - 13
01545	UTILITIES	1 - 5
01560	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	1 - 3
01561	CONSTRUCTION CLEANING	1 - 3
01600	MATERIALS AND EQUIPMENT	1 - 4
01605	PRODUCTS AND SUBSTITUTIONS	1 - 10

01640	PRODUCT HANDLING	1 - 3
01650	CONSTRUCTION SALVAGE AND WASTE MANAGEMENT	1 - 6
01700	PROJECT CLOSEOUT	1 - 13
01740	WARRANTIES	1 - 4

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. Project/Work Identification:

1. The general overall description of the Work of the Contract for the:
**Main Terminal Curbside Expansion, New Energy Plant and Related Work
Tampa International Airport, Tampa, Florida**

can be summarized for purposes of administration and payment in the manner of project segments as follows:

Authority Project Number(s): Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

FAA AIP Project Number: N/A

FDOT FM Project Number: N/A

Description:

This Project will consist of the following early work elements:

1. Demolition of Blue side rental car building, pedestrian bridges and fountains
2. Utility relocations and installation
3. Roadway modifications
4. Site development
5. Set up of the Hensel Phelps Construction Co. trailer complex

B. Contract Documents:

Requirements of the Work are contained in the Contract Documents. Cross-references in the Contract Documents to published information are not necessarily bound with the Contract Documents.

C. Intent:

The intent of the Contract is to provide for construction and completion in full compliance with the Contract requirements with all Work performed and completed in a first class workmanlike manner in every detail. It is further intended that the Design-Builder will furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the Work in a good workmanlike manner in accordance with the Contract Documents.

1.02 [RESERVED]

1.03 ARCHAEOLOGICAL AND HISTORICAL FINDINGS.

A. Unless otherwise specified in this subsection, the Design-Builder is advised that the

site of the Work is not within any property, district, or site, and does not contain any building, structure, or object, listed in the current National Register of Historic Places published by the United States Department of Interior.

- B. Should the Design-Builder encounter, during its operations, any building, part of a building, structure, or object that is incongruous with its surroundings, it will immediately cease operations in that location and notify the Owner. The Owner will investigate the Design-Builder's finding and the Owner will direct the Design-Builder to either resume its operations or to suspend operations.
- C. Should the Owner order suspension of the Design-Builder's operations in order to protect an archaeological or historical finding, or order the Design-Builder to perform extra work, such will be covered by an appropriate Contract modification (change order or supplemental contract). If appropriate, the Contract modification will include an extension of Contract Time.

1.04 REMOVAL OF EXISTING STRUCTURES

- A. All existing structures encountered within the established lines, grades, or grading sections will be removed by the Design-Builder, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the Work or to remain in place. The cost of removing such existing structures will not be measured or paid for directly, but will be included in the GMP Contract Sum.
- B. Wherever existing structures interfere with Design-Builder's Work, Design-Builder shall be responsible for all modifications, including removal if appropriate, to fit Design-Builder's Work.
- C. Should the Design-Builder encounter an existing structure that interferes with Design-Builder's Work, the Owner will be notified prior to disturbing such structure. The disposition of existing structures so encountered will be determined by the Owner in accordance with the provisions of the Contract.
- D. Where existing structures are determined to be removed, Design-Builder shall remove and dispose of the material. Where such structures are determined to remain and are integrated into Design-Builder's Work, such materials and structures will remain the property of the Owner when so utilized in the Work.

1.05 RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK

- A. Should the Design-Builder encounter any material such as, but not restricted to, sand, stone, gravel, slag, or concrete slabs, within the established lines, grades, or grading sections, the use of which is intended by the terms of the Contract to be either embankment or waste, Design-Builder may at its option either:
 - 1. Use such material in another Contract item, providing such use is approved by the Owner and is in conformance with the Contract Specifications applicable to such use; or

2. Remove such material from the Project site, upon written approval of the Owner;
or
 3. Use such material for Design-Builder's own temporary construction on the Project site; or
 4. Use such material as intended by the terms of the Contract.
- B. Should the Design-Builder wish to exercise option 1., 2., or 3., Design-Builder will request the Owner's approval in advance of such use.
- C. Should the Owner approve the Design-Builder's request to exercise option 1., 2., or 3., the Design-Builder will be paid for the excavation or removal of such material at an agreed upon unit price. The Design-Builder will replace, at Design-Builder's own expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the Work. The Design-Builder will not be charged for Design-Builder's use of such material so used in the Work or removed from the Project site.
- D. It is understood and agreed that the Design-Builder will make no claim for delays by reason of Design-Builder's exercise of option 1., 2., or 3.
- E. The Design-Builder will not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the Work, except where such excavation or removal is provided for in the Contract Documents.

1.06 SCHEDULING

- A. Refer to Section 01315.

1.07 LIST OF RELATED WORK

- A. During performance of the Work under this Contract, the following other contracts will be under construction:

Authority No. 5991 14, Checked Baggage System Upgrades and Optimization

Authority No.8830 17, Demolition of Red Side Rental Car Garage and Airside D Shuttle Guideway

Project No. 6475 19, Main Terminal Ticket Level Interior Refurbishment

Project Nos. 8235 18 & 6535 19, Widen and Rehabilitate the George J. Bean Parkway and New Economy Parking Road Exit

Project No. 6545 19, Airside F Roof Replacement

Authority Project No. 5450 18, Airsides Restroom Refurbishment

Authority Nos. 8805 17, 6495 17 & 8320 19, Airport Security Systems Replacement
Project No. 8240 19, Air Cargo Expansion

Authority No. 8225 17, SkyCenter Site Development, Atrium and Pedestrian Bridge

1.08 COOPERATION BETWEEN DESIGN-BUILDERS

- A. When separate contracts are awarded for different portions of the Project, the Design-Builder in each case will be the person other than the Owner who signs each separate contract.
- B. The Owner reserves the right to contract for and perform other or additional construction on or near the Work covered by this Contract.
- C. When separate contracts are let within or near the limits of this Project, the Design-Builder will conduct its Work so as not to interfere with or hinder the progress of completion of the construction performed by other contractors. Contractors working near each other will cooperate with each other as directed by the Owner.
- D. The Design-Builder will assume all liability, financial or otherwise, in connection with Design-Builder's Work.
- E. The Design-Builder will arrange the Work and will place and dispose of the materials as not to interfere with the operations of the other contractors within or near the limits of this Project. The Design-Builder will join the Work with that of the others in an acceptable manner and will perform it in proper sequence to that of the others.
- F. The terms of this Section may not be waived by the Owner unless such waiver is in writing and makes specific reference to this Section.

1.09 [Reserved]

1.10 COORDINATION WITH CONTRACTS

- A. The Design-Builder will be responsible for directly coordinating and reviewing all schedule dates with the contracts listed above in Item 1.07 LIST OF RELATED WORK, Paragraph A., and shall plan its Work accordingly to not cause any delays or hinder the progress of its Work or that of the Related Work.
- B. It is the sole and full responsibility of the Design-Builder to coordinate the whole Work directly with the contracts listed above in Item 1.07 LIST OF RELATED WORK, Paragraph A.
- C. The listing of contracts under 1.07 LIST OF RELATED WORK, Paragraph A., may not be inclusive of other related work performed at the Project site; however, the Design-Builder will be required to coordinate same as directed under Paragraphs A. and B. above.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01020 - OWNER'S ALLOWANCES

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. Owner's allowances in the amounts indicated and as described below have been established for certain types of work. The Design-Builder will perform such Work only upon receipt of written work orders from the Owner. For this purpose, a Work Order will have the same meaning for requirements pertaining to submittals, approvals, etc., as modified, except the Work Order is only signed by the Owner.
- B. If the Work Order directs that the allowance work be performed, the provisions of this Part 2 Contract, as modified, will govern the conduct and payment for this Work.
- C. Definitions and Explanations: All Work, including any allowance work if authorized, shall be performed in full compliance with the requirements of the Contract. All allowance work, if and when authorized, shall be performed by the Design-Builder in accordance with the Work Order.
 - 1. Coordinate allowance Work with related Work to ensure that each selection is completely integrated and interfaced with related Work, and shall include all aspects of work to fully integrate the work with all other Work and Related Work.
- D. Work Order Data: Where applicable, include in each Work Order proposal both the quantities of products being purchased and units requested, and furnish survey-of-requirements data to substantiate quantities. Indicate applicable taxes, delivery charges, and amounts of applicable trade discounts. Refer to this Part 2 Contract, Article 8, Changes in the Work for supporting documentation requirements.
- E. Upon issuance of a Work Order, the Work Order funds will be tracked separately on the Contractor's Schedule of Values by Work Order number and the amount of the Cost of Work. If multiple subcontractors are employed for the Work Order, each Subcontractor's Pay Requisition will include a separate line with the description Work Order number that will flow to the Contractor's Schedule of Values. Once work is complete on the Work Order, the Design-Builder has 30 days in which to reconcile the Work Order, as follows:
 - 1. Provide Owner Project Management with a package containing cost support documents totaling the Cost of Work.
 - 2. Calculate mark-ups and fee using the same formula/calculations used to create the original Work Order budget.
 - 3. Any unused Work Order funds will be returned to the Owner's Allowance budget via a negative Work Order.

The Contractor will forfeit their fee on the Work Order for any Work Orders that have not been reconciled within 30 days of the completion of the work, following the process above.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 SCHEDULE OF OWNER'S ALLOWANCES

- A. These allowances will cover the total cost of all Work authorized under a Work Order, including but not limited to design, cost of materials and equipment delivered and unloaded at the Project site, and all applicable taxes, permits, fees, labor, installation costs and integration as applicable. The Design-Builder's percentage, overhead and profit for the allowance will be included in the Work Order amount.
- B. Should the aggregate of charges for all approved Work Orders issued by the Owner under the allowances be less than the amount of the allowance, the Final GMP Contract Sum will be decreased by the amount of the difference. No Work will be performed that would cause total charges under the allowances to exceed the authorized allowance amount. The authorized allowance amount may be increased by Change Order. Should the aggregate charge for an approved Work Order issued by the Owner under the Allowance be less than the amount of the Work Order, the Owner may issue another Work Order in a negative amount to reconcile the Work Order. Such reconciliation Work Orders do not require executive management approval.
- C. The following allowance amounts will be included in the Guaranteed Maximum Price Proposal:

OWNER'S ALLOWANCE: Allow an amount of \$ 1,500,000.00 of the GMP Contract Sum for:

- 1. Repair and/or replacement of utilities (sanitary and storm sewer, potable water, fire protection, mechanical ductwork, pipe and duct insulation, conduits, electrical conductors, communications cabling, security lines, etc.) and structural steel when found to be deteriorated and/or damaged as determined by the Owner.
- 2. Relocation and adjustments of Work within the airport tenants' space (airlines, rental car companies, etc.) and other contracts. Include all disciplines: architectural, structural, mechanical, plumbing, electrical, communications, fire protection, etc.
- 3. Resolution of unforeseeable conditions between proposed work and the work of tenants and other contracts. Include all disciplines: architectural, structural,

mechanical, plumbing, electrical, communications, fire protection, etc.

4. Any work associated with the Red Side RAC offices.
 5. All work associated with the Long Term Parking Garage egress requirements.
 6. Additional Owner requested way finding signage.
 7. Additional Owner requested building or roadway protection.
 8. Additional improvements related to the LTPG, Loading Dock Service Road, or FAA lot.
 9. Any Work not shown in the Contract Documents, but which is necessary to complete the Project, with approval of executive management.
- D. Contract Time will not be extended as a result of the issuance of any Work Order under this Section 01020 – OWNER’S ALLOWANCES.
- E. The GMP Contract Sum will not be adjusted for any costs of acceleration resulting from the issuance of Work Orders under this Section 01020 – OWNER’S ALLOWANCES. In addition, the Contract Sum will not be adjusted for any costs of acceleration of the whole work resulting from the issuance of Work Orders under this Section 01020 – OWNER’S ALLOWANCES.

END OF SECTION

SECTION 01025 – FIELD OFFICES

PART 1 – GENERAL

1.01 REQUIREMENTS

For the purpose of prosecuting its Work, including but not limited to conducting onsite Project and Contract meetings, the Design-Builder will furnish, install and maintain temporary field offices for the Owner’s representatives and the Design-Builder. Design-Builder will furnish, install and maintain storage and work sheds needed for its on-site activities, including storage of equipment, materials and construction. Upon completion of the Work, the Design-Builder will remove field offices, sheds and contents, and restore site to original condition.

1.02 OTHER REQUIREMENTS

Prior to installation of offices, the Design-Builder will consult and coordinate with the Owner on location, access and related facilities. Design-Builder’s field offices, staging and laydown areas, and Design-Builder’s employee parking, will be located within Tampa International Airport. Such areas will not be exclusive to the Design-Builder. Design-Builder shall coordinate its requirements with others having access to the areas through the Owner.

1.03 REQUIREMENTS FOR FACILITIES

A. Construction will:

1. Be structurally sound, weather tight, with floors raised above ground.
2. Have temperature transmission resistance compatible with occupancy and storage requirements.
3. At Design-Builder’s option portable or mobile buildings may be used.
 - a. Mobile trailers, when used, will be modified for office use.
 - b. Mobile trailers will not be used for living quarters.

B. Design-Builder’s Office and Facilities:

1. Size: as required for Design-Builder’s general use and to provide space for Owner and Project meetings.
2. Lighting and temperature control:
 - a. Lighting: 50-foot candles at desk top height.
 - b. Exterior lighting at entrance door.
 - c. Automatic heating and mechanical cooling equipment sufficient to maintain comfort conditions.
3. Telephone: As needed.

4. Racks and files for Project Record Documents.
 5. Other furnishings: Design-Builder's option.
 6. Copy machine with reduction and enlargement capabilities.
- C. The Design-Builder will make all provisions and pay for all installations and other costs including maintenance and supplies in order to provide telephone service, high speed internet service, power service, exterior lights and copy machine at the Project site available for the Owner's use. The Design-Builder will pay all monthly charges for the various services provided to the Design-Builder's field office throughout the period of use and until 60 days after the Design-Builder has reached Final Completion of the Work (including "punch list" items), or until Design-Builder removes the facilities, whichever is later. Such above costs are part of the Work and are to be included in the GMP amount.

PART 2 – PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

Materials, equipment and furnishings may be new or used, but must be serviceable, adequate for required purpose, and must comply with all applicable Laws and Regulations.

PART 3 – EXECUTION

3.01 PREPARATION

The Design-Builder will fill and grade sites for temporary structures to provide adequate surface drainage.

3.02 INSTALLATION

The Design-Builder will construct temporary field offices on proper foundations; provide connections for utility services; secure portable or mobile buildings when used; provide steps and landings at entrance doors; and provide hurricane or high wind tie-downs, all in accordance with all applicable Laws and Regulations.

3.03 MAINTENANCE AND CLEANING

The Design-Builder will provide regular maintenance and cleaning for temporary structures, furnishings, equipment and services to maintain such facilities in good hygienic condition compatible with their intended use.

3.04 REMOVAL

- A. The Design-Builder will remove temporary field offices, contents and services at a time when no longer needed and as approved by the Owner.
- B. The Design-Builder will remove foundations and debris and grade the site to required

elevations and clean the areas.

3.05 LOCATION OF FIELD OFFICES

The Design-Builder will locate all temporary field offices on the Owner's property at the location(s) to be coordinated with the Owner per Paragraph 1.02 above or per agreement between the Contract parties if no on site space is available. No additional compensation will be provided to the Design-Builder for the off-site rental/purchase of space.

END OF SECTION

SECTION 01040 - PROJECT COORDINATION

PART 1 - GENERAL

1.01 DESCRIPTION

Minimum administration and supervisory requirements necessary for coordination of work on the Project include but are not necessarily limited to the following:

- A. Preconstruction Conference.
- B. Coordination and Progress Meetings.
- C. Preinstallation Conferences.
- D. Preconstruction and Progress Photographs.
- E. Reporting and Schedules.
- F. Special Reports.
- G. Service Interruption Requests.
- H. Drawing Log (updated weekly).

1.02 COVENANT OF GOOD FAITH AND FAIR DEALING

- A. This Contract imposes an obligation of good faith and fair dealing in its performance and enforcement.
- B. The Design-Builder and the Owner, with a positive commitment to honesty and integrity, agree to the following mutual duties:
 - 1. Each will function within the laws and statutes applicable to their duties and responsibilities.
 - 2. Each will assist in the other's performance.
 - 3. Each will avoid hindering the other's performance.
 - 4. Each will proceed to fulfill its obligations diligently.
 - 5. Each will cooperate in the common endeavor of the Contract.

1.03 PRECONSTRUCTION CONFERENCE

- A. Before beginning work at the Project site, the Design-Builder will attend a preconstruction conference and bring the Project Management Team, including but not limited to, the Project Manager and Superintendent employed for this Project. In the event the Project

Manager or Superintendent is unable to attend, the Design-Builder will bring a Letter of Introduction in which Design-Builder advises the full names and duties of the Project Manager and Superintendent and states that they are assigned to the Project and will be in full responsible charge. This conference will be requested by the Design-Builder and called by the Owner who will arrange for other interested parties to be present.

- B. The Design-Builder will also notify its major subcontractors and suppliers of this meeting if their attendance is required. At this time, all parties will discuss the Project under Contract and prepare a program of procedure in keeping with requirements of the Contract Documents. The Design-Builder's Project Management Team will make every effort to expeditiously coordinate all phases of the Work, including the required reporting procedure, to obtain the end result within the full purpose and intent of the Contract Documents for this Project.

1.04 COORDINATION AND PROGRESS MEETINGS

The Design-Builder will:

- A. Prepare a written memorandum on required coordination activities. Included will be such items as required notices, reports, and attendance at meetings. This memorandum will be distributed to each entity performing construction at the Project site.
- B. In addition to specific coordination and preinstallation meetings for each element of Work, and other regular project meetings for other purposes, hold general progress meeting each week with time coordinated with preparation of payment request. Require each party then involved in planning, coordination, or performance of Work to be properly represented at each meeting. Review present and future needs including interface requirements, time, sequences, deliveries, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, change orders, and documentation of information for payment requests.
- C. Discuss whether each element of current Work is ahead of schedule, on time, or behind schedule in relation with updated progress schedule. Determine how behind schedule Work will be expedited and secure commitments from parties involved. Discuss whether schedule revisions are required to ensure that current Work and subsequent Work will be completed within Contract Time.
- D. Review everything of significance which could affect progress of Work.
- E. Prepare written minutes of the meeting and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting in format required by Owner.

1.05 PREINSTALLATION CONFERENCES

The Design-Builder will:

- A. Well in advance of installation of every major unit of Work which requires coordination and interfacing with other Work, meet at Project site with installers and representatives

of manufacturers and fabricators who are involved in or affected by unit of Work, and in coordination or integration with other Work which has preceded or will follow. Preinstallation and coordination meetings shall also occur prior to a new trade or new scope of work starting. These meetings are also intended to review the approved submittals, means and methods, testing requirements, mock-up requirements, egress, MOT, and other relevant items.

- B. The Design-Builder shall have a preinstallation and coordination meeting prior to starting work in a new area that could potentially impact the Authority. This pertains to multiple phased projects. Prior to transitioning to a new area of work, a preinstallation and coordination meeting shall occur to discuss impacts, schedule, temp signage, potential utility interruptions, MOT, delivery options, and other relevant items.
- C. The Owner shall be invited to all preinstallation and coordination meetings. At the Owner's discretion, they may invite other parties that could include other contractors, engineers, department heads, or any other personnel that they deem necessary. These meeting should occur well in advance of any mobilization so as to allow the Owner to communicate to other team members and review the contract documents prior to the meetings. An agenda shall be distributed by the design builder no later than 48 hours in advance.
- D. At each conference review progress of other Work and preparations for particular Work under consideration, including requirements of Contract Documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protection.
- E. Record significant discussions of each conference. Record agreements and disagreements. Record final plan of action. Distribute written minutes of conference promptly to everyone concerned, including Owner and others in attendance in format required by Owner.

1.06 PRECONSTRUCTION AND PROGRESS PHOTOGRAPHS

The Design-Builder will provide:

- A. Preconstruction and progress photographs as required by the Contract and Owner. Design-Builder will promptly forward copies in format required by the Owner to the Owner.
- B. Photographs and/or video(s) will be labeled per the Owner's naming conventions with the item and date and properly identified and categorized with the name of the person taking the photographs and/or videos.

1.07 REPORTING AND SCHEDULES

- A. Within 3 business days after each conference/meeting date, distribute copies of minutes-

of-the-meeting in format required by the Owner to each entity present and to others who should have been present.

- B. Include brief summary, in narrative form, of progress of Work since previous conference/meeting and report.
- C. Schedule Updating:
 - 1. Immediately following each conference/meeting, where revisions to Progress Schedule have been made or recognized, revise Progress Schedule.
 - 2. Reissue revised Project Schedule concurrently with report of each conference/meeting where appropriate but no later than five days after the conference/meeting.

1.08 SPECIAL REPORTS

- A. Reporting Unusual Events: When an event of an unusual and significant nature, such as an accident, injury, or criminal activity, occurs at the Project site, Design-Builder will prepare and submit a special report to the Owner. The special report will list chain of events, persons participating, response by the Design-Builder's personnel, an evaluation of the results or effects and similar pertinent information. The Design-Builder will advise the Owner as soon as possible when such events are known. Time is of the essence.
- B. The Design-Builder will submit special reports directly to the Owner no later than one day of occurrence. The Design-Builder will also submit a copy of the special reports to other entities that are affected by the occurrence no later than one day of the occurrence.

1.09 COORDINATION DURING CONSTRUCTION

The Design-Builder will:

- A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of their components, before or after its own installation.
 - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at conference/meeting.

1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of schedules.
 2. Preparation of detailed phasing plan
 3. Installation and removal of temporary facilities.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Project closeout activities.
- D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials and Owner's Sustainability Master Plan.
1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.10 GENERAL COORDINATION PROVISIONS

The Design-Builder will:

- A. Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed and not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

1.11 STAFF NAMES

The Design-Builder will:

- A. After the Preconstruction conference, submit a list of the Design-Builder's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their telephone numbers and email addresses. The Design-Builder will update the list as required. The list will be entered into the Owner's software management system. The Design-Builder will coordinate with the Owner's Document Control Manager to ensure that this information is up to date on a quarterly basis by providing this list and indicating all changes to the list each time.

END OF SECTION

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Cutting and patching includes cutting into existing construction to provide for installation or performance of other Work, subsequent fitting, and patching required to restore surfaces to original condition.
- B. The Design-Builder will proceed with cutting and patching at earliest feasible time to complete the Work without delay.
- C. The Design-Builder will execute cutting, fitting, and patching, including excavation and backfill, required to perform Work and to:
 - 1. Make several parts fit together properly.
 - 2. Uncover portions of Work to make provisions for installation of ill-timed Work.
 - 3. Remove and replace defective Work.
 - 4. Remove and replace Work not conforming to requirements of Contract Documents.
 - 5. Remove samples of installed Work as required for testing.
 - 6. Make routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
 - 7. Uncover Work to allow for Owner's observation of covered Work, which has been covered prior to required observation of Owner.
- D. Cutting and patching performed during manufacture of products or during initial fabrication, erection or installation processes is not considered to be cutting and patching. Drilling of holes to install fasteners and similar operations is also not considered to be cutting and patching.
- E. Refer to other sections of Specifications for specified cutting and patching requirements and limitations applicable to individual units of Work. Do not cut and patch Work without Owner's written acceptance of procedures.
- F. The Design-Builder will for new Work, retain original installer or fabricator or another recognized, experienced and specialized firm to perform cutting and patching.

1.02 BUILDING MODIFICATIONS

- A. Modifications to the structure and its mechanical and electrical parts will be provided as indicated and as necessary to accomplish the Work of these Contract Documents.

- B. Modifications will include the removal of existing structure or parts as applicable, relocation of materials and/or parts, termination and relocation of utilities, cutting, patching, cleaning, adjusting, and refinishing, and all incidental Work related to these tasks.
- C. It is the Owner's intent to maintain daily occupancy functions during the progress of this Work. The Design-Builder will closely coordinate this Work to minimize inconvenience thereto.
- D. No utilities will be interrupted without first notifying the Owner and obtaining concurrence with the interruption. Refer to Section 01545 - UTILITIES for requirements.

1.03 SUBMITTALS

- A. Procedural Proposal for Cutting and Patching:
 - 1. Where prior acceptance of cutting and patching is required, the Design-Builder will submit proposed procedures for Work well in advance of time Work will be performed.
 - 2. The Design-Builder will include the following information, as applicable, in submittal:
 - a. Nature of Work and how it is to be performed, indicating why cutting and patching cannot be avoided. Describe the extent of the cutting and patching required and how it is to be performed.
 - b. Anticipated results of Work in terms of change to existing conditions including structural, operational and visual changes, as well as other significant elements.
 - c. List products to be used and firms that will perform Work.
 - d. Dates when cutting and patching are to be performed.
 - e. List utilities that will be disturbed or otherwise be affected by Work, including utilities that will be relocated and utilities that will be out-of-service temporarily.
 - f. Indicate how long utility service will be disrupted.
- B. Where cutting and patching of structural Work involves addition of reinforcement, the Design-Builder will submit details and engineering calculations to show how reinforcement is integrated with original structure to satisfy requirements.
- C. Review of procedural proposal by Owner does not waive Owner's right to later require complete removal and replacement of Work found to be cut and patched in unsatisfactory manner.

- D. The Design-Builder will not cut or patch structural elements in a manner that would impact their load carrying capacity or load-deflection ratio.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The Design-Builder will use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to fullest extent possible with regard to visual effect.
- B. The Design-Builder will use materials for cutting and patching that will result in equal-or-better performance characteristics.
- C. The Design-Builder will comply with specifications and standards for each specific product involved.
- D. Should conditions of Work or schedule indicate change of products from original installation, the Design-Builder will submit requirements for substitution with sufficient documentation to substantiate that the proposed substitution is equivalent in terms of performance to the original installation.

PART 3 – EXECUTION

3.01 EXAMINATION

The Design-Builder will:

- A. Before cutting, examine surfaces and conditions under which Work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with Work.
- B. Before the start of cutting Work, meet at Work site with all parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict between various trades. Coordinate layout of Work and resolve potential conflict before proceeding with Work.

3.02 PREPARATION

The Design-Builder will:

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.
- B. Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of Project that may be exposed during cutting and patching operations.

- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Take precautions not to cut existing pipe, conduit, or duct serving building(s) scheduled to be relocated until provisions have been made to bypass them.

3.03 CUTTING

The Design-Builder will:

- A. Cut Work using methods that are least likely to damage Work to be retained or adjoining Work.
- B. Use handheld small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and masonry using cutting machine such as carborundum saw or core drill to ensure a neat hole. Cut holes and slots neatly to size required with minimum disturbance of adjacent Work. To avoid marring existing finished surfaces, cut or drill from exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.
- C. Bypass utility services such as pipe and conduit before cutting, where such utility services are shown or required to be removed, relocated, or abandoned. Cut-off conduit and pipe in walls or partitions to be removed. After bypass and cutting, cap, valve, or plug and seal tight remaining portion of pipe and conduit to prevent entrance of moisture or other foreign matter.
- D. Not cut and patch operational elements or safety related components in a manner that would result in reduction of capacity to perform in manner intended, including energy performance, or that would result in increased maintenance, decreased operational life or decreased safety.
- E. Not cut and patch Work exposed on building's exterior or in occupied spaces, in a manner that would result in lessening building's aesthetic qualities. Do not cut and patch Work in a manner that would result in substantial visual evidence of cut and patch Work. Remove and replace Work judged by the Owner to be cut or patched in a visually unsatisfactory manner.
- F. Where structural members and/or other construction elements penetrate smoke and fire rated assemblies and sound barriers, including walls around and floor below mechanical equipment rooms, provide acoustical fire rated sealant between such Work and barrier to maintain acoustical attenuation, as well as smoke and fire integrity of the barrier.

3.04 PATCHING

The Design-Builder will:

- A. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for Work.

- B. Where feasible, inspect and test patched areas to demonstrate integrity of Work.
- C. Restore exposed finishes of patched areas and where necessary extend finished restoration into retained adjoining Work in a manner which will eliminate evidence of patching and refinishing.
- D. Install new products to complete Work in accordance with requirements of Contract Documents.
- E. Where removal of walls or partitions extends one finished area into another finished area, patch and repair floor and wall surfaces in new space to provide an even surface or uniform color appearance. If necessary to achieve uniform color and appearance, remove existing floor and wall coverings and replace with new materials.
- F. Where patch occurs in smooth painted surface, extend final paint coat over entire unbroken surface containing patch, after patched area has received prime and base coat.

3.05 ADJUSTING

The Design-Builder will:

- A. Restore damaged pipe covering to original conditions.
- B. Remove and replace Work cut and patched in visually unsatisfactory manner.

3.06 CLEANING

The Design-Builder will:

Thoroughly clean areas and spaces where Work is performed or used as access to Work. Remove paint, mortar, oils, putty, and items of similar nature. Thoroughly clean piping, conduit, and similar features before painting or other finish is applied.

END OF SECTION

SECTION 01050 - FIELD ENGINEERING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Owner will furnish horizontal and vertical monuments only, which may be outside the limits of the Project site. The Design-Builder will preserve all horizontal and vertical control points furnished by the Owner.
- B. The Design-Builder will:
 - 1. Furnish all lines, grades, control points and measurements necessary for the proper prosecution and control of the Work under these Contract Documents. The Work will include performing all calculations required and setting all controls needed such as offsets, reference points, and other reference marks or points necessary to provide lines and grades for construction. The Design-Builder is responsible to maintain these control points for use by subsequent contractors.
 - 2. Establish the building grades, lines, levels, columns, walls and partition lines required.
 - 3. Calculate and measure required dimensions indicated within recognized tolerances.
 - 4. Not scale drawings to determine dimensions.
 - 5. Advise subcontractors performing Work of marked lines and levels provided for use in layout of Work.

1.02 SURVEY

- A. Surveyor:

The Design-Builder will retain a competent Professional Engineer or Land Surveyor, experienced and specialized in land survey work, registered by the State of Florida, and acceptable to the Owner, who will establish the exterior lines and required elevations of all buildings and structures to be erected on the Project site and will establish sufficient lines and grades for the construction of associated Work such as, but not limited to, roads, utilities, aircraft aprons, and site grading. The Professional Engineer or Land Surveyor will certify as to the actual location of the constructed facilities in relation to property lines, building lines, easements, and other restrictive boundaries.

- B. Procedures:

The Design-Builder will:

- 1. Verify layout information indicated in relation to property survey and existing benchmarks before proceeding with layout of actual Work.

2. As Work proceeds, check major element for line, levels, and plumb.
3. Maintain accurate surveyor's log or record book of such checks, available for Owner's reference at reasonable times.
4. Record deviations from required lines and levels.
5. Advise Owner promptly upon detection of deviations exceeding indicated or recognized tolerances.
6. Record deviations which are accepted on Project Record Drawings.

1.03 RECORDS

The Design-Builder will:

- A. Maintain complete accurate log of control and survey Work as it progresses, updated monthly and accessible to Owner for review on an as needed basis.
- B. Upon completion of foundation walls and major Project site improvements, prepare certified survey showing dimensions, locations, angles, and elevations of construction.
- C. Final Survey:
 1. Immediately before time of Substantial Completion, prepare final survey showing significant features resulting from construction of Project.
 2. Include on survey certification, signed by surveyor, to effect that principal lines and levels of Project are accurately positioned as shown on survey.
- D. Survey Copies:

Furnish electronic copy and one hard copy, if requested by Owner, of the final survey.
- E. Records of Actual Work:

Furnish electronic copy and one hard copy, if requested by Owner, one of which will be returned for inclusion in Project Record Documents as specified in Section 01700 - PROJECT CLOSEOUT.

1.04 UNDERGROUND OBSTRUCTIONS

- A. The Design-Builder acknowledges that pipe lines, existing underground installation, and underground structures in vicinity of Work are shown on drawings according to best information available.
- B. The Design-Builder will verify location of underground pipe lines, conduits, and structures by contacting owners of underground utilities and by prospecting in advance of

excavation.

- C. The Design-Builder will secure written permission from proper authority before initiating new construction over existing utilities. The Design-Builder will submit copy or original written permission before commencing Work. Furnish release from proper authority before Final Acceptance of Work.
- D. The Design-Builder will repair cuts to existing utilities made during construction process as part of Project Work to satisfaction of utility Owner, unless otherwise stated in the Contract Documents.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01095 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

A. General:

1. This section specifies procedural and administrative requirements for compliance with governing regulations and the codes and standards imposed upon the Work. These requirements include the obtaining of permits, licenses, inspections, releases and similar requirements associated with regulations, codes and standards.
2. Regulations are defined to include laws, statutes, ordinances, and lawful orders issued by governing authorities, as well as those rules, codes, conventions and agreements within the construction industry which effectively control the performance of the Work, as well as applicable F.A.A. Advisory Circulars, regardless of whether they are lawfully imposed by governing authority or not.
3. Codes, standards and requirements of the Owner are identified within the Contract Documents. Design-Builder shall examine, determine and identify other codes, standards and requirements that may be applicable to the Design-Builder's Work, such that the intent of the Contract is fully realized.

B. Governing Regulations:

Refer to this Part 2 Contract as modified, for requirements related to compliance with governing regulations.

1.02 DEFINITIONS

A. General Requirements:

The provisions or requirements of Division 01 sections apply to the entire Work of this Contract and supplement the requirements in the Contract Documents.

A substantial amount of specification language consists of definitions of terms found in the Contract Documents. Certain terms used in Contract Documents are defined in this section. Definitions and explanation contained in this section are not necessarily either complete or exclusive, but are general for the Work to the extent they are not stated more explicitly in another element of the Contract Documents.

B. Whenever the following terms are used in the Contract Documents or any other documents or instruments pertaining to the construction of this Project, the intent and meaning will be interpreted as follows:

1. **ACCESS ROAD.** The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public highway.

2. **ADVERTISEMENT.** A public announcement inviting bids for Work to be performed and materials to be furnished. Also referred to as "Invitation to Bid" or "Notice to Consultants or Design Build Firms."
3. **AIR OPERATIONS AREA (AOA).** For the purpose of these Specifications, the term AOA will mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An AOA will include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway or apron.
4. **AIRPORT.** Airport means Tampa International Airport
5. **AIRPORT IMPROVEMENT PROGRAM (AIP).** The AIP, a grant-in-aid program, administrated by the Federal Aviation Administration.
6. **APPROVE.** Where used in conjunction with Owner's response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the meaning of the term "approved" will be held solely to limitations of Owner's responsibilities and duties as specified in the Contract Documents. In no case will "approved" or any other form of approval by Owner be interpreted as a release of Design-Builder from responsibilities to fulfill requirements of the Contract Documents.
7. **APM: Automated People Mover.** A guided transit mode with fully automated operation, featuring vehicles that operate on guideways with exclusive right-of-way.
8. **APM SYSTEM:** The vehicles, running surfaces or track, switches, other guideway equipment, active graphics, any platform barrier doors, power distribution, central control and ATC, communications, maintenance equipment, and all other equipment, which when integrated results in the operation of the trains in conformance with the Contract requirements.
9. **AWARD.** The acceptance by the Owner of the successful Bidder's Bid.
10. **BID.** The written offer of the Bidder to perform the Work and furnish the necessary materials and labor in accordance with the provisions of the Contract Documents.
11. **BID BOND.** The security furnished with a Bid to guaranty that the Bidder will enter into a Contract if Bidder's Bid is accepted by the Owner.
12. **BIDDER.** Any individual, partnership, firm or corporation, acting directly or through a duly authorized representative, who submits a Bid for the Work contemplated.
13. **BUILDING AREA.** An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way, together

with all airport buildings and facilities located thereon.

14. DAY. As used in the Contract Documents will mean calendar day unless otherwise specifically defined.
15. CONSTRUCTION SCHEDULE. The Design-Builder-prepared schedule as adjusted from time to time in accordance with the Contract Documents showing planned and actual progress by items of the Work.
16. CONTRACT DOCUMENTS. The Contract Documents consist of the executed Contract between the Owner and Design-Builder, the Design-Builder's GMP Proposal as accepted by the Owner, Bonds, Insurance Requirements, other applicable attachments, the Division 1 Specifications, Drawings, E-Verify Certification and any Contract Modifications issued after execution of the Contract.
17. DIRECTED, REQUESTED, ETC. Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "accepted", and "permitted" mean "directed by Design-Builder's licensed design professional", "requested by the Owner or Design-Builder's licensed design professional", and similar phrases. However, no such implied meaning will be interpreted to extend Owner's or Design-Builder's licensed design professional's responsibility into the Design-Builder's area of Design-Builder, including but not limited to construction supervision.
18. DRAINAGE SYSTEM. The system of pipes, ditches, ponds, or structures by which waste, surface or subsurface waters are collected and conducted from the airport area.
19. DRAWINGS. The official Drawings or exact reproductions which show the location, character, dimensions and details of the airport and the Work to be done.
20. EQUIPMENT. The articles, devices, software, control system, and other assets used to serve a function in the operation of the Project. Also, used to refer to all machinery, together with the necessary supplies for upkeep and maintenance, as well as all tools and apparatus, necessary for the proper construction and acceptable completion of Work.
21. EXPERIENCED. The term "experienced" when used with the term "Installer" means having previous projects similar in size and scope to the installation to be performed, being familiar with the procedures required, and having complied with requirements of the authority having jurisdiction.
22. EXTRA WORK. An item of Work not provided for in the awarded Contract as previously modified by work order or change order but which is found by the Owner to be necessary to complete the Work within the intended scope of the Contract as previously modified.

23. FAA (Federal Aviation Administration). When used to designate a person, FAA will mean the Administrator or its duly authorized representative.
24. FAA SUPPLEMENT. It is understood that federal grant funds may be used in the Project. In the event federal grant funds are used, the Contract Documents will be governed by all applicable rules and regulations of the FAA and U.S. Department of Transportation, as well as applicable requirements incorporated in any grant agreement between the Owner and the FAA with regard to said funding, which requirements are set forth in the "FAA Construction Contract Clauses, Airport Improvement Program," and which will be incorporated herein if federal grant funds are utilized.
25. FEDERAL SPECIFICATIONS. The Federal Specifications and Standards, and all supplements, amendments and indices thereto as prepared and issued by the General Services Administration of the Federal Government. They may be obtained from the Specifications Unit, 7th and D Street, SW, Washington, DC 20406, Tele: (202) 472-2205 or 472-2140.
26. FHWA (Federal Highway Administration). When used to designate a person, FHWA will mean the Administrator or its duly authorized representative.
27. FURNISH. Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and delivery to Project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance for incorporation and installation into the Work.
28. INDICATED. The term "indicated" is a cross-reference to graphic representations, notes, or schedules on drawings, to other paragraphs or schedules in the Specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of location is intended except as specifically noted.
29. INSPECTOR. An authorized representative of the Owner assigned to make all necessary inspections and/or tests of the Work performed or being performed, or of the materials furnished or being furnished by the Design-Builder.
30. INSTALL. Except as otherwise defined in greater detail, the term "install" is used to describe operations at the Work site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations, as applicable in each instance, to incorporate the element being installed into the Work.
31. INSTALLER. The term "installer" is the entity (person or firm) engaged by the Design-Builder, its Subcontractor or Sub-subcontractor for performance of a particular unit of Work at the Project site, including installation, erection, application, and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.

32. INTENTION OF TERMS. Whenever, in the Contract Documents, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it will be understood that the direction, requirement, permission, order, designation, or prescription of the Design-Builder's licensed design professional is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import will mean approved by, acceptable to, or satisfactory to the Design-Builder's licensed design professional.
- a. Any reference to a specific requirement of a numbered paragraph of the Contract Document or a cited standard will be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.
33. LABORATORY. The official testing laboratories of the Design-Builder or Owner or such other laboratories as may be designated by the Owner.
34. LIGHTING. A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
35. MAJOR AND MINOR CONTRACT ITEMS. A major contract item will be any item that is listed in the Bid, the total cost of which is equal to or greater than 20% of the total amount of the awarded Contract. All other items will be considered minor contract items.
36. MATERIALS. Any substance to be used in the Work.
37. NO EXCEPTIONS TAKEN. The term "No Exceptions Taken" where used in conjunction with the Design-Builder's licensed design professional's action on the Design-Builder's submittals, applications, and requests, is limited to the Design-Builder's licensed design professional's duties and responsibilities as stated in this Part 2 Contract as modified.
- a. Refer to Section 01340 - SHOP DRAWINGS, PRODUCT DATA AND SAMPLES for more specific information.
38. NOT APPROVED. Where used in conjunction with the Design-Builder's licensed design professional's response to submittals, requests, applications, inquires, reports, and claims by the Design-Builder, indicates that the item or material is unsatisfactory, and must be revised, new material prepared in accordance with notations, and the item or material resubmitted. Material marked in this manner will not be released for any Work.
39. NOTE MARKINGS. Where used in conjunction with the Owner's response to submittals, requests, applications, inquires, reports, and claims by the Design-

Builder, "Note Markings" indicates that the item or material submitted is approved subject to corrections noted. Correction and re-submittal of the item is not required unless specifically called for in the notations. Approval of Design-Builder's submitted item does not constitute approval of the design. Approval does not permit any deviation from the Design-Builder's requirements and does not relieve the Design-Builder of the responsibility for errors or deficiencies in design, dimension, details, or for coordinating installation and/or construction with actual conditions at the Project site.

40. NOTICE TO PROCEED (NTP). A written notice to the Design-Builder to begin the actual Contract Work. If applicable, the NTP will state the date on which the Contract Time begins.
41. OWNER (SPONSOR). The term Owner or Sponsor will mean the party of the first part or the contracting agency signatory to the Contract. The Hillsborough County Aviation Authority is the Owner, and will include its agents, employees, representatives and contractors when acting at its direction or on its behalf. The Hillsborough County Aviation Authority is also referred to as the "Owner" in these Contract Documents. For AIP Contracts, the term Sponsor will have the same meaning as the term Owner.
42. PAVEMENT. The combined surface course, base course, and sub-base course, if any, considered as a single unit.
43. PAYMENT BOND. The approved form of security furnished by the Design-Builder and Design-Builder's surety as a guaranty that the Design-Builder will pay in full all bills and accounts for material and labor used in the construction of the Work under the contract.
44. PERFORMANCE BOND. The approved form of security furnished by the Design-Builder and Design-Builder's surety as a guaranty that the Design-Builder will complete the Work in accordance with the terms of the Contract and will complete the guarantee of the Work specified therein.
45. PROJECT. The Work defined in the Contract Documents.
46. PROJECT SITE. The term "Project Site" is defined as the space available to the Design-Builder for performance of the Work, either exclusively or in conjunction with others performing other Work, as part of the Project. The extent of the Project Site may or may not be identical with the description of the land upon which the Project is to be built but it is within or near Tampa International Airport.
47. PROVIDE. Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete, and ready for intended use, as applicable in each instance.
48. RETENTION. Retention (or Retainage) is the amount of compensation for Work accomplished by the Design-Builder which is retained by the Owner to be paid to the Design-Builder as specified herein.

49. RUNWAY. The area on the airport prepared for the landing and takeoff of aircraft.
50. SHOP DRAWINGS. All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Design-Builder, a subcontractor, manufacturer, supplier or distributor and which illustrate the equipment, material or some portion of the Work.
51. SHUTTLE. A guided transit mode with fully automated operation, featuring vehicles that operate on guideways between the Main Terminal and Airsides
52. SPECIFICATIONS. A part of the Contract Documents containing the written directions and requirements for completing the Contract Work. Standards for specifying materials or testing which are cited in the Contract Specifications by reference will have the same force and effect as if included in the Contract physically.
53. SPONSOR. See "Owner".
54. STRUCTURES. Airport facilities such as buildings, aprons, bridges, culverts, catch basins, inlets, retaining walls, cribbing, storm and sanitary sewer lines, waterlines, underdrains, electrical ducts, manholes, handholes, lighting fixtures and bases, transformers, flexible and rigid pavements, navigational aids, buildings, vaults, and other manmade features of the airport that may be encountered in the Work and not otherwise classified herein.
55. SUBGRADE. The soil which forms the pavement foundation.
56. SUPERINTENDENT. The Design-Builder's executive representative who is present on the Work during progress, authorized to receive and fulfill instructions from the Owner, and who will supervise and direct the construction.
57. SUPPLEMENTAL CONTRACT. A written agreement between the Design-Builder and the Owner covering (1) Work that would increase or decrease the total amount of the awarded Contract, or any major Contract item, by more than 25%, such increased or decreased work being within the scope of the originally awarded Contract; or (2) Work that is not within the scope of the originally awarded Contract.
58. SURETY. The corporation, partnership, or individual, other than the Design-Builder, executing Payment and Performance Bonds which are furnished to the Owner by the Design-Builder.
59. TAXIWAY. The portion of the AOA of an airport that has been designated by the airport authority for movement of aircraft to and from the airport's runways or aircraft parking areas.
60. TESTING LABORATORIES. An independent entity engaged to perform specific inspections or tests of the Work, either at the Project site or elsewhere, and to

report and (if required) interpret results of those inspections or tests.

61. TRADES. Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
62. UNIT PRICE. Cost per unit of Work.
63. WORK. The construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Design-Builder to fulfill the Design-Builder's obligations. The Work may constitute the whole or a part of the Project.

1.03 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. General:

1. This article is provided to help the user of the Specifications to more readily understand the format, language, implied requirements and similar conventions of content. None of the following explanations will be interpreted to modify the substance of the Contract requirements.

B. Specification Content:

1. This Project Specifications and the Contract Documents have been produced employing certain conventions in the use of language as well as conventions regarding the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 - a. In certain circumstances, the language of the Specifications and other Contract Documents is of the abbreviated type. It implies words and meanings that will be interpreted as plural. Plural words will be interpreted as singular where applicable and where the full context of the Contract Documents so indicates.
 - b. Imperative Language is used generally in the Specifications. Requirements expressed imperatively are to be performed by the Design-Builder. At certain locations in the text, for clarity, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by the Design-Builder or by others when so noted.

1.04 INDUSTRY STANDARDS

A. Applicability of Standards:

Except where more explicit or stringent requirements are written into the Contract Documents, applicable industry standards have the same force and effect as if bound into or copied directly into the Contract Documents. Such industry standards are made a part of the Contract Documents by reference. Design-Builder shall keep available copies of all applicable codes and standards at locations where Work is being performed, including the Project Site.

B. Publication Dates:

Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.

C. Conflicting Requirements:

Where compliance with two or more standards is specified, and where these standards establish different or conflicting requirements, the Design-Builder shall call the conflict to the Owner's attention and the most stringent requirement will be enforced as determined by the Owner.

D. Copies of Standards:

1. The Contract Documents require that each entity performing Work be experienced in that part of the Work being performed. Each entity is also required to be familiar with industry standards applicable to that part of the Work. Copies of applicable industry standards are not bound with the Contract Documents.

a. Where copies of industry standards are needed for proper performance of the Work, the Design-Builder is required to obtain such copies directly from the publication source.

b. Although certain copies of industry standards needed for enforcement of the requirements may be required submittals, the Owner reserves the right to require the Design-Builder to submit additional copies of these standards as necessary for enforcement of requirements.

E. Abbreviations and Names:

Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the Specifications or other Contract Documents they are defined to mean the recognized name of the trade association, standards generating organization, governing authority or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co.

F. The Design-Builder will comply with applicable standards for work promulgated by organizations, associations, institutes, societies, boards and generally recognized organizations including but not limited to:

Acoustical Materials Association.....	AMA
Air Conditioning & Refrigeration Institute.....	ARI
Air Moving & Conditioning Association.....	AMCA
Aluminum Association.....	AA
American Association of State Highway and Transportation Officials	AASHTO
American Concrete Institute.....	ACI
American Gas Association.....	AGA
American Institute of Steel Construction.....	AISC
American National Standards Institute.....	ANSI
American Petroleum Institute.....	API
American Plywood Association.....	APA
American Society for Testing and Materials.....	ASTM
American Society of Heating, Refrigerating & Air Conditioning Engineers.	ASHRAE
American Water Works Association.....	AWWA
American Welding Society.....	AWS
American Wood Preservers Bureau.....	AWPB
Architectural Precast Association.....	APA
Architectural Woodworking Institute.....	AWI
Cast Iron Pipe Research Association.....	CIPRA
Concrete Reinforcing Steel Institute.....	CRSI
Contracting Plasterers and Lathers International Association.....	CPLIA
Factory Mutual Engineering Corporation.....	FM
Federal Specifications.....	FED. SPEC.
Flat Glass Jobbers Association.....	FGJA
Gypsum Association.....	GA
Industrial Power Cable Engineers Association.....	IPCEA
Institute of Boiler & Refrigeration.....	IBR
Institute of Electrical & Electronic Engineers.....	IEEE
Joint Industry Council.....	JIC
Metal Lath Manufacturers Association.....	MLMA
Metal Lath/Steel Framing Association.....	ML/SFA
Military Specifications.....	MIL. SPEC.
National Association of Architectural Metal.....	NAAM
National Bureau for Lathing and Plastering.....	NBLP
National Concrete Masonry Association.....	NCMA
National Electric Code.....	NEC
National Electrical Manufacturers Association.....	NEMA
National Fire Protection Association.....	NFPA
National Lumber Manufacturers Association.....	NLMA
National Roofing Contractors Association.....	NRCA
National Terrazzo & Mosaic Association.....	NTMA
National Woodwork Manufacturers Association.....	NWMA
Portland Cement Association.....	PCA

Post-Tensioning Institute.....	PTI
Precast Concrete Institute.....	PCI
Product Standards.....	PS
Research Council on Riveted and Bolted Structural Joints.....	RCRBSJ
Rubber Manufacturer's Association.....	RMA
Sealing and Waterproofers Institute.....	SWI
Sheet Metal & Air Conditioning Contractors National Assoc.....	SMACNA
Southern Pine Inspection Bureau.....	SPIB
Steel Boiler Institute.....	SBI
Steel Door Institute.....	SDI
Steel Joist Institute.....	SJI
Steel Structures Painting Council.....	SSPC
Stucco Manufacturer's Association.....	SMA
Tile Council of America.....	TCA
Tubular Exchange Manufacturers Association.....	TEMA
Underwriter's Laboratories.....	UL
United States Department of Commerce - Commercial Standards.....	CS
United States Department of Commerce – Products Standards	PS
United States Gypsum Company.....	USG
United States Postal Service.....	USPS
Vermiculite Institute.....	VI
Warnock Hersey.....	WH
West Coast Lumber Inspection Bureau.....	WCLIB

- G. Where more than one quality or requirement is set forth in such standards and reference is not made in these Specifications to which specific quality or requirement is intended, the more stringent will be bid upon and furnished. Where under such standards options occur, the Design-Builder's licensed design professional will be called upon to designate which applies.
- H. No provisions of any referenced standard, specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) will be effective to change the duties and responsibilities of the Owner, Design-Builder or any of their consultants, agents or employees, from those set forth in the Contract Documents, nor will it be effective to assign to the Owner any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Contract Documents.

1.05 CODES/MANUFACTURER'S RECOMMENDATIONS

- A. Applicable code requirements are included herein by this reference. However, such are minimum criteria and no reduction from Drawings or Specifications will be permitted, even if allowed by applicable code.
- B. Electrical and mechanical apparatus, fixtures and equipment will bear approved device label of Underwriter's Laboratories.

- C. The local building code and the Florida Building Code (Latest Edition) apply to all Work. In the event a conflict occurs between the local and Florida Building Codes, the greater requirements will govern. The Design-Builder shall call to the attention of the Owner any conflict which may arise due to revisions to codes and regulations subsequent to the Contract Date.
- D. Specifically, comply with following codes and regulations:
1. Florida Building Code, Latest Edition.
 2. Florida Plumbing Code, Latest Edition.
 3. Florida Mechanical Code, Latest Edition.
 4. Florida Fire/Gas Code, Latest Edition.
 5. Local Building Code.
 6. Local Public Utility regulations.
 7. City of Tampa Water Department "Developer-Install" Manual.
 8. City of Tampa Department of Sanitary Sewer Developer Review Package.
 9. National Standard Plumbing Code.
 10. National Electric Code (NEC).
 11. ASME Code for unfired pressure vessels.
 12. Building exits code (life safety code), NFPA 101.
 13. Standards of National Board of Fire Underwriters.
 14. ASHRAE Safety Code for Mechanical Refrigeration.
 15. National Fire Codes.
 16. National Fire Protection Association.
 17. Occupational Safety and Health Administration (OSHA).
 18. International Council of Building officials.
 19. Housing and Urban Development.
 20. Council of American Building Officials.
 21. ANSI A17.1-1987 Safety Code for Elevators and Escalators.
 22. American National Standards Institute (ANSI).
 23. Florida Department of Environmental Regulation.
 24. United States Environmental Protection Agency.
 25. Americans with Disabilities Act (ADA).
 26. Hillsborough County Environmental Protection Commission.
 27. Florida Department of Transportation (FDOT).
 28. Federal Aviation Administration (FAA)(Including, but not limited to applicable Advisory Circulars.) applicable Advisory Circulars.)
- E. Comply with recommendations of pertinent manufacturer to achieve first quality work.

1.06 ABBREVIATED SPECIFICATIONS

- A. In order to shorten these Specifications, certain terminology and form common in specification writing is employed. The following words are often omitted when meaning

remains clear without the same, i.e., "the," "the Design-Builder will," "of," "a," "will comply with," etc.

- B. Uses of a period or colon after a general mention of a material lists means "will be," or "will comply with." Example:

"Portland Cement: ASTM C 150, Type 1."

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01110 - AIRPORT PROJECT PROCEDURES

PART 1 - GENERAL

1.01 AIRPORT OPERATIONS

Airport operations will be maintained throughout this Contract. The Design-Builder will in no way curtail or handicap normal operational characteristics of the airport facility except as specifically indicated and specified in these Contract Documents.

1.02 PERMITS, LICENSES AND TAXES

- A. Design-Builder will be required to procure and pay for all permits, licenses, fees, duties and taxes and arrange for all inspections and similar procedural items as required by the authorities having jurisdiction. Design-Builder will be required to procure and pay for all HCAA badging as required including cost for lost badges.
- B. The Design-Builder will procure all necessary and required permits and licenses, including batch plant permit(s), pay all charges, fees and taxes and give all notices necessary and incidental to the due and lawful prosecution of the Work so as not to delay the completion of the Project. No extensions of Contract for the foregoing will be granted. The Design-Builder's claim that insufficient Contract Time was specified will not be a valid reason for extension of Contract Time. The Design-Builder will procure all necessary and required HCAA permits including Cutting & Welding permits.

1.03 VERIFICATION OF EXISTING CONDITIONS

Prior to submitting a Guaranteed Maximum Price Proposal and commencing with construction, the Design-Builder will familiarize themselves with the existing conditions of the Project and requirements of the Contract Documents. Should the Design-Builder discover any inaccuracies, errors, or omissions between the actual existing conditions and the Contract Documents, Design-Builder will within 14 calendar days of discovery, notify the Owner in writing or otherwise Design-Builder will be deemed to have waived any claim arising therefrom. Submission of the Guaranteed Maximum Price Proposal by the Design-Builder will be held as an acceptance of the existing conditions and the requirements of the Contract Documents by the Design-Builder.

1.04 MAINTENANCE OF TRAFFIC

- A. It is the explicit intention of the Contract that the safety of aircraft, as well as the Design-Builder's equipment and personnel, is the most important consideration. It is understood and agreed that the Design-Builder will provide for the free and unobstructed movement of aircraft in the AOA of the Airport, including approach and departure surfaces, with respect to Design-Builder's own operations and the operations of all Design-Builder's subcontractors. It is further understood and agreed that the Design-Builder will provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport.
- B. The cost of maintaining the aircraft and vehicular traffic will be borne by the Design-Builder as part of its Work and is included in the Guaranteed Maximum Price Contract

Sum.

- C. The Design-Builder will not prevent public traffic from using active aviation and public areas in and around the Airport. The Work will be coordinated with the Owner and other agencies having an interest in the capability of the Airport and will be programmed and stated accordingly so that public traffic may be routed over partially completed Work. Appropriate safety precautions will be provided by the Design-Builder to protect employees, the public and the Work.
- D. Should it be necessary for the Design-Builder to complete portions of the Contract Work for the beneficial occupancy of the Owner prior to completion of the whole Work, such "phasing" of the Work will be specified herein and indicated on the Drawings. When so specified, the Design-Builder will complete such portions of the Work on or before the date specified or as otherwise specified.
- E. If the Design-Builder, with the concurrence of the Owner, elects to complete one increment of Work prior to completion of the whole Work, the Owner may accept the Work for beneficial occupancy. Upon completion of any portion of the Work listed above, such portion will be accepted by the Owner in accordance with this Part 2 Contract as modified.
- F. No portion of the Work may be opened by the Design-Builder for public use until ordered by the Owner in writing. Should it become necessary to open a portion of the Work to public traffic on a temporary or intermittent basis, such openings will be made when, in the opinion of the Owner, such portion of the Work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the Work and will not constitute either acceptance of the portion of the Work so opened or a waiver of any provision of the Contract. Any damage to the portion of the Work so opened that is not attributable to traffic which is permitted by the Owner will be repaired by the Design-Builder at Design-Builder's expense.
- G. The Design-Builder will make its own estimate of the inherent difficulties involved in completing the Work under the conditions herein described and will not claim any added compensation by reason of delay or increased cost due to opening a portion of the Contract Work.
- H. When the Work is in or near vehicular traffic and pedestrian areas, the Design-Builder will arrange the Work so as to avoid disruption of normal traffic patterns. The Design-Builder will provide, erect and maintain effective barricades, danger signals, signs and equipment to provide protection of the Work and the safety of the public throughout the area in accordance with the "FDOT Roadway and Traffic Design Standards."
- I. The Design-Builder will maintain traffic within the limits of the Project for the duration of the construction period, including all temporary suspensions of Work. It will include the construction and maintenance of all necessary detour facilities; the furnishing, installing and maintaining of traffic control and safety devices during construction; the control of dust; and any other special requirements for safe and expeditious movement of aircraft, vehicular traffic and pedestrians. Before contracting with any outside agency for a uniformed law enforcement officer to assist in the maintenance of traffic, the Design-

Builder will first coordinate availability of Tampa International Airport Police with the Police Department dispatch office at (813) 870-8760.

1. Beginning Date of Design-Builder's Responsibility: The Design-Builder's responsibility for maintenance of traffic will begin on the day Design-Builder starts Work on the Project at the Project site and will continue until the date of Final Acceptance of the Work.
 2. Number of Traffic Lanes: Unless otherwise specified, the Design-Builder will close no more than one lane on each roadway and ramp. Unless otherwise specified, the effective width of each lane used for maintenance of traffic will be at least as wide as the traffic lanes existing in the area prior to commencement of construction. Traffic control and warning devices will not encroach on lanes used for maintenance of traffic. All closures on any traffic lanes will be coordinated with the Owner a minimum of seven calendar days prior to any closure. Due to the complexity of work associated with the curbside project, additional lane closures may be necessary. These closures will be coordinated fully with the Owner.
 3. High Traffic Areas: When the Work is in or near vehicular traffic and pedestrian areas, arrange the Work so as to avoid disruption of normal traffic patterns. Provide, erect and maintain effective barricades, variable message boards, danger signals, signs and equipment to provide protection of the Work and the safety of the public throughout the area.
- J. The Design-Builder will be responsible for performing daily inspections, including weekends and holidays with some inspections at night time, of the installations on the Project and replacing all equipment and devices not conforming to the approved standards during that inspection. The Owner will be advised of the schedule of these inspections and be given the opportunity to join in the inspection as deemed necessary.
- K. Sections Not Requiring Traffic Maintenance: Design-Builder will not be required to maintain traffic over those portions of the Project where no Work is to be accomplished or where construction operations will not affect existing roads. Design-Builder, however, will not obstruct nor create a hazard to any traffic during the prosecution of the Work and will be responsible for repair of all damage to existing pavement or facilities caused by Design-Builder's operations.
- L. Traffic Plan: If applicable, the Design-Builder will present its Maintenance of Traffic Plan at the Pre-construction Conference/meeting. Maintenance of Traffic Plan will be in written form and include plan sheets which indicate the type and location of all signs, lights, barricades, variable message boards, arrow boards, striping and barriers to be used for the safe passage of pedestrians, vehicular and aircraft traffic through the Project. The plan will indicate conditions and set-up for each phase of the Design-Builder's activities. In no case may the Design-Builder begin Work until the Maintenance of Traffic Plan has been approved in writing by the Owner. Modifications to the Maintenance of Traffic Plan that may become necessary will also be approved in writing. Except in an emergency, no changes to the approved Maintenance of Traffic Plan will be allowed until approval of the change has been received.

- M. Traffic During Construction: All construction vehicles are required to use existing public traffic routes. Normal public traffic lanes are not to be used as staging areas for arriving delivery vehicles. The Design-Builder's employees will utilize the designated Design-Builder employee parking area.
1. Adequate accommodations for intersecting and crossing traffic will be provided and maintained and, except where specific permission is given, no road or street crossing the Project will be blocked or unduly restricted.
- N. The "FDOT Roadway and Traffic Design Standards" manual sets forth the basic principles and prescribes minimum standards to be followed in the design, application, installation, maintenance, and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workers from hazards within the Project limits. The standards established in the aforementioned manual constitute the minimum requirements for normal conditions and additional traffic control devices, warning devices, barriers or other safety devices will be required where unusual, complex or particular hazardous conditions exist.
- O. Installation: The responsibility for installation and maintenance of adequate traffic control devices, warning devices and barriers for the protection of the public and workers, as well as to safeguard the Work, will rest with the Design-Builder. The required traffic control devices, warning devices and barriers will be erected by the Design-Builder prior to creation of any hazardous condition and in conjunction with any necessary re-routing of traffic. The Design-Builder will immediately remove, turn or cover any devices or barriers which do not apply to existing conditions.
1. The Design-Builder will make the Owner aware of any scheduled operation which will affect patterns or safety sufficiently in advance of commencing such operation to permit Owner's review of the plan for installation of traffic control devices or barriers proposed by the Design-Builder.
 2. The Design-Builder will assign one of its employees the responsibility of maintaining the position and condition of all traffic control devices, warning devices and barriers throughout the duration of the Contract including holidays and blackout periods. The Owner will be kept advised at all times as to the identification and means of contacting this employee on a 24 hour basis.
- P. Furnishing of Devices and Barriers: All traffic control devices including signs, warning devices, variable message boards, arrow boards, and barriers will be furnished by the Design-Builder.
1. When the Work requires closing an AOA of the airport or portion of such area, the Design-Builder will furnish, erect, and maintain temporary markings and associated lighting conforming to the requirements specified in the Contract Documents or FAA Advisory Circular 150/5340-latest edition, "Marking of Paved Areas on Airports," as applicable.
 2. The Design-Builder will furnish and erect all barricades, warning signs, and

markings for hazards prior to commencing Work which requires such erection and will maintain the barricades, warning signs, and markings for hazards until their dismantling is directed by the Owner.

- Q. Maintenance of Devices and Barriers: Traffic control devices, warning devices, and barriers will be kept in the correct position, properly directed, clearly visible and clean, at all times. Damaged, defaced or dirty devices or barriers will immediately be repaired, replaced or cleaned as directed.
- R. Flagger: The Design-Builder will provide competent flagger to direct traffic where one-way operation in a single lane is in effect and in other situations as may be required by the standards established herein.
- S. Design-Builder Signing: The Design-Builder may furnish and install construction traffic directional signs along the existing traffic route. The signs will depict Design-Builder's logo or name, directional arrows and "deliveries". Signs will be of sufficient size to have 6" high lettering and will be located at each decision point. All signs and their locations will be approved by the Owner. NO OTHER SIGNS ARE PERMITTED ON OWNER PROPERTY. There will be no writing or signing on printed screen fences.
- T. Material Deliveries: The Design-Builder will make its own material and equipment deliveries. No deliveries will be made by vendors or suppliers without escort or approval by a representative of the Design-Builder. Delivery times are subject to change per the Owner's request/approval.
 - 1. Deliveries to the Baggage Claim Drive, if required, will be made between the hours of 1:00 a.m. and 8:00 a.m. and prescheduled with the Owner.
 - 2. Deliveries to the Ticket Level Drive, if required, will be made between the hours of 9:00 p.m. and 5:00 a.m. and prescheduled with the Owner.
 - 3. Deliveries for trafficking of materials and equipment within public areas of the Main Terminal Building or Long Term Parking Garage will be made only between the hours of 9:00 p.m. and 5:00 a.m.
 - 4. Deliveries and trafficking of materials and equipment within public areas of the Airside Terminal Building will be made only between the hours of 10:00 p.m. and 6:00 a.m.
 - 5. All trash is to be sealed and tied down in such a manner that it will not dirty the floor. The removal, in dustproof sealed containers, of debris will be scheduled the same as deliveries. Specific requirements will be covered at the Preconstruction Conference.
- U. Elevator Use: Existing passenger elevators and escalators will not be used. However, the existing "Service Elevator" may be used if requested.
- V. All dollies, floats, or other conveyances used for debris removal will be rubber tired, box type, and lined with plastic barrier to prevent debris falling from the cart. All carts are to

be loaded within the confines of the dust barrier. Transport of debris through public spaces, if permitted, will be made only after coordination of times and routes with the Owner.

W. Notification: On days when construction traffic is expected to be extra heavy or when oversized pieces of equipment are to be delivered, give the Owner a minimum of 72 hour notice prior to the event.

X. Interference Request:

1. The Design-Builder will be responsible for notifying the Owner in writing of, and securing approval for, any and all interruptions or interference with traffic (pedestrian, automobile), or other necessary function of the Airport or any of the airlines.
2. The request will include a traffic control plan indicating barricades, arrow boards, variable message boards, lighting and flagmen where required.
3. Such notification will be made as soon as possible but in no case less than 72 hours prior to the interference.
4. The Design-Builder should utilize a standard Maintenance / Construction Notification (MCN) form addressed to the Owner with a description of the interference, the exact area affected, map of the location, and the exact times and dates the interference will take place. These MCN forms will be submitted in electronic format. No interference will be allowed until the Design-Builder has received back a copy of the approved MCN form.

Y. Personnel Traffic:

1. General: All construction personnel will be restricted to construction areas. They will wear shirts with sleeves and long pants at all times.
2. Walkways: When walking from the Design-Builder's parking lot to the job site, existing walkways and crossings will be used. The Design-Builder will not use vehicle traffic lanes as walkways.
3. Elevators/Escalators: Existing elevators and escalators will not be used at any time for the transporting of construction personnel or construction materials. The entry to all elevators will not be blocked at any time.
4. Use of Public Areas: The Design-Builder's workers will not utilize public areas for taking their "work breaks" or "lunch breaks." Areas for this purpose can be designated by the Owner upon request. No public toilets will be used by any workers at any time.
5. Use of Restaurants: The Design-Builder's workers will not use restaurants, lounges or other concession areas within the Airport, unless approved by the Owner.

Z. Character of Workers:

1. The Design-Builder will, at all times, employ sufficient labor and equipment for prosecuting the Work to full completion in the manner and time required by the Contract Documents.
2. All workers will have sufficient skill and experience to properly perform the Work assigned to them. Workers engaged in special Work or skilled Work will have sufficient experience in such Work, and in the operation of the equipment required, to perform the Work satisfactorily. This includes proper certification or training for equipment operators. Upon request by the Owner, the Design-Builder shall supply copies of all certification or training certificates.
3. RESERVED
4. Any person employed by the Design-Builder or a subcontractor who, in the opinion of the Owner, does not perform their Work in a proper and skillful manner or is intemperate or disorderly, will, at the written request of the Owner, be removed forthwith by the Design-Builder or subcontractor employing such person and will not be employed again in any portion of the Work without the approval of the Owner.
5. Should the Design-Builder or subcontractor fail to remove such person or persons or fail to furnish suitable and sufficient personnel for the proper prosecution of the Work, the Owner may suspend the Work by written notice until compliance with such orders.
6. No firearms are permitted on Project site at any time.

1.05 METHODS AND EQUIPMENT

- A. All equipment which is proposed to be used on the Work will be of sufficient size and in such mechanical condition as to meet requirements of the Work and to produce a satisfactory quality of Work. Equipment used on any portion of the Work will be such that no injury to previously completed Work, adjacent property, or existing Airport facilities will result from its use.
- B. When the methods and equipment to be used by the Design-Builder in accomplishing the Work are not prescribed in the Contract, the Design-Builder is free to use any methods or equipment that will accomplish the Work in conformity with the requirements of the Contract Documents.
- C. When the Contract specifies the use of certain methods and equipment, such methods and equipment will be used unless others are authorized by the Owner. If the Design-Builder desires to use a method or type of equipment other than specified in the Contract, Design-Builder may request approval from the Owner to do so. The request will be in writing and will include a full description of the methods and/or equipment proposed and the reasons for desiring to make the change. If approval is given, it will be on the condition

that the Design-Builder will be fully responsible for producing work in conformity with the Contract Documents. If, after trial use of the substituted methods or equipment, the Owner determines that the Work produced does not meet the Contract Documents, the Design-Builder will discontinue the use of the substitute method or equipment and will complete the remaining Work with the specified methods and equipment.

- D. The Design-Builder will remove any deficient Work and replace it with Work of specified quality, or take such other corrective action as the Owner may direct. No change will be made in basis of payment for items in the Contract involved or in Contract Time as a result of authorizing a change in methods or equipment under this Section.

1.06 HOURS OF WORK

- A. Work hours will comply with the Project Schedule requirements specified in Section 01315 - SCHEDULES, PHASING. In addition, the following limitations apply:

- 1. Work may proceed at any time (24 hours a day) unless otherwise indicated on Drawings with the following exceptions (all hours subject to Owner approval). Exceptions to the below restrictions can be requested and approved by the Owner.

- a. All Work in areas above and including suspended ceilings which are above areas open for access by the public, tenant, and non-construction personnel will be restricted to times when these areas are unoccupied, typically 12:00 p.m. midnight to 8:00 a.m.
- b. All Work in areas above entrance roadways to the Long Term Garage will be restricted to periods between 10:00 p.m. and 5:00 a.m.
- c. All Work in areas above roadways will be restricted to periods between 9:00 p.m. and 5:00 a.m. on the Ticket Level Drive and between 1:00 a.m. and 8:00 a.m. (after the last arriving flight) on the Baggage Claim Level Drive.
- d. All Work in areas above exit roadways to the Long Term Parking Garage will be restricted to periods between 1:00 a.m. and 8:00 a.m.
- e. Work involving total isolation (i.e. floor to the underside of the deck) of a site may proceed at any time (24 hours a day).
- f. One lane of each Shuttle APM leg will be made available by the Authority from midnight to 6:00 a.m. each night. Double lane shut down will be coordinated on an individual basis.

- 2. Holiday blackout periods

- a. FAA Moratorium at Thanksgiving: 3rd Saturday in November through 4th Monday in November. No work allowed near navigational aid critical areas and working in proximity to FAA cables. No runway closures.

- b. FAA Moratorium at Christmas: 3rd Saturday in December until January 2. No work allowed near navigational aid critical areas and working in proximity to FAA cables. No runway closures.
 - c. Spring Break: Second week in March through mid-April. No runway closures.
 - d. All three blackout periods noted above will have limited or restricted work hours throughout the campus. Work shall not impact the normal operations of the airport. Close coordination and Owner approval will be required for all work activities during these time periods.
3. Disruptive Work will be defined as any activity (including excessive noise, air pollution [dust, etc.] and similar events) that adversely disrupts, hinders or impacts normal Airport operations. These activities will be conducted so as not to interfere with the normal operation of the Airport. Work which may be considered disruptive will be conducted by the Design-Builder during middle of the night hours as designated by the Owner. When directed by the Owner to cease Disruptive Work, the Design-Builder will immediately suspend and discontinue the Disruptive Work. Work will not be resumed until directed by the Owner. Design-Builder's claim for additional cost or additional Contract Time for suspending Disruptive Work will not be accepted.

1.07 DAILY CLEAN-UP AND TRASH REMOVAL

- A. Debris from Work will be promptly removed from the Project site at least daily. Debris will not be allowed to become a hazard to the safety of the public. Areas occupied by the Owner and Building Tenants will be kept clean at all times.
- B. The Design-Builder will be responsible for clean-up and trash removal. Accumulation of trash and debris will not be allowed and the Owner may at any time direct the Design-Builder to immediately remove its trash and debris from the site of the Work when, in the opinion of the Owner, such trash constitutes a nuisance or in any way hinders the Work or the Airport's operations. If the Design-Builder should fail to remove its trash and debris from the site of the Work in a timely manner, the Owner may have this Work performed and deduct the cost of such from Design-Builder's payment.

1.08 CLEANING AND PROTECTION

- A. General: During all Work at the Project Site, clean and protect Work in progress and adjoining Work on the basis of continuous daily maintenance. Apply protective covering on installed Work to ensure freedom from damage or deterioration.
- B. Clean and perform maintenance on installed Work as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- C. Limiting Exposures of Work: To the extent possible through appropriate control and

protection methods, supervise performance of the Work in such a manner and by such means which will ensure that none of the Work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period. Such exposures include, where applicable, but are not limited to, the following:

1. Excessive static or dynamic loading.
 2. Excessive internal or external pressures.
 3. Excessive electrical loading.
 4. Solvents.
 5. Chemicals.
 6. Light. (Including, but not limited to, excessive sunlight.)
 7. Puncture.
 8. Abrasion.
 9. Heavy Traffic.
 10. Soiling.
 11. Combustion.
 12. High speed operation, improper lubrication, unusual wear.
 13. Improper shipping or handling.
 14. Theft.
 15. Vandalism.
- D. Protection at Openings: Design-Builder will provide protection at all openings in structures and finishes to maintain the building weather and dust tight. All protection will be of solid material and substantial so that it will not be disturbed by wind and weather normal to the area and season, and will also be tight fitting to prevent noise infiltration.
- E. Protection of Improvements:
1. Damage to Existing Facilities: Existing surfaces and materials of the Owner's property not requiring work by the Contract Documents that are damaged by the Design-Builder's operations will be immediately repaired. Repaired surfaces and materials will match existing adjacent undamaged surfaces and materials. Repair work will be coordinated with the Owner with regards to time and method.

2. All roads used by the Design-Builder during construction will be restored and/or replaced to their original condition.
3. Accidental Demolition: All structures or parts thereof that may become damaged due to accident or Design-Builder's error will be restored to their original condition at no cost to the Owner. Materials and equipment being used in the repair or replacement resulting from damage will be new and will perform at the manufacturer's published capacities. If the existing equipment or materials cannot be identified, or if unavailable, the selection of the replacement will be subject to approval by the Owner in writing.
4. Flooring: Where new carpeting, tile, terrazzo, or other flooring material has been installed, Design-Builder will fully protect such flooring from all damage and staining by Design-Builder's forces. and The Owner may deduct from the Design-Builder's Guaranteed Maximum Price Contract Sum such sums as may be necessary to cover the cost of repairing and replacing such new flooring.

F. Owner's - Standards of Construction:

1. Hazardous Materials:
 - a. ANY PRODUCT OR MATERIAL THAT CONTAINS ASBESTOS MATERIAL WILL NOT BE PERMITTED ON THIS PROJECT.
 - b. ANY PAINT CONTAINING LEAD WILL NOT BE USED ON THIS PROJECT.
2. Building:
 - a. Materials and finishes used in the Work will have a fire rating at least equal to the rating required for the type of space in which the Work is to be performed.
 - b. No work will be performed which, when complete, will result in the degradation of the fire rating for the space.
 - c. Any penetration of existing ceilings or walls which will break the fire rating of the ceiling or wall will be patched to obtain the same fire rating and to the satisfaction of the Owner.
 - d. Any ceiling access panel now existing will remain in its present location and cannot be covered in a manner to prevent access.
 - e. Any ceiling, other than Design-Builder's own space, that must be accessed or crossed from above will be done only with prior permission of the Owner.
 - f. Wood framing is prohibited for partitioning.

G. Overhead Protection:

1. No cranes with or without loads or other construction equipment will cross over non-construction personnel, their travel ways which include but are not limited to, walkways, roadways, or passenger transfer system tracks.
2. The plan of operation of cranes and other hoisting equipment will be established in writing by the Design-Builder. This plan of operation will be subject to review by the Owner.
3. Specific areas affected by construction may require protective covering. These protection coverings will be adequate to insure the protection of life and property and the continuous operation of the Airport. The layout and location of the protective systems will be subject to review and rejection by the Owner. Structural integrity of protection systems will be the responsibility of the Design-Builder.
4. The use of helicopters to lift, place, or otherwise maneuver equipment is expressly prohibited.

1.09 CONSERVATION AND SALVAGE

A. General:

1. It is a requirement for supervision and administration of the Work that construction operations be carried out with the maximum possible consideration given to conservation of energy, water and materials. In addition, maximum consideration will be given to salvaging materials and equipment involved in performance of the Work but not incorporated therein.
2. Refer to other sections for required disposition of salvage materials which are the Owner's property.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01150 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 MEASUREMENT AND PAYMENT

- A. Measurement of Quantities: The following requirements, in general, apply to those items listed by unit prices in the Contract Documents:
1. All "Unit Price" Work completed under the Contract will be measured by the Owner or Design-Builder, using United States Customary Units of Measurement.
 2. The method of measurement and computations to be used in determination of quantities of material furnished and of Work performed under the Contract will be those methods generally recognized as conforming to good engineering practice.
 3. Unless otherwise specified, longitudinal measurements for area computations will be made horizontally and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the Drawings or ordered in writing by the Design-Builder's Design Professional.
 4. Structures will be measured according to neat lines shown on the Drawings or as altered to fit field conditions.
 5. Unless otherwise specified, all Contract Unit Price Items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items will be measured parallel to the base or foundation upon which such items are placed.
 6. In computing volumes of excavation, the average end area method shall be used unless other acceptable methods are approved by Owner.
 7. The thickness of plates and galvanized sheets used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inches.
 8. The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois. All materials which are measured or proportioned by weights will be weighed on a certified, approved scale by competent, qualified personnel. If material is shipped by rail, the car weight may be accepted, provided that only the actual weight of material be paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight will be weighed empty daily at such times as the Owner or Design-Builder directs, and each truck will bear a plainly legible identification mark.
 9. Materials to be measured by volume in the hauling vehicle will be hauled in

approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Owner or Design-Builder, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles will be loaded to at least their water level capacity and all loads will be leveled when the vehicles arrive at the point of delivery.

10. When requested by the Design-Builder and approved by the Owner in writing, material specified to be measured by the cubic yard may be weighed and such weights will be converted to cubic yards for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Owner or Design-Builder and will be agreed to by the Owner and Design-Builder before such method of measurement of pay quantities is used.
11. Bituminous materials will be measured by the gallon or ton. When measured by volume, such volumes will be measured at 60-degrees F or will be corrected to the volume at 60-degrees F using ASTM D 1250 for asphalts or ASTM D 633 for tars.
12. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the Work.
13. When bituminous materials are shipped by rail or truck transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.
14. Concrete will be measured by the yard.
15. Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thickness and the extreme length of each piece.
16. The term "Lump Sum" when used as an Unit Price Item of payment will mean complete payment for the Work described in the Contract. However, payment of a lump sum item may be paid over several or all pay applications.
17. When a complete structure or structural unit (in effect, "Lump Sum" Work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.
18. When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc. and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.
19. Scales for weighing materials which are required to be proportioned or measured

and paid for by weight will be furnished, erected, and maintained by the Design-Builder, or by certified, permanently installed commercial scales.

20. Scales will be accurate within one-half percent of the correct weight throughout the range of use. The Design-Builder will have the scales checked under the observation of the Owner before beginning Work and at such other times as requested. The intervals will be uniform in spacing throughout the graduated or marked length of the beam or dial and will not exceed one-tenth of one percent of the nominal rated capacity of the scale, but not less than one pound. The use of spring balances will not be permitted.
21. Beams, dials, platforms, and other scale equipment will be so arranged that the operator and inspector can safely and conveniently view them.
 - a. Scale installations will have available ten standard 5.0-pound (2.3 kilogram) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.
22. Scales must be tested for accuracy and serviced before use at a new site. Platform scales will be installed and maintained with the platform level and rigid bulkheads at each end.
23. Scales "overweighing" (indicating more than correct weight) will not be permitted to operate and all materials received subsequent to the last previous correct weighing-accuracy test will be reduced by the percentage of error in excess of one-half of one percent.
24. In the event inspection reveals the scales have been "underweighing" (indicating less than correct weight) they will be adjusted and no additional payment to the Design-Builder will be allowed for materials previously weighed and recorded.
25. All costs in connection with furnishing, installing, certifying, testing and maintaining scales for furnishing check weights and scale house and for all other items specified in this section and for the weighing of materials for proportioning or payment will be included in the Unit Contract Prices for the various items of the Project.
26. When the estimated quantities for a specific portion of the Work are designated as the pay quantities in the Contract, they will be the final quantities for which payment for such specific portion of the Work will be made, unless the dimensions of said portion of the Work shown on the Drawings are revised by the Design-Builder's Design Professional. If revised dimensions result in an increase or decrease in the quantities of such Work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.
27. The Design-Builder and Owner will meet and conduct a quantity-in-place meeting (QIP meeting) on a monthly basis to review and agree to the quantities prior to pencil copy pay application submission.
28. The Design-Builder will establish a written process for managing and tracking all unit rate scopes of work identified within their subcontracts. This process will be

reviewed with Owner and shall be accepted by Owner or modified as agreed upon. Design-Builder will meet with subcontractor(s) and Owner on a routine basis to confirm and document agreed upon quantities. Meeting shall occur at a minimum of once per month and prior to the pencil copy pay application submission. More frequent meetings shall occur at Owner's request.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01315 - SCHEDULES, PHASING

PART 1 - GENERAL

1.1. DESCRIPTION

Scope includes construction scheduling and phasing/sequencing required for proper execution of the Work as described herein. These requirements supplement the other requirements in the Contract Documents. In cases of conflict, the more stringent requirement shall govern as determined by the Owner.

1.2. SUMMARY

This Section is to provide for the comprehensive depiction, measurement, assessment and reporting of project progress and status pursuant to the sub-articles entitled "Design-Builder's Construction Schedules" of the Contract Provisions. The Design-Builder's responsibility shall include scheduling of all work within its contractual scope of work, creation of a Preliminary Schedule, a Baseline Schedule, production of reports, narratives, execution of the plan described by the current accepted schedule, participation in meetings with the Owner, and submission of Progress Schedules and revision data, as set forth herein and in the Contract Documents. Conventional Critical Path Method (CPM) techniques must be utilized to satisfy the requirements of this section.

1.3. SCHEDULE REQUIREMENTS

A. Scheduler Qualification Requirements

1. Design-Builder shall employ, and include in Design-Builder's jobsite staff, sufficient full-time qualified schedulers whose primary duties and responsibilities shall be creating, tracking, and modifying the schedule as required herein.
2. The Design-Builder's scheduling staff should be trained on the scheduling software being used in accordance with paragraph 1.3 B. 1. (Scheduling Software). The lead scheduler shall have at least 5 recent years of scheduling experience on projects similar in scope, complexity, and magnitude; previous experience shall include the development of project schedules and maintenance of scheduling activities. Upon request by the Owner, the Design-Builder shall produce a written statement or references that will establish the required training, experience and scheduling competency.
3. The scheduling staff's duties and responsibilities shall include the development, implementation, and updating of the project schedules and associated reports and data. They shall be accessible throughout the project duration and shall conduct regular site visits (but no less than once per month) to field verify as-built information and the current progress of work. They shall possess the skills to understand the construction work processes and translate the construction plan into a viable schedule, and be capable of analyzing schedule variances and making recommendations for corrective actions.

4. Owner may order that persons in the Design-Builder's scheduling staff be removed and replaced with a competent scheduler if the person in question does not meet acceptable qualifications or performance standards.
5. Representatives of the Design-Builder's scheduling staff including superintendent(s) and project manager(s) shall attend all progress meetings, as well as all scheduling meetings.

B. Scheduling Software

1. Design-Builder shall use the version of Primavera P6 Professional Project Management (P6) currently utilized by the Owner unless the Owner approves an alternative. The required scheduling software shall be free from any passwords or applied access restrictions to allow proper review and interrogation by the Owner.
2. Any and all schedule related submissions and transmittals must include a Primavera XER format of the schedules contained therein.
3. The following Primavera P6 Professional Project Management (P6) Schedule Settings will be used unless otherwise approved by the Owner:
 - a) Make open-ended activities critical
 - b) When scheduling progresses activities use Retained Logic
 - c) Calculate "Start-to-Start" lag from early start
 - d) Define critical activities as Longest Path
 - e) Calculate float based on the finish date of each project
 - f) Calculate total float as Finish Float
 - g) Calendar for scheduling Relationship Lag is Predecessor Activity Calendar

C. Schedule Activities

1. Activities will be grouped and sorted by an appropriate Work Breakdown Structure (WBS) to identify phase, area of work, location, etc. The WBS shall be structured in such a way that activities may be sorted into logical work areas and phases, with respect to their associated milestones and subject to Owner's approval.
2. All identified milestones in the Contract, including but not limited to "Award," "Notice to Proceed," "Substantial Completion" and "Final Completion," etc., shall be included in a separate node at the top of the WBS structure.
3. All schedule Contract Milestones shall be based on Calendar Days.
4. In addition to construction activities, the Baseline Schedule shall include all activities that will affect the Design-Builder's schedule, including but not limited to activities for

submittals, shop drawings, testing, turnover and training, review and approval cycles, meetings and operations by other agencies.

5. The Owner may identify additional interfaces during the course of the Work and the Design-Builder will incorporate these in the Progress Schedule as required.
6. The duration estimate for each activity shall be in Days and shall represent the single best estimate considering the scope of the Work and Resources planned for the activity.
7. Except for certain activities such as submittal reviews, curing of concrete, fabrication and delivery of materials, or milestones; activity durations shall not exceed 15 Days, unless otherwise accepted by the Owner.
8. Activity descriptions shall use industry standard terminology and shall clearly identify the work and its respective location.
9. The use of activity descriptions, Notebook Topics, user defined text fields or any other annotation in the scheduling software shall not be considered as Notice to the Owner of a delay, claim or dispute. Any such notification must be in accordance with the relevant provision of the Contract.
10. All activity constraints must be identified and explained in the schedule narrative. Any use of constraints is subject to Owner approval. At the Owner's request, constraints shall be removed or replaced if appropriate activities and/or logical relationships can perform the same function.
11. The following activity constraints shall not be used: "Start On", "Finish On", "Mandatory Start", and "Mandatory Finish".
12. "Level of Effort" activities must only be used to summarize other discrete activities in the schedule and not to represent construction tasks. The network logic of any given path of work through the schedule, shall not flow through a Level of Effort activity such that it is possible for a Level of Effort activity to appear on the Longest Path. Level of Effort activities may be used to summarize the duration of a sub-set of logically linked task dependent activities for tracking support work or site infrastructure such as cranes, equipment maintenance or project management functions. All Level of Effort activities shall be identified in the narrative with an explanation and are subject to Owner approval.
13. Schedule activities following Final Completion shall only be shown following written approval by Owner. Final Completion shall not be constrained.

D. Relationships

1. With the exception of WBS Summary activities, each activity or milestone shall have at least one predecessor and at least one successor, except for the first and last activities.
2. Open ended activities or milestones are not allowed. All open ends must be closed with an appropriate logical relationship (for example, where an activity's only predecessor is

Finish to Start and the same activity's only successor is Start to Start the finish would be an open end).

3. Redundant relationships shall not be used.
4. Contradicting relationships shall not be used.
5. All relationship lags or changes to relationship lags must be identified and explained in both the schedule narrative and the P6 software Notebook Topics with an explanation. All relationship lags are subject to Owner approval and shall be replaced at the request of the Owner if the creation of an activity can perform the same function (e.g. concrete cure time).

E. Calendars

1. The Design-Builder shall employ Work Day calendars that reflect the days that planned to perform the Work.
2. Documentation supporting each calendar shall be submitted with the baseline submission. Calendar information will include the number of working days per week and the Design-Builder's holiday schedule, including any other non-work periods.
3. Any changes to calendars or new calendars will be identified, explained and supported in the schedule narrative accompanying the schedule submission.
4. Calendar days for some tasks may be less than 8 hours depending on the availability of the work as defined elsewhere and shall be reflected in the calendar settings.

F. Cost and Resource Loading

1. Cost and Resource Loading [Option 2]
 - a) Cost loading shall be provided on summary level activities within the WBS structure so that the WBS structure and cost loading in the schedule can be rolled up to correspond to the accepted Schedule of Values for the Contract.
 - b) No resource loading is required.

G. Schedule Submission and Acceptance

1. Preliminary Meeting and Schedule
 - a) The Design-Builder shall participate in a preliminary meeting to discuss the proposed schedule and the Contract requirements prior to submission of the Preliminary Schedule. A Preliminary Schedule shall be submitted to the Owner for review as required in the Contract Provisions within sixty (60) days from "Notice of Intent to Award" unless additional time has been approved by the Owner.

- b) The Preliminary Schedule must be accompanied by a written narrative and a copy of the native electronic schedule file for review, analysis, archiving and transfer to other Project stakeholders as required.

2. Baseline Schedule

- a) The Baseline Schedule shall be developed in concept and sufficient detail to allow to visualize the entire program and be submitted to the Owner as required in the Contract Provisions within thirty (30) days of the issuance of the Notice to Proceed.
- b) Where appropriate, and subject to approval by Owner, long term projects may be subject to a phased development of the Baseline Schedule. For phased development, the first Baseline schedule shall be submitted to the Owner as required in the Contract Provisions within thirty (30) days of the issuance of the Notice to Proceed. The first Baseline Schedule shall provide a fully developed WBS structure that accounts for the work of each work discipline at each location. Work that is within 180 days of the issue date of the Baseline Schedule shall be fully developed and schedule in the First Baseline schedule. The remaining work may be represented at a summary level using task dependent activities to summarize the work required under each WBS heading. By agreement with the Owner, dates will be set where the summary level activities will be scheduled out with fully developed detail.
- c) The following procedure outlines the steps for adding additional detail to the summary level activities in Baseline Schedule revisions while maintaining a reference to the relevant summary level activities in the first Baseline Schedule.
 - i. Copy the task dependent summary activity that needs additional detail then paste as a new activity making the activity ID the same but with a suffix in increments of 10 (e.g., for Summary level activity ID: A-1000, the first detailed activity would become A-1000-10 and the second detailed activity would become A-1000-20, etc.).
 - ii. Repeat this process until the level of detail is fully developed providing the new activities with appropriate activity names, durations, logical relationships and activity codes.
 - iii. Change the original activity (i.e., A-1000), to a WBS Summary activity. This “parent” activity will automatically summarize the duration and status of the fully developed task dependent “child” activities within the associated WBS heading.
 - iv. The network logic will now drive the detail activities but the WBS summary activity (and its activity ID) will correlate and provide

accountability to the original task dependent activity that was provided in the first Baseline Schedule.

- d) All Baseline Schedules must be accompanied by a written narrative and a copy of the native electronic schedule file for review, analysis, archiving and transfer to other Project stakeholders as required.
- e) The Design-Builder shall participate in a review and evaluation of the proposed Baseline Schedule. Any revisions necessary as a result of this review shall be resubmitted for review within fourteen (14) days after the schedule review. This review cycle will continue until the Design-Builder submits a Baseline Schedule that is accepted by the Owner. The accepted Baseline Schedule shall be the schedule used by the Design-Builder for planning, organizing, directing the Work and reporting progress. Baseline Schedule submittals shall be in accordance with the "Schedule Submittal Format" as outlined in paragraph I.
- f) Failure to establish an acceptable Baseline Schedule may result in the Owner withholding the payment for the Application for Payment.
- g) The Baseline Schedule must show all Contract Milestones completed within the time frames specified. If contract completion or any other Contract Milestones are shown completing in more or less time than specified, the Baseline Schedule may be rejected by the Owner.
- h) The developed schedule shall show the sequence and complete interdependence of construction and project-related activities reasonably required to complete the Work. Design-Builder shall be responsible for ensuring all work sequences are logical and the schedule shows a coordinated plan of work.
- i) Float within the Baseline Schedule shall be reasonable with respect to the type of work and overall project, and is subject to Owner approval.
- j) The Baseline Schedule is to remain completely without status or progress unless otherwise approved or agreed by the Owner.
- k) Failure by Design-Builder to include any element of work required for performance of the Contract, or failure to properly sequence the work, shall not excuse Design-Builder from completing all work within the contractually defined time.

3. Progress Schedules

- a) Progress reported by the Design-Builder shall be determined by the Design-Builder's actual physical inspection of the Work. Physical inspection of the Work shall be conducted, recorded and entered into the schedule in the form of activity progress percentage and actualized start and finish dates on a weekly basis in line with the Job Coordination Meetings. This is necessary

to maintain an up to date Look-Ahead Schedule as required under Section G.4 (Job Coordination Meeting Look-Ahead Schedule) below.

- b) Full Progress Schedule reporting frequency shall be monthly as specified in the General Conditions. The specific data date shall be the 25th of the month and the schedule shall be submitted in accordance with pay application submittal procedure. Progress Schedule submittals shall be in accordance with the "Schedule Submittal Format" as outlined in paragraph I.
- c) The Design-Builder must submit a Schedule Update Run each month. The Schedule Update Run will include only the progress information for work performed in the reporting period, including percent completes, adjustments to remaining durations and input of actual start and finish dates. The Schedule Update Run shall NOT include changes or additions to logical relationships, activity constraints, added or deleted activities or changes to original or planned durations.
- d) The Design-Builder may also submit a Schedule Revision Run each month. The Schedule Revision Run is required to be submitted if the Design-Builder makes any changes to the schedule other than those permitted for the Schedule Update Run. The Schedule Revision Run shall show all the changes that the Design-Builder made to logic, durations, addition/deletion of activities (including change orders, if any), codes, calendars, etc. The Schedule Update Run shall be used as the basis for the Schedule Revision Run so that all information related to monthly progress is included and consistent in both the Schedule Update Run and the Schedule Revision Run.
- e) Each Progress Schedule must be accompanied by a written narrative and a copy of the native electronic schedule file for review, analysis, archiving and transfer to other Project stakeholders as required.
- f) The intent of the Design-Builder's Written Narrative is to effectively communicate and add support to the current Progress Schedule Update. The narrative describes any changes made to the schedule, current issues, potential problems and related schedule notifications to the Owner or Architect. It is a universally important document as the narrative is understood by all Project stakeholders, not just the scheduler. A good schedule narrative provides an added level of clarity for communication and understanding.
- g) Any statements in the Schedule Narrative shall not be considered as Notice to the Owner of a delay, claim or dispute. Any such notification must be in accordance with the relevant provision of the Contract.
- h) Design-builder shall amend the schedule to include any additional detail and information requested by Owner at any time during the project

4. Job Coordination Meeting (JCM) Look-Ahead Schedule

- a) The Look-Ahead schedule shall be in the form of a filtered view of an accurately updated Progress Schedule Update created from within the scheduling software. The filtered view shall show the window of time seven (7) days prior to the meeting and fourteen (14) days after the meeting.
- b) The Look-Ahead Schedule is to be accurately updated as of the day before the JCM.
- c) The Look-Ahead Schedule should be printed on letter size (8.5"x11") paper for incorporation into the JCM minutes. The Design-Builder is to provide copies of the Look-Ahead Schedule to all JCM attendees. If required by the Owner, each Look-Ahead Schedule shall also be provided to the Owner as a copy of the native electronic schedule file from which it was derived.
- d) In addition to the filtered view of an accurately updated Progress Schedule Update created from within the scheduling software.
- e) Design Builder may elect, or Owner may require, that supplementary information be provided to clarify the contents of the Look-Ahead schedule and/or support the function and needs of the JCM process.

5. Recovery Schedule

- a) At the discretion of the Owner, or when the most current Progress Schedule Update reflects a calculated schedule status of two weeks later than currently contractually allowed for any contractual milestone (including interim milestones), a Recovery Schedule may be required.
- b) The Recovery Schedule shall utilize as its basis, the most current Progress Schedule with reasonable modifications to remaining work sequences, means or methods that will allow the project to complete by the current contractual substantial completion date.
- c) If, in the opinion of the Design-Builder, the current late status is due to Owner caused delays beyond the Design-Builder's control, the Design-Builder shall submit with the Recovery Schedule a Time Impact Analysis in accordance with section 1.06. This requirement shall not excuse the Design-Builder from all notice or other contractual claims requirements.

6. As-Built Schedule

- a) After all Contract work items are complete, and prior to final payment, the Design-Builder shall submit the final Progress Schedule that will be called the "As-Built" Schedule, showing actual start and actual finish dates for all schedule activities and milestones.
- b) The As-Built Schedule must be accompanied by a copy of the native electronic schedule file for review, analysis, archiving and transfer to other Project stakeholders as required.

H. Changes

1. Change Orders

- a) If Design-Builder determines that a proposed change order will delay work on the critical path, a Time Impact Analysis shall be performed in accordance with section 1.06 and submitted to Owner in conjunction with the cost proposal.
- b) Where there are associated time impacts, approved change orders must be incorporated into the next Schedule Revision Run following approval. Activities shall be added in sufficient detail to identify any work required by order. These activities shall then be cost and resource loaded as may be required by the Contract and subject to Owner approval. In the event that a change order includes a time extension, the milestone dates shall be adjusted accordingly.

I. Schedule Submittal Format

1. Time-scaled bar chart schedules shall be submitted on letter, legal or ledger size paper. Font size on the submitted schedules shall not be smaller than 8 point. Each schedule shall contain a title block with the following information.
 - a) Design-Builder's name.
 - b) Owner's Bid Package number and project name.
 - c) Plot date.
 - d) Data date.
 - e) Symbol definitions.
2. All project schedules shall be copied and submitted as one (1) PDF version and one (1) electronic copy of the native electronic schedule files for review, analysis, archiving and transfer to other Project stakeholders as required. The electronic versions shall be transmitted to the Owner via the Owner's Project Management software submittal module. Alternative means of transmittal must be approved by the Owner.
3. Additional schedule submittal formats and information may be requested to further support the current reported status of the Project, such as printed CPM reports, graphics or data tables.

J. Float

1. Float or slack is defined as the amount of time an activity can be delayed without delaying the project finish date.
2. Float within the schedule, and total float within the overall schedule, is not for the exclusive use of the Design-Builder, but is a jointly owned resource available to be reasonably used by both parties.
3. Use of float suppression techniques such as preferential sequencing or logic, lead/lag logic restraints, and extended activity durations are prohibited.
4. Extensions of time for performance required under the Contract Terms and Conditions will be granted only to the extent the time adjustment for the activity or activities affected exceeds the total float or slack along the channels involved at the time notice to proceed was issued for the change.
5. Since float within the schedule is jointly owned, it is acknowledged that Owner caused delays may be offset by Owner caused time savings (i.e. critical path submittals returned in less time than allowed by the Contract, approval of substitution requests which result in a savings of time to Design-Builder, etc.). In such an event, Design-Builder shall not be entitled to receive a time extension until all Owner caused time savings are exceeded and the Contract Times (or Milestones) are also exceeded.
6. The Project performance period shall be the duration between the Project start date and completion date as established in the Contract. In the event that the Design-Builder submits a Project Schedule depicting a planned early completion date, approval of such schedule is at the sole discretion of Owner which reserves the right to withhold approval.
7. Approval of an early completion Project Schedule shall not modify the Substantial Completion Date or the Project completion date that was set forth in the Contract. The time difference between the Design-Builder's completion date and the Contract Project completion date shall be considered as float. Under no circumstances shall the Owner be liable to the Design-Builder for any costs, delays or other damages if the Design-Builder is prevented from completing the work on a date before the Contractual Substantial Completion date.

1.04 GENERAL

- A. The following phasing constraints will universally apply to all phases and elements of this Work.
 1. Work shall be performed in a manner and during times so as to not impact Owner or Airport operations. Work times shall be submitted to the Owner for acceptance.
 2. Work area access is not exclusive to the Design-Builder. Design-Builder shall coordinate its Work activities, times and schedules so as to not impact work by others having concurrent access to the work area.

1.05 PHASING/SEQUENCING

A. General

1. The Work of this Contract will be performed in a phased construction schedule which will include all requirements for submittals, material and equipment procurement, material stockpiling, setting up Design-Builder's staging area, surveying of existing conditions and preparation of necessary schedules to meet the rigid requirements for Project completion according to the specific phases herein outlined and for the Project Substantial Completion, in accordance with Contract Documents. Where clock times are specified for specific work elements, these times will be local times.
2. THE DESIGN-BUILDER WILL NOTIFY THE OWNER, IN WRITING, AT LEAST 72 HOURS PRIOR TO THE DATE OF COMMENCEMENT OF ANY ON-SITE WORK, INCLUDING TEMPORARY FACILITIES, MOBILIZATION AND MATERIAL AND EQUIPMENT DELIVERIES.
3. The Design-Builder will coordinate with Owner and adjust the schedule so as not to interfere with the on-going operations of the Airport, nor impact the previously accepted work schedules of others having concurrent access to the Work area.

B. Work Sequence of Construction

1. The sequence of construction, if any, is provided solely for the purpose of indicating the general overview of the progressive steps to the Work so that existing Airport operations and functions and other contracts will be maintained in accordance with the requirements of the Owner. The descriptions of construction sequence will not be considered as definitive explanations of all the Work which may be required during each sequence.

1.06 TIME IMPACT ANALYSIS

- A. If a delay beyond Design-Builder's control is encountered and a time extension is requested, a Time Impact Analysis must be submitted to Owner, substantiating a delay to the current Project Completion date.
- B. Design-Builder shall make every attempt possible to mitigate the effects of a delay if that mitigation can be done without additional cost to Owner or disruption to the project. If mitigation attempts are not made by Design-Builder, a statement must be provided explaining why efforts to mitigate the delay were not taken.
- C. General Requirements
 1. The Time Impact Analysis shall be performed immediately following the delay events or when the full extent of the delay can be reasonably forecasted.
 2. A Comparison Schedule shall be created which will incorporate all actual start and finish dates, actual durations of activities, and actual sequences of construction, current as of the time the change or delay is encountered. The Comparison Schedule will be validated by Owner and all requests for a time extension shall be based upon an analysis

of this schedule.

3. Each Time Impact Analysis shall demonstrate the estimated time impact in days based on the delay events, status of construction at that point in time, and the event time computation of all activities affected by the change or delay. Each Time Impact Analysis must be accompanied by a written narrative and a copy of the native electronic schedule file for review, analysis, archiving and transfer to other Project stakeholders as required.

D. Time Impact Analysis Procedure

1. Comparison Schedule

- a) Begin by making a copy of the most recently approved schedule just prior to the start of the delay.
- b) Update the Comparison Schedule to the point just prior to the start of the delay.
- c) Remove any non-contractual constraints.
- d) Add an activity code and identify all activities impacted by the delay.
- e) Calculate the schedule and create a fragnet or filtered view of the activities impacted by the delay, denoting start dates, finish dates, float, and Calendar ID.

2. Impacted Schedule

- a) Begin by making a copy of the Comparison Schedule.
- b) Add the delay activities and appropriate relationships to the Impacted Schedule. The delay shall be described as simply as possible, with the fewest number of activities and relationships added in order to substantially reflect the impact of the delay to the schedule.
- c) Existing relationships shall be left intact unless this would negate the actual work restraints on the project. Any deleted or modified relationships are subject to Owner approval.
- d) If a delay occurs to an in-progress activity, break the existing delayed activity into two activities; with one representing the planned work before the delay and the other representing the planned work following the delay. The combined duration of the split activities must equal the original duration of that activity.
- e) Add an activity code and identify each new activity as a delay attributable to Owner, Design-Builder, or Other/Excusable.
- f) Calculate the schedule and create a fragnet or filtered view of the activities impacted by the delay, denoting start dates, finish dates, float, and Calendar ID.

3. Mitigation Schedule:

- a) If attempts are made by DESIGN-BUILDER to mitigate the effect of the delay, a Mitigation Schedule shall be created to identify the result of such efforts. Any mitigation attempts must be made without additional cost to OWNER or disruption to the project, unless otherwise directed by ENGINEER.
- b) Begin by making a copy of the Impacted Schedule.

- c) Incorporate the mitigation results into the schedule by revising the remaining duration status of the relevant activities to the remaining duration status evidenced at the time of the actual end of the delay. Activities performed out-of-sequence will still exist as successors to the impacted activity, but their remaining durations will be reduced to reflect the work performed during the delay period.
- d) Add an activity code and identify all activities which benefited from the mitigation efforts.
- e) Calculate the schedule and create a fragnet or filtered view of the activities impacted by the delay and subject to mitigation, denoting start dates, finish dates, float, and Calendar ID.

E. Time Impact Analysis Reporting

Each delay or impact shall be addressed with a separate Time Impact Analysis and submitted with a narrative containing the following information:

1. Cover Sheet.
2. Table of Contents.
3. Section 1: Analysis Summary
 - a) Briefly describe the circumstances surrounding the delay; including the cause and effects of the delay, efforts taken to mitigate the delay, the attributable party, and any other pertinent information.
 - b) If mitigation attempts are not made, a statement must be provided explaining why efforts to mitigate the delay were not taken.
 - c) Provide a summarization of the analysis results:
 - I. Identify the full duration of the delay (difference in Critical Path Float between the Comparison Schedule and the Impacted Schedule).
 - II. If necessary, apportion the delay appropriately to the responsible party and identify any concurrency.
 - III. Identify the results of any mitigation efforts.
 - IV. State the total amount of excusable days requested by Design-Builder as a result of the Time Impact Analysis.
 - d) Section 2: Comparison Schedule
 - I. Describe the status revisions made in order to update the schedule to the point just prior to the start of the delay events.
 - II. Include the schedule fragnet of relevant activities.
 - e) Section 3: Impacted Schedule
 - I. Describe all changes made to the schedule, including a detailed list of the added delay activities.
 - II. Include the schedule fragnet of relevant activities.

- f) Section 4: Mitigation Schedule
 - I. Describe all changes made to the schedule, including a detailed list of the activities that benefited from the mitigation efforts.
 - II. Include the schedule fragnet of relevant activities.
- g) Section 5: Supporting Documentation
 - I. Include any documentation relevant to the delay.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01330 – DESIGN SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION:

Scope includes design submittals required for proper execution of the Work as described herein. These requirements supplement the other requirements in the Contract Documents. In cases of conflict, the more stringent requirement shall govern as determined by the Owner.

1.02 SUMMARY:

- A. This Section specifies procedural requirements for submittal of Design Documents to verify that the design intent complies with provisions of the Contract Documents. The section contains detailed information required to be included in each design progress submittal made by the Design-Builder. All submittals shall conform to Owner's Design Standards which include, but are not limited to, Owner's Project Deliverables Requirements, Owner's CADD Standards, Owner's Design Criteria Manual, Owner's Sustainability Plan and BIM. The Design-Builder shall submit Design Review Documents at Preliminary, In-Progress and Final Design Level for review by the Owner, in accordance with the schedule of submittals required by the Contract Documents. Design-Builder shall also submit 100% completed set of documents in conformance with the Contract Documents.
- B. All drawings, calculations, and specifications submitted by the Design-Builder shall be prepared under the direct supervision and under the responsible charge of an appropriate Design Professional currently registered in the State of Florida. Such submittals shall be attested to by the responsible registered professional before submission and shall bear the name, registration number and discipline of the professional. Signed and sealed drawings and calculations shall be submitted for the Owner's records. Signed and sealed documents shall be submitted to Owner in a format that retains the Design Professional's name, registration number, discipline of the professional, and seal.
- C. Preliminary Design (30%) Submittal Level. The Design-Builder shall submit these design documents at a 30% or an appropriate level of design completion. At this review point, all design elements should appear on the drawings and specifications. Submittal shall conform to the requirements of the Contract Documents.
- D. In-Progress Design (60%) Submittal Level. For this submittal, the design, including all disciplines, shall be at 60% or an appropriate level of completion and submitted to demonstrate appropriate progress of the Preliminary Design and assure the Owner that the Final Design submittal will address all items such that the intent of the Contract is fully realized. The plans shall show all details necessary for construction and shall be coordinated among the various disciplines prior to submittal. All elements included in the scope of work, shall be completed. Submittal data for this review includes design drawings (including standards), specifications, calculations, long lead items list (if applicable), schedule of submittals, Owner's general conditions, and schedule of quality assurance testing.

- E. In-Progress Design (90%) Submittal Level. For this submittal, the design, including all disciplines, shall be at 90% or an appropriate level of completion and submitted to demonstrate appropriate progress of the Preliminary Design and assure the Owner that the Final Design submittal will address all items such that the intent of the Contract is fully realized. The plans shall show all details necessary for construction and shall be coordinated among the various disciplines prior to submittal. All elements included in the scope of work shall be completed. Submittal data for this review includes design drawings (including standards), specifications, calculations, long lead items list (if applicable), schedule of submittals, Owner's general conditions, and schedule of quality assurance testing.

Resolution of all previous design review comments shall be accomplished by Design-Builder and incorporated in the plans and specifications.

- F. Final Design (100%) Submittal Level. The purpose of this submittal is to provide completed construction documents. This submittal includes the incorporation of In Progress Review Comments. The approval by the Owner of this submittal shall constitute acceptance of such documents as Construction Documents pending issuance of Building Department permits for construction. The construction documents must be checked, signed, and sealed by the Engineer or Architect of Record, as applicable, in accordance with Florida Statutes prior to the start of construction. Any changes to approved 100% design documents must be documented using established change control procedures.

The data required for the Final Design Submittal Level is:

1. Original contract drawings and specifications.
 2. Final schedule.
 3. Long lead list if applicable.
 4. Actions and minutes from Pre-Final Review.
 5. Calculations.
 6. Standard drawings.
- G. Monthly As-Builts. Design-Builder will maintain an up-to-date electronic set of contract documents including drawings and specifications that are updated with ASIs, ESIs, RFIs, and other revisions. Design-Builder will provide adequate staffing to provide this function including up to a full time dedicated person or team to keep updated on a continuous basis. Owner shall be provided access 24 hours per day, 7 days per week to review. All sets will be merged for a complete updated set each month.
 - H. Record Documents. At project closeout, Design-Builder will submit Record Documents to Owner reflecting as-built conditions of the project in accordance with Section 01700 – PROJECT CLOSEOUT.

1.03 SUBMITTAL PROCEDURES:

- A. Submittal Copy Requirements. The Design-Builder shall provide documents for review for each required submittal as indicated below unless otherwise directed by the Owner.

The documents shall be in sets, indexed, and clearly marked to indicate the date of issue and the stage of development.

All drawing review submittals shall be in electronic format (i.e. pdf files (in searchable format) and CAD files in a format that allows them to be incorporated into the BIM Model) and submitted through the Owner's Management Software. . Supportive documentation shall be presented with standard format including, but not limited to, the following requirements for printed materials for each submittal with quantities per the Owner's request:

1. Drawings:
 - a. Up to five sets of full-size black and white prints.
 - b. Up to five sets of half-size black and white prints.
 - c. One set of electronic format documents submitted through the Owner's Management Software. (for each submittal).
 - d. Drawing index file, including font files and list of external reference files. External reference files shall not be bounded to drawing files. A layer matrix for each file will be submitted with each level of design documents.
2. Calculations:
 - a. Up to three sets of bound full-size paper copies.
 - b. Up to one set of full-size reproduces.
 - c. Calculations in electronic format with professional label and submitted through the Owner's Management Software.
3. Specifications:
 - a. Up to five sets of bound full-size copies.
 - b. Up to one set of full-size reproduces.
 - c. Specifications in electronic format with professional label and submitted through the Owner's Management Software.
4. Owner Design Standard Drawings. Design-Builder will list only that list including the revision designation. Final package shall include actual drawings (reproduces) supplied to the Design-Builder for addition of contract numbers, sheet number, etc. (standard only).
5. Cost and Schedule. Same as for calculations.

6. Actions and Minutes for Previous Design Review.

- B. Requirements for the Preparation of Design Submittals. All design submittals between the Design-Builder and the owner or its agents must follow adhere to the Owner's format and design standards.

1.04 OWNER'S ACTION:

- A. Upon receipt of a design submittal, the Owner will review the submittal for content and format. Failure to provide a complete submittal or variations from the Owner's design standards will be cause for its rejection and return to the Design-Builder.
- B. The Owner will distribute the submittal in accordance with the deliverables matrix developed for each project. A copy of the design review comments form will be distributed with the design documents. The Owner will determine the date design review comments are to be returned.
- C. Design documents will be reviewed by the Owner within the time periods set forth in the Contract Documents or three weeks whichever is longer, for conformance to the requirements and intent of the Contract Documents. Comments resulting from the review will be collected by the Owner and transmitted to the Design-Builder. After the Design-Builder's review and responses are provided on the technical review form and delivered to the Owner, the Owner will coordinate a technical review meeting, with select Owner's agents, at which the Design-Builder will present the proposed corrective action for each review comment. Design-Builder's questions will also be addressed at this meeting. The agreed upon review comment actions will be incorporated on the project documents prior to the next design submittal. The Design-Builder will take and publish minutes for these meetings through the Owner's Management Software. A technical review meeting will be conducted at each stage of the design.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01340 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. Requirements of the Contract Documents, including Division 01. The Design-Builder will be required to follow the Submittal Management Process for the development of a Submittal Register Log and submission of Submittal Packet.

1.2 SUMMARY:

This Section specifies administrative and procedural requirements for submittal of Shop Drawings, Product Data and Samples to verify that products, materials and systems proposed for use comply with provisions of the Contract Documents.

- A. Shop Drawings may include, but are not limited to, the following:

1. Fabrication Drawings.
2. Installation Drawings.
3. Setting diagrams.
4. Shop-work manufacturing instructions.
5. Templates and patterns.
6. Schedules.
7. Design mix formulas.
8. Coordination Drawings.

- B. Product Data may include, but are not limited to, the following:

1. Manufacturer's product specifications.
2. Manufacturer's installation instructions.
3. Standard color charts.
4. Catalog cuts.
5. Roughing-in diagrams and templates.
6. Standard wiring diagrams.
7. Printed performance curves.
8. Operational range diagrams.
9. Mill reports.
10. Standard product operating and maintenance manuals.
11. Material Safety Data Sheets (MSDS).

- C. Samples may include, but are not limited to, the following:

1. Partial Sections of manufactured or fabricated components.
 2. Small cuts or containers of materials.
 3. Complete units of repetitively-used materials.
 4. Swatches showing color, texture and pattern.
 5. Color range sets.
 6. Components used for independent inspection and testing.
- D. Administrative Submittals: Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals may include, but are not limited to:
1. Schedule of Submittals.
 2. Permits.
 3. Applications for payment.
 4. Performance and payment bonds.
 5. Insurance certificates and endorsements.
 6. Listing of subcontractors, subcontracts and purchase orders.
 7. Design-Builder's construction schedule.
 8. Progress Schedules.
 9. Progress reports.

1.3 SUBMITTAL PROCEDURES:

- A. Coordination: Coordinate preparation and processing of submittals with performance of the Work.
1. At the beginning of the Work, the Design-Builder will prepare and submit a Submittal Register based on all of the submittal requirements in the specifications. Each item called out shall have an individual record (line) in the Submittal Register and this will be submitted for Owner approval and comment. The Owner will indicate on the Submittal Register those submittals that will be reviewed by the Owner.
 2. The Design-Builder shall review submittals before submitting to the Owner. Transmit each submittal to the Owner sufficiently in advance of scheduled performance of related construction activities to avoid delay. If any submittals will be delayed, inform the Owner in writing giving reasons for the delay and a revised submittal schedule. Delays will be subject to Owner's approval. No extension of time will be authorized because of a Design-Builder's failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing.

3. The Owner will review submittals for general conformance with the Contract Documents. The review of the submittals by the Owner will not constitute any release or discharge of Design-Builder's sole liability and responsibility for all such submittals.
4. Request for payment of stored materials will not be considered until submittals have been received and approved by the Owner.
5. Transmit submittals to the Owner to prevent delays. The Design-Builder is responsible for delays accruing directly or indirectly from submission or resubmission of submittal date.
6. The Design-Builder shall coordinate each submittal with other submittals and related activities that require sequential activity including:
 - a. Testing.
 - b. Purchasing.
 - c. Fabrication.
 - d. Delivery.
7. The Design-Builder shall coordinate transmittal of different types of submittals for the same element of the Work and different elements of related parts of the Work so that processing will not be delayed by the Owner's need to review submittals concurrently for coordination.
 - a. The Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are delivered to the Owner.
8. Processing: The Design-Builder shall allow sufficient review time so that Work will not be delayed as a result of the time required to process submittals, including time for re-submittals.
 - a. The Design-Builder shall allow for time for the Owner's initial review of each submittal. The standard time for Owner review will be 21 calendar days unless a different duration has been agreed to by Owner and Design-Builder. Where processing must be delayed to permit coordination with subsequent submittals, additional time is allowed. The Owner will advise the Design-Builder promptly when a submittal being processed must be delayed for coordination.

- b. The Design-Builder shall where necessary to provide an intermediate submittal between the initial and final submittals, process the intermediate submittal in the same manner as the initial submittal.
 - c. The Design-Builder shall allow time for reprocessing of each submittal to meet the schedule.
 - d. No extension of time will be authorized because of a Design-Builder's failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing.
- B. All submittals shall be submitted electronically through the Owner's Management Software and use the Packages to pull register items in for review. Close-out submittals, including O&M Manuals shall be submitted through the Close-out Register for review and tracking purposes.
- 1. The Design-Builder shall place a permanent label or title block on each submittal for information.
 - 2. The Design-Builder shall indicate the name of the firm or entity that prepared each submittal on the label or title block.
 - 3. The Design-Builder shall provide a space approximately 4 inches by 5 inches on the label or adjacent to the title block to record the Design-Builder's review and approval markings and the action taken by the Owner.
 - 4. The Design-Builder shall include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Project Number.
 - c. Date.
 - d. Name and address of Owner.
 - e. Name and address of Design-Builder's Designer.
 - f. Name and address of Design-Builder.
 - g. Name and address of subcontractor.
 - h. Name and address of supplier.
 - i. Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.

- I. Similar definitive information as necessary.
5. The Design-Builder shall stamp each page (sheet) of the submittal with the Design-Builder's certification statement, or other approval statement, as follows:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated in the work, is in compliance with the Contract Documents, can be installed in the allocated spaces, and is submitted for review by the Owner.

Certified by Submittal Reviewer _____.
Date: _____"

- C. Submittal Transmittal: The Design-Builder shall package each submittal appropriately for electronic transmittal and handling. The Design-Builder shall transmit each submittal from Design-Builder to Owner, as indicated, by use of Submittals received from sources other than the Design-Builder will be returned to the sender without action. Submittal descriptions shall follow the Owner's naming conventions.
 1. The Design-Builder shall record relevant information and requests for data on the transmittal form. On the form, or an attached separate sheet, the Design-Builder shall call attention to deviations from requirements of the Contract Documents, including minor variations and limitations.
 2. The Design-Builder shall include the Design-Builder's signed certification stating that information submitted complies with requirements of the Contract Documents.

1.4 SPECIFIC SUBMITTAL REQUIREMENTS:

- A. Shop Drawings: The Design-Builder shall submit newly prepared information, drawn to accurate scale. THE DESIGN-BUILDER SHALL NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD PRINTED INFORMATION AS THE BASIS OF SHOP DRAWINGS.
 1. The Design-Builder shall include the following information on Shop Drawings:
 - a. Dimensions.
 - b. Identification of products and materials included.

- c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 2. The Design-Builder shall submit Coordination Drawings where required for integration of different construction elements. The Design-Builder shall show construction sequences and relationships of separate components where necessary to avoid conflicts in utilization of the space available.
 3. THE DESIGN-BUILDER SHALL ENCIRCLE, IDENTIFY WITH ARROW, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS ON THE SHOP DRAWINGS.
 - a. THE DESIGN-BUILDER SHALL NOT USE COLORED HIGHLIGHTERS TO INDICATE SELECTIONS.
 4. The Design-Builder shall not allow Shop Drawing copies which do not have an appropriate final stamp or other marking indicating action taken by the Owner to be used for construction.
- B. Product Data: The Design-Builder shall collect Product Data into a single submittal for each element of construction or system.
 1. The Design-Builder shall encircle and identify with an arrow, each copy to show which choices and options are applicable to the Project.
 - a. The Design-Builder shall not use colored highlights to indicate selection.
 2. Where Product Data has included information on several similar products, some of which are not required for use on the Project, or are not included in this submittal, the Design-Builder shall mark copies to clearly indicate which information is applicable.
 3. Where Product Data must be specially prepared for required products, materials or systems, because standard printed data are not suitable for use, the Design-Builder shall submit as "Shop Drawings" not "Product Data."
 4. The Design-Builder shall include the following information in Product Data:
 - a. Manufacturer's printed recommendations.

- b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
5. The Design-Builder shall not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
6. The Design-Builder shall furnish copies of final Product Data submittal to manufacturers, subcontractors, suppliers, fabricators, installers, governing authorities and others as required for performance of the construction activities. The Design-Builder shall show distribution on transmittal forms.
- a. The Design-Builder shall not proceed with installation of materials, products and systems until a copy of Product Data applicable to the installation is in the installer's possession.
 - b. The Design-Builder shall not permit use of unmarked copies of Product Data in connection with construction.
- C. Samples: The Design-Builder shall submit Samples physically identical with the material or product proposed for use; submit full-size, fully fabricated Samples, cured and finished in the manner specified.
1. The Design-Builder shall mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. The Design-Builder shall prepare Samples to match Designers' Sample where so indicated and include the following information:
- a. Generic description of the Sample.
 - b. Size limitations.
 - c. Sample source.
 - d. Product name or name of manufacturer.
 - e. Compliance with recognized standards.
 - f. Compliance with governing regulations.
 - g. Availability.
 - h. Delivery time.
2. Design-Builder shall submit a Sample log at the beginning of the project to the Owner based on the required samples per the submittals.

3. In-place samples are only allowed with written approval by Owner.
- D. Operating and Maintenance Manuals: Operating and Maintenance Manuals shall be initially submitted for review at the appropriate percent completion stage of Work per requirements under these Sections. These appropriate percent completion stage will be determined by trade. The Manuals will be reviewed and comments returned to the Design-Builder. Corrections shall be made before submittal of the Manuals at subsequent completion levels for Owner review and at Project Close-out.
- E. In order to facilitate review of product data and shop drawings, they shall be noted, unless otherwise agreed to by Owner, indicating by cross reference the contract drawing sheet number, note, and specification paragraph numbers, where and what item(s) are used for and where item(s) occur in the contract documents.

1.5 OWNER ACTION:

- A. Except for submittals for the record, for information and similar purposes, where action and return on submittals is required or requested, the Owner will review each submittal, mark with appropriate "action," and where possible return within the time period allotted for Owner review. Where the submittal must be held for coordination, the Owner will so advise the Design-Builder without delay.
 1. Compliance with specified characteristics is the Design-Builder's responsibility, and not considered part of the Owner's review and indication of action taken.
- B. The Owner will stamp each submittal sheet or page to be returned with a uniform, self-explanatory action stamp appropriately marked and executed to indicate whether the submittal returned is for unrestricted use (no exceptions taken), final-but-restricted use (as marked), must be revised and resubmitted (use not permitted), or without action (as explained on the transmittal form), or other similar type wording.
- C. The Owner's review of submittals is for design conformity and general conformance of the Contract Documents only and does not relieve the Design-Builder from responsibility for any deviations from the requirements of the Contract Documents. The Owner's review shall not be construed as a complete check nor shall it relieve the Design-Builder from responsibility for errors of any sort in shop drawings or schedules, or from the necessity of furnishing any work required by the Contract Documents which may have been omitted on the shop

drawings. The Owner's review of a separate item shall not indicate review of the complete assembly in which it functions.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.5 SCHEDULE OF SUBMITTALS DESCRIPTION AND SUBMITTAL REGISTER

- A. General: The following is a description of each submittal type, specified in other Sections, required for the Contract. Design-Builder shall include each submittal description in the Submittal Register included as part of this Section.
1. Product Data means submittals that provide calculations, descriptions or other documentation regarding the work.
 2. Manufacturer's Catalog Data (Product Data) means data composed of information sheets, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the Contract Documents.
 3. Manufacturer's Standard Color Charts (Product Data) means preprinted illustrations displaying choices of color and finish for a material or product.
 4. Shop Drawings means graphic representations illustrating the relationship of various components of the work, schematic diagrams of systems, details of fabrications, layout of particular elements, connections, and other relational aspects of the work.
 5. Design Data (Shop Drawings) means design calculations, mix designs, analyses, or other data written and pertaining to a part of the work.
 6. Instructions (Product Data) means preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets, if any, concerning impedance, hazards, and safety precautions.
 7. Schedules (Shop Drawings) means a tabular list of data or a tabular listing of locations, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

8. Statements (Shop Drawings) means documents, required of the Design-Builder, or through the Design-Builder by way of a supplier, installer, manufacturer, or other lower tier contractor, the purpose of which is to further the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality.
9. Reports (Product Data) mean reports of inspection and laboratory tests, including analysis, an interpretation of test results. Each report shall be properly identified. Test methods used and compliance with recognized test standards shall be described.
10. Test Reports (Product Data) mean reports signed by an authorized official of a testing laboratory that a material, product, or system identical to the material, product or system to be provided has been tested in accordance with requirements specified by naming the test method and material. The test report must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. Testing must have been within three years of the date of award of this Contract.
11. Factory Test Reports (Shop Drawings) mean written reports which include the findings of a test required to be performed by the Design-Builder or an actual portion of the work or prototype prepared for this project before it is shipped to the job site. The report must be signed by an authorized official of a testing laboratory and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test.
12. Field Test Reports (Shop Drawings) mean written reports which includes the findings of a test made at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation. The report must be signed by an authorized official of a testing laboratory or agency and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test.
13. Certificates (Shop Drawings) mean statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material meet specified requirements. The statements must be dated after the award of this contract, name the

project, and list the specific requirements which it is intended to address.

14. Warranties (Product Data) include but are not limited to statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material will perform its specific function over a specified duration of time. The statement must be dated, and include the name of the project, the Owner's name, and other pertinent data relating to the warranty.
15. Samples (Samples) include both fabricated and non-fabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.
16. Color Selection Samples (Samples) mean samples of the available choice of colors, textures, and finishes of a product or material, presented over substrates identical in texture to that proposed for the work.
17. Sample Panels (Samples) mean assemblies constructed at the project site in a location acceptable to the Owner and using materials and methods to be employed in the work; completely finished; maintained during construction; and removed at the conclusion of the work or when authorized by the Owner.
18. Sample Installations (Samples) mean portions of an assembly or material constructed where directed and, if approved, retained as a part of the work.
19. Record means documentation to ensure compliance with an administrative requirement or to establish an administrative mechanism.
20. Operating and Maintenance Manuals (Records) mean data intended to be incorporated in an Operating and Maintenance Manual.
21. Test Reports of Existing Conditions mean documents describing existing conditions and operations of systems and components prior to the start of any work. Testing shall be held in the presence of the Owner. Provide copies of the test reports to the Owner.
22. Demonstration means physical operation of equipment and systems by factory authorized representatives to demonstrate to the Owner's facility personnel proper operation of systems. Provide all required documentation that certified completed demonstration.

23. As-Built Drawings means delineated documentation accurately depicting final installation location of components and systems of the building.
 24. Shop Drawings in Electronic format mean that when drawings are required all materials shall be provided in AUTOCAD latest release and PDF and/or BIM on a CD/DVD.
 25. Coordination Drawings mean the special type of Shop Drawings that show the relationship and integration of different construction elements that require close and careful coordination during fabrication or during installation to fit in the restricted space provided or to function as intended.
 26. Certification of Approved Disposal of Hazardous Materials means the certification signed by the Design-Builder indicating legal disposal of hazardous materials.
 27. CD/DVD Training Tape means the taped training instructions to be used by the Owner's personnel.
 28. Spare Parts Memo means the listing of spare parts required; refer to Section 01700.
 29. UL Letter of Finding means a document from Underwriters Laboratories Inc., attesting compliance with UL's standard for connection to an existing lightning protection system; a document from Underwriters Laboratories Inc., attesting compliance with UL's standard for UL Master Label.
 30. Equipment Check-Out Memos mean documents signed by the manufacturer's authorized representative stating that equipment has been installed and is operating in accordance with the manufacturer's specifications; refer to Section 01700.
- B. Submittal Register: The Design-Builder is to maintain an accurate updated Submittal Register and will bring this register to each scheduled OAC meeting with the Owner. The Submittal Register should include the following items:
1. Submittal-Description and Number assigned.
 2. Date to Owner.
 3. Date to Designer as appropriate.
 4. Date returned to Owner.

5. Date returned to Design-Builder from Owner.
6. Submittal Status.
7. Date of Re-submittal and Return (as applicable).
8. Date material released (for fabrication).
9. Projected date of fabrication.
10. Projected date of delivery to site.
11. Status of submittal.
12. Specification Section Number.
13. Specification Paragraph Number.
14. Owner Reviewer.
15. Designer Reviewer.
16. Transmittal Control Number.
17. Planned Submittal Date.
18. Action Code.
19. Date of Action.
20. Remarks.

END OF SECTION

SECTION 01350 - BUILDING INFORMATION MODELING REQUIREMENTS

PART 1 – GENERAL

1.01 DESCRIPTION

A. Definitions:

1. Building Information Modeling (BIM): A process focused on the development, use and transfer of facility attribute data of a construction project to improve the design, construction and operations of a project in order to achieve project specific goals.
2. Level of Development (LOD): Level of completeness to which a model element is developed at the end of each design and construction phase.
3. BIM Project Execution Plan: A plan that defines how BIM will be implemented throughout the project lifecycle.

1.02 BIM REQUIREMENTS

- A. BIM Project Execution Plan: Design-Builder will develop a BIM Project Execution Plan documenting the collaborative process, analysis technologies and workflows in which BIM will be implemented throughout the lifecycle of the project. Design-Builder will include a plan, prior to start of construction, which outlines the process for concurrent conformed as-built documentation for Owner's review.
- B. Design Intent Model: Design-Builder will develop a Design Intent Model that includes accurate and relevant geometry required to design the Project. Design-Builder will update the Design Intent Model with RFIs, ASIs & Change Orders at agreed upon intervals during Construction.
- C. Clash Detection: Design-Builder will manage, coordinate design disciplines and perform clash detection analyses within the BIM Model at each milestone set by the BIM Project Execution Plan.
- D. Record BIM Model: Design-Builder will validate the Design Intent Model to produce a Conformed BIM Model to be delivered to the Owner prior to final acceptance of the Work.
- E. BIM Meetings: Design-Builder will facilitate coordination meetings as necessary to timely resolve design conflicts and/or coordination issues. Design changes made during this process will be properly documented by the Design-Builder and the conformed BIM Model updated as necessary.

1.03 DESIGN-BUILDER'S RESPONSIBILITIES

- A. The Design-Builder's responsibilities include:
 1. Overall development and delivery of the conformed BIM Model.

2. Ensuring compliance with the BIM Project Execution Plan and related BIM Level of Development (LOD) Matrix.
3. Development, coordination, publication, and verification that all BIM configurations are in place as required for the integration of the design phase and construction phase model information, elements, etc.
4. Coordination of the file management procedures and protocols for the Design Intent Model and conformed BIM Model.
5. Coordination and set-up of shared file servers to be utilized for the BIM, including related access, permissions, protocols, etc.
6. Preparation, assembly, and facilitation of the use of the Design Intent Model for design meetings, coordination meetings, and deliverables.
7. Proper identification of all spaces, equipment, and components within the Design Intent Model and As-Built BIM Model.
8. Schedule, coordinate, and facilitate BIM technical meetings.
9. Facilitation of the use of trade models for the purpose of trade coordination and clash detection (when available or provided by trade contractors).
10. Determine the project BIM geo-reference point(s), and ensure that the models from all design disciplines are properly referenced and coordinated with the geo-reference point(s). The Design Intent Model shall be geolocated, follow the State Plane Coordinate system, and have established BIM Shared Coordinates derived from existing control monuments found in the Tampa International Airport Geodetic Control Map.
11. Serve as the interface between the Design-Builder and Owner for BIM data and file transfers.
12. Ensuring that the BIM design deliverables comply with Contract requirements.
13. Ensuring that the 2D Project drawings and Project specifications produced for bidding and construction purposes are properly derived from and adequately represent the information contained within the Design Intent Model and As-Built BIM Model.
14. Integration and/or coordination of the construction schedule with BIM on a limited basis as defined and needed by the Design Builder to assist in visually representing the overall program schedule.
15. Updating the Design Intent Model for design changes that occur after construction has commenced.
16. Coordination with subcontractor fabrication modelers as may be required for procurement and construction activities.
17. Developing the final conformed BIM Model in accordance with the BIM Execution Plan.

1.04 PROJECT REQUIREMENTS

- A. Visualization Requirements: The Design Intent Model will be utilized to aid in visualizing and understanding the design during the early phases of the project.
- B. Sustainability/Documentation: When applicable, sustainability data will be incorporated in the conformed BIM Model.
- C. Asset Management/Documentation: When applicable, asset data will be incorporated in the As-Built BIM Model.

- D. Coordination/Clash Detection: The Design-Builder will utilize the appropriate software as defined by the BIM Execution Plan to coordinate design disciplines and perform clash detection analyses.

1.05 BIM SOFTWARE AND INFORMATION EXCHANGE

- A. Design Tools: The Design-Builder will develop the design using the latest versions of software as defined by the BIM Execution Plan Any deviations shall require approval from the Design-Builder and Owner. The Design-Builder will not change software versions during the project without notification to the Owner.
- B. Information Exchange: The Design-Builder will use an electronic share platform as a means of sharing and storing BIM data.
- C. Owner's Use of Models: The Owner will have unlimited use of all BIM Models produced for the Project at Project completion.

1.06 COORDINATION GUIDELINES

- A. Resolution of Interferences: The Design-Builder shall participate in the coordination meetings as necessary to timely resolve design conflicts and/or coordination issues. Design changes made during this process shall be properly documented by the Design-Builder and the Design Intent Model shall be updated as necessary.
- B. Navisworks Requirements: Navisworks files will be created at all critical coordination milestones. This record format will document a coordinated section of the Design Intent Model, either by area of the building or between specific critical trades. The collision viewpoints showing all applicable collisions as either approved or resolved are included in the Navisworks file and will be uploaded to the project collaboration system Coordination viewpoints will be created in Navisworks with respect to what has and has not been coordinated. Navisworks viewpoints will include the following information at a minimum:
 - 1. Description of collision report.
 - 2. Date collision was detected and resolved.
 - 3. List of all collisions detected in the Design Intent Model, their status, and the proposed solution to resolve the conflicts.
 - 4. Graphical representation of the model geometry corresponding to each collision detected in the Design Intent Model.

1.07 PROJECT DELIVERABLE REQUIREMENTS

- A. 30 Days after NTP
 - 1. BIM Project Execution Plan.

Included in the Part 1 Contract.

1.08 PROJECT CLOSE OUT

A. Documentation Methodology

1. During the construction process, the Design-Builder will incorporate changes triggered by requests for information (RFIs), Supplemental Instructions, and Change Orders into the Architectural, Structural, and MEP design models.
2. At specified periods during the construction process, the Design-Builder will document in their copy of the Revit BIM model(s) or 3D Coordinated Navisworks model(s), all changes generated from shop drawings, coordination drawings, and field changes. The finished model shall be reviewed for document accuracy and completeness by the Design-Builder and Owner prior to finalization.

B. Final conformed BIM Model: Design-Builder will provide a Final conformed BIM model in Navisworks including but not limited to all Architectural Systems, Engineering Systems, structural framing, partition systems with structure, flooring systems, partition systems with bulkheads, partition systems with expansion control, vertical transportation systems, specialty equipment, millwork and casework systems, horizontal ceiling systems with access openings, all finishes information, bulkheads, partitions, exterior skin systems with window openings, structure, roof edge conditions, parapets, roof penetrations, and equipment locations HVAC systems, piping, sewerage and/or conduit systems, HVAC duct runs, fire protection, lighting, power and data outlets, electrical conduits, ceiling grids layouts, audio visual, security and communication distribution systems (cable trays, etc.)

C. Final Record BIM and CAD Data Submittal.

1. Final Record BIM Model including all Request For Information (RFI), Architect Supplemental Instructions (ASI), and Change Orders (CO) for clear interpretations for all disciplines. The Final Record BIM Model is intended to contain all views, legends, schedules, sheets, families and groups necessary for the documentation of the project.
2. Computer Aided Design (CAD) format files from the Final Record BIM Model.
3. Two-dimensional drawing deliverables printed directly from the Record BIM Model in (Individual and Combined by project and discipline) PDF format.
4. A three-dimensional interactive review format of the Final Coordinated BIM Model in the latest version of Autodesk Navisworks.

1.09 WARRANTIES

- ### A.
- By approving and submitting the conformed BIM Model to the Owner, the Design-Builder thereby represents that the Design-Builder has determined and verified all dimensions, quantities, relations to existing work, coordination with work, and verification of compliance with contractual requirements. The accuracy of all such information is the responsibility of the Design-Builder.

END OF SECTION

SECTION 01370 - SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section includes requirements for preparation and submission of "Schedule of Values."
- B. Related work specified elsewhere:
 - 1. SCHEDULES, PHASING: Section 01315.
 - 2. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES: Section 01340.
 - 3. PRODUCTS AND SUBSTITUTIONS: Section 01605.
- C. Time Coordination: In coordination of initial submittals and other administrative start-up activities, the Design-Builder shall submit Schedule of Values to the Owner at earliest feasible date, but in no case later than 14 days before initial payment request is to be submitted.
- D. Upon request by the Owner, the Design-Builder shall support values given with data that will substantiate their correctness.
- E. The Design-Builder shall use Schedule of Values only as a basis for the Design-Builder's Applications for Payment.

1.02 FORM OF SUBMITTAL

- A. The Design-Builder shall submit the Schedule of Values using a modified AIA Document G-703 "Continuation Sheet". Modifications to the Template Microsoft Excel Schedule of Values will be required per Owner's direction. The basic format structure for the Schedule of Values will be governed by the following elements. Changes or clarification to the format will be at the sole approval of the Owner.
 - 1. No negative line items without Owner approval.
 - 2. Should a negative line item be allowed, it shall be billed out 100% during the first month that the negative line item appears.
 - 3. Any approved negative line items shall have all retainage dropped to 0% by the second pay application following the initial item appearing on the Schedule of Values.
 - 4. Schedule of Values shall be crafted using Excel. Monthly adjustments shall be made using a tracking mechanism. This tracking mechanism will be dictated by the Owner.
 - 5. Each Schedule of Values line item must be specific to one subcontractor once bought out.

6. A column shall be used to identify the sub/vendor that was awarded the work or identified as not yet bought out.
 7. The Current Schedule of Values column must tie back to a subtotal on the Subcontractors Schedule of Values once a scope of work has gone through the buyout process.
 8. The Design-Builder may not add additional line items to the Schedule of Values without Owner approval unless new work is add by Owner Change Order or by Work Order. Work Orders that add or modify existing work shall modify the same line item on the Schedule of Values.
 9. After a scope of work is bought out, any buyout savings must be moved to the unallocated buyout line item.
 10. Changes to existing work shall not have a new line added to the Schedule of Values but shall be adjusted using a tracking method approved by the owner.
 11. A column will be added to track funding source if required by Owner.
 12. Columns will be included to track status of retainage and release of retainage.
- B. The Design-Builder shall organize the Schedule of Values utilizing the hierarchy structure provided in the Excel Schedule of Values Template. All Schedule of Value Line Items shall be categorized by four main groups including Construction Cost of Work, Soft Costs, Part 2 Design Costs, Insurance Permitting and Bonds, and Owner's Allowance. The Construction Cost of Work Schedule of Value Line Items must directly align to the Work Break Down Structure approved through the Baseline Schedule Approval process. Work Break Down Structure elements should be subtotaled with in the Construction Cost of Work section of the Schedule of Values.

1.03 PREPARING SCHEDULE OF VALUES

- A. The Design-Builder shall prepare Schedule of Values in coordination with preparation of Progress Schedule. The Design-Builder shall correlate line items with other administrative schedules and forms required for Work, including progress schedule, payment request form, listing of subcontractors, schedule of allowances, schedule of alternatives, listing of products, principal suppliers and fabricators, and schedule of submittals.
- B. The Design-Builder shall provide breakdown of Guaranteed Maximum Price Contract Sum in sufficient detail to facilitate continued evaluation of payment requests and progress reports. The Design-Builder shall breakdown principal separate Contract amounts based on the Work Break Down Structure approved through the Baseline schedule review process.
- C. The Design-Builder shall submit copies of Schedule of Values to the Owner through the Owner's management software.
- D. Listing: The Design-Builder shall arrange Schedule with columns to indicate generic name of item; related Specifications Sections; subcontractor, supplier, manufacturer, or fabricator; change orders which have affected value; dollar value of item; and percentage of Guaranteed Maximum Price Contract Sum to nearest 1/100% and adjusted to total 100%.

- E. Margins of Cost:
 - 1. The Design-Builder shall show line items of indirect costs and margins on actual costs, only to extent such items will be individually listed in payment requests.
 - 2. Major cost items which are not directly cost of actual work-in-place, such as distinct temporary facilities, shall be either shown as line items in Schedule of Values as General Conditions or General Requirements.
- F. The Design-Builder shall itemize separate line item cost for Work required by each Section of this Specification including conditions of the Contract.
 - 1. The Cost of General Conditions of the Contract will be paid based on the percentage of the Work completed or actual cost and this cost will appear in the Design-Builder's monthly Application for Payment.
- G. For each line item which has installed value of more than \$250,000.00, the Design-Builder shall require the Subcontractors G703 line items to be broken down to list major products or operations under each item. This value can be adjusted as needed by the Owner.
- H. The Design-Builder shall make sum of total costs of all items listed in schedule equal to total Guaranteed Maximum Price Contract Sum.

1.04 REVIEW AND RESUBMITTAL

- A. After review by the Owner, the Design-Builder shall revise and re-submit Schedule (and Schedule of Material Value) as required.
- B. The Design-Builder shall re-submit revised schedule in same manner.
- C. Schedule Updating: The Design-Builder shall update and resubmit the Schedule of Values when Change Orders affect the listing and when actual performance of Work involves necessary changes of substance to values previously listed.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01380 - PRE-CONSTRUCTION VIDEO

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Requirements of the Contract Documents, including Division 01.

1.2 SUMMARY

- A. Section includes: construction video

1.3 SUBMITTALS

- A. The Design-Builder shall submit a video of the entire construction site prior to the commencement of any Work. Video shall be submitted on a portable media device/hard drive. Video format shall be compatible with the latest release of Windows Media Player. The video shall be submitted for review and approval by the Owner prior to the commencement of construction activity.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION VIDEO

- A. Before starting construction, the Design-Builder shall record video of the site and surrounding properties from different points of view as selected by the Owner. The Design-Builder shall record pre-existing conditions of the site and abutting properties obtained from several perspectives. The Design-Builder shall provide narrative describing the vantage point and area being recorded.
 1. The Design-Builder shall take videos in sufficient number to show existing conditions adjacent to the property before starting Work.
 2. The Design-Builder shall take videos of existing improvements adjoining the site in sufficient detail to record accurately the physical conditions at the start of construction.

END OF SECTION

SECTION 01390 - CONTROL OF WORK

PART 1 - GENERAL

1.01 AUTHORITY OF THE OWNER

The Owner will decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, and/or the manner of performance and rate of progress of the Work. The Owner will decide all questions which may arise as to the interpretation of the Contract Documents relating to the Work, the fulfillment of the Contract on the part of the Design-Builder, and the rights of different Contractors on the Project. The Owner will determine the amount and quality of the several kinds of work performed and materials furnished which are to be paid for under the Contract.

1.02 CONFORMITY WITH DRAWINGS AND SPECIFICATIONS

- A. All Work and all materials furnished will be in reasonably close conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified, including specified tolerances, in the Contract Documents.
- B. If the Owner finds the materials furnished, Work performed, or the finished product not within reasonably close conformity with the Contract Documents but that the portion of the Work affected will, in Owner's opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the affected Work may be accepted and remain in place at the Owner's sole discretion. In this event, the Owner will document its determination and provide for an adjustment in the Contract Sum for the affected portion of the Work. The Owner's determination and Contract Sum adjustments will be based on good engineering judgment and such tests or retests of the affected Work as are, in Owner's opinion, needed. Changes in the Contract Sum will be covered by Contract modifications as applicable.
- C. If the Owner finds the materials furnished, Work performed, or the finished product are not in reasonably close conformity with the Contract Documents and have resulted in an unacceptable finished product, the affected Work or materials will be removed and replaced or otherwise corrected by, and at the expense of, the Design-Builder (not billable to the GMP) in accordance with the Owner's written orders. Such Design-Builder expenses (non-billable to GMP) could include any required testing or retesting (as determined by the Owner).
- D. For the purpose of this section, the term "reasonably close conformity" will not be construed as waiving the Design-Builder's responsibility to complete the Work in accordance with the Contract Documents. The term will not be construed as waiving the Owner's right to insist on strict compliance with the Contract Documents during the Design-Builder's prosecution of the Work, when, in the Owner's opinion, such compliance is essential to provide an acceptable finished portion of the Work.

- E. For the purpose of this section, the term "reasonably close conformity" is also intended to provide the Owner with the authority to use good architectural and engineering judgment in his/her determinations as to acceptance of Work that is not in strict conformity but will provide a finished product equal to or better than that intended by the requirements of the Contract Documents.

1.03 COORDINATION OF CONTRACT DOCUMENTS

- A. The Contract Documents and all referenced standards cited are essential parts of the Contract requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide the complete Work. In case of discrepancy, figured dimensions, unless obviously incorrect, will govern over scaled dimensions. Cited standards for materials or testing and cited FAA advisory circulars will be considered as Standard Specifications.
- B. Any table, gradation, size, dimension, rate, mix, method, nomenclature, pay item number, basis of payment or method of measurement shown on the Drawings, which is in variance with the Standard Specifications, will be considered an amendment or supplement to the applicable Specification.
- C. The Design-Builder shall not take advantage of any apparent error or omission on the various Contract Documents. In the event the Design-Builder discovers any apparent conflict, error or discrepancy, Design-Builder shall immediately call upon the Owner for the Owner's interpretation and decision, and such decision shall be final.
- D. From time to time, discrepancies within cited standards for testing occur due to the timing of changing, editing, and replacing of standards. In the event the Design-Builder discovers any apparent discrepancy within standard test methods, the Design-Builder shall immediately call upon the Owner for interpretation and decision, and such decision shall be final.

1.04 DESIGN PROFESSIONAL'S DRAWINGS

- A. The Drawings furnished by the Design Professional consist of general drawings showing such details as are necessary to give a comprehensive idea of the Work. Roadway Drawings will show, in general, alignment, profile grades, typical cross sections and general cross sections. Structure Drawings, in general, will show in detail all dimensions of the Work contemplated.
- B. When the Structure Drawings do not show dimensions in detail, they will show general features and such details as necessary to give a comprehensive idea of the structure.
- C. Not all conflicts are known within the Project area. Not all conflicts are shown on the Drawings. The Design-Builder is solely responsible for the location and protection of all equipment and facilities which are to remain in service and in place during and after all Project Work.
- D. No changes (additions, deletions, or substitutions) to the drawings or specifications shall occur without the express written approval of the Owner.

1.05 FIELD NOTES

Adequate field notes and records will be kept as layout work is accomplished. These field notes and records will be available for review by the Owner and Design Professional as the Work progresses and copies will be furnished to the Owner and Design Professional at the time of completion of the Project. An inspection or checking of the Design-Builder's field notes or layout work by the Owner or Design Professional, and the acceptance of all or any part thereof will not relieve the Design-Builder of its responsibility to achieve the lines, grades, and dimensions shown in the Drawings and Specifications.

1.06 AUTHORITY AND DUTIES OF INSPECTORS

- A. Inspectors employed by the Owner will be authorized to inspect all Work done and all materials furnished. Such inspection may extend to all or any part of the Work and to the preparation, fabrication, or manufacture of the materials to be used. Inspectors are not authorized to revoke, alter, or waive any provision of the Contract. Inspectors are not authorized to issue instructions contrary to the Drawings and Specifications or to act as foreman for the Design-Builder.
- B. Inspectors employed by the Owner are authorized to notify the Design-Builder or their representatives of any failure of the Work or materials to conform to the requirements of the Contract, Drawings, or Specifications and to reject such nonconforming materials until such issues can be referred to the Design Professional for recommendation and Owner's approval.
- C. Inspectors have the authority to immediately suspend the Work upon observation of any condition that could adversely impact or interfere with the safety or protection of persons or property.

1.07 INSPECTION OF THE WORK

- A. All materials and each part or detail of the Work will be subject to inspection by the Owner or Design Professional. The Owner or Design Professional will be allowed access to all parts of the Work and will be furnished with such information and assistance by the Design-Builder as is required to make a complete and detailed inspection. Required assistance from the Design-Builder might include use of qualified personnel and equipment to gain access to the area, safety or personal protection equipment, and other resources to provide safe egress to and from the area to be inspected.
- B. If the Owner requests it, the Design-Builder, at any time before acceptance of the Work, will remove or uncover such portions of the finished Work as may be directed. After examination, the Design-Builder will restore said portions of the Work to the standard required by the Specifications. Should the Work thus exposed or examined prove acceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed will be paid for as extra work. Should the Work so exposed or examined prove unacceptable, the uncovering or removing and the replacing of the covering or making good of the parts removed will be at the Design-Builder's expense.

- C. Any Work done or materials used without supervision or inspection by the Owner may be ordered removed and replaced at the Design-Builder's expense unless the Owner failed to inspect after having been given reasonable notice in writing that the Work was to be performed.
- D. Should the Contract Work include relocation, adjustment, or any other modification to existing facilities not the property of the Owner, authorized representatives of the owners of such facilities will have the right to inspect such Work. Such inspection will in no way make any facility owner a party to the Contract, and will in no way interfere with the rights of the parties to this Contract. Inspection and/or approval of the Work or any portion thereof will not relieve the Design-Builder of responsibility for faulty materials or workmanship.

1.08 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK

- A. All Work which does not conform to the requirements of the Contract Documents will be considered unacceptable, unless otherwise determined acceptable by the Owner as provided in Item 1.02 CONFORMITY WITH DRAWINGS AND SPECIFICATIONS of this Section.
- B. Unacceptable Work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the Final Completion of the Work, will be removed immediately and replaced in an acceptable manner in accordance with the provisions of this Part 2 Contract as modified.
- C. Work done contrary to the instructions of the Owner, work done beyond the lines shown on the Drawings or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the Contract. Work so done may be ordered removed or replaced at the Design-Builder's expense (not billable to the GMP).
- D. Upon failure on the part of the Design-Builder to comply with any order of the Owner made under the provisions of this Section, the Owner will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs (incurred by the Owner) from any monies due or to become due the Design-Builder.

1.09 MAINTENANCE DURING CONSTRUCTION

The Design-Builder will maintain the Work during construction and until the Work is accepted. This maintenance will constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the Work is maintained in satisfactory condition at all times. All Work will be protected during any delay between phases or sub-phases of construction required to complete the Work.

1.10 FAILURE TO MAINTAIN THE WORK

- A. Should the Design-Builder at any time fail to maintain the Work as provided in Item 1.09 MAINTENANCE DURING CONSTRUCTION of this Section, the Owner or Design Professional will immediately notify the Design-Builder of such noncompliance. Such

notification will specify a reasonable time within which the Design-Builder will be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the urgency that exists.

- B. Should the Design-Builder fail to respond to the Owner's or Design Professional's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the urgency that exists. Any maintenance cost incurred by the Owner will be deducted from monies due or to become due the Design-Builder.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01400 QUALITY CONTROL SERVICES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Documents: drawings, contract articles, special provisions, supplementary conditions, and all Division 01 specification sections attached to the project contract.
- B. Contractor issued specifications: Division 02 through 34 as they pertain to the tasks and requirements of carrying out the quality control program including commissioning.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced within the contract documents. The publications are referred to in the text by the basic designation only.
 - 1. FEDERAL AVIATION ADMINISTRATION (FAA)
 - a. FAA Advisory Circular (AC) 150/5370-2 (latest edition)
 - 2. HILLSBOROUGH COUNTY AVIATION AUTHORITY (HCAA)
 - a. HCAA Construction Safety and Health Guidelines Manual
 - b. HCAA Design Criteria Manual
 - c. Tampa International Airport Sustainable Management Plan

1.3 DEFINITIONS

- A. Commissioning (Cx) - a systematic process of ensuring that all building systems meet the requirements and perform interactively according to the contract documents.
- B. Commissioning Agent or Commissioning Authority (CA) – an individual who meets the qualification requirements and is experienced in leading the commissioning effort.
- C. Control – to guide and have influence over.
- D. Definable Feature of Work (DFOW) - a task that is separate and distinct from other tasks and has control requirements and work crews unique to that task. A DFOW is identified by different trades or disciplines and is an item or activity on the construction schedule. For example, excavation, electrical, concrete, roofing, mechanical, HVAC, etc. are all definable features of work.
- E. Experienced – a minimum of five (5) years experience.
- F. Hillsborough County Aviation Authority (HCAA) – An agent or approved representative having authority to act on behalf of the airport.
- G. Project Management Software (PMS) – software utilized for the purpose of submitting required information, correspondence, etc.; organizing and archiving project information; and managing and recalling project information.
- H. Quality – conformance to the requirements established by the contract documents, specification, and drawings.

1.4 SUBMITTALS

- A. The following submittals shall be submitted for HCAA review and acceptance prior to start of construction:
1. Construction Quality Control (QC) Plan
 2. Basis of Design and Design Intent Review
 3. Design Data Design Review
 4. Contract Document Review
 5. Indoor Air Quality (IAQ) Management Plan
 6. Commissioning Authority's Resume
- B. Submit the following to HCAA during construction by entering each of the items below into the approved project management software (PMS) database within the various timeframes indicated:
1. QC Report: Submit the report electronically by 5:00 PM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work.
 2. Contractor Production Report: Submit the report electronically by 5:00 PM the next working day after each day that work is performed and for every three consecutive calendar days of no-work.
 3. Preparatory Phase Meeting Minutes: Submit meeting minutes for each Preparatory Phase Meeting held by the end of the next working day following the meeting date.
 4. Initial Phase Inspection Meeting Minutes and Checklist(s): Submit meeting minutes and all checklists for each Initial Phase Inspection Meeting held by the end of the next working day following the meeting date.
 5. QC Specialist Reports: Submit the report electronically by 5:00 PM the next working day after each day that work is performed.
 6. Field Test Reports: Field test reports that do not require an engineer's or other third-party review, stamp, and certification, shall be submitted within two working days after the test is performed. Test reports requiring an engineer's or other third-party review, stamp, and certification, shall be submitted within five working days after the test is performed.
 7. Monthly Status Report of Tests: Submit the updated test register at the end of each month. The test register shall clearly indicate which tests have been completed and which tests have not been completed for the various systems requiring testing.
 8. Testing Plan and Test Register: Provide a copy of the final Testing Plan and Test Register to the Commissioning Authority for inclusion into the final commissioning documentation.
 9. Rework Items List: As follow-up inspections, third-party inspections, AHJ inspections, engineer and architect field inspections, etc. occur, submit lists containing new rework items daily.

10. QC Meeting Minutes: Submit QC meeting minutes within two working days after the meeting is held.
11. QC Certifications: Submit QC Certifications as required by the paragraph entitled "QC Certifications."
12. Special Inspection Reports: Submit Special Inspection reports within five working days of the inspection date.

1.5 QC PROGRAM REQUIREMENTS

- A. Establish and maintain a QC program as described in this specification section.
- B. Establish and maintain an effective QC program which produces a product that complies with the Contract Documents. A QC program comprises plans, procedures, and an organization that supports project design, construction, and commissioning. The QC program must cover all design, construction, and commissioning operations, both onsite and offsite, and be keyed to the contract design and construction sequence schedule.
- C. The QC program consists of a QC Organization, QC Plan, QC Plan Meeting(s), a Coordination and Mutual Understanding Meeting, submittal review and approval, periodic QC meetings, three phases of control, material receipt and storage inspections, testing, inspections, QC certifications, independent Special Inspections, and documentation necessary to provide materials, equipment, workmanship, fabrication, construction, and operations which comply with the requirements of this Contract. The QC program must cover on-site and off-site work and be keyed to the project schedule. No construction work or testing may be performed unless the QC Manager, QC Assistant, or the QC Alternate Manager is on the work site. The QC Manager must report to an officer of the firm and not be subordinate to the Project Superintendent or the Project Manager. The QC Manager, Project Superintendent, and Project Manager must interact and work together efficiently and effectively. Although the QC Manager is the primary individual responsible for the coordination of QC efforts and tasks, all individuals will be held responsible for the quality of work on the job.

1.6 COMMISSIONING

- A. Commissioning (Cx) is a systematic process of ensuring that all building systems meet the requirements and perform interactively according to the Contract. The QC Program is a key to this process by coordinating, verifying, and documenting measures to achieve the following objectives:
 1. Verify and document that the applicable equipment and systems are installed in accordance with the design intent as expressed through the Contract Documents, according to the manufacturer's recommendations, and industry accepted standards.
 2. Verify and document that equipment and systems receive complete operational checkout by the installing contractors.
 3. Verify and document proper performance of equipment and systems.
 4. Verify and document that the interaction between associated equipment and systems performs per the sequences of operation outlined in the contract documents.
 5. Verify that Operation and Maintenance (O&M) documentation is complete.

6. Verify the Training Plan and training materials are accurate, and provide correct instruction and documentation on the critical elements of the products, materials, and systems in the constructed facility. Verify that all identified HCAA operating and maintenance personnel are trained.
- B. Additional information and requirements for commissioning are specified in specification section 019100 - COMMISSIONING.
- 1.7 QC ORGANIZATION
- A. Project Manager
 1. The project manager shall be intimately involved in the management and enforcement of the QC program. The project manager shall be familiar with the project QC requirements and take an active role in developing the QC plan, resolving QC issues, ensuring documentation of QC efforts and tasks, and other oversight of the QC program necessary to deliver the project per the contract documents.
 - B. Project Superintendent
 1. The project superintendent is the highest-level manager responsible for the overall construction activities at the site, including quality and production. The project superintendent will be held responsible for the quality of work and is subject to removal by HCAA for non-compliance with the quality requirements specified in the contract. The project superintendent must maintain a physical presence at the site at all times and is responsible for all construction and related activities at the site, except as otherwise acceptable to HCAA.
 - C. QC Manager
 1. Duties
 - a. Provide a QC Manager at the work site to implement and manage the QC program. The only duties and responsibilities of the QC Manager are to manage and implement the QC program on this Contract. The QC Manager is required to attend the partnering meetings, QC Plan Meetings, Coordination and Mutual Understanding Meeting, conduct periodic QC meetings, perform the three phases of control except for those phases of control designated to be performed by QC Specialists or other Special Inspectors as outlined in the QC Plan, perform submittal reviews, ensure testing is performed and provide QC certifications and documentation required in the Contract Documents. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by the QC Specialists, testing laboratory personnel, and any other inspection and testing personnel required by the Contract Documents. The QC Manager is the manager of all QC activities. The QC manager is responsible for notifying the Special Inspector or Special Inspector of Record of activities which require their review. The QC manager is responsible for coordinating Special Inspection activities.
 2. Qualifications
 - a. An individual with a minimum of 5 years combined experience in the following positions: QC Manager, Project Manager, Project Superintendent, Project

Engineer, or Construction Manager on similar size and type construction contracts which included the major trades that are part of this Contract. The individual must have at least two years of experience as a QC Manager. The individual must be familiar with the safety requirements of this Contract, and have experience in the areas of hazard identification, safety compliance, and sustainability.

D. Commissioning Authority

1. Duties

- a. Provide a Commissioning Authority (CA) to conduct and document the commissioning requirements of this project per the specification section 019100 - COMMISSIONING. The CA shall be subordinate to the QC Manager. The CA directs and coordinates commissioning activities and submits commissioning reports to HCAA to meet the submittal and reporting requirements of the commissioning plan. The CA coordinates the actions of the QC Specialists, Testing Laboratory personnel, O&M Preparer, and other inspection and testing personnel to complete the required commissioning for this Contract.

2. Qualifications

- a. The CA must be certified as a commissioning professional by the Associated Air Balance Council (AABC) Commissioning Group (ACG), the Association of Energy Engineers (AEE), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the Commissioning Process Management Professional (CPMP), the Building Commissioning Association (BCA), the National Environmental Balancing Bureau (NEBB), or the University of Wisconsin - Madison (UWM). The CA is required to submit a resume providing education, experience, and management capabilities on at least two similar size and type contracts. The CA may not have a role as part of the construction management or supervision, and must be with a third-party firm that is not affiliated with the design team.

E. Alternate QC Manager Duties and Qualifications

1. Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year. The qualification requirements for the Alternate QC Manager must be the same as for the QC Manager.

F. Assistant QC Manager Duties and Qualifications

1. Provide an assistant to the QC Manager at the work site to perform the three phases of control, perform submittal review, ensure testing is performed, and prepare QC certifications and documentation as required by this Contract. The Assistant QC Manager must be on the work site during supplemental work shifts beyond the regular shift and perform the duties of the QC Manager during such supplemental shift work. The Assistant QC Manager must have a minimum of one year of experience in the following positions: QC Assistant Manager, Project Superintendent, Project Engineer, or Construction Manager on similar size and type construction

contracts which included the major trades that are part of this Contract. The individual must be familiar with the safety requirements of this Contract, and have experience in the areas of hazard identification, safety compliance, and sustainability.

G. QC Specialists Duties and Qualifications

1. Provide a separate QC Specialist at the work site for each of the areas of responsibilities as specified within the QC Plan who must assist and report to the QC Manager. The QC Specialist must have no duties other than their assigned QC duties. QC Specialists are required to attend the Coordination and Mutual Understanding Meeting, QC meetings, and be physically present at the construction site to perform the three phases of control and prepare documentation for each definable feature of work in their area of responsibility.
2. The QC Specialist shall be competent and have acceptable education, experience, training, certification, and/or licensing in their designated discipline.

H. Special Inspectors or Special Inspectors of Record

1. The Special Inspector (SI) or Special Inspector of Record (SIOR) must be an independent third party hired directly by the Prime Contractor. The SI or SIOR must not be a company employee of the Contractor or any Sub-Contractor performing the work to be inspected. The SI or SIOR shall be qualified, certified, and/or licensed as required per their specialty.

I. Submittal Reviewer(s) Duties and Qualifications

1. Provide a Submittal Reviewer(s), other than the QC Manager or CA, qualified in the discipline(s) being reviewed, to review and certify that the submittals meet the requirements of this Contract prior to certification or approval by the QC Manager.
2. Each submittal must be reviewed by a registered architect or professional engineer prior to review by the Submittal Reviewer(s).

J. QC Administrative Assistant

1. Provide an Administrative Assistant at the work site until the work has been accepted. The primary duty is to assist the QC Manager in processing and maintaining files for submittals, preparing and publishing reports and meeting minutes. After primary duties are accomplished, other duties may be assigned provided the duties do not interfere with primary duties.

K. Acceptance of QC Personnel

1. HCAA reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications. HCAA may require the removal of any individual for non-compliance with quality requirements specified in the Contract Documents.

1.8 QUALITY CONTROL (QC) PLAN

A. Acceptance of the Construction QC Plan

1. Acceptance of the QC Plan is required prior to the start of construction. Once construction begins, HCAA reserves the right to require changes in the QC Plan as

necessary to conform to changes and developments in the project.

2. The only construction work that is authorized to proceed prior to the acceptance of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying.

B. Requirements of the QC Plan

1. Provide, for acceptance by HCAA, a Construction QC Plan submitted electronically that includes a table of contents, with major sections identified and bookmarked, with pages numbered sequentially, and that documents the proposed methods and responsibilities for accomplishing QC and commissioning activities during the construction of the project. At a minimum, the plan shall contain the following:
 - a. QC ORGANIZATION:
 - 1) A chart showing the QC organizational structure.
 - b. NAMES AND QUALIFICATIONS:
 - 1) Provide the names and qualifications, in resume format, for each person in the QC organization. Include the CQM for Contractors course certifications for the QC Manager and Alternate QC Manager as required by the paragraphs entitled "Construction Quality Management Training" and "Alternate QC Manager Duties and Qualifications."
 - c. DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONNEL:
 - 1) Identify the project specific duties, responsibilities, deliverables, and authorities of each person in the QC organization.
 - d. OUTSIDE ORGANIZATIONS:
 - 1) Provide a listing of outside organizations, such as architectural, consulting engineering firms, and subcontractors that will be employed by the Contractor and a description of the services these firms will provide. All major definable features of work shall be covered by this listing of organizations. Identify company names, addresses, points of contact, contact information, etc.
 - e. APPOINTMENT LETTERS:
 - 1) Letters signed by the Program Director of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for implementing and managing the QC program as described in this Contract. Include in this letter the responsibility of the QC Manager and Alternate QC Manager to implement and manage the three phases of control, and their authority to stop work which is not in compliance with the Contract. Letters of direction are to be issued by the QC Manager to the Assistant QC Manager and all other QC Specialists outlining their duties, authorities, and responsibilities. Include copies of the letters in the QC Plan.
 - f. SUBMITTAL PROCEDURES AND SUBMITTAL REGISTER:

- 1) Provide a description of the procedures and processes for reviewing, approving, and managing submittals. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to overall approval by the Contractor. Provide the initial Submittal Register. This register shall list all required submittals per the contract documents. The register shall be maintained as required submittals are submitted, added, or not required due to changes or modifications in the project. The submittal register shall be kept up-to-date and readily accessible for review by the project team.
- g. TESTING LABORATORY INFORMATION:
- 1) Provide testing laboratory information as required by the Contract Documents. Identify testing laboratory company names, addresses, points of contact, contact information, and the definable features of work they are responsible for on this project. Include company and/or personnel licenses, certifications, qualifications, affiliations, etc. as required by the various specifications.
- h. TESTING PLAN AND TESTING REGISTER:
- 1) Provide a Testing Plan and Test Register that identify the various tests required by the Contract Documents. The Test Plan shall reference the specification paragraph number requiring the test, the frequency, and the entity and/or person responsible for each test. The Test Register shall break down each definable feature of work (by area, floor, system, etc.) and be able to track which tests have been completed as well as which tests have not been completed. The Test Register shall be used to provide an overall status on the progress of testing.
- i. INSPECTION PLAN AND INSPECTION REGISTER:
- 1) Provide an Inspection Plan and Inspection Register that identify the various inspections required by the Contract Documents. The Inspection Plan shall reference the specification paragraph number requiring the inspection, the frequency, and the entity and/or person responsible for each inspection. The Inspection Register shall break down each definable feature of work (by area, floor, system, etc.) and be able to track which inspections have been completed as well as which inspections have not been completed. The Inspection Register shall be used to provide an overall status on the progress of inspections.
- j. PROCEDURES TO COMPLETE REWORK ITEMS:
- 1) Provide a description of the procedures that will be employed to identify, record, track, and complete rework items. These procedures shall cover rework items identified during various stages of the project including initial and follow-up phase inspections, close-in/concealment inspections, code and special inspector inspections, punchlist inspections, etc. The procedures shall include how rework items will be communicated to the respective responsible parties. The rework items

list shall be readily available to all project team members.

k. DOCUMENTATION PROCEDURES:

- 1) Provide a description of how project QC documentation will be recorded, tracked, reported, and stored. If hardcopies are required, describe the procedures for receiving and filing hardcopies and provide the location of where hardcopy files are kept. If electronic copies are required, describe the procedures; format of various deliverables; software used to enter, track, status, and store deliverables; and the location of where the files are stored. All project QC documentation shall be readily available to all project team members.

l. LIST OF DEFINABLE FEATURES:

- 1) A Definable Feature of Work (DFOW) is a task that is separate and distinct from other tasks and has control requirements and work crews unique to that task. A DFOW is identified by different trades or disciplines and is an item or activity on the construction schedule. Include in the list of DFOWs, but not be limited to, all critical path activities. Include all activities for which this specification requires QC Specialists or specialty inspection and testing personnel.

m. PROCEDURES FOR PERFORMING THE THREE PHASES OF CONTROL:

- 1) State the procedures used to ensure the three phases of control to manage the project. Conduct the preparatory and initial phase meetings with the goal of obtaining quality construction by planning ahead and identifying potential problems for each DFOW. Perform follow-up inspections to assure that standards are continually met throughout the rest of construction.
- 2) Special inspections shall be identified, scheduled, and tracked as part of the QC plan.

n. PERSONNEL MATRIX:

- 1) A personnel matrix showing for each section of the specification who will review and approve submittals, who will perform and document the three phases of control, and who will perform and document the testing.

o. PROCEDURES FOR COMPLETION INSPECTIONS:

- 1) Procedures for identifying and documenting the completion inspection process. Include in these procedures the responsible party for close-in/concealment inspections, punch out inspection, pre-final inspection, and final acceptance inspection.

p. TRAINING PROCEDURES AND TRAINING REGISTER:

- 1) Describe the procedures for coordinating and documenting the training of personnel required by the Contract Documents. The training procedures shall clearly identify the prerequisites prior to training, who

will receive training, the duration of training, any deliverables required prior to, or at the time of, training. Provide a Training Register that lists all of the required training and update the register as training is completed. The training register shall be used to provide an update on which training has been complete and what training is still outstanding.

q. ORGANIZATION AND PERSONNEL CERTIFICATIONS LOG:

- 1) Procedures for coordinating, tracking and documenting all certifications on subcontractors, testing laboratories, suppliers, personnel, etc. QC Manager will ensure that certifications are current, appropriate for the work being performed, and will not lapse during any period of the contract that the work is being performed.

C. Notification of Changes

1. Notify HCAA, in writing, of any proposed changes in the QC Plan or changes to the QC organization personnel, a minimum of 10 work days prior to a proposed change. Proposed changes are subject to acceptance by HCAA.

1.9 COORDINATION AND MUTUAL UNDERSTANDING MEETING

- A. After submission of the QC Plan, and prior to HCAA approval and the start of construction, the QC Manager will meet with HCAA to present the QC program required by this Contract. When a new QC Manager is appointed, the coordination and mutual understanding meeting must be repeated.
- B. The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, design intent, commissioning, environmental requirements and procedures, coordination of activities to be performed, Special Inspections, and the coordination of the Contractor's management, production, and QC personnel. At the meeting, the Contractor will be required to explain in detail how the three phases of control will be implemented for each DFOW, as well as how each DFOW will be affected by each management plan or requirement as listed below:
 1. Waste Management Plan.
 2. IAQ Management Plan.
 3. Procedures for noise and acoustics management.
 4. Environmental Protection Plan.
 5. Environmental regulatory requirements.
 6. Cx Plan.
 7. Special Inspections.
 8. Coordination of Activities
 - a. Coordinate activities included in various sections to assure efficient and orderly installation of each component. Coordinate operations included under different sections that are dependent on each other for proper installation and operation. Schedule construction operations with consideration for indoor air quality as specified in the IAQ Management Plan. Coordinate pre-functional tests and

startup testing with the commissioning CA.

9. Describe how the QC team will involve, interact, and support the project superintendents and managers. This interaction is key so approved equipment and materials are installed correctly; rework items are identified, tracked, and corrected in a timely manner to minimize project disruption; and construction activities are properly sequenced to accommodate inspections and testing.

C. Attendees

1. As a minimum, the Contractor's personnel required to attend include an officer of the firm, the Project Manager, Project Superintendent, QC Manager, Alternate QC Manager, Assistant QC Manager, QC Specialists, Special Inspector, Special Inspector of Record, Commissioning Authority, Environmental Manager, and subcontractor superintendent and QC representatives. Each subcontractor who will be assigned QC responsibilities must have a principal of the firm and the superintendent assigned to the project at the meeting. Minutes of the meeting will be prepared by the QC Manager and signed by the Contractor, the A/E, all participating subcontractors, and HCAA. Provide a copy of the signed minutes to all attendees and include the meeting minutes in the QC Plan.

1.10 QC MEETINGS

- A. After the start of construction, conduct weekly QC meetings by the QC Manager at the work site with the Project Superintendent, the QC Specialists, the Special Inspector, the Special Inspector of Record, the CA, and the foremen who are performing the work of the DFOWs. HCAA shall be invited to participate in these meetings, but is not required to be present to conduct the meeting. The QC Manager is to prepare the minutes of the meeting and enter them into the approved PMS database within two working days after the meeting. As applicable, accomplish the following at each meeting:
1. Review the minutes of the previous meeting.
 2. Review the project schedule and the status of work and rework.
 3. Review the work to be accomplished in the next two weeks and the documentation required to support the work.
 4. Review the status of submittals.
 5. Identify and schedule when equipment and materials will be delivered to the site for inspection, offloading, and storage.
 6. Identify and schedule tests and inspections required to support construction.
 7. Resolve or provide steps to resolve QC and production problems (RFI, schedule modifications, elevate issue to higher authorities, etc.).
 8. Address items that may require revising the QC Plan.
 9. Review Accident Prevention Plan (APP).
 10. Review environmental requirements and procedures.

11. Review Waste Management Plan.
12. Review IAQ Management Plan.
13. Review Environmental Management Plan.
14. Review the status of training completion.
15. Review Cx Plan and progress.

1.11 DESIGN REVIEW AND DOCUMENTATION

A. Basis of Design and Design Intent

1. The QC Manager and CA must review the basis of design and the design intent documents. Document the basis of design review in the design review report required below.

B. Design Review

1. The QC Manager and CA must review design documents to verify that each assembly and system meets the design intent relative to functionality, aesthetics, interoperability, energy performance, water performance, maintainability, sustainability, system cost, indoor environmental quality, and local environmental impacts. Fully document the design review in a report and include in the Cx Report. Identify any discrepancies or issues for resolution prior to construction.

C. Contract Document Review

1. The QC Manager and CA must review the Contract Documents to verify that Cx is adequately specified, and that each commissioned system is likely to meet the design intent relative to functionality, interoperability, energy performance, water performance, maintainability, sustainability, system cost, indoor environmental quality, and local environmental impacts. Fully document the contract document review in a written report and include in the Cx report. Identify any discrepancies or issues for resolution prior to construction.

1.12 THREE PHASES OF CONTROL

A. Adequately cover both on-site and off-site work with the Three Phases of Control and include the following for each DFW.

B. Preparatory Phase Meetings

1. Notify HCAA at least two work days in advance of each preparatory phase meeting. The meeting will be conducted by the QC Manager and attended by the QC Specialists, the Project Superintendent, the CA, the Special Inspector, the Special Inspector of Record, and the foreman responsible for the DFW. When the DFW will be accomplished by a subcontractor, that subcontractor's foreman must attend the preparatory phase meeting. Prepare minutes of the meeting and enter them into the HCAA PMS database within two working days after the meeting.
2. As applicable, perform the following prior to beginning work on each DFW:
 - a. Review each paragraph of applicable specification sections.
 - b. Review the Contract drawings.

- c. Verify that field measurements are as indicated on construction and/or shop drawings before confirming product orders.
- d. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required.
- e. Review the testing plan and register to ensure that provisions have been made to provide the required testing.
- f. Review the inspections register to identify all required inspections. Add inspection activities or inspection hold points to the project schedule as a precursor prior to concealment, approval, acceptance, or further construction.
- g. Review special inspections required by Section 014535 SPECIAL INSPECTION, the statement of special inspections and the schedule of special inspections.
- h. Discuss site investigations and examinations of the work area to ensure that the required preliminary work has been completed.
- i. Coordinate and schedule equipment and product deliveries to designated offloading and storage areas for inspection.
- j. Discuss specific controls used and construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each DFOW.
- k. Review the Job Hazard Analysis (JHA) to ensure that applicable safety requirements are met, and that required Safety Data Sheets (SDS) are submitted.
- l. Review the Cx Plan and ensure all preliminary work items have been completed and documented.

C. Initial Phase Inspections

1. Notify HCAA at least two work days in advance of each initial phase inspection. When construction crews are ready to start work on a DFOW, conduct the initial phase with the QC Specialists, the Project Superintendent, the Special Inspector, the Special Inspector of Record, and the foreman responsible for that DFOW. Observe the initial segment of the DFOW to ensure that the work complies with Contract requirements. Document the results of the initial phase inspection including any checklists or other field documentation and enter them into the HCAA PMS database within two working days after the inspection. Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met.
2. As applicable, perform the following for each DFOW:
 - a. Establish level of workmanship and verify that it meets the minimum acceptable workmanship standards. Compare with samples and mock-ups as appropriate.
 - b. Verify field test equipment has been calibrated and is within the calibration date.

- c. Resolve any workmanship issues.
- d. Ensure that testing is performed by the approved laboratory.
- e. Check work procedures for compliance with the appropriate SPA to ensure that applicable safety requirements are met.
- f. Review project specific work plans (i.e. Cx, HAZMAT Abatement, Stormwater Management) to ensure all preparatory work items have been completed and documented.
- g. Coordinate scheduled work with special inspections required by Section 014535 SPECIAL INSPECTIONS, the statement of special inspections and the schedule of special inspections.

D. Follow-Up Phase Inspections

- 1. Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFW and document in the daily QC Report:
 - 2. Ensure the work is in compliance with Contract requirements.
 - 3. Maintain the quality of workmanship required.
 - 4. Ensure that testing is performed by the approved testing agency or laboratory.
 - 5. Continue to verify that field test equipment has been calibrated and is within the calibration date.
 - 6. Ensure that rework items are being corrected.
 - 7. Conduct equipment and material receipt inspections.
 - 8. Examine the required materials, equipment, and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data and are properly stored.
 - 9. Assure manufacturers' representatives have performed necessary inspections if required and perform safety inspections.
- 10. Review the Cx Plan and ensure all work items, testing, and documentation has been completed.
- 11. Coordinate scheduled work with special inspections required by Section 014535 SPECIAL INSPECTIONS, the statement of special inspections and the schedule of special inspections.

E. Additional Preparatory and Initial Phases

- 1. Conduct additional preparatory and initial phases on the same DFW if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a DFW is resumed after substantial period of inactivity, or if other problems develop.

F. Notification of Three Phases of Control for Off-Site Work

- 1. Notify HCAA at least two weeks prior to the start of the preparatory and initial phases for off-site work.

1.13 SUBMITTAL REVIEW AND APPROVAL

- A. Procedures for submission, review and approval of submittals are described in Section 013300 SUBMITTAL PROCEDURES.

1.14 MATERIAL RECEIPT AND STORAGE INSPECTIONS

- A. All equipment and material delivered to the project site shall be inspected and verified to the approved project submittal. If material does not meet the requirements of the submittal, the material shall not be received or offloaded and shall be returned to the sender.
- B. Material shall be delivered in new condition. Packing shall not show signs of damage or mishandling.
- C. Equipment and material shall be delivered to designate receiving/storage areas for inspection, offloading, and storage.
- D. Handle and store equipment and materials in a manner as to prevent loss from theft, weather, and damage. Keep materials, products, and accessories covered and off the ground, and store in a dry, secure area. Prevent contact with other material or conditions that may cause corrosion, discoloration, or staining. Protect all material from damage by the activities of other trades.
- E. A material receipt inspection report shall be generated and submitted along with the daily QC report stating that material meets the requirements in this section. Attach any checklist used to inspect and receive the equipment and material.

1.15 TESTING

- A. Perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements.
- B. Upon request, furnish to HCAA duplicate samples of test specimens for possible testing by HCAA.
- C. Testing includes operation and/or acceptance tests when specified.
- D. Procure the services of an approved testing laboratory or establish an approved testing laboratory at the project site.
- E. Perform the following activities and record and provide the following data:
 - 1. Verify that testing procedures comply with contract requirements.
 - 2. Verify that facilities and testing equipment are available and comply with testing standards.
 - 3. Check test instrument calibration data against certified calibration standards.
 - 4. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
 - 5. Record results of all tests taken, both passing and failing on the QC report for the date taken. Identify the specification paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by HCAA, actual test reports may be submitted later with a reference to the test number and

date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to HCAA. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

F. Accreditation Requirements

1. Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation. The laboratory's scope of accreditation must include the appropriate standards (e.g. ASTM E 329, C 1077, D 3666, D 3740, A 880, E 543) listed in the technical sections of the specifications. Laboratories engaged in Hazardous Materials Testing must meet the requirements of OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the Corporate Office.
2. HCAA retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in the Contract.

G. Test Results

1. Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify HCAA immediately.
2. Conspicuously stamp the cover sheet or first page of each test report in large letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results must be signed by a testing laboratory representative authorized to sign certified test reports.

H. Test Reports and Monthly Summary Report of Tests

1. Furnish the signed reports, certifications, and a summary report of field tests at the end of each month to HCAA. Attach a copy of the summary report to the last daily Contractor QC Report of each month. Provide a copy of the signed test reports and certifications to the CA for inclusion into the final commissioning documentation.

1.16 QC CERTIFICATIONS

A. QC Report Certifications

1. Contain the following statement within the QC Reports: "On behalf of the Contractor, I certify that this report is complete, correct, and equipment and material used along with the work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report."

B. Invoice Certifications

1. Furnish a certificate to HCAA with each payment request, signed by the QC Manager, attesting that the work for which payment is requested, including stored material, is in compliance with Contract requirements and that redline and as-built drawings are

current and coordinated.

C. Redline and As-built Drawings Certifications

1. The QC Manager shall provide a certification along with the redline and as-built drawing submissions stating that the drawings have been reviewed and provide an accurate depiction of the actual field installed condition.

D. Completion Certifications

1. Upon completion of work under this Contract, or a portion thereof in the case of phased completion, the QC Manager must furnish a certificate to HCAA attesting that "the work has been completed, inspected, tested, and is in compliance with the Contract."

1.17 CONCEALMENT INSPECTIONS

A. Underground concealment inspections

1. Prior to concealing underground work, the Contractor shall conduct concealment inspections to ensure that all construction below grade is complete and meets all contract document requirements.

B. Wall concealment inspections

1. Prior to the completion of walls, the Contractor shall conduct concealment inspections to ensure that all construction within the wall is complete and meets all contract document requirements.

C. Ceiling concealment inspections

1. Prior to the completion of ceilings, the Contractor shall conduct concealment inspections to ensure that all construction above the ceiling is complete and meets all contract document requirements.

D. Concealment inspection reports

1. A report shall be generated by the contractor stating that the required inspections have been performed by all parties and that the space is approved for concealment. Attach any checklists used during the inspection.

1.18 COMPLETION INSPECTIONS

A. Punch-Out Inspection

1. Near the completion of all work or any phased increment thereof, the QC Manager and the CA must conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings, specifications and Contract. Include in the punch list any remaining items on the "Rework Items List", which were not corrected prior to the Punch-Out Inspection. Include within the punch list the estimated date by which the deficiencies will be corrected. Provide a copy of the punch list to HCAA per Article 6 and Division 1 specification section 01700 - PROJECT CLOSEOUT of the contract. The QC Manager must make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished, notify HCAA that the facility, or portion thereof, is ready for HCAA's Pre-Final Inspection.

B. Pre-Final Inspection

1. HCAA and the QC Manager will perform this inspection to verify that the facility is complete and ready to be occupied. An HCAA "Pre-Final Punch List" will be documented by the contractor's QC Manager as a result of this inspection. The QC Manager will ensure that all items on this list are corrected prior to notifying HCAA that a "Final" inspection can be scheduled. Any items noted on the "Pre-Final" inspection must be corrected in a timely manner and be accomplished before the contract completion date for the work, or any particular increment thereof, if the project is divided into increments by separate completion dates.

C. Final Acceptance Inspection

1. Notify HCAA at least 14 calendar days prior to the date a final acceptance inspection can be held. State within the notice that all items previously identified on the pre-final punch list will be corrected and acceptable, along with any other unfinished Contract work, by the date of the final acceptance inspection. The Contractor must be represented by the QC Manager, the Project Superintendent, the CA, and others deemed necessary. Attendees for HCAA will include the Project Manager, other HCAA personnel, and personnel representing clients or tenants. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for HCAA to bill the Contractor for additional inspection costs in accordance with the Contract.

1.19 DOCUMENTATION

- A. Maintain current and complete records of on-site and off-site QC program operations and activities. Establish and maintain QC documentation in an electronic format within an approved PMS database, organized, bookmarked, searchable, and readily accessible to HCAA 24-hours a day, 7-days a week.

B. Construction Documentation

1. Reports are required for each day that work is performed and must be attached to the Contractor QC Report prepared for the same day. Maintain current and complete records of on-site and off-site QC program operations and activities. Account for each calendar day throughout the life of the Contract. The Project Superintendent and the QC Manager must prepare and sign the Contractor Production and QC Reports, respectively.

C. Reports from the QC Specialist(s)

1. Reports are required for each day that work is performed in their area of responsibility. QC Specialist reports must include the same documentation requirements as the QC Report for their area of responsibility. QC Specialist reports are to be prepared, signed, and dated by the QC Specialists and must be attached to the CQC Report prepared for the same day.

D. Testing Plan and Registers

1. As tests are performed, the CA and the QC Manager will record on the "Testing Plan and Register" the date the test was performed and the date the test results were forwarded to HCAA. Attach a copy of the updated "Testing Plan and Log" to the last daily QC Report of each month. Provide a copy of the final "Testing Plan and Register"

to the CA for inclusion into the final commissioning documentation.

E. Rework Items List

1. The QC Manager must maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, the date the item will be corrected by, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Rework Items List" to the last daily QC Report of each month. The Contractor is responsible for including those items identified by HCAA.

F. Redline and As-Built Drawings

1. The QC Manager is required to ensure the redline and as-built drawings, required by Section 01700 closeout submittals are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation (e.g. Change Order, Request for Information (RFI), etc.). The QC Manager or QC Specialist assigned to an area of responsibility must initial each revision. Upon completion of work, the QC Manager will furnish a certificate attesting to the accuracy of redline and as-built drawings prior to submission to HCAA.

1.20 NOTIFICATION ON NON-COMPLIANCE

- A. HCAA will notify the Contractor of any detected non-compliance with the Contract Documents. The Contractor shall take corrective action after receipt of such notice per the Contract requirements. Such notice, when delivered to the Contractor at the work site, is deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, HCAA may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time for excess costs or damages by the Contractor.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01405 – METHOD OF ESTIMATING PERCENTAGE OF MATERIAL WITHIN SPECIFICATION LIMITS
(PWL)

1.01 GENERAL

- A. When the Specifications provide for acceptance of material based on the method of estimating percentage of material within specification limits (PWL), the PWL will be determined in accordance with this Section or via an acceptable method of estimating percentage of material agreed to in writing by the Owner's Director of Construction or designee.
- B. All test results for a lot will be analyzed statistically to determine the total estimated percent of the lot that is within specification limits. The PWL is computed using the sample average (\bar{X}) and sample standard deviation (S_n) of the specified number (n) of sublots for the lot and the specification tolerance limits, L for lower and U for upper, for the particular acceptance parameter. From these values, the respective Quality index(s), Q_L for Lower Quality Index and/or Q_U for Upper Quality Index, is computed and the PWL for the lot for the specified n is determined from Table 1.
- C. There is some degree of uncertainty (risk) in the measurement for acceptance because only a small fraction of production material (the population) is sampled and tested. This uncertainty exists because all portions of the production material have the same probability to be randomly sampled. The Design-Builder's risk is the probability that material produced at the acceptable quality level is rejected or subjected to a pay adjustment. The Owner's risk is the probability that material produced at the rejectable quality level is accepted.
- D. IT IS THE INTENT OF THIS SECTION TO INFORM THE DESIGN-BUILDER THAT, IN ORDER TO CONSISTENTLY OFFSET THE DESIGN-BUILDER'S RISK FOR MATERIAL EVALUATED, PRODUCTION QUALITY (USING POPULATION AVERAGE AND POPULATION STANDARD DEVIATION) MUST BE MAINTAINED AT THE ACCEPTABLE QUALITY SPECIFIED OR HIGHER. IN ALL CASES, IT IS THE RESPONSIBILITY OF THE DESIGN-BUILDER TO PRODUCE AT QUALITY LEVELS THAT WILL MEET THE SPECIFIED ACCEPTANCE CRITERIA WHEN SAMPLED AND TESTED AT THE FREQUENCIES SPECIFIED.

1.02 METHOD FOR COMPUTING PWL

- A. The computational sequence for computing PWL is as follows:
 - 1. Divide the lot into n sublots in accordance with the acceptance requirements of the Specification.
 - 2. Locate the random sampling position within the subplot in accordance with the requirements of the Specification.
 - 3. Make a measurement at each location, or take a test portion and make the measurement on the test portion in accordance with the testing requirements of the Specification.

4. Find the sample average (X) for all subplot values within the lot by using the following formula:

$$X = (x_1 + x_2 + x_3 + \dots + x_n) / n$$

Where: X = Sample average of all subplot values within a lot

x_1, x_2 = Individual subplot values

n = Number of sublots

5. Find the sample standard deviation (S_n) by use of the following formula:

$$S_n = [(d_1^2 + d_2^2 + d_3^2) / (n-1)]^{1/2}$$

Where: S_n = Sample standard deviation of the number of subplot values in the set

$d_1, d_2,$ = Deviations of the individual subplot values x_1, x_2, \dots from the average value X

that is: $d_1 = (x_1 - X), d_2 = (x_2 - X) \dots d_n = (x_n - X)$

n = number of sublots

6. For single sided specification limits (i.e., L only), compute the Lower Quality Index Q_L by use of the following formula:

$$Q_L = (X - L) / S_n$$

Where: L = specification lower tolerance limit

Estimate the percentage of material within limits (PWL) by entering Table 1 with Q_L , using the column appropriate to the total number (n) of measurements. If the value of Q_L falls between values shown on the table, use the next higher value of PWL.

7. For double-sided specification limits (i.e. L and U), compute the Quality Indexes Q_L and Q_U by use of the following formulas:

$$Q_L = (X - L) / S_n \text{ and } Q_U = (U - X) / S_n$$

Where: L and U = specification lower and upper tolerance limits

Estimate the percentage of material between the lower (L) and upper (U) tolerance limits (PWL) by entering Table 1 separately with Q_L and Q_U , using the column appropriate to the total number (n) of measurements, and determining the percent of material above P_L and percent of material below P_U for each tolerance limit. If the values of Q_L fall between values shown on the table, use the next higher value of P_L or P_U . Determine the PWL by use of the following formula:

$$PWL = (P_U + P_L) - 100$$

Where: P_L = percent within lower specification limit

PU = percent within upper specification limit

EXAMPLE OF PWL CALCULATION

Project: Example Project

Test Item: Item P-401, Lot A.

A. PWL Determination for Mat Density.

1. Density of four random cores taken

from Lot A. A-1 96.60

A-2 97.55

A-3 99.30

A-4 98.35

n = 4

2. Calculate average density for

the lot. $X = (x_1 + x_2 + x_3 + \dots$

$\dots + x_n) / n$

$X = (96.60 + 97.55 + 99.30 + 98.35) / 4$

X = 97.95% density

3. Calculate the standard deviation for the lot.

$$S_n = [((96.60 - 97.95)^2 + (97.55 - 97.95)^2 + (99.30 - 97.95)^2 + (98.35 - 97.95)^2) / (4 - 1)]^{1/2}$$
$$S_n = [(1.82 + 0.16 + 1.82 + 0.16) / 3]^{1/2}$$
$$S_n = 1.15$$

4. Calculate the Lower Quality Index Q_L for the lot.

(L=96.3) $Q_L = (X - L) / S_n$

$Q_L = (97.95 - 96.30) / 1.15$

$Q_L = 1.4348$

5. Determine PWL by entering Table 1 with $Q_L = 1.44$

and n= 4. PWL = 98

B. PWL Determination for Air Voids.

1. Air Voids of four random samples taken from

Lot A. A-A-1 5.00

A-2 3.74

A-3 2.30

A-4 3.25

2. Calculate the average air voids for

the lot. $\bar{X} = (x_1 + x_2 + x_3 + \dots + x_n) / n$

$$\bar{X} = (5.00 + 3.74 + 2.30 + 3.25) / 4$$

$$\bar{X} = 3.57\%$$

3. Calculate the standard deviation S_n for the lot.

$$S_n = [((3.57 - 5.00)^2 + (3.57 - 3.74)^2 + (3.57 - 2.30)^2 + (3.57 - 3.25)^2) / (4 - 1)]^{1/2}$$

$$S_n = [(2.04 + 0.03 + 1.62 + 0.10) / 3]^{1/2}$$

$$S_n = 1.12$$

4. Calculate the Lower Quality Index Q_L for the lot.

$$(L = 2.0)$$

$$Q_L = (\bar{X} - L) / S_n$$

$$Q_L = (3.57 - 2.00) / 1.12$$

$$Q_L = 1.3992$$

5. Determine P_L by entering Table 1 with $Q_L = 1.41$ and $n = 4$.

$$P_L = 97$$

6. Calculate the Upper Quality Index Q_U for the lot. ($U = 5.0$)

$$Q_U = (U - \bar{X}) / S_n$$

$$Q_U = (5.00 - 3.57) / 1.12$$

$$Q_U = 1.2702$$

7. Determine P_U by entering Table 1 with $Q_U = 1.29$ and $n = 4$.

$$P_U = 93$$

8. Calculate Air Voids PWL

$$PWL = (P_L + P_U) - 100$$

$$PWL = (97 + 93) - 100 = 90$$

EXAMPLE OF OUTLIER CALCULATION (Reference ASTM E 78)

Project: Example Project

Test Item: Item P-401, Lot A.

A. Outlier Determination for Mat Density.

1. Density of four random cores taken from Lot A. arranged in descending order.

A-3 99.30

A-4 98.35

A-2 97.55

A-1 96.60

2. Use $n=4$ and upper 5 percent significance level of to find the critical value for test criterion = 1.463.

3. Use average density, standard deviation, and test criterion value to evaluate density measurements.

- a. For measurements greater than the average:

If: $(\text{measurement} - \text{average}) / (\text{standard deviation})$ is less than test criterion,

Then: the measurement is not considered an outlier

for A-3 Check if $(99.30 - 97.95) / 1.15$ greater than 1.463

1.174 is less than 1.463, the value is not an outlier

- b. For measurements less than the average:

If $(\text{average} - \text{measurement}) / (\text{standard deviation})$ is less than test criterion,

the measurement is not considered an outlier

for A-1 Check if $(97.95 - 96.60) / 1.15$ greater than 1.463

1.0 is less than 1.463, the value is not an outlier

NOTE: In this example, a measurement would be considered an outlier if the density was:

greater than $(97.95 + 1.463 \times 1.15) = 99.63$ percent or,

less than $(97.95 - 1.463 \times 1.15) = 96.27$ percent

TABLE 1. TABLE FOR ESTIMATING PERCENT OF LOT WITHIN LIMITS (PWL)

Percent Within Limits (PL and PU)	Positive Values of Q (QL and QU)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520	1.9994	2.0362
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053	1.8379	1.8630
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993	1.7235	1.7420
96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127	1.6313	1.6454
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381	1.5525	1.5635
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4717	1.4829	1.4914
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112	1.4199	1.4265
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554	1.3620	1.3670
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032	1.3081	1.3118
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541	1.2576	1.2602
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075	1.2098	1.2115
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630	1.1643	1.1653
87	1.0597	1.1100	1.1173	1.1192	1.1199	1.1204	1.1208	1.1212
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794	1.0791	1.0789
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399	1.0389	1.0382
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015	1.0000	0.9990
83	0.9939	0.9900	0.9785	0.9715	0.9671	0.9643	0.9624	0.9610
82	0.9749	0.9600	0.9452	0.9367	0.9315	0.9281	0.9258	0.9241
81	0.9550	0.9300	0.9123	0.9025	0.8966	0.8928	0.8901	0.8882
80	0.9342	0.9000	0.8799	0.8690	0.8625	0.8583	0.8554	0.8533
79	0.9124	0.8700	0.8478	0.8360	0.8291	0.8245	0.8214	0.8192
78	0.8897	0.8400	0.8160	0.8036	0.7962	0.7915	0.7882	0.7858
77	0.8662	0.8100	0.7846	0.7716	0.7640	0.7590	0.7556	0.7531
76	0.8417	0.7800	0.7535	0.7401	0.7322	0.7271	0.7236	0.7211
75	0.8165	0.7500	0.7226	0.7089	0.7009	0.6958	0.6922	0.6896
74	0.7904	0.7200	0.6921	0.6781	0.6701	0.6649	0.6613	0.6587
73	0.7636	0.6900	0.6617	0.6477	0.6396	0.6344	0.6308	0.6282
72	0.7360	0.6600	0.6316	0.6176	0.6095	0.6044	0.6008	0.5982
71	0.7077	0.6300	0.6016	0.5878	0.5798	0.5747	0.5712	0.5686
70	0.6787	0.6000	0.5719	0.5582	0.5504	0.5454	0.5419	0.5394
69	0.6490	0.5700	0.5423	0.5290	0.5213	0.5164	0.5130	0.5105
68	0.6187	0.5400	0.5129	0.4999	0.4924	0.4877	0.4844	0.4820
67	0.5878	0.5100	0.4836	0.4710	0.4638	0.4592	0.4560	0.4537
66	0.5563	0.4800	0.4545	0.4424	0.4355	0.4310	0.4280	0.4257
65	0.5242	0.4500	0.4255	0.4139	0.4073	0.4030	0.4001	0.3980
64	0.4916	0.4200	0.3967	0.3856	0.3793	0.3753	0.3725	0.3705
63	0.4586	0.3900	0.3679	0.3575	0.3515	0.3477	0.3451	0.3432
62	0.4251	0.3600	0.3392	0.3295	0.3239	0.3203	0.3179	0.3161
61	0.3911	0.3300	0.3107	0.3016	0.2964	0.2931	0.2908	0.2892
60	0.3568	0.3000	0.2822	0.2738	0.2691	0.2660	0.2639	0.2624
59	0.3222	0.2700	0.2537	0.2461	0.2418	0.2391	0.2372	0.2358
58	0.2872	0.2400	0.2254	0.2186	0.2147	0.2122	0.2105	0.2093
57	0.2519	0.2100	0.1971	0.1911	0.1877	0.1855	0.1840	0.1829
56	0.2164	0.1800	0.1688	0.1636	0.1607	0.1588	0.1575	0.1566
55	0.1806	0.1500	0.1406	0.1363	0.1338	0.1322	0.1312	0.1304

54	0.1447	0.1200	0.1125	0.1090	0.1070	0.1057	0.1049	0.1042
53	0.1087	0.0900	0.0843	0.0817	0.0802	0.0793	0.0786	0.0781
52	0.0725	0.0600	0.0562	0.0544	0.0534	0.0528	0.0524	0.0521
51	0.0363	0.0300	0.0281	0.0272	0.0267	0.0264	0.0262	0.0260
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TABLE 1. TABLE FOR ESTIMATING PERCENT OF LOT WITHIN LIMITS (PWL)

Percent Within Limits (P _L and P _U)	Negative Values of Q (Q _L and Q _U)							
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10
49	-0.0363	-0.0300	-0.0281	-0.0272	-0.0267	-0.0264	-0.0262	-0.0260
48	-0.0725	-0.0600	-0.0562	-0.0544	-0.0534	-0.0528	-0.0524	-0.0521
47	-0.1087	-0.0900	-0.0843	-0.0817	-0.0802	-0.0793	-0.0786	-0.0781
46	-0.1447	-0.1200	-0.1125	-0.1090	-0.1070	-0.1057	-0.1049	-0.1042
45	-0.1806	-0.1500	-0.1406	-0.1363	-0.1338	-0.1322	-0.1312	-0.1304
44	-0.2164	-0.1800	-0.1688	-0.1636	-0.1607	-0.1588	-0.1575	-0.1566
43	-0.2519	-0.2100	-0.1971	-0.1911	-0.1877	-0.1855	-0.1840	-0.1829
42	-0.2872	-0.2400	-0.2254	-0.2186	-0.2147	-0.2122	-0.2105	-0.2093
41	-0.3222	-0.2700	-0.2537	-0.2461	-0.2418	-0.2391	-0.2372	-0.2358
40	-0.3568	-0.3000	-0.2822	-0.2738	-0.2691	-0.2660	-0.2639	-0.2624
39	-0.3911	-0.3300	-0.3107	-0.3016	-0.2964	-0.2931	-0.2908	-0.2892
38	-0.4251	-0.3600	-0.3392	-0.3295	-0.3239	-0.3203	-0.3179	-0.3161
37	-0.4586	-0.3900	-0.3679	-0.3575	-0.3515	-0.3477	-0.3451	-0.3432
36	-0.4916	-0.4200	-0.3967	-0.3856	-0.3793	-0.3753	-0.3725	-0.3705
35	-0.5242	-0.4500	-0.4255	-0.4139	-0.4073	-0.4030	-0.4001	-0.3980
34	-0.5563	-0.4800	-0.4545	-0.4424	-0.4355	-0.4310	-0.4280	-0.4257
33	-0.5878	-0.5100	-0.4836	-0.4710	-0.4638	-0.4592	-0.4560	-0.4537
32	-0.6187	-0.5400	-0.5129	-0.4999	-0.4924	-0.4877	-0.4844	-0.4820
31	-0.6490	-0.5700	-0.5423	-0.5290	-0.5213	-0.5164	-0.5130	-0.5105
30	-0.6787	-0.6000	-0.5719	-0.5582	-0.5504	-0.5454	-0.5419	-0.5394
29	-0.7077	-0.6300	-0.6016	-0.5878	-0.5798	-0.5747	-0.5712	-0.5686
28	-0.7360	-0.6600	-0.6316	-0.6176	-0.6095	-0.6044	-0.6008	-0.5982
27	-0.7636	-0.6900	-0.6617	-0.6477	-0.6396	-0.6344	-0.6308	-0.6282
26	-0.7904	-0.7200	-0.6921	-0.6781	-0.6701	-0.6649	-0.6613	-0.6587
25	-0.8165	-0.7500	-0.7226	-0.7089	-0.7009	-0.6958	-0.6922	-0.6896
24	-0.8417	-0.7800	-0.7535	-0.7401	-0.7322	-0.7271	-0.7236	-0.7211
23	-0.8662	-0.8100	-0.7846	-0.7716	-0.7640	-0.7590	-0.7556	-0.7531
22	-0.8897	-0.8400	-0.8160	-0.8036	-0.7962	-0.7915	-0.7882	-0.7858
21	-0.9124	-0.8700	-0.8478	-0.8360	-0.8291	-0.8245	-0.8214	-0.8192
20	-0.9342	-0.9000	-0.8799	-0.8690	-0.8625	-0.8583	-0.8554	-0.8533
19	-0.9550	-0.9300	-0.9123	-0.9025	-0.8966	-0.8928	-0.8901	-0.8882
18	-0.9749	-0.9600	-0.9452	-0.9367	-0.9315	-0.9281	-0.9258	-0.9241
17	-0.9939	-0.9900	-0.9785	-0.9715	-0.9671	-0.9643	-0.9624	-0.9610
16	-1.0119	-1.0200	-1.0124	-1.0071	-1.0037	-1.0015	-1.0000	-0.9990
15	-1.0288	-1.0500	-1.0467	-1.0435	-1.0413	-1.0399	-1.0389	-1.0382

14	-1.0448	-1.0800	-1.0817	-1.0808	-1.0800	-1.0794	-1.0791	-1.0789
13	-1.0597	-1.1100	-1.1173	-1.1192	-1.1199	-1.1204	-1.1208	-1.1212
12	-1.0736	-1.1400	-1.1537	-1.1587	-1.1613	-1.1630	-1.1643	-1.1653
11	-1.0864	-1.1700	-1.1909	-1.1995	-1.2043	-1.2075	-1.2098	-1.2115
10	-1.0982	-1.2000	-1.2290	-1.2419	-1.2492	-1.2541	-1.2576	-1.2602
9	-1.1089	-1.2300	-1.2683	-1.2860	-1.2964	-1.3032	-1.3081	-1.3118
8	-1.1184	-1.2600	-1.3088	-1.3323	-1.3461	-1.3554	-1.3620	-1.3670
7	-1.1269	-1.2900	-1.3508	-1.3810	-1.3991	-1.4112	-1.4199	-1.4265
6	-1.1342	-1.3200	-1.3946	-1.4329	-1.4561	-1.4717	-1.4829	-1.4914
5	-1.1405	-1.3500	-1.4407	-1.4887	-1.5181	-1.5381	-1.5525	-1.5635
4	-1.1456	-1.3800	-1.4897	-1.5497	-1.5871	-1.6127	-1.6313	-1.6454
3	-1.1496	-1.4100	-1.5427	-1.6181	-1.6661	-1.6993	-1.7235	-1.7420
2	-1.1524	-1.4400	-1.6016	-1.6982	-1.7612	-1.8053	-1.8379	-1.8630
1	-1.1541	-1.4700	-1.6714	-1.8008	-1.8888	-1.9520	-1.9994	-2.0362

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01410 - TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 PROCEDURE

A. Design-Builder's Testing Laboratory:

The Design-Builder will provide the services of an independent testing laboratory acceptable to the Owner to inspect and test the materials and methods of construction as hereinafter specified for compliance with the requirements of the Contract Documents and to perform such other specialized technical services as may be required by the Design-Builder or Owner to demonstrate compliance. Inspections or testing performed as part of the Design-Builder's operations will be included as part of the Work. Employment of a testing laboratory will in no way relieve the Design-Builder of its obligation to perform the Work in accordance with the Contract Documents.

B. Test Register:

The Design-Builder shall provide a Test Register identifying all required testing in accordance with the contract documents. Register shall be kept updated and used to track test information including, but not limited to, date, time and location of tests.

1.02 QUALIFICATIONS OF DESIGN-BUILDER'S TESTING LABORATORY

A. The Testing Laboratory:

1. The Testing Laboratory selected will meet the basic requirements of ASTM E329 "Standard of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction." The Testing Laboratory will submit to the Owner a copy of the report of inspection of their facilities made by the Materials Reference Laboratory of the National Bureau of Standards during the most recent tour of such inspections and will submit a memorandum stating steps taken to remedy all deficiencies reported by this inspection.
2. The Testing Laboratory selected will meet "Recommended Requirements for Independent Laboratory Qualification", latest edition, as published by the American Council of Independent Laboratories.

B. Testing Machines:

Must be calibrated at intervals not exceeding 12 months by devices of accuracy traceable to the National Bureau of Standards or accepted values of natural physical constants.

C. Tests and Inspections:

Must be conducted in accordance with specified requirements, and if not specified, in accordance with the applicable standards of the American Society for Testing and Materials or other recognized and accepted authorities in the field.

1.03 AUTHORITIES AND DUTIES OF THE LABORATORY:

A. Attending Preconstruction Conferences:

The Testing Laboratory will obtain and review the Project plans and specifications with the Design-Builder as soon as possible prior to the start of construction. The Testing Laboratory will attend preconstruction conferences as required to coordinate materials inspection and testing requirements with the planned construction schedule. The Testing Laboratory will participate in such conferences throughout the course of the Project.

B. Outline Testing Program:

The Testing Laboratory will be responsible for outlining a written detailed testing program conforming to the requirements as specified in the Contract Documents and in consultation with the Design-Builder and Owner. The testing program will contain an outline of inspections and tests to be performed with reference to applicable sections of the Contract Documents and Design-Builder's design drawings and specifications.

C. Cooperation with Design Team:

The Testing Laboratory will cooperate with the Owner and Design-Builder and provide qualified personnel promptly on notice.

D. Inspections, Sampling, Testing, Reports and Certifications:

1. The Testing Laboratory will perform the required inspections, sampling, and testing of materials as specified under each Section of the Contract Documents and observe methods of construction for compliance with the requirements of the Contract Documents.
2. The Testing Laboratory will perform all inspections and submit all reports and certifications as required by all governing authorities.

E. Notification of Deficiencies in the Work:

The Testing Laboratory will notify the Owner and Design-Builder immediately by email of observed irregularities and deficiencies in the Work and other conditions not in compliance with the requirements of the Contract Documents.

F. Reports:

1. Information on Reports:

- a. The Testing Laboratory will submit copies of all reports of inspections and tests promptly and directly to the parties named below. All reports will contain at least the following information:

- (1) Project Name.
- (2) Project Number.

- (3) Date report issued.
- (4) Testing Laboratory name and address.
- (5) Name and signature of inspector.
- (6) Date of inspection and sampling.
- (7) Date of test.
- (8) Identification of product and Specification Section.
- (9) Location in the Project.
- (10) Identification of inspection or test.
- (11) Record of weather conditions and temperature (if applicable).
- (12) Results of test regarding compliance with Contract Documents.
- (13) Deficiency log, including deficiencies from previous reports.

2. Copies:

- a. The Testing Laboratory will submit certified copies of all test and inspection reports promptly and directly to the following parties through Prolog Inspections and Tests modules:

- (1) Owner.
- (2) Design-Builder
- (3) Design-Builder's Registered Designer of Record.
- (4) supplier of the material tested.

3. Certification by Notary Public:

Upon completion of the job, the Testing Laboratory will furnish to the Owner a statement, under oath and notarized by a Notary Public, that all required tests and inspections were made in accordance with the requirements of the Contract Documents.

4. Accounting:

The Testing Laboratory will be responsible for separating and billing costs attributed to the Owner and costs attributed to the Design-Builder where appropriate, in accordance with the Contract Documents.

5. Obtaining Product and Material Certifications:

The Testing Laboratory will be responsible for obtaining all product and material certifications from manufacturers and suppliers as specified in the Specifications.

6. Limitations of Authority:

The Testing Laboratory is not authorized to revoke, alter, relax, enlarge upon or release any requirements of the Specifications or to approve or accept any portion of the Work or to perform any duties of the Design-Builder and its Subcontractors.

1.04 DESIGN-BUILDER'S RESPONSIBILITY

A. Cooperation:

The Design-Builder will cooperate with laboratory personnel and provide access to the Work and manufacturers operations.

B. Furnishing Samples:

The Design-Builder will provide to the laboratory representative samples of materials proposed for use in the Work in quantities sufficient for accurate testing as specified.

C. Furnishing Labor, Equipment and Facilities:

The Design-Builder will furnish labor, equipment, and facilities as required for sampling and testing by the laboratory and otherwise facilitate all required inspections and tests.

D. Advance Notice:

The Design-Builder will be responsible for notifying the Testing Laboratory sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests.

E. Payment for Substitution Testing:

The Design-Builder will arrange with the Testing Laboratory and pay for any additional samples and tests above those required by the Contract Documents as requested by the Design-Builder for its convenience in performing the Work.

F. Notification of Source Change:

The Design-Builder will be responsible for notifying the Owner and Testing Laboratory when the source of any material is changed after the original tests or inspections have been made.

G. Tests for Suspected Deficient Work:

If, in the opinion of the Owner, any of the Work of the Design-Builder is not satisfactory, the Design-Builder will make all tests that the Owner deems advisable to determine its proper construction. The Owner will pay all costs if the tests prove the questioned work to be satisfactory.

H. Associated Services: The Design-Builder shall cooperate with the Owner and with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. The Design-Builder shall notify the Owner and the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required of the Design-Builder include but are not limited to the following:

1. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
2. Taking adequate quantities of representative samples of materials that require

testing or assisting the agency in taking samples.

3. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
4. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
5. Security and protection of samples and test equipment at the Project site.

1.05 PAYMENT OF TESTING LABORATORY

The Design-Builder will pay for the initial Testing Laboratory services for testing of materials for compliance with the requirements of the Contract Documents. The Design-Builder will pay for testing and retesting of materials that do not comply with the requirements of the Contract Documents and all other items as specified in these Specifications.

PART 2 - PRODUCTS

"Not Used"

PART 3 - EXECUTION

3.01 SCOPE OF WORK

The work to be performed by the Testing Laboratory will be as specified in this Section and as determined in meetings with the Owner and Design-Builder. These are the Owner's minimum requirements; more stringent requirements may be required by the technical specifications.

3.02 EARTHWORK

A. Tests of Proposed Fill Material (if applicable):

The Testing Laboratory will conduct a survey of the Design-Builder's proposed location of borrow soil materials and will establish the suitability of any proposed fill material by determining the required engineering properties. Soil tests will include soil classification by the Atterberg Limit Tests ASTM D 4318, and grain size determination by ASTM D 422 "Particle Size Analysis of Soils."

B. Moisture Density Relationship for Natural and Fill Materials:

The Testing Laboratory will provide one optimum moisture density curve for each type of soil, natural fill, imported fill, or on-site fill encountered in subgrade and fills under building slabs and paved areas. Curves will be generated in accordance with ASTM D 1557 "Test Methods for Moisture Density Relationships of Soils and Soil Aggregate Mixtures."

C. Quality Control Testing Required During Construction:

1. Inspection of Subgrade and Fill: The Testing Laboratory will inspect and approve the following subgrades and fill layers before further construction work is

performed thereon:

- a. Paved Areas and Building Slab Subgrade: Make at least one field density test of the natural subgrade for every 2,500 square feet of paved area or building slab but in no case less than three tests. In each compacted fill layer or lift, make one field density test for every 2,500 square feet of building slab or paved area but in no case less than three tests.
- b. Foundation Wall Backfill: Make at least one field density test for each 200 lineal feet of wall with a minimum of four tests for each basement wall around the perimeter of the building and a minimum of one test for every other type of foundation wall on the Project site. Tests will be at random locations and elevations for each wall.

2. Field Density Tests:

Field Density Tests will be run according to ASTM D 1556 "Density of Soil in Place by the Sand Core Method," ASTM D 2167 "Density of Soil in Place by the Rubber Balloon Method" or ASTM D 2922 "Density of Soil and Soil Aggregate in Place by Nuclear Methods" as applicable.

3. Report Copies:

The Testing Laboratory will submit all moisture density curves and results of field density tests to the parties specified at Paragraph 1.03.F.2.a. of this section
Additional Testing:

If reports by the Testing Laboratory indicate field densities lower than specified above, additional tests will be run by the Testing Laboratory with at least the frequencies scheduled above on recompacted fill and/or natural subgrade. The Testing Laboratory will notify the Design-Builder on a timely basis for any required retesting so as not to delay the Work. The costs of such tests will be borne by the Design-Builder.

Foundation:

- a. Mat and Dug Footing Subgrade Inspection: The Design-Builder's Geotechnical Engineer will provide inspection service of each mat and dug footing subgrade prior to placing foundation concrete. Such inspection will verify that field conditions are consistent with soil report test results and that the foundation is being installed in the proper soil strata at the proper elevation. The Design-Builder's Geotechnical Engineer will submit written field inspection reports promptly after inspection to all parties listed at Paragraph 1.03.F.2.a of this Section and report its findings after each inspection by telephone to the Design-Builder.
- b. Field Inspection: The Design-Builder's Geotechnical Engineer will provide inspection of drilled pier installation.

- c. Pier Load Test: The Design-Builder's Geotechnical Engineer will supervise the test pier program and submit a written report of its findings to all parties listed at Paragraph 1.03.F.2.1.

D. Extent of Services for Reinforcing Steel for Concrete:

1. When the Design-Builder or reinforcing steel fabricator notifies the Testing Laboratory that a shipment of reinforcing steel is in the final stages of fabrication and ready for shipment, the Testing Laboratory will inspect the shipment to determine the following:
 - a. The bars will be free from injurious defects and will have a workmanlike finish.
 - b. Deformations will be of the proper sizes, shapes, and spacing as detailed in ASTM A 615.
 - c. The bars will not have excessive rust and/or pelting.
 - d. The bars will not have any unusual twists or bends.

2. Identified Stock:

Where job material is taken from bundles as delivered from the mill, is properly identified as to heat number and is accompanied by mill and analysis test reports, such material will be used without further local tests provided an affidavit is given from the supplier to the Testing Laboratory that the materials conform with the requirements of the ASTM Specification listed on the Structural Drawings. In case of controversy, the procedure as stipulated below for unidentified stock will be followed.

3. Unidentified Stock:

- a. For all unidentified stock, the Testing Laboratory will secure samples of the reinforcing steel bars at the time of inspection. The samples will conform to the following:
 - (1) The sample will include two bars for each ten tons or fraction thereof of each bar size, heat number, and manufacturer being shipped.
 - (2) The sample bars will be a minimum of 24-inches in length and will be identical to the material being shipped.
 - (3) The Testing Laboratory will tag each of the steel bundles with the laboratory identification tag and appropriately mark the samples corresponding to the steel being inspected and shipped. The fabricator will supply shipping lists showing the weight of each bar to the Testing Laboratory for tensile strength tests and bend tests according to ASTM A 615.

3.03 CONCRETE MATERIALS AND POURED IN PLACE CONCRETE, OTHER THAN P-501 CONCRETE PAVING

A. Tests of Portland Cement:

1. Mill certificates certifying that the cement has been tested and meets the requirements of the Specification will be acceptable as test results, provided the cement proposed for use can be identified with test lots. Mill certificates will be submitted by the Design-Builder prior to use of any such material.
2. Retesting of cement will be required if:
 - a. In the opinion of the Testing Laboratory the cement has been damaged in storage or transit or is in any way defective.
 - b. The cement has been in storage at the mixing site for over 30 days.
3. Compressive strength cube specimens will be made at the start of the job and at a frequency of one set per 250-tons of cement or whenever the source or brand of cement changes so that the quality of cement can be observed throughout the Project. Each set of two-inch cubes will consist of four cubes tested according to ASTM C 109 at 28-day strengths.

B. Tests of Aggregates:

1. The Testing Laboratory will verify that concrete aggregates proposed for use conform to the following specifications:
 - a. ASTM C 33 "Specification for Concrete Aggregates"
 - b. ASTM C 330 "Specification for Lightweight Aggregates for Structural Concrete"
2. Tests of aggregates by the Testing Laboratory will be made before the concrete mix is established and thereafter as the character of the aggregate changes and whenever the service of materials is changed. The following tests will be required:
 - a. Sampling: The Testing Laboratory will secure samples of aggregate in accordance with ASTM D 75 from the concrete supplier. The proposed aggregate will not be used until the pit source has been approved by the Testing Laboratory and the plant capacity and ability to produce products has been verified.
 - b. Sieve Analysis: ASTM C 136.
 - c. Organic Impurities: ASTM C 40.
 - d. Soundness: ASTM C 88.

- e. Abrasion of Concrete Aggregate: ASTM C 131.
 - f. Specific Gravity: ASTM C 127 (coarse aggregate), ASTM C 128 (fine aggregate).
 - g. Deleterious Materials: ASTM C 33.
 - h. Materials Passing No. 200 Sieve: ASTM C 177.
3. Suppliers records of such tests run on the proposed material will be adequate provided a written affidavit is furnished as a shop drawing submittal.
- C. Concrete Mix Designs:
- 1. The Design-Builder will submit for approval by the Design-Builder's licensed design professional and Testing Laboratory, at least 15 days prior to the start of construction, concrete mix designs for each class of concrete indicated on the Structural Drawings and in the Specifications. The Design-Builder will not begin work until the applicable mix design has been approved.
 - 2. The Design-Builder acting in conjunction with Design-Builder's concrete supplier and Testing Laboratory will submit in writing the mix designs, indicating whether the concrete is to be proportioned by either of the following methods as outlined in ACI 318:
 - a. Field Experience Method
 - b. Laboratory Trial Batch Method
 - 3. When field experience methods are used to select concrete proportions, establish proportions as specified in ACI 301 and ACI 211. When Testing Laboratory trial batches are used to select concrete proportions, the procedure as outlined in ACI 318 will be followed. Prepare test specimens in accordance with ASTM C192 and conduct strength tests in accordance with ASTM C39.
 - 4. Required types of concrete and compressive strengths as specified in the various sections of the Specifications.
 - 5. All mix design will state the following information:
 - a. Mix design number or code designation by which the Design-Builder will order the concrete from the supplier.
 - b. Structural member for whom the concrete is designed (i.e. columns, walls footings, etc.).
 - c. Type of concrete (whether normal weight or lightweight).
 - d. 28 day compressive strength.

- e. Aggregate type, source, size, gradation, fineness modulus.
- f. Cement type and brand.
- g. Fly ash type and brand (if any).
- h. Admixtures including air entrainment, water reducers, accelerators, and retarders.
- i. Slump.
- j. Proportions of each material used.
- k. Water cement ration and maximum allowable water content.
- l. Method by which the concrete is intended to be placed (bucket, chute, or pump).

D. Concrete Suppliers Record of Quality Control:

The concrete supplier's past record of quality control will be used in the design of the concrete mixes to determine the amount by which the average concrete strength f'_c should exceed the specified f'_c as outlined in ACI 318. If a suitable record of test results is not available, the average strength must exceed the design strength by 1200 PSI as specified in ACI 318. After sufficient data becomes available from the job, the statistical methods of ACI 214 may be used to reduce the amount by which the average strength must exceed f'_c as outlined in ACI 318.

E. Admixtures:

- 1. Admixtures to be used in concrete will be subject to the approval of the Testing Laboratory.
- 2. Quantities of admixtures to be used will be in strict accordance with the manufacturer's instructions.
- 3. Admixtures containing chloride ions will not be used.
- 4. Air entraining admixtures will conform to "Specification for Air Entraining Admixtures for Concrete" ASTM C260.
- 5. Water reducing admixtures, retarding admixtures, accelerating admixtures, water reducing and retarding admixtures and water reducing and accelerating admixtures will conform to "Specification for Chemical Admixtures for Concrete" ASTM C494.
- 6. Fly ash or other Pozzolons used as admixtures will conform to "Specification for Fly Ash and Raw or Calcined Natural Pozzolons for use in Portland Cement Concrete" ASTM C618. Obtain mill test reports for approval.

7. Use amounts of admixtures as recommended by the manufacturer for climatic conditions prevailing at the time of placing. Adjust quantities of admixtures as required to maintain quality control.

F. Lightweight Structural Concrete:

1. Comply with requirements of ACI 211 and ACI 301.
2. Lightweight concrete aggregate will conform to ASTM C 330 "Specification for Lightweight Aggregates for Structural Concrete."
3. Provide concrete with a dry unit weight of not more than 116-pounds per cubic foot and not less than 95-pounds per cubic foot. Design mix to produce strengths as indicated on the Drawings with a split cylinder strength factor ($f_{ct}/f'c$) 0.5) of not less than 5.3 (Mpa) and a drying shrinkage limit of 0.03% at 28 days.

G. Slump Limits:

Refer to Drawings and Specifications for slump limits.

H. Adjustments of Concrete Mixes:

Mix design adjustments may be requested by the Design-Builder when characteristics of materials, job conditions, weather, test results, or other circumstances warrant. Such mix design adjustments will be provided at no additional cost to the Owner. Any adjustments in approved mix designs, including changes in admixtures, will be submitted in writing to the Testing Laboratory for approval prior to field use.

I. Shrinkage:

All concrete will be proportioned for maximum allowable unit shrinkage of 0.03% at 28 days as determined by ASTM C157.

J. Chloride Ion Content:

A written submittal will be made with each mix design proposed for use on the Project that no soluble chloride ion exist in the concrete mixes.

K. Concrete Test Cylinders by the Testing Laboratory:

Molding and Testing: Cylinders for strength tests will be molded and Testing Laboratory cured in accordance with ASTM C31 "Method of Making and Curing Concrete Test Cylinders in the Field" and testing in accordance with ASTM C39 "Method of Testing for Compressive Strength of Cylindrical Concrete Specimens".

L. Field Samples:

Field Samples for strength tests will be taken in accordance with ASTM C172 "Method of Sampling Fresh Concrete".

M. Frequency of Testing:

Each set of test cylinders will consist of a minimum of four standard test cylinders. A set of test cylinders will be made according to the following frequency guidelines:

1. One set for each class of concrete taken not less than once a day.
2. Piers: One set for each 50 cubic yards or fraction thereof.
3. Spread Footings: One set for each 50 cubic yards or fraction thereof.
4. Foundation Walls: One set for each 150 cubic yards.
5. Pier Caps and Spread Footings: One set for each 50 cubic yards or fraction thereof.
6. Floors: One set for each 150 cubic yards or fraction thereof but not less than one set for each 5000 square feet of floor area.
7. Columns: One set for each 50 cubic yards or fraction thereof with a minimum of two sets per floor.
8. All Other Concrete: A minimum of one set for each 150 cubic yards or fraction thereof.
9. No more than one set of cylinders at a time will be made from any single truck.
10. The above frequencies assume that one batch plant will be used for each pour. If more than one batch plant is used, the frequencies cited above will apply for each plant used.
11. The cylinders will be numbered, dated, and the point of concrete placement in the building recorded. Of the four cylinders per set, break one at seven days, two at 28 days, and one automatically at 56 days, only if either 28 day cylinder break is below required strength.

N. Additional Cylinder for Floor Form Stripping:

One additional cylinder per set will be required for formed slab and pan joist floors for the purpose of evaluating the concrete strength at the time of form stripping. This cylinder will be stored on the floor where form removal is to occur under the same exposure conditions as the floor concrete. The cylinder will be cured under field conditions in accordance with ASTM C31 "Method of Making and Curing Concrete Test Specimens in the Field". Field cured test cylinders will be molded at the same time and from the same samples as Testing Laboratory cured test specimens. The cylinder will be broken at the time of form removal as directed by the Design-Builder.

O. Cylinder Storage Box:

The Design-Builder will be responsible for providing a protected concrete cylinder storage curing box at a point on the Project site mutually agreeable with the Testing Laboratory for the purpose of storing concrete cylinders until they are transported to the Testing Laboratory. Cylinder storage curing box must meet ACI guidelines.

P. Transporting Cylinders:

The Testing Laboratory will be responsible for transporting the cylinders to the Testing Laboratory in a protected environment such that no damage or ill effect will occur to the concrete cylinders until they are transported to the Testing Laboratory.

Q. Information on Concrete Test Reports:

1. The Testing Laboratory will make and distribute concrete test reports after each job cylinder is broken. Such reports will contain the following information:
 - a. Truck number and ticket number.
 - b. Concrete Batch Plant.
 - c. Mix design number.
 - d. Accurate location of pour in the structure.
 - e. Strength requirement.
 - f. Date cylinders made and broken.
 - g. Technician making cylinders.
 - h. Concrete temperature at placing.
 - i. Air temperature at point of placement in the structure.
 - j. Amount of water added to the truck at the batch plant and at the Project site and whether it exceeds the amount allowed by the mix design.
 - k. Slump.
 - l. Unit weight.
 - m. Air content.
 - n. Cylinder compressive strengths with type of failure if concrete does not meet Specification requirements. Seven day breaks are to be flagged if they are less than 60% of the required 28 day strength. 28 day breaks are to be flagged if either cylinder fails to meet Specification requirements.
2. Other Required Tests of Concrete by the Testing Laboratory (unless noted otherwise):

- a. Slump Tests: (ASTM C143) will be made at the beginning of concrete placement for each batch plant and for each set of test cylinders made.
- b. Air Entrainment: (ASTM C233) tests will be made at the same time slump tests are made as cited above.
- c. Concrete Temperature: Will be measured at the same time slump tests are made as cited above.
- d. Chloride Ions: If calcium ions are not approved, the following will not apply. If calcium ions are permitted per requirements of Concrete Section(s) of the Specifications, comply with the following.
 - (1) The Design-Builder will have Testing Laboratory verify in a written submittal with the mix designs that the chloride ion concentration will not exceed the limits specified.
 - (2) Tests will be run for each class of concrete according to AASHTO Designation T260-82 "Sampling and Testing for Total Chloride Ion in Concrete and Concrete Raw Materials" to determine that the maximum chloride ion content does not exceed the limits stated in the Concrete Section(s) of the Specifications. One set of tests will be run at the beginning of the Project for each class of concrete.

R. Evaluation and Acceptance of Concrete:

- 1. Strength Test: Will be defined as the average strength of two 28 day cylinder breaks from each set of cylinders.
- 2. Quality Control Charts and Logs: The Testing Laboratory will keep the following quality control logs and charts for each class of concrete containing more than 2,000 cubic yards. The records will be kept for each batch plant and submitted on a weekly basis with cylinder test reports:
 - a. Number of 28 day strength tests made to date.
 - b. 28 day strength test results containing the average of all strength tests to date, the high test result, the low test result, the standard deviation, and the coefficient of variation.
 - c. Number of tests under specified 28 day strength.
 - d. A histogram plotting the number of 28 day cylinders versus compressive strength.
 - e. Quality control chart plotting compressive strength test results for each test.

- f. Quality control chart plotting moving average for strength where each point plotted is the average strength of three previous test results.
- g. Quality control charge plotting moving average for range where each point plotted is the average of ten previous ranges.

S. Acceptance Criteria:

- 1. The strength level of an individual class of concrete will be considered satisfactory if both of the following requirements are met:
 - a. The average of all sets of three consecutive strength tests equal or exceed the required f'c.
 - b. No individual strength test (average of two 28 day cylinder breaks) falls below the required f'c by more than 500 PSI.
- 2. If either of the above requirements is not met, the Testing Laboratory will immediately notify the Design-Builder and Owner by telephone. Steps will immediately be taken to increase the average of subsequent strength tests.

T. Investigation of Low Strength Concrete Test Results:

1. Design-Builder Responsibility for Low Strength Concrete:

If any strength test of Testing Laboratory cured cylinders falls below the required f'c by more than 500 PSI, the Design-Builder will take steps immediately to assure that the load carrying capacity of the structure is not jeopardized.

2. Nondestructive Field Tests:

The Testing Laboratory will, under the direction of Design-Builder or Owner, perform nondestructive field tests of the concrete in question using Swiss Hammer, Windsor Probe, or other appropriate methods as approved by the Design-Builder or Owner and report the results in the same manner as for cylinder test reports.

3. Core Tests:

- a. If the likelihood of low strength concrete is confirmed and computations indicate that the load carrying capacity of the structure has been significantly reduced, tests of cores by the Testing Laboratory, drilled from the area in question under the direction of the Design-Builder or Owner, will be required in accordance with ASTM C42 "Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete". In such case, three cores will be taken for each strength test more than 500 PSI below required f'c.
- b. If concrete in the structure will be dry under service conditions, cores will be air dried (temperature 60° to 80°F, relative humidity less than 60 %)

for seven days before test and will be tested dry. If concrete in the structure will be more than superficially wet under service conditions, cores will be immersed in water for at least 48 hours and tested wet. The Design-Builder will fill all holes made by drilling cores with an approved drypack concrete.

4. Acceptance Criteria for Core Tests:

Concrete in an area represented by core tests will be considered structurally adequate if the average of three cores is equal to at least 85% of $f'c$ and if no single core is less than 75% of $f'c$. If approved by the Design-Builder and Owner, locations of erratic core strengths may be retested to check testing accuracy.

5. Cost of Investigations for Low Strength Concrete:

The costs of all investigations of low strength concrete will be borne by the Design-Builder.

U. Concrete Inspection by the Testing Laboratory:

1. The following types of concrete inspection will be provided by the Testing Laboratory for the classes of concrete described in each type of inspection:

a. Continuous concrete inspection at the point of discharge at the Project site. This type of inspection includes the following classes of concrete:

- (1) Mat Foundations or any other foundation types where more than two columns are supported on a common foundation unit.
- (2) All architectural concrete.
- (3) Columns.

The Testing Laboratory will assign the required number of technicians with the necessary equipment for each scheduled concrete placement to provide continuous concrete inspection at the point of discharge at the Project site.

b. The Testing Laboratory will assign a technician with the necessary equipment to each scheduled concrete placement. The technician will proceed to the Project site for the first truckloadings to inspect the mix at the point of discharge. The technician will remain at the Project site to inspect the mix for the required consistency for the duration of the concrete placement.

V. Job Site Inspection:

1. The scope of the work to be performed by the inspection on the Project site will be as follows:

a. Verify that air temperatures at the point of placement in the structure

are within acceptable limits defined above prior to ordering of concrete by the Design-Builder.

- b. Inspect concrete upon arrival to verify that the proper concrete mix number, type of concrete, and concrete strength is being placed at the proper location.
- c. Inspect plastic concrete upon arrival at the Project site to verify proper batching. Observe mix consistency and adding of water as required to achieve target slumps in mix designs. Record the amount of water added and note if it exceeds that allowed in the mix design. The responsibility for adding water to trucks at the Project site will rest only with the Design-Builder's designated representative. The Design-Builder is responsible for verifying that all concrete placed in the field is in conformance to the Contract Documents.
- d. Obtain concrete test cylinders.
- e. Perform slump tests and air entrainment tests.
- f. Record information for concrete test reports.
- g. Verify that all concrete being placed meets Specifications. Report concrete not meeting the specified requirements and immediately notify the Design-Builder, batch plant inspector, and Owner.
- h. Pick up and transport to Testing Laboratory cylinders cast the previous day.
- i. Check concrete placing techniques to determine that concrete deposited is uniform and that vertical drop does not exceed six feet.
- j. The Project site laboratory inspector will report and irregularities that occur in the concrete at the Project site or test results to the Design-Builder and Owner.

2. Cause for Rejection of Concrete:

- a. The Design-Builder will reject all concrete delivered to the Project site for any of the following reasons:
 - (1) Wrong class of concrete (incorrect mix design number).
 - (2) Air temperature: Air temperature limits will be as follows:
 - (a) Cold Weather: Air temperature must be 40°F and rising.
 - (b) Hot Weather: Air temperature must be cooler than 100°F.

- (c) Concrete may be placed at other air temperature ranges only with approval of the job inspector for the Testing Laboratory or other duly appointed representative.
 - (3) Concrete with temperatures exceeding 95°F may not be placed in the structure.
 - (4) Air contents outside the limits specified in the mix designs.
 - (5) Water added outside the limits specified in the mix designs.
 - (6) Slumps outside the limits specified in the mix designs.
 - (7) Excessive Age: Concrete will be discharged within 90 minutes of plant departure or before it begins to set if sooner the 90 minutes unless approved by the Testing Laboratory job inspector or Owner representative.
- b. The Design-Builder will be responsible for verifying that all concrete placed in the field is in conformance with the Contract Documents.
 - c. Concrete Batch Trip Tickets: All concrete batch trip tickets will be collected and retained by the Design-Builder. Compressive strength, slump, air, and temperature tests will be identified by reference to a particular trip ticket. All tickets will contain the information specified in ASTM C 94. Each ticket will also show the amount of water that may be added in the field for the entire batch that will not exceed the specified water cement ration for the design mix. The Testing Laboratory will immediately notify the Design-Builder and Owner of tickets not meeting the criteria specified.

3.04 STRUCTURAL STEEL

A. Contract Obligations:

1. The Design-Builder will pay for all initial shop and field inspections and tests as required during the fabrication and erection of the structural steel.
2. The Design-Builder will pay for and arrange with the Testing Laboratory for the certification of all shop and field welders. Each bolting crew and welder will be assigned an identifying symbol or mark and all shop and field connections will be so identified so that the inspector can refer back to the person or crew performing the work. The costs of all retesting of material or workmanship not in conformance with the Contract Documents will be borne by the Design-Builder. The fabricator and erector will provide the Testing Laboratory inspector with access to all places where work is being done. A minimum of 24 hours notification will be given prior to commencement of work.
3. The Design-Builder will provide the Testing Laboratory with the following:

- a. A complete set of Design-Builder's licensed design professional's reviewed shop and erection drawings including all revisions and addenda.
- b. Cutting lists, order sheets, material bills, shipping bills and mill test reports.
- c. Information as to time and place of all rollings and shipment of material to shops.
- d. Representative sample pieces requested for testing.
- e. Full and ample means and assistance for testing all material.
- f. Proper facilities, including scaffolding, temporary work platforms, hoisting facilities, etc., for inspection of the work in the mills, shop and field.

B. Testing Laboratory Responsibility:

1. The inspection of shop work by the Testing Laboratory will be performed in the fabricator's shop to the fullest extent possible. Such inspections will be in sequence, timely, and performed in such a manner as to minimize disruptions in operations and to permit the repair of all nonconforming work while the material is in process in the fabricating shop. Inspection of field work will be completed promptly so that corrections can be made without delaying the progress of the work.
2. Inspections will be performed by qualified technicians with a minimum of two years experience in structural steel testing and inspection. All inspection personnel will be certified in accordance with AWS QC-1. The Testing Laboratory will provide test reports of all shop and field inspections. Shop test reports will include shop welders certifications. All test reports will indicate types and locations of all defects found during inspection, the measures required and performed to correct such defects, and statements of final approval of all welding and bolting of shop and field connections and other fabrication and erection data pertinent to the safe and proper welding and bolting of shop and field connections. In addition to the parties listed in this Specification, the fabricator and erector will receive copies of all test reports.

C. Rejection of Material or Workmanship:

The Owner, Design-Builder, and Testing Laboratory reserve the right to reject any material or workmanship not in conformance with the Contract Documents at any time during the progress of the Work. However, this provision does not allow waiving the obligation for timely, in sequence inspections.

D. Mill Tests of Structural Steel:

Mill Order Steel: The fabricator will furnish certified mill test reports and an affidavit stating that the structural steel furnished meets the requirements of the grade specified

on the structural drawings for all mill order steel. In case of controversy, tests of the material according to ASTM A6 or A568, as applicable, made by the Testing Laboratory with certified test reports paid for by the Design-Builder will be made to verify conformity with ASTM standards. Tests will be made for each 10 tons of material used, unless approved otherwise by the Owner.

E. Local Stock Steel:

1. Materials taken from stock by a fabricator for use for structural purposes must be of a quality at least equal to that required by the ASTM specifications applicable to the classification covering the intended use. Certified mill test reports will be accepted as sufficient record of the quality of materials carried in stock by the fabricator provided the stock steel can be identified by heat or melt numbers. In case of controversy, tests by the Testing Laboratory with certified reports as specified for mill order steel will be required.
2. If tests are required, test specimens will be taken by the Design-Builder under the direction of its Testing Laboratory and will be machined by the Testing Laboratory to dimensions as required by the applicable ASTM standards.

F. Shop Inspections and Tests:

1. The Testing Laboratory will provide inspection at the designated fabrication shops for the designated periods of time to perform shop inspection and tests. The designated fabrication shops and time periods of inspection will be determined in consultation with the Design-Builder and Owner prior to the start of fabrication in a timely manner so as to not delay the fabrication process. The following tests and inspections will be performed:
 - a. Review shop drawings and shop procedures with fabricator's supervisory personnel.
 - b. Request and obtain necessary mill certifications of steel and verify proper material throughout the duration of the Project.
 - c. Verify welding qualifications either by prequalification or by witnessing qualification tests.
 - d. Verify welder qualifications either by certification and/or by retesting. Obtain welder certificates.
 - e. Check layout and dimensions of jigs and fixtures for multiple fabrication, joint preparation, and fit up of members.
 - f. Verify welding electrodes to be used and other welding consumables as the Project progresses.
 - g. Check preheating procedures for uniformity and thoroughness through the full thickness of the material. Inspect preheating and interpass temperatures for conformance to AWS D1.1, Table 4.2. Verify procedure

for control of distortion and shrinkage stresses.

- h. Verify procedures for welding in accordance with applicable portions of Section 4, "Technique", AWS D1.1.
- i. Inspect welding equipment for capacity, maintenance, and working condition.
- j. Perform random dimensional checks of completed members.
- k. Provide inspection of surface preparation for coating and coating operations.
- l. Check shipping preparation schedules and obtain copies of shipping lists.
- m. Check bolted connections according to inspection procedures outlined in the "Specification for Structural Joints" using ASTM A325 or A490 Bolts.
- n. Make visual inspection of welding in progress for size, length, and quality.
- o. Perform nondestructive examination services for various weldments of shop fabrication determined in consultation with the Design-Builder prior to the start of fabrication. The testing agency will submit recommendations to the Design-Builder for approval as to the type of nondestructive inspection methods best suited to the member being tested. Specifically, the Testing Laboratory will provide a qualified technician with the necessary equipment to perform the following:
 - (1) Nondestructive examination conduct in accordance with the specific requirements for the item being examined including radiographic, ultrasonic, magnetic particle, or dye penetrate inspection. All nondestructive inspection procedures will conform to Section 6 of AWS D1.1.
 - (2) Interpret, record, and report all results of the nondestructive tests.
 - (3) Mark for repair any area not meeting Specifications requirements. Correction of rejected welds will be made in accordance with Paragraph 3.7, "Corrections," AWS D1.1.
 - (4) Re-examine all repair areas and interpret, record, and report the results of examinations of repair welds.
- p. Verify that quality of welds meet the requirements of Paragraph B.15, "Quality of Welds," AWS D1.1.
- q. Unless otherwise specified, test all partial and complete penetration welds in connections of beams, girders, columns, trusses, and braces. Test a minimum of 10% of connections with fillet welds. Increase the

testing rate for welders having a high rejection rate as required to ensure acceptable welds. Visual inspection is required for all welds. The costs of repairing all defective welds and the costs of retesting by the Testing Laboratory will be borne by the Design-Builder. If removal of a backing strip is required by the Testing Laboratory to investigate a suspected weld defect, such cost will be borne by the Design-Builder.

G. Field Inspections and Tests:

1. The Testing Laboratory will provide inspection in the field in a timely manner for a period of time as determined in consultation with the Design-Builder's licensed design professional and Owner prior to the start of erection so as to not delay the start of erection. The following tests and inspections will be made:
 - a. Obtain the planned erection procedure and review with the erector's supervisory personnel.
 - b. Check the installation of base plates for proper leveling, grout type, and grout application.
 - c. Verify field welding procedures and obtain welder certificates.
 - d. Check steel as received in the field for possible shipping damage, workmanship, and piece marking.
 - e. Check plumbness and frame alignment as erection progresses.
 - f. Check required camber of floor beams.
 - g. Check joint preparation and fit up, backing strips, and runout plates for welded moment connections and column splices.
 - h. Check preheating to assure proper temperature, uniformity, and thoroughness through the full material thickness.
 - i. Review welding sequence.
 - j. Visually inspect all field welding for size, length, and quality.
 - k. Perform nondestructive examination services for various weldments of field erection determined in consultation with the Design-Builder prior to the start of erection. The Testing Laboratory will furnish a qualified technician with the necessary equipment to perform radiographic, ultrasonic, magnetic particle, or dye penetrant inspection as required for the item being tested and other duties as outlined for shop inspection in the previous Section. Unless specified otherwise, check all partial and complete penetration welds in connections of beams, girders, columns, and braces. Check 10% of connections with fillet welds. Visual inspection is required for all welds.

- I. Check calibration of impact wrenches used in field bolted connections.
 - m. Check high strength friction field bolted connections according to inspection procedures outlined in the "Specification for Structural Joints Using ASTM A3256 or A490 Bolts". Unless specified otherwise, test 10% of the bolts, but not less than two bolts, selected at random in each connection. If any bolt is found to be improperly tightened, test all bolts in the connection. Visually inspect all bearing type bolts to verify that the bolts are snug tight.
 - n. Visually inspect the welding of metal deck to the structure.
 - o. Perform field tests on 10% of completed shear connectors in each beam according to inspection procedures outlined in AWS D1.1.
 - 2. The costs of repairing all defective welds and the costs of retesting by the Testing Laboratory will be borne by the Design-Builder. If removal of a backing strip is required by the Testing Laboratory to investigate a suspected weld defect, such cost will be borne by the Design-Builder.
- H. Tests and Inspection of Sprayed-On Fireproofing:
 - 1. The Testing Laboratory will confirm that sprayed-on fireproofing conforms to all performance criteria as specified in the Project Specifications by obtaining and reviewing manufacturer's certification or test reports.
 - 2. The Testing Laboratory will sample sprayed-on fireproofing at each floor for each day's operations and verify oven dry density and compression strength as specified on the Drawings.
 - 3. The Testing Laboratory will verify proper installation method, proper material, and proper material thickness for each day's operation.
 - 4. The Testing Laboratory will randomly inspect the thickness of the sprayed-on fireproofing as specified in the UL designation numbers on the Drawings.

3.05 NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES AND PRECAST PAVERS

- A. Compressive Strength Tests (by the Testing Laboratory):
 - 1. Compressive strength of grout will be determined by testing four cubes two inches in dimension according to the requirements of ASTM C109 "Compressive Strength of Hydraulic Cement Mortars." Each strength test will be the average of two 28 day strengths. Test one cube at seven days, two at 28 days, and one at 56 days, only if either 28 day test is low.
 - 2. Frequency of Testing: One set of cubes (four cubes) will be made for every ten base plates and bearing plates or fraction thereof cut not less than one set for each day's operation. One set of cubes will be made for each day's operation of grouting wall panels.

3.06 OPEN WEB STEEL JOISTS

- A. Scope: The Testing Laboratory will perform inspection of open web steel joists in the field as herein described.
1. Obtaining Manufacturer's Product Certification: The Testing Laboratory will obtain product certification for open web steel joists and joist girders as required by the Specifications.
 2. The Testing Laboratory will perform the following field inspections:
 - a. Inspect joists for damage during shipment.
 - b. Verify proper bearing of joists supports.
 - c. Verify camber requirements of joists arriving in the field.
 - d. Confirm bridging size and location.
 - e. Confirm attachment of joists to supports (welding or bolting).
 - f. Confirm bolting of joists to supports at column lines as required by OSHA requirements.
 - g. Verify that no joists have been damaged during erection.

END OF SECTION

SECTION 01505 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Specific administration and procedural minimum requirements are specified in this Section as extensions of this Contract as modified and other Contract Documents. Provisions of this Section are applicable to, but not by way of limitation, utility services, construction facilities, security and protection provisions, and support facilities. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection.
- B. The Design-Builder will furnish, install, maintain, and protect temporary utilities, construction facilities, and controls necessary for construction at locations and in a manner which will be safe, nonhazardous, sanitary, protective of persons and property, and free of deleterious effects.
- C. The Design-Builder will provide and maintain methods, equipment, and temporary construction as necessary to provide controls over environmental conditions at Project site and related areas under Design-Builder's control.
- D. The Design-Builder will remove physical evidence of temporary facilities upon completion of Work and restore site to original condition to satisfaction of Owner.
- E. The Design-Builder will provide temporary services and facilities ready for use when first needed to avoid delay in the Work. The Design-Builder will maintain, expand and modify as needed. Do not remove until no longer needed or replaced by authorized use of permanent facilities. Refer to Section 01315 - SCHEDULES, PHASING for additional requirements.
 - 1. Temporary utilities required include, but are not limited to:
 - a. Water service and distribution.
 - b. Temporary electric power and light.
 - c. Telephone service.
 - d. Storm and sanitary sewer.
 - e. Building systems.
 - f. Internet service.
 - 2. Temporary construction and support facilities required include, but are not limited to:
 - a. Temporary heat.

- b. Field offices, guard shack, and storage sheds.
 - c. Sanitary facilities, including drinking water.
 - d. Temporary enclosures.
 - e. Hoists and temporary elevator use.
 - f. Temporary Project identification signs and bulletin boards.
 - g. Waste disposal services.
3. Security and protection requirements include, but are not limited to:
- a. Temporary fire protection.
 - b. Barricades, warning signs, lights.
 - c. Environmental protection.
 - d. Temporary enclosures.

1.02 GENERAL DEFINITIONS

- A. Energy Considerations: Administer the use of temporary facilities in a manner which conserves energy without delaying Work or endangering persons or property. The Design-Builder will comply with reasonable requests by the Owner.
- B. Costs: Except as otherwise indicated, Design-Builder will pay for all costs associated with the temporary facilities, including use charges. Temporary facilities remain the property and responsibility of the Design-Builder.
- C. Dust Control: Adequate measures will be taken by the Design-Builder to prevent the transfer of dust to all other areas.
- D. Noise Control: Where Work is being conducted in or adjacent to occupied areas, the Design-Builder will make every effort to keep construction noise to a minimum.
- E. Environmental Protection: Design-Builder will review exposure to possible environmental problems with the Owner. Design-Builder will establish procedures and discipline among tradesmen and provide needed facilities which will protect against environmental problems (erosion control at all laydown areas and trailer compounds, pollution of air, air quality, water and soil, excessive noise, and similar problems).

1.03 QUALITY ASSURANCE

- A. Regulations: The Design-Builder shall comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including, but not limited to:

1. Building Code requirements.
 2. Health and safety regulations.
 3. Utility company regulations.
 4. Police, Fire Department and Rescue Squad rules.
 5. Environmental protection regulations.
- B. Standards: Comply with the requirements of NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and the NECA Electrical Design Library, "Temporary Electrical Facilities."
1. RESERVED
 2. The Design-Builder shall comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- C. Inspections: The Design-Builder shall inspect and test each service before placing temporary utilities in use. The Design-Builder shall arrange for authorities having jurisdiction to inspect and test each temporary utility before use. The Design-Builder shall obtain required certifications and permits.

1.04 SUBMITTALS

A. Reports and Tests:

If applicable, the Design-Builder shall submit copies of reports and permits required or necessary for installation and operation, including reports of tests, inspections and meter readings performed on temporary utilities and permits and legal description of easements necessary for installation, use and operation.

B. Implementation and Termination Schedule:

The Design-Builder shall incorporate into their CPM schedule implementation and termination of each temporary utility.

1.05 PROJECT CONDITIONS

A. Temporary Utilities:

At the earliest feasible time, when acceptable to the Owner, the Design-Builder shall change over from use of temporary service to use of permanent service.

B. Conditions of Use:

The Design-Builder shall keep temporary services and facilities clean and neat in appearance. The Design-Builder shall operate in a safe and efficient manner. The Design-Builder shall take necessary fire prevention measures. The Design-Builder shall not overload facilities or permit them to interfere with progress. The Design-Builder shall not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the Project site.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: The Design-Builder shall use qualified tradesmen for installation of temporary services and facilities, or to disconnect existing services or facilities that must be temporarily removed to complete the Work. The Design-Builder shall locate temporary services and facilities where they will serve the entire Project adequately and result in minimum interference with performance of the Work and the operation of the Airport.
- B. The Design-Builder shall ensure that the proper permits are secured before starting any utility Work. The Design-Builder shall require that tradesmen accomplishing this Work be licensed as required by local authority for the Work performed.
- C. The Design-Builder shall relocate, modify, and extend services and facilities, as required, during the course of the Work so as to accommodate the entire Work of the Project. The Design-Builder shall not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.02 TEMPORARY STAGING AREAS

- A. The staging area(s) located within the property defined as Tampa International Airport will be used to house the Design-Builder's field offices will be coordinated with Owner. The layout of the staging area(s) will be coordinated with the Owner.
- B. The Design-Builder may provide a trailer or portable type field office for its own use. Location of field office will be approved by the Owner. Costs for connections to utilities will be paid for by the Design-Builder. Water, electric and telephone may be available at that location. The Design-Builder is responsible for obtaining and paying for all utilities that they require.
- C. The Design-Builder may erect and maintain throughout the life of the Contract, at Design-Builder's expense, a floor to ceiling plywood Type 1 barricade around the perimeter of each staging area used (or a six foot high chain link fence around the perimeter of each staging area used). Design-Builder may also install vehicle and pedestrian gates as necessary to provide adequate ingress/egress to its exclusive sites. The Design-Builder is solely responsible for its own security. Upon completion of all Work, remove all construction barricades from the Project site.

3.03 TEMPORARY STORAGE AND SPOIL AREAS

- A. The Design-Builder's vehicles, equipment, and materials will be stored in the staging area designated on the Drawings or as modified per the Owner. Upon completion of the Work, the storage areas will be cleaned-up and returned to their original condition to the satisfaction of the Owner. No special payment will be made for clean-up and restoration of the storage area. Personal vehicles will not be permitted beyond the Design-Builder's staging area. Drivers of personal vehicles being operated beyond the Design-Builder's staging area will be subject to loss of permission to enter the construction site.
- B. Stockpile areas will be used to store all materials needed for the Project and may or may not be fenced at the Owner's option. However, red flashing barricades will be installed where potential conflicts with air or ground vehicular traffic might occur. Stockpiles will not penetrate the FAR Part 77 imaginary surfaces. Stockpile areas will be used to store all materials needed for the Project and must be accommodated within the work area.
- C. If storage areas are needed, the Design-Builder will request them from the Owner. The request will be reviewed on the basis of what is to be stored and the area needed. The Design-Builder will provide all necessary fencing and/or security.
- D. All waste material, including rubble and debris, and environmental hazardous material will be removed from the Airport at the Design-Builder's expense. No hazardous materials will be stored within the Airport complex. Burning on Airport property is prohibited.
- E. Equipment not in use during construction, nights, and/or holidays will be parked in the staging area. Exceptions will only be approved by the Owner when absolutely necessary. Parking of construction worker's private vehicles will also be within the staging area.

3.04 TEMPORARY UTILITY INSTALLATION

- A. General:
 - 1. The Design-Builder will coordinate the requirements for temporary utilities with the Owner and will install at the Design-Builder's expense all necessary utilities in a safe, acceptable manner. Should leaks, breaks, etc., occur during installation or use, the Design-Builder will immediately notify the Owner and the appropriate utility personnel and promptly repair the utility at the Design-Builder's expense so as to keep disruption of service to a minimum.
 - 2. Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with the company's recommendations.
 - a. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary service.

- b. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
- c. Cost or use charges for temporary facilities are not chargeable to the Owner, and will not be accepted as a basis of claims for a Change Order. All utility costs shall be at the Design-Builder's expense.

B. Water Service:

1. General: The Design-Builder will provide and pay for all water except within existing building structures where, if possible, the Owner will furnish water at the nearest available potable water outlet. Water connection (without charge) to Owner's existing potable water system is limited to one 3/4" pipe-size connection, and a maximum flow of 10 gpm to the cold water supply. The Design-Builder shall install using vacuum breakers or other backflow preventer as required by local authority.
 - a. The Design-Builder shall maintain hose connections and outlet valves in leak proof condition. Where finish work below an outlet might be damaged by spillage or leakage, the Design-Builder shall provide a drip pan of suitable size to minimize the possibility of water damage. The Design-Builder shall drain water promptly from pans as it accumulates.
2. Temporary Water Service Connection: Design-Builder may use the Owner's water as described above in Paragraph 3.04, B.1. for this Project; however, all connections to the Owner's water system will include backflow protection. Valves will be temperature and pressure rated for operation of the temperatures and pressures encountered. After completion of use, connections and fittings will be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves will be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes or equipment.
3. Water Hoses: The Design-Builder shall employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each work area. The Design-Builder shall provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.
4. The Design-Builder shall install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.
5. The Design-Builder shall sterilize temporary potable water piping prior to use.
6. Non-Potable Water: Where non-potable water is used, the Design-Builder shall mark each outlet with adequate health-hazard warning signs.

C. Electrical Service:

1. General: The Design-Builder will provide and pay for all electricity. The Design-Builder is responsible for obtaining and paying for all required permits and for temporary electric connections, maintenance, installation and removal, and other attributable costs.
 - a. The Design-Builder shall provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of Work during the construction period. The Design-Builder shall install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of Work.
 - b. The Design-Builder shall supply temporary electrical service to construction site utilizing a State of Florida Certified Electrician. Design-Builder will comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.
 - c. The Design-Builder shall provide weather tight, grounded, temporary electrical service-entrance and distribution system, with automatic ground-fault circuit interrupters and ground-fault interrupter features of proper types, sizes, electrical ratings and characteristics to fulfill Project requirements during construction period.
 - d. The Design-Builder shall provide meters, transformers, and over current protective devices at main distribution panel for power and light circuitry. Provide disconnections for equipment circuits. The Design-Builder shall coordinate installation of all temporary wiring with the Owner.
 - e. The Design-Builder shall connect service to local power company main supply in the manner directed by utility company officials. The Design-Builder shall pay usage charges for electricity used by entities authorized to perform the Work at the Project site. The Design-Builder shall exercise control over power usage to conserve energy.
 - f. Except where overhead service must be used, the Design-Builder shall install electric power service underground.
 - g. The Design-Builder shall provide temporary power, telephone, and system connections, where required by the Owner, to continue operation of existing equipment or systems during construction.
 - h. The Design-Builder shall replace all damaged receptacles. The Design-Builder shall provide temporary extension rings, wiring, boxes, and related hardware to allow power, telephone, and systems to function normally during the interim period between removal of existing surface treatment(s) and installation of new treatment.

- i. All electrical conductors for temporary power and lighting will be placed in conduits if exposed to public view. All temporary wiring for communication, security, fire protection and signal systems will be installed in accordance with all appropriate codes and will also be placed in conduits if exposed to public view.

2. Power Distribution System:

- a. All wiring and grounding will meet all safety requirements of the National Electrical Code and all federal, state and local requirements. In addition, all wire will be so sized that it is not overloaded according to the National Electrical Code, and all wire used will be fused to adequately protect that wire according to the National Electric Code referred to.
- b. The Design-Builder shall provide circuits of proper sizes, characteristics, and ratings for each use indicated. The Design-Builder shall install wiring overhead and risers vertically where least exposed to damage. The Design-Builder shall provide rigid steel conduit to protect wiring on grade, floors, decks or other areas exposed to possible damage.
- c. The Design-Builder shall provide properly configured NEMA polarized outlets to prevent insertion of 110-120 Volt plugs into higher voltage outlets. The Design-Builder shall provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light for connection of power tools and equipment.
- d. Electric power will be limited to 120-Volts for lighting and hand tools that can be operated on a circuit protected at 15-Amps.
- e. The Design-Builder shall provide grounded extension cords and use "hard service" cords where exposed to abrasion and traffic. The Design-Builder shall provide weatherproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress.
- f. Lockout: In all facilities, wherever possible, the Design-Builder shall lockout all existing power to or through the Work area as described below. Unless specifically noted otherwise, existing power and lighting circuits to the Work area are not to be used. All power and lighting to the Work area are to be provided from temporary electrical panel described below.
 - (1) The Design-Builder shall lockout power to Work area by switching of all breakers serving power or lighting circuits in Work area. The Design-Builder shall label breakers with tape over breaker with notation "DANGER circuit being worked on." All panels shall be locked and all keys shall be under the control of Design-Builder's Superintendent or the Owner.

- (2) The Design-Builder shall lockout power to circuits running through Work area wherever possible by switching off all breakers serving these circuits. The Design-Builder shall label breakers with tape over breaker with notation "DANGER Circuit Being Worked On." The Design-Builder shall sign and date danger tag All panels shall be locked and all keys shall be under the control of Design-Builder's Superintendent or the Owner. If circuits cannot be shut down for any reason, the Design-Builder shall label at intervals 4'-0" on center with tags reading, "DANGER Live Electric Circuit Electrocutation Hazard."
 - g. Temporary Electrical Panel: The Design-Builder shall provide temporary electrical panel sized and equipped to accommodate all electrical equipment and lighting required by the Work. The Design-Builder shall connect temporary panel to existing facility electrical system. The Design-Builder shall protect with circuit breaker or fused disconnect. The Design-Builder shall locate temporary panel as directed by the Owner.
 - h. Circuit Protection: The Design-Builder shall protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel. The Design-Builder shall not use outlet type GFCI devices.
 - i. Temporary Wiring: Inside the Work area or above the Work platforms will be type UF non-metallic sheathed cable located overhead and exposed for surveillance. The Design-Builder shall not wire temporary lighting with plain, exposed (insulated) electrical conductors. The Design-Builder shall provide liquid tight enclosures or boxes for wiring devices.
 - j. Number of Branch Circuits: The Design-Builder shall provide sufficient branch circuits as required by the Work. All branch circuits are to originate at temporary electrical panel.
3. Temporary Lighting:
- a. Lockout: In facilities, wherever possible, the Design-Builder shall lockout all existing power to lighting circuits in Work area. Unless specifically noted otherwise, existing lighting circuits to the Work area are not to be used. All lighting to the Work area is to be provided from temporary electrical panel described above.
 - b. The Design-Builder shall provide inside the Work areas or above the Work platforms the following where natural lighting or existing facility lighting does not meet the required light level:
 - (1) One 200-Watt incandescent lamp per 1,000 square feet of floor area, uniformly distributed, for general construction lighting or equivalent of a similar nature. In corridors and similar

construction traffic areas provide one 100-Watt incandescent lamp every 50 feet. In stairways and at ladder runs in construction areas, provide one lamp minimum per story, located to illuminate each landing and flight. Provide sufficient temporary lighting to ensure proper workmanship everywhere by combined use of daylight, general lighting, and portable plug-in task lighting.

- c. The Design-Builder shall provide lighting in areas where Work is being performed.
- d. The Design-Builder shall provide lighting in any area being subjected to a visual inspection as required to supply a 100 foot candle minimum light level.
- e. Wherever overhead floor or roof deck has been installed, the Design-Builder shall provide temporary lighting with local switching.
- f. The Design-Builder shall install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system, and will provide adequate illumination for construction operations and traffic conditions.
- g. The Design-Builder shall provide general service fluorescent lamps of wattage required for adequate illumination. The Design-Builder shall protect lamps with guard cages or tempered glass enclosures. The Design-Builder shall provide exterior type fixtures where exposed to weather or moisture. The Design-Builder shall provide local switching to allow lights to be turned off in patterns to conserve energy.
- h. Number of Lighting Circuits: The Design-Builder shall provide sufficient lighting circuits as required by the Work. All lighting circuits are to originate at temporary panel.
- i. Circuit Protection: The Design-Builder shall protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel.
- j. Shall the Design Builder have a more stringent requirement for temporary construction lighting, the more stringent requirement shall prevail.

D. Temporary Telephones:

Where existing telephone service is unavailable, the Design-Builder may install a temporary telephone at the Design-Builder's expense.

E. Sewers and Drainage:

1. If sanitary sewers are available, the Design-Builder shall provide temporary connections to remove effluent that can be lawfully discharged. If sanitary sewers are not available or cannot be used, the Design-Builder shall provide containers to remove and dispose of effluent off the Project site in a lawful manner.
 - a. The Design-Builder shall connect temporary sewers to the municipal system as directed by the City of Tampa Sewer Department Officials.
 - b. The Design-Builder shall maintain temporary sanitary sewer facilities in a clean, sanitary condition.
2. If drainage systems are available, the Design-Builder shall provide temporary connections to remove stormwater that can be lawfully discharged. If drainage systems are not available, the Design-Builder shall provide drainage ditches, dry wells, stabilization ponds and similar facilities. The Design-Builder shall provide earthen embankments and similar barriers in and around excavations and subgrade construction sufficient to prevent flooding by runoff of stormwater from heavy rains.
 - a. The Design-Builder shall filter out excessive amounts of soil, construction debris, chemicals, oils and similar contaminants that might clog storm sewers or pollute waterways before discharge.
 - b. The Design-Builder shall maintain drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

F. Internet Service:

If available, the Design-Builder may install an internet service at the Design-Builder's own expense. All charges will be paid by the Design-Builder.

3.05 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

A. General:

1. The Design-Builder shall locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities for easy access.
2. The Design-Builder shall maintain temporary construction and support facilities until no longer necessary for the Work.
3. The Design-Builder shall provide incombustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines. The Design-Builder shall comply with requirements of NFPA 241.
4. The Design-Builder will furnish all temporary wiring, piping connection and other apparatus that is needed to operate the utilities and will remove all evidence of same when Work is complete.

5. The Design-Builder will be responsible for obtaining and paying for utilities that Design-Builder requests at the Project site .
6. The Design-Builder will at all times protect excavations, trenches, buildings, and materials from rain water, ground water, backup and leakage of sewers, drains, other piping, and from water of any other origin, and will remove promptly all accumulation of water. The Design-Builder will provide and operate all pumps, piping and other equipment necessary to this end.
7. The Design-Builder shall provide facilities and services as necessary to effectively protect Project from losses and persons from injury during the course of the Work.
8. The existing utilities will not be modified for use by the Design-Builder.
9. The Design-Builder shall not interrupt existing services serving occupied or used facilities, except when authorized in writing by the Owner. The Design-Builder shall provide temporary services during interruptions to existing utilities, as acceptable to the Owner.
10. The Design-Builder shall provide scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes, other facilities, and equipment required by personnel and required to perform Work and facilitate inspection.
11. The Design-Builder shall comply with reasonable requests of governing authorities performing inspections.
12. When permanent stairs are available for access during construction, the Design-Builder shall protect surface by covering to prevent damage and deterioration at time of Substantial Completion.

B. Field Offices:

The Design-Builder shall provide insulated, weather tight temporary offices of sufficient size to accommodate required office personnel at the Project site. The Design-Builder shall keep the office clean and orderly for Design-Builder's use, Owner's use and for progress meetings. The Design-Builder shall furnish and equip offices with adequate furniture, heat, air conditioning, lights, telephones, water cooler, private toilet complete with water closet, lavatory, mirror, medicine cabinet and janitor services. Location of field office will be approved by the Owner. Costs for connections to utilities (electrical power, water, sanitary sewer, etc.) will be paid for by the Design-Builder. Design-Builder is responsible for obtaining and paying for all utilities that Design-Builder requires.

C. Storage and Fabrication Sheds:

The Design-Builder shall install storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or

elsewhere on the Project site.

D. Temporary Heat:

1. The Design-Builder shall provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. The Design-Builder shall select safe equipment that will not have a harmful effect on completed installations or elements being installed. The Design-Builder shall coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
2. The Design-Builder shall provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
3. Prior to enclosure, the Design-Builder shall provide heating as necessary to protect Work, materials, and equipment against damage from dampness and cold.
4. The Design-Builder shall provide connections to existing facilities and extend and supplement with temporary units as required to comply with requirements.
5. The Design-Builder shall provide temporary heating units that have been tested and labeled by UL, FM or other recognized trade associations related to the type of fuel being consumed.
6. Heating Facilities:
 - a. Except where use of the permanent system is authorized, the Design-Builder shall provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
 - b. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

E. Temporary Paving:

1. The Design-Builder shall construct and maintain temporary roads and paving to adequately support the indicated loading and to withstand exposure to traffic during the construction period. The Design-Builder shall locate temporary paving for roads, storage areas and parking where the same permanent facilities will be located. The Design-Builder shall review proposed modifications to permanent paving with the Owner.
2. Temporary paving will comply with applicable requirements of the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, latest edition, as amended, unless a less stringent standard is approved in writing by the Owner.

3. The Design-Builder shall coordinate temporary paving development with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
4. The Design-Builder shall install temporary paving to minimize the need to rework the installations and to result in permanent roads and paved areas that are without damage or deterioration when occupied by the Owner.
5. The Design-Builder shall delay installation of the final course of permanent asphalt concrete paving until immediately before Substantial Completion. The Design-Builder shall coordinate with weather conditions to avoid unsatisfactory results.
6. The Design-Builder shall extend temporary paving in and around the construction area as necessary to accommodate delivery and storage of materials, equipment usage, administration and supervision.

F. Sanitary Facilities:

1. The Design-Builder shall include temporary toilets, wash facilities and drinking water fixtures. The Design-Builder shall comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. The Design-Builder shall install where facilities will best service the Project's needs.
2. The Design-Builder shall provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. The Design-Builder shall provide covered waste containers for used material.
3. Toilets:
 - a. Use of the Owner's existing toilet facilities will not be permitted.
 - b. The Design-Builder shall install single occupant, self-contained toilet units of a chemical type, properly vented and fully enclosed with a shell of glass fiber, reinforced polyester or other similar non-absorbent material. Use of pit-type privies will not be permitted. The Design-Builder shall provide minimum ratio of one toilet per 25 construction personnel, or a greater number of toilets if required by governing regulations. The Design-Builder shall provide separate toilet facilities for male and female personnel. The Design-Builder shall thoroughly disinfect toilet facility a minimum of two times each week. The Design-Builder shall provide means to lock door from outside and keep locked at all times except during hours that construction personnel are at Project.

G. Wash Facilities:

1. The Design-Builder shall install wash facilities supplied with potable water at

convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. The Design-Builder shall dispose of drainage properly. The Design-Builder shall supply cleaning compounds appropriate for each condition.

2. The Design-Builder shall provide safety showers, eye-wash fountains and similar facilities for convenience safety and sanitation of personnel.

H. Drinking Water Fixtures:

The Design-Builder and its Subcontractors shall provide drinking water including paper supply for their personnel.

I. Drinking Water Facilities:

1. The Design-Builder and its Subcontractors shall provide containerized tap-dispenser bottled-water type drinking water units, including paper supply.
2. Where power is accessible, the Design-Builder shall provide electric water coolers to maintain dispensed water temperature at 45° to 55° F (7° to 13° C).
3. Drinking and Water Fixtures: The Design-Builder shall provide drinking water where and when piped potable water, approved by local authorities, is reasonably accessible from permanent or temporary lines. Otherwise, the Design-Builder shall provide electric cooled bottled water type drinking water units spaced so that personnel at Project site will travel not more than 300 feet.
4. The Design-Builder will provide all temporary lines and connection from existing sources of the water as required for the Work. The Design-Builder shall be responsible for proper drainage of water used.

J. Dewatering Facilities and Drainage:

The Design-Builder shall maintain construction work free of water accumulation. The Design-Builder shall not endanger the Work or adjacent properties.

K. Miscellaneous Facilities:

The Design-Builder shall provide miscellaneous facilities as needed, including ladders, runways, shoring, scaffolding, railing, bracing, barriers, closures, platforms, temporary partitions, and similar items.

L. Temporary Enclosures:

1. The Design-Builder shall provide temporary enclosure for protection of construction in progress and completed from exposure, foul weather, other construction operations and similar activities.
2. Where heat is needed and the permanent building enclosure is not complete, the

Design-Builder shall provide temporary enclosures where there is no other provision for containment of heat. The Design-Builder shall coordinate enclosure with ventilation and material drying or curing requirements to avoid dangerous conditions and effects.

3. The Design-Builder shall install Type 1 barricades securely with incombustible wood framing and other materials. The Design-Builder shall close openings of 25 square feet or less with plywood or similar materials.
4. The Design-Builder shall close openings through floor or roof decks and horizontal surfaces with load-bearing wood-framed construction.
5. Where temporary wood or plywood enclosure exceeds 100 square feet in area, the Design-Builder shall use UL-labeled fire-retardant treated material for framing and main sheathing. For job-built temporary offices, shops and sheds within the construction area, the Design-Builder shall provide UL labeled, fire treated lumber and plywood for framing, sheathing and siding.

M. Temporary Lifts and Hoists:

The Design-Builder shall provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities. The Design-Builder shall not permit employees to ride hoists which comply only with requirements for hoisting materials.

N. Temporary Elevator Use:

The Design-Builder shall use Owner's Service Elevator ONLY, upon Owner's approval.

O. Project Identification and Temporary Signs:

1. The Design-Builder shall prepare project identification and other signs of the size indicated. The Design-Builder shall install signs where indicated to inform the public and persons seeking entrance to the Project.
2. Design-Builder's identification sign located at its staging area:
 - a. Design-Builder may provide one 8 foot x 4 foot x 3/4" exterior grade plywood sign, properly supported with bottom 6 foot above grade. The Design-Builder shall engage professional sign painter to apply graphics and lettering as approved by Owner. **NO OTHER SIGNS ARE PERMITTED WITHIN THE AIRPORT COMPLEX.**
 - b. All signs must be pre approved by Owner. Signs must follow the Owner's standards with regards to font, style, color, and size. When appropriate, the temporary sign shall closely resemble the final sign.

P. Stairs:

Until permanent stairs are available, the Design-Builder shall provide temporary stairs where ladders are not adequate. The Design-Builder shall cover finished permanent stairs with a protective covering of plywood or similar material so finishes will be undamaged at the time of acceptance.

3.05 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. General:

1. The Design-Builder shall provide a neat and uniform appearance in security and protection facilities acceptable to the Owner. The Design-Builder shall maintain site in a safe, lawful and publicly acceptable manner. The Design-Builder shall take necessary measures to prevent erosion.

2. Temporary Construction Barricades:

a. A barricade plan will be submitted to and approved by the Owner prior to the start of any Work. Following approval and subsequent installation of barricades, a representative from the Owner will inspect the Work to insure compliance with the barricade plan and the following requirements.

b. The Design-Builder will be fully responsible for the protection of the public and adjacent areas during the construction process. The Design-Builder shall safely isolate the construction areas while maintaining normal airport operations. The Design-Builder will use temporary barricades of the following types:

(1) Type 1 Terminal Construction Barricades:

- Barricade walls will be constructed with a minimum of ½" AC-1 plywood panels, UL labeled fire-retardant treated as required, with the grain orientated vertically, securely fastened to 2 x 4 wood or steel stud framing, minimum 24" on center, capable of structurally supporting barricades up to 21' high.
- Fastening devices will not protrude or present a hazard on the public side.
- Framing will be on the non-public side of the barricade.
- Barricades will run from floor to bottom of ceiling secured without nailing to the floor or ceiling, and they will be plumb and aligned in a straight line utilizing appropriate bracing.
- Sections will fit together tightly to present a first class appearance and will not permit light to show through to

the public.

- Corners of the barricades will be at four foot wide 45° angles with tapered plywood edges.
- Floor covering under the barricade will be protected with ½" plywood and 6 mil. plastic.
- The non-public side of the barricade will be lined with 6 mil. plastic for dust control, and all joints of the plastic will be taped to prevent dust from escaping.
- All barricade material, work platforms, and scaffold systems (including support systems) will be pre-painted prior to delivery to the Project with paint in a color selected by the Owner. The Type 1 barricade material will be pre-painted prior to delivery to the Project with a textured latex paint in a color selected by the Owner.
- All screws on the public side, as well as doors and frames, will be painted.
- Barricades, work platforms, and scaffold systems will be painted to represent a finished appearance in the view of the public that is compatible with adjacent areas.
- Wood doors, 1-3/8" to 1-3/4" hollow core, located in barricades, will swing inward into the construction area and will be locked when not in use with a common key passage door lockset. When fire code dictates, doors will be constructed in a recessed enclosure and swing outward. Doors will be installed in pre-hung frames.
- The Design-Builder will provide walk-offs (4' x 6' minimum) inside the barricade area and keep the mats and the area in front of the mats clean.
- The Owner will be given copies of all barricade keys.
- Erecting and dismantling of all barricades will be performed between the hours indicated elsewhere in the Contract Documents and with prior approval of and coordination with the Owner.

(2) Type 2 Terminal Short-Term Barricades:

- In the event that very short-term work is required within, overhead or above the ceiling of the public and tenant areas of the Airport Administrative Offices Building, the

work side will be separated from the common-use public areas by temporary barricades.

- Work can only be accomplished in (or above) the public and tenant areas between the hours of 12:00 a.m. and 8:00 a.m. on the Transfer Level, 12:00 p.m. midnight and 8:00 a.m. on the Baggage Claim Level, 9:00 p.m. and 5:00 a.m. on the Ticketing Level, and 12:00 p.m. midnight and 8:00 a.m. in the Airport Administrative Offices Building.
- Erecting and dismantling of all barricades will be performed between the hours described above and with prior approval of and coordination with the Owner.
- All temporary barricades will be removed by 8:00 a.m. each morning on the Transfer Level, the Baggage Claim Level and Airport Administrative Offices Building, and by 5:00 a.m. on the Ticketing Level.
- Short-term barricades will be solid panels, a minimum of 4' height, using a minimum of 1/2" AC-1 plywood, securely fastened to 1 x 2 wood framing (minimum of 24" on center). Panels will be hinged with all hardware on the non-public side.
- All bracing will be on the non-public side of the barricade.
- The public side of the panels will be painted with textured latex paint in a color selected by the Owner.
- Barricade sections will be fitted together to prevent accidental entry into the Work area by Airport patrons.
- Fastening devices will not protrude or present a hazard on the public side. Floor covering inside the barricade will be protected with 1/2" plywood and 6 mil plastic.

(3) Road Barricades:

- Roadway barricades will be in accordance with FDOT Roadway and Design Standards and in accordance with the Contract Documents.

(4) Airfield Barricades:

- Runway and taxiway barricades will be in accordance with Owner Standard Low Profile Barricade Specifications.

- c. If at any time barricades are not maintained to these standards, or if the public areas are not protected from excessive noise, dust, or other interference, the Design-Builder will be required to cease all Work until the non-conforming situation is corrected.
- d. The Design-Builder shall provide warning signs and lighting where needed, including steady burn red lights where appropriate. The Design-Builder shall comply with recognized standards and code requirements.
- e. Design-Builder will cooperate and coordinate with Owner for installation of all barricades to allow continuous Airport operations. Access will be maintained into all Building Tenant spaces and existing mechanical and electrical control devices.

B. Temporary Fire Protection:

Until fire protection needs are supplied by permanent facilities, the Design-Builder shall install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. The Design-Builder shall comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."

- 1. The Design-Builder shall locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
- 2. The Design-Builder shall store combustible materials in containers in fire-safe locations.
- 3. The Design-Builder shall maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. The Design-Builder shall prohibit smoking in hazardous fire exposure areas.
- 4. The Design-Builder shall provide and maintain temporary fire protection during construction in accordance with requirements of the local protection code.
- 5. The Design-Builder shall provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil flammable liquid fires. In other locations, the Design-Builder shall provide type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case. Extinguishers will have a minimum UL rating of AZ-10BC.
- 6. The Design-Builder shall provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.

C. Permanent Fire Protection:

At the earliest feasible date in each area of the Project, the Design-Builder shall complete installation of the permanent fire protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

D. Security Enclosure and Lockup:

1. Storage:

Where materials and equipment must be stored and are of value or attractive for theft, the Design-Builder shall provide a secure lockup. The Design-Builder shall enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

2. The Design-Builder shall erect weatherproof closures for exterior openings.

3. The Design-Builder shall erect and maintain dustproof partitions composed of gypsum board and wood studs to prevent spread of dust, fumes, and smoke to other parts of the building.

E. Environmental Protection:

1. The Design-Builder shall provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations and minimize the possibility that air, waterways and subsoil might be contaminated or polluted or that other undesirable effects might result. The Design-Builder shall avoid use of tools and equipment which produce harmful noise. The Design-Builder shall restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the Project site.

2. The Design-Builder shall install and operate temporary facilities and perform construction activities in a manner which will be reasonably conservative and avoid waste of energy and materials including water.

3. The Design-Builder shall provide facilities, establish procedures, and conduct construction activities in compliance with regulations controlling construction activities at Project site.

4. The Design-Builder shall designate one person to enforce strict discipline on activities related to generation of wastes, pollution of air, water, and soil, generation of noise, and similar harmful or deleterious effects which might violate regulations or reasonably irritate persons at or in vicinity of Project site and inform Owner of designee.

F. Dust Control:

The Design-Builder shall provide positive methods and apply dust control materials to minimize raising dust from construction operations. The Design-Builder shall provide positive means to prevent airborne dust from dispersing into atmosphere.

G. Water Control:

1. The Design-Builder shall provide methods to control surface water to prevent damage to Project site and adjoining properties.
2. The Design-Builder shall control fill, grading, and ditching to direct surface drainage away from excavations, pits, tunnels, and other construction areas, and to direct drainage to proper runoff.
3. The Design-Builder shall provide, operate, and maintain hydraulic equipment of adequate capacity to control surface and runoff water.
4. The Design-Builder shall dispose of drainage water in manner that prevents flooding, erosion, or other damage to any portion of Project site or adjoining areas.

H. Pest and Rodent Control:

1. The Design-Builder shall provide pest and rodent control as necessary to prevent infestation of construction or storage area.
2. The Design-Builder shall employ methods and use materials which will not adversely affect conditions at Project site and on adjoining properties.
3. Should use of rodenticides or pesticides be considered necessary, the Design-Builder shall submit informational copy of proposed program to Owner. Clearly indicate:
 - a. Area or areas to be treated.
 - b. Materials to be used, with copy of manufacturer's printed instructions.
 - c. Pollution preventative measures to be employed.
4. Use of any rodenticide or pesticide will be in full accordance with manufacturer's printed instructions and recommendations.
5. Before foundation Work has been completed, the Design-Builder shall retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches and other pests. The Design-Builder shall employ this service to perform extermination and control procedures at regular intervals so that the Project will be relatively free of pests and their residues at Substantial Completion of the whole Work. The Design-Builder shall perform control operations in a lawful manner using environmentally safe materials.

I. Debris Control:

1. The Design-Builder shall maintain areas under Design-Builder's control free of

extraneous debris.

2. The Design-Builder shall initiate and maintain specific program to prevent accumulation of debris at construction site, storage and parking area, or along access roads and haul routes.
 - a. The Design-Builder shall provide containers for deposit of debris as specified.
 - b. The Design-Builder shall prohibit overloading of trucks to prevent spillages on access and haul routes.
 - c. The Design-Builder shall provide periodic inspection of traffic areas to enforce requirements.
3. The Design-Builder shall schedule daily collection and disposal of debris.
4. The Design-Builder shall provide additional collections and disposal of debris whenever periodic schedule is inadequate to prevent accumulation.
5. The Design-Builder shall transport debris and waste material in covered trucks.

J. Pollution Control:

The Design-Builder shall:

1. Provide methods, means, and facilities required to prevent contamination of soil, water, or atmosphere by discharge of noxious substances from construction operations.
2. Provide equipment and personnel and perform emergency measures required to contain any spillage, and remove contaminated soil or liquids.
3. Excavate and dispose of contaminated earth off site in accordance with local environmental regulations and replace with suitable clean, compacted fill and topsoil.
4. Take special measures to prevent harmful substances from entering public waters.
5. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams or in sanitary or storm sewers.
6. Provide systems for control of atmospheric pollutants.
7. Prevent toxic concentrations of chemicals.
8. Prevent harmful dispersal of pollutants into atmosphere.

K. Erosion Control:

The Design-Builder shall:

1. Plan and execute construction and earthwork by the following methods to control surface drainage from cuts and fills and borrow and waste disposal areas and to prevent erosion and sedimentation:
 - a. Hold areas of bare soil exposed at one time to minimum.
 - b. Provide temporary control measures, such as berms, dikes, and drains.
2. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
3. Periodically inspect earthwork to detect any evidence of start of erosions. Apply corrective measures as required to control erosion.
4. Maintain all SWPPP (Storm Water Pollution Prevention Plan) protocols during construction and correct any damaged areas due to the failure to maintain such protocols adequately.

L. Collection and Disposal of Waste:

1. The Design-Builder shall collect waste from construction areas and elsewhere daily. The Design-Builder shall comply with requirements of NFPA 241 for removal of combustible waste material and debris. The Design-Builder shall enforce requirements strictly. The Design-Builder shall not hold materials more than seven days during normal weather or three days when the temperature is expected to rise above 80 deg F (27 deg C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. The Design-Builder shall dispose of material in a lawful manner.
2. In case of non-compliance with the above, the Owner, after having given a 24-hour notice, has the right to take any corrective action required at the expense of the Design-Builder.
3. Burying or burning of waste materials on the Project site or washing waste materials down sewers will not be permitted.
4. The Design-Builder shall provide rodent proof containers on each floor level to encourage depositing of wastes by construction personnel.

3.06 OPERATION, TERMINATION AND REMOVAL

A. Supervision:

The Design-Builder shall enforce strict discipline in use of temporary facilities. The Design-Builder shall limit availability of temporary facilities to essential and intended uses to

minimize waste and abuse. The Design-Builder shall not permit temporary installations to be abused or endangered.

B. Maintenance:

1. The Design-Builder shall maintain facilities in good operating condition until removal. The Design-Builder shall protect from damage by freezing temperatures and similar elements.
2. The Design-Builder shall maintain operation of temporary enclosures, heating, cooling, humidity control ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage. The Design-Builder shall not allow unsanitary conditions, public nuisances or hazardous conditions to develop or persist on the Project site.

C. Protection:

The Design-Builder shall prevent water filled piping from freezing. The Design-Builder shall maintain markers for underground lines. The Design-Builder shall protect from damage during excavation operations.

D. Termination and Removal:

1. The Design-Builder shall remove each temporary service and facility promptly when need for has ended or when replaced by use of a permanent facility, but no later than Final Acceptance of the whole Work. Complete or if necessary restore permanent Work delayed because of interference with the temporary service or facility. The Design-Builder shall repair damaged Work, clean exposed surfaces and replace Work which cannot be repaired.
2. At Substantial Completion of the whole Work, the Design-Builder shall clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during the construction period.
3. At Substantial Completion of the whole Work, the Design-Builder shall clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
 - a. Replacing air filters and clean inside of ductwork and housings.
 - b. Replacing significantly worn parts and parts that have been subject to unusual operating conditions.
 - c. Replacing lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION

SECTION 01520 - TEMPORARY SIGNAGE

PART 1 - GENERAL

1.01 DESCRIPTION

Provide all Work including all equipment, appliances, labor, materials, related electrical work, transportation and all operations required to provide temporary signs as specified herein or as instructed by the Owner.

1.02 QUALITY ASSURANCE

A. Qualifications:

1. Design-Builder will submit evidence of having successfully completed a contract of similar nature and magnitude and will have at least five years of documented experience in the type of Work specified herein.
2. Where special job conditions occur or where there is uncertainty as to interpretation, before execution of the Work, Design-Builder will request clarification from the Owner in writing.
3. Design-Builder will visit the Project site to determine specific installation and job conditions.
4. Commencement of work will constitute an unqualified acceptance by the Design-Builder of the installed Work on which signage work depends and that work as installed is suitable for the satisfactory execution of signage work.

B. Requirements of Regulatory Agencies:

1. Work performed under this Section will be strictly governed by local and state authorities of this expertise.
2. Maintain safety amongst persons employed in accordance with latest standards set by OSHA.

1.03 SUBMITTALS

A. In accordance with Section 01340 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES, submit the following:

1. Shop Drawings
 - a. Submit Shop Drawings for review prior to fabrication of all items furnished under this Contract.
 - b. Submit Shop Drawings for approval prior to fabrication of all items furnished under this Contract.

- c. Exact identification of all paint formulas and colors.
2. Design-Builder will not order any materials or perform any construction, demolition or fabrication until all submittals have been reviewed and approved.
3. Any construction, demolition or fabrication performed or materials ordered prior to the approval of the prototypes will be done at the Design-Builder's own risk and expense.
4. Approval by the Owner of the Design-Builder's submittal relates to the requirements for design and compliance with the Contract Documents only.
5. Approval does not relieve the Design-Builder from responsibility for errors in dimension or for inadequate or improper use of materials for construction.

1.04 SEQUENCING AND COORDINATION

Integrate and schedule coordination of removal, installation and all work related to signage with other related trades.

1.05 REMOVAL AND STORAGE

- A. This portion of the Work will be included in the Contract Sum and not included in the Allowance.
- B. Design-Builder will remove and reuse all existing signage in accordance with the Contract Documents.
- C. All signs, extrusions, graphic or signage material will be carefully disassembled, removed from premises and stored by the Design-Builder prior to refurbishing and reinstallation.
- D. All signs, extrusions, graphic or signage material will be carefully protected with wrapping material and will be on pallets, platforms or other support structures and not stored directly on the floor during construction operations.
- E. All signs, extrusions, graphic or signage materials will not be exposed to damaging conditions or abrasion during removal, storage, fabrication, delivery or installation.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. To establish a standard of quality, design, and function desired, portions of the Contract Documents have been based on the products of manufacturers mentioned hereafter.
- B. All materials shown on the Contract Documents will be of the best quality products available.
- C. All additional parts necessary to complete fabrication and installation will be furnished by the Design-Builder.

- D. Should conflicts occur in or between the Drawings, sign schedules, Specifications and on-site conditions, Design-Builder is deemed to have included under the Contract Sum the more expensive item or method of construction.
- E. All message patterns will be die cut.

2.02 VINYL SHEETING (for lettering and Authority Logos)

- A. Manufacturer: 3M Traffic Controls Divisions or equal
2860 Bankers Industrial Drive
Atlanta, GA 30360
- B. Type: "Scotchlite" Reflective Sheeting Engineer Grade or equal
Parkway White 3290 (for lettering) and
Blue and Red for logos.
- C. Thickness: 3.5 Mils
- D. Adhesive Backing: Continuous pressure sensitive backing manufactured by
Minnesota Mining and Manufacturing Company or equal.

2.03 POLYURETHANE PAINTS - EXTERIOR

- A. Manufacturer: Sherwin Williams
- B. Type: Acrylic polyurethane

2.04 PLYWOOD

- A. Manufacturer: Simpson or equal
- B. Type: MDO

2.05 WOOD

- A. All wood will be kiln dried, select furniture of quality A or better, for all exposed surfaces.
- B. Interior wood blocking or framing will be kiln dried, Wolmanized "B" grade or better.

PART 3 - EXECUTION

3.01 GENERAL

- A. Where adhesive mounting is specified, only adhesives specifically recommended by the manufacturer for compatibility with the base materials and adhesive strength will be used.
- B. Sign material lamination will utilize proper adhesives and will be smooth, consistent and free of bubbles, bulging and foreign matter.

- C. All message pattern applications will be crisp, sharp, clean and free of nicks, discontinuous curves, line wavers and other imperfections.
- D. All finished work will be smooth, free of scratches, gouges and other imperfections. Sign edges will be straight, smooth, free of cutting marks and other defects.
- E. Design-Builder will repair and replace damaged materials or signs caused by installer or any other related trades.
- F. Design-Builder will coordinate with other related trades the removal and installation of signage and components to insure uninterrupted progress of Work.

3.02 FABRICATION

- A. All Work will be fabricated to approved Shop Drawings.
- B. All cuffing, fabrication, and assembly will be done in the factory and shipped to the Project site as one complete unit, unless otherwise approved by the Owner.
- C. All joints, corners, miters, splices, or signage will be accurately machined, filled, fitted and rigidly framed together at joints and contact points and will be painted smooth to produce a monolithic appearance with visually imperceptible joints.
- D. All mechanical fasteners will be counter-sunk, filled, ground smooth, and painted as to render them visually imperceptible, unless otherwise specified as exposed.
- E. The heads of removable mounting fasteners will match the color and finish of the sign area where they occur.
- F. Work will be erected plumb, level, and true, with proper alignment and proper relationship to the work of the trades.
- G. All priming, surface preparation and paint application will be in accordance with the manufacturer's written data, description and instruction.
- H. All signs will be flat, true, and free from waviness. All exposed surfaces will not deviate from flat by more than 1/16 inch in any 36 inch distance.

3.03 MESSAGE PATTERNS

- A. The Design-Builder will fabricate sign text from master alphabet and master symbols approved by the Owner and Design-Builder's Design Professional. Interior signage will be Furtiger 65 Bold at 106% spacing and exterior signage will be Furtiger 55 Roman at 106% spacing.
- B. Full size message patterns for each sign will be prepared by the Design-Builder. These patterns will be used for correction and/or additions prior to fabrication. Changes will be considered as part of the scope of work.

- C. All vinyl message patterns used for final sign application will be die cut and not hand cut from vinyl, unless otherwise approved by the Design-Builder's Design Professional in writing.
- D. Sign text mechanicals are not to be enlarged for position only and are not to be used for photographic reproduction.
- E. All panel or background sizes will be full size showing seam placement.
- F. Full scale message patterns will be submitted on paper showing proper size of the alphabet, airport logo or any other message legend. Hand drawn patterns are not acceptable.

3.04 LETTER FORMS AND SYMBOLS

- A. Letter forms for all signs will match existing airport sign letter forms and symbol standards.
- B. All letter forms and symbols will be free of nicks, burns, cuts, bubbles and any other irregularities.
- C. All symbols or forms used for final sign application or final finishing will be die cut. Hand cut letters or symbols are not acceptable.

3.05 MATERIALS CLEANING AND INSTALLATION

- A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, nails countersunk, and holes, joints and cracks filled flush and smooth with adjoining surface prior to attaching signage.
- B. Do not commence installation until backup materials are in a condition satisfactory to the Design-Builder to receive surfacing.
- C. Applications of adhesives should comply with adhesive manufacturer's application instructions on the container regarding:
 - 1. Method of application
 - 2. Spread rate
 - 3. Drying-time
 - 4. Open time
 - 5. Temperature and relative humidity limitations.

3.06 VINYL SHEETING AND DIE CUTS

- A. Text material for finished letter form, symbol or friskets on all signs, unless otherwise noted, will be die-cut pressure sensitive and will be pre-aligned and pre-spaced on carrier

tape according to the sign text layouts.

- B. Hand cut finished letter forms, symbols or friskets will not be accepted.
- C. Vinyl sign text material for all sign types will be die cut and conform to the prescribed letter forms with a tolerance of +.015 inches and will be free of irregularities such as nicks, burrs, broken points and discontinuous curves.
- D. All letter sizes indicated on the sign text layouts will be determined by the letter height of the capital "B."
- E. All letters, symbols and targets will be pre-aligned and pre-spaced on carrier tape in accordance with the spacing guides.
- F. The colors will be as specified and will not be limited to manufacturer's standard colors.
- G. All vinyl sign text will be installed as per written instructions and recommendations of the manufacturer.
- H. All surfaces receiving application of vinyl sign text will first be cleaned of all dirt and/or accumulated foreign matter.

3.07 PAINTS AND INKS

- A. All paints and inks will be of type specially formulated and manufactured for application on the surface material upon which it is to be applied and recommended for such use by the manufacturer on the paint or ink.
- B. Priming, surface preparation and application of all materials will be in strict accordance with manufacturer's written product data and description and as otherwise necessary to produce data with a finish free of blistering, bleeding, fading and other imperfections.
- C. Order or mix paint for each color in quantity to assure consistent application for all signs in a given color.
- D. All paint and ink colors and samples will match specified manufacturer's color number, swatches and/or samples supplied by the Owner and/or the Design-Builder's Design Professional and will be as selected and approved by the Owner and/or Design-Builder's Design Professional during shop drawing review.
- E. All paint colors will be consistent in chroma and value and will maintain proper opacity or translucency.
- F. All paint and inks will be of the finest quality of heat, moisture and fade proof pigments and vehicles. For each color specified on sign schedule, paint will be mixed in sufficient quantity to accommodate every sign application of the specified color.
- G. The Design-Builder will allow paint surfaces to air dry 48 hours prior to the application of masking film which will be applied to protect all sign surfaces during shipping and erection.

3.08 PAINTING APPLICATION

All painting and spraying will be performed in well ventilated conditions and all precautions taken as necessary and as recommended by the paint manufacturer.

3.09 TEMPORARY SIGNAGE

- A. Temporary signage will conform to all conditions, Specifications and Drawings.
- B. All temporary signage will be finished to appear as permanent signage.
- C. All cuts and rounded edges will be smooth sanded prior to painting.
- D. All edges will be painted to match the front of sign as per painting specifications.
- E. Backs of sign will be painted where installation of sign shows exposed back.
- F. Refer to Owner's Allowances Section for temporary signage allocation.

3.10 CLEANUP

- A. The Design-Builder will be obliged to keep all areas and items clean, neat, and free of waste material, dirt and debris during construction and installation.
- B. After installation is complete, remove and dispose of all packing, packaging, waste materials and debris.
- C. All areas and items will be left clean and free from marks, scratches, dust, lint and other defects.

END OF SECTION

SECTION 01540 - CONSTRUCTION SAFETY AND SECURITY REQUIREMENTS

PART 1 – GENERAL

1.01 PURPOSE AND OBJECTIVE

- A. The purpose of this section is to set forth guidelines concerning construction and safety during construction of the Project. Described herein are methods, procedures, rules and authorities to be adhered to during said construction period. In the event the Owner implements an Owner Controlled Insurance Program (OCIP), the Hillsborough County Aviation Authority Construction Safety & Health Guidelines Manual shall apply. The Design-Builder shall also comply with all safety requirements herein, unless in direct conflict with the Hillsborough County Aviation Authority Construction Safety & Health Guidelines Manual; in such case, the more stringent requirements will govern, as determined by Owner.
- B. The following are the general safety objectives that must be achieved in order to maximize safety and to minimize time and economic loss to the aviation community, construction contractors and others directly affected by the Project.
1. Keep the Airport operational for all users.
 2. Minimize delays to Airport operations.
 3. Maintain safety of Airport operations.
 4. Minimize delays to construction operations.
 5. Minimize Airport-operation/construction-activity conflicts.
 6. Minimize impacts to tenants and passengers.

1.02 OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION

- A. All Design-Builders' operations will be conducted in accordance with this Section. If the operations include work within the AOA impacts the AOA or aircraft flight surfaces, the operations will be conducted in accordance with the current version of Advisory Circular 150/5370-2. The Design-Builder will prepare and submit a site specific safety plan (safety plan) that details how it proposes to comply with the requirements when working.
- B. The Design-Builder will implement all necessary measures required by the safety plan prior to commencement of any work activity. The Design-Builder will conduct routine checks of the safety plan measures to assure compliance with the safety plan.
- C. The Design-Builder is responsible to the Owner for the conduct of all subcontractors it employs on the Project. The Design-Builder will assure that all subcontractors are made aware of the requirements of the safety plan and that they implement and maintain all necessary measures.

D. No deviation or modifications may be made to the approved safety plan unless approved in writing by the Owner.

E. This Contract is intended to provide for the optimum degree of safety to aircraft, both parked and operating; Airport personnel, passengers and general public, equipment, and associated facilities; and to the Design-Builder's operations consistent with minimum interference to the movement of aircraft, vehicles, and/or personnel engaged in the day-to-day operation of the Airport. To this end, the Design-Builder will observe all Airport rules and regulations and all other operational limitations which may be imposed from time to time. Design-Builder will provide marking, lighting, barricades, signs, or other measures which are required to properly identify Design-Builder's construction areas, Work sites, equipment, vehicles, storage areas, and/or conditions which may be hazardous to Airport operations.

F. If the Design-Builder fails to maintain the marking, lighting barricades, signs, etc., as required, the Owner will cause appropriate safety measures to be installed by others and all costs thereof will be charged to the Design-Builder and deducted by the Owner from monies due to the Design-Builder.

G. The Design-Builder's responsibility for safety and security will begin on the day the Design-Builder starts Work or on the date of the Notice To Proceed and will continue until Design-Builder is complete.

H. The Design-Builder is fully and solely responsible for all project safety as it pertains to the Design-Builder's Work. This includes complying with the Hillsborough County Aviation Authority Construction Safety & Health Guidelines Manual, implementing and enforcing its safety plan and procedures. Owner's acceptance, directives, approval, comments or any such action regarding Design-Builder's safety plan or Work shall not relieve the Design-Builder of its obligations.

1.03 SAFETY PROCEDURES

A. In as much as each Work area will be accessible to and used by the public, the Owner, airlines, and other companies doing business at the Airport during the construction period, it is the Design-Builder's responsibility to maintain each Work area in a safe, hazard free condition at all times. This will include barricades, fencing, taping up sharp corners or any other precautions necessary to protect the public. Should the Owner find an area unsafe at any time, Owner will notify the Design-Builder and the Design-Builder will take whatever steps necessary to remedy the unsafe condition. Should the Design-Builder not be immediately available for corrective action, the Owner will cause appropriate safety measures to be installed by others and all costs thereof will be charged to the Design-Builder and deducted by the Owner from monies due to the Design-Builder.

B. Fire Control: Open flame torch cutting or welding is prohibited unless adequate safety precautions have been taken and approved by the Owner via Owner's cutting and welding permit process. Flame cutting will be permitted only on steel parts that cannot be removed in any other manner and only when at least one person is standing by exclusively with a fire extinguisher within ten feet of the Work and within full view of the area. The fire extinguisher will have been inspected, tagged and ready for use. The Design-

Builder will submit a fire protection plan for approval prior to conducting the Work requiring said protection plan.

C. Work Near Fire Alarm: Caution will be exercised as necessary when working near fire alarms so as not to accidentally activate fire alarms, doors or barriers.

D. Protection of Property: Fixed structures, equipment, paving, landscaping, vehicles (automobiles, trucks, etc.) and aircraft will be protected with drop cloths, shielding and other appropriate measures to assure maximum protection.

E. Use of explosively operated fastening devices within the confines of any Owner facilities or within Tampa International Airport is strictly prohibited, unless Owner provides prior written approval and Design-Builder provides safety plan.

1.04 GENERAL SAFETY REQUIREMENTS

A. An initial construction/safety meeting will be coordinated with the Owner after the award of the Contract, and prior to commencing construction, during which the Design-Builder will become aware of and assume responsibility for all safety issues. Additional construction/safety meetings may be scheduled as deemed necessary by the Owner throughout the Contract. Representatives from the Owner, Design-Builder, and any others deemed necessary by the Design-Builder may attend.

B. The Design-Builder will inform its supervisors and workers of the Airport activity and operations that are inherent to this Airport, the safety regulations of the Airport, and the prohibition of driving or walking on any area of the AOA without clearance. The Design-Builder will conduct its construction activities to conform to both routine and emergency requirements. The Design-Builder will provide initial and continuing instructions to all supervisors, employees, subcontractors, and suppliers to enable them to conduct their Work in a manner that will provide the maximum safety with the least hindrance to air and ground traffic, the general public, Airport employees, and to the workers employed on the Project site.

C. Work may be stopped/suspended by the Owner anytime the Owner considers that the intent of this Section is being violated or that a hazardous condition has been/was created. This decision to suspend the Work will be final and will only be rescinded by the Owner when satisfied that the Design-Builder has taken action to prevent recurrence. Delays/work stoppage as a result of the suspension of Work will be considered the fault of the Design-Builder and will not stop the Contract Time for assessing damages.

D. All Design-Builder vehicles authorized to operate on the Airport outside of the Construction Area Limits as defined herein and to cross active runways, safety areas, taxiways, aprons, instrument or approach clear zones or any area within the AOA will do so only under the direct control of a trained, qualified flagman who is monitoring (two-way) radio communication with the ground controller of the Air Traffic Control Tower or UNICOM. All aircraft have priority over ground vehicles.

1. When necessary, the Design-Builder will provide a radio to monitor communications from the Air Traffic Control Tower or UNICOM. This operator

will be familiar with aircraft/ground controller communications and will be on duty whenever vehicles are operating in areas referenced above.

2. All vehicles operating in the AOA will be equipped with an operating yellow flashing beacon.
- E. All Design-Builder vehicles and equipment that are authorized to operate on or near the AOA or the Airport outside of the designated Construction Area Limits or haul routes as defined herein will display 3-foot x 3-foot flags or larger, orange and white checkerboard pattern, each checkerboard color being 1-foot square.
- F. Any construction activity within 250-feet of an active runway centerline or 107-feet from an active taxiway centerline requires the closure of the affected runway or taxiway, unless otherwise approved by the Owner. No runway, taxiway or apron area will be closed without approval of the Owner. This will enable "Notices to Airmen" or other advisory communications to be issued. A minimum of 48 hour notice of requested closing will be directed to the Owner who will coordinate the request with Authority Operations.
1. Debris, waste and loose material capable of causing damage to aircraft landing gears, propellers or being ingested in jet engines will be removed from the active portion of the AOA, placed in protected areas or otherwise secured to prevent dispersal into active portions of the AOA. The AOA is defined as all areas used or intended to be used for aircraft operations including active runways, aprons, taxiways, taxilanes, etc. Debris will be promptly removed from the AOA. The Design-Builder will exercise care in the transportation of materials within the AOA. Materials tracked or spilled in the AOA will be removed immediately.
 2. When hauling, loading, grading, or when any of the Design-Builder's activities are likely to cause the deposit of loose materials in the AOA, powered vacuum sweepers will patrol the affected areas continuously to remove such deposits. The sweepers will be supplemented by hand sweepers, loaders, trucks, etc., as necessary.
 3. Closures:
 - a. Prior to the commencement of any demolition or other Work which will cause an interruption or modification to existing aircraft operations, the Design-Builder will confer with and obtain authorization from the Owner.
 - b. If the Design-Builder requires access to operational areas not delineated on the Drawing(s), the Design-Builder will participate in discussions leading to the imposition of restrictions on Airport operations in the affected areas. Design-Builder will strictly abide by all conditions imposed by the Owner relating to Design-Builder's entry and use of such areas and Design-Builder will not enter these areas until granted temporary, conditional entry clearance by the Owner.
 - c. Unless otherwise described in the Contract Documents, trenching, excavation and other work requiring temporary runway or taxiway

closure will be limited by the Design-Builder to that amount of work that can be completed within the hours of minimal operation. All ditches, excavations, etc., will be restored prior to the end of the Work period and affected pavements returned to service. This Work will be scheduled during hours of minimal operations. Hours of minimal operation will be the hours between 10:00 p.m. and 6:00 a.m. All other hours will be hours of normal operation.

- d. The Design-Builder may be required to pursue affected portions of the Work on a continuous 24-hour per day basis during construction of the various phases and subphases shown on the Drawings and described in the Contract Documents (such as when runways or taxiways, aprons, service or access roadways, or service gates are closed for operations or when hazards of any kind arise).
- e. The Owner will arrange for inspection prior to opening for aircraft use any taxiway or runway that has been closed for Work, on or adjacent thereto, or that has been used for a crossing point or haul route by the Design-Builder.

4. Operations Safety Inspections:

- a. The entire Project site will be inspected once per work shift and more frequently if construction activities are of a nature that debris may accumulate on AOA pavements. Special inspections will be conducted for each Work area prior to return to service for aircraft operation. The purpose of these inspections is to ascertain that areas returned to aircraft service are in satisfactory condition and that the overall Project site and its activities are within the safety criteria set forth in these Contract Documents. Inspections will be conducted jointly by representatives of the Design-Builder and the Owner.
- b. Any violations of safety criteria found during these inspections will be rectified immediately. If a violation cannot be corrected on an immediate basis by the Design-Builder, the Design-Builder will immediately notify the Owner. No areas will be approved for operations with violations occurring unless specifically authorized by the Owner.

G. The Design-Builder will preserve and/or protect existing and new pavements plus other facilities from damage due to construction operations. Existing pavements and facilities which are damaged will be replaced or reconstructed to original strength at the Design-Builder's expense. The Design-Builder will take immediate action to reconstruct any damaged area which is to remain in service. Unless indicated on the Drawings, existing pavements will not be cut for the installation of any utilities. Jack and bore or directional bore method will be required.

H. Construction Area Limits:

- 1. Design-Builder will be required to conform to safety requirements contained in

FAA Advisory Circular 150/5370-2, prohibits construction within the safety areas or Obstacle Free Zone (OFZ), as defined in FAA Advisory Circular 150/5300-13, latest edition for both runways and taxiways. For Aircraft Group V pavements, this is 250 feet from the runway centerline and 107 feet from the taxiway centerline. The activity limits will be adequately signed and marked by the Design-Builder to preclude violation of this restriction. The area will be well identified by warning signs and lights at night. The Design-Builder will install lighting, marking, barricades, signs and other measures to delineate closed and hazardous areas during construction. The guidance and procedures provided by FAA Advisory Circular AC 150/5340-1, "Standards for Airport Markings," will be utilized as depicted on the Drawings. Barricades will be weighted or otherwise secured to sufficiently prevent displacement by aircraft engine and propeller blast and ambient winds. Steady burning red obstruction lights may be required in certain instances to supplement lighted barricades or highlight hazardous or potentially dangerous objects. The location of these lights will be as requested in the field by the Owner. Obstruction lights and barricades will not be located within runway, taxiway and/or taxilane obstacle clearance areas.

2. The limits of construction, material storage area, plant site, equipment storage area, parking area and other areas defined as required for the Design-Builder's exclusive use during construction will be marked by the Design-Builder. The Design-Builder will erect and maintain around the perimeter of these areas suitable marking and warning devices visible for day/night use. Temporary fencing, barricades, flagging and/or flashing warning lights will be required at critical access points. Type of marking and warning devices will be approved by Owner. Open trenches, excavations and stockpiled materials will be permanently marked with flags and lighted by approved light units during hours of reduced visibility and darkness. No separate pay item is included for this Work and all costs must be included in the Contract Sum.

I. The Design-Builder will erect and maintain throughout the Contract, at Design-Builder's expense, a 6-foot high chain link opaque green fabric fence or barricade, with no advertising or writing visible, around the perimeter of the Construction Area as required. The Design-Builder will also install vehicular and pedestrian gates/doors as necessary to provide ingress/egress. Additionally, the perimeter of any fenced area which abuts an active operation pavement will be marked with red flashing barricades no more than 50-feet apart. The Design-Builder will be solely responsible for access control through any access gate leading to the AOA. This access control will be for all personnel using the gate/door for access to the AOA. This gate/door will be manned by the Design-Builder whenever unlocked. The Design-Builder is solely responsible for all security within the Construction Area from the date of the Notice to Proceed until the date of Final Acceptance. Equipment not in use during construction, nights and/or holidays will be parked in the Construction Area. The Design-Builder will at all times conduct all operations under the Contract in a manner to avoid or minimize the risk of loss, theft or damage by vandalism, sabotage or other means to any property. The Design-Builder will promptly take all reasonable precautions which are necessary and adequate to correct all conditions which threaten a risk of loss, theft, or damage to property.

J. During construction, the Design-Builder will maintain these areas in a neat

condition. Upon completion of the Work, the staging and storage areas will be cleaned-up and returned to their original condition to the satisfaction of the Owner. Remove all construction fencing and barricades from the Project site. No special payment will be made for clean-up and restoration of the storage area. Personal vehicles will not be permitted beyond Design-Builder's Construction Area. Drivers of personal vehicles being operated beyond this Design-Builder's Construction Area will be subject to loss of permission to enter the construction site.

K. Intermittent Construction Operations:

1. Construction activity may require closing of certain areas by the Owner, including the AOA. However, some Work may be done on an intermittent basis. The Design-Builder will maintain constant communication with the Owner when working and immediately obey all instructions from the Owner. Failure to so obey instructions or maintain constant communications with the Owner will be cause to suspend the Design-Builder's operations in the areas until satisfactory conditions are assured.

2. When directed to cease Work and move from the area, the Design-Builder will immediately respond and move all material, equipment and personnel outside areas. Work will not be resumed until directed by the Owner. Every reasonable effort will be made by the Owner to cause minimum disturbance to the Design-Builder's work. However, no guarantee can be made as to the extent to which disturbance can be avoided. Design-Builder's claim for additional Contract Time or Contract Sum for any such disruption will not be accepted.

3. Open trenches or excavations exceeding 3-inches in depth and 3-inches in width will not be permitted within 250-feet of the centerline of an active runway or within 100-feet of the centerline of active taxiways and taxilanes. If an area is to be opened to aircraft movement, either at night or during the day, the Design-Builder will decrease the drop off to 3-inches by placing compacted fill. This fill will taper away from the paved area at a 5% maximum slope to existing grade. There is no separate payment for this temporary construction.

4. Disruptive Work will be defined as any activity, including excessive noise, air pollution, dust, and similar events that adversely disrupts, hinders or impacts normal Airport operations. These activities will be conducted so as not to interfere with the normal operation of the Airport. Work which may be considered disruptive will be conducted by the Design-Builder during the middle of the night hours as designated by the Owner. When directed by the Owner to cease Disruptive Work, the Design-Builder will immediately suspend and discontinue the Disruptive Work. Work will not be resumed until directed by the Owner. Design-Builder's claim for additional cost or additional Contract Time for suspending of Disruptive Work will not be accepted.

L. Limitation of Operations:

1. When the Work requires the Design-Builder to operate on or

adjacent to any public area, the operation will be coordinated with the Owner at least 72-hours prior to commencement of the Work. At no time will the Design-Builder close a public area until authorization to do so is granted by the Owner.

2. When the Contract Work requires the Design-Builder to operate on or adjacent to the apron or taxiway AOA, the operation will be coordinated with the Owner at least 72-hours prior to commencement of the Work. At no time will the Design-Builder close an AOA until authorization to do so is granted by the Owner and until temporary marking and associated lighting is provided and in place as specified in FAA Advisory Circular 150/5340-1, "Marking of Paved Area on Airports" and/or the Drawings and Specifications.

3. The Design-Builder will be responsible for controlling its operations and those of its subcontractors so as to provide for the free and unobstructed movement of all passengers and private vehicles on the Airport.

4. The Design-Builder will be responsible for controlling its operations and those of its subcontractors so as to provide for the free and unobstructed movement of aircraft in the apron and taxiway areas of the Airport AOA.

M. Obstructions to Navigation:

1. Penetrations of the imaginary surfaces defined in FAR Part 77 will not be permitted without advance notification of and approval by the Owner and the FAA Tower Chief. It may be necessary to file a Temporary Permit Application with the Owner to obtain approval prior to operation of exceptionally tall equipment. This includes any penetrations whatsoever by the Design-Builder, including but not limited to vehicles, cranes, other construction equipment, structures, stockpiled materials, excavated earth, etc.

2. When penetrations are unavoidable they will be brought to the attention of the Owner and the FAA as far in advance as is practical to allow Notices to Airmen (NOTAMS) to be prepared and distributed to appropriate FAA divisions for publication and dissemination.

3. Appropriate sketches will be prepared by the Design-Builder with precise locations shown on the Airport Layout Plan along with elevations depicting the obstruction object's relationship to the imaginary surfaces.

4. The maximum height allowed on the Airport is subject to review by the Owner unless, in special instances, this requirement is waived by the Owner and the FAA. During times when the safety of flight operations could be impaired, particularly during IFR weather, or when the equipment is idle, all booms, towers and other movable appendages will be lowered to the maximum extent.

N. Emergency Procedures:

1. The Design-Builder will familiarize itself with Airport emergency procedures and will endeavor to conduct its operations so as not to conflict with them. Clear routes for crash/fire/rescue equipment will be maintained in operable condition at all times.

2. Emergency Procedure: In case of an emergency caused by an accident, fire, or personal injury or illness, Airport Police are to be immediately notified by Page Phone found throughout the Terminal buildings or by calling them at 911 or Airport Police Emergency Phone No. (813) 870-3911. The caller must accurately report the location and type of emergency. Airport Police will then coordinate with Owner and/or other outside emergency agencies as necessary.

O. Access to the Construction Site:

1. The Design-Builder's access to the site will be defined by the Owner. This access route may also be used by Airport employees or others. **No other access routes will be allowed unless approved by the Owner. At Tampa International Airport, the vertical clearance in the Short Term Parking Garage is 6'-8". No vehicle taller than 6'-8" will be allowed to operate in the Short Term Parking Garage structure. The vertical clearance in the Long Term Parking Garage is 7'-10". No vehicle taller than 7'-10" will be allowed to operate in the Long Term Parking Garage structure. No vehicle taller than 13'-6" will be allowed to operate on the first floor of the Economy Parking Garage structure or 8'-0" on all levels above the first floor.** All Design-Builder traffic authorized to enter the site will be experienced in the route or guided by the Design-Builder's personnel. The Design-Builder will be responsible for traffic control to and from the various construction areas on the site. The Design-Builder will be responsible to verify and coordinate with all vertical clearances for the George J. Bean Parkway, Bessie Coleman Service Road, Red and Blue Side Arrivals, Departure and Crossover Drives, as well as all other ramps, roads, drives and overpasses over and along or otherwise a component of the Design-Builder's access route.

2. The Design-Builder will familiarize its employees with the route. Material and equipment delivery trucks will be accompanied by an employee of the Design-Builder familiar with the route. The Design-Builder will be responsible for access control through any AOA access gate for the duration of this Contract. This access control will be for all personnel. Any AOA access gate will be manned, whenever unlocked, by a licensed, bonded security agency guard, contracted by the Design-Builder. Design-Builder personnel are not acceptable substitutes for the licensed, bonded security agency guard.

3. The Design-Builder will monitor and coordinate all Design-Builder traffic with the Owner. The Design-Builder will not permit any unauthorized construction personnel or traffic on the site, including food and beverage vendors or caterers. If breaches of security occur, the Owner may, at the Owner's option, close the AOA gates until adequate actions have been taken to prevent further

breaches of security.

4. The Design-Builder will provide and operate an escort vehicle to lead other vehicles when operating within the site.

5. The following procedure will be used for access to site by AOA authorized persons:

a. The unauthorized person will inform the gate guard of their reason for entrance to the site and which Design-Builder they intend to visit.

b. Guard will notify the Design-Builder by telephone.

c. Design-Builder will go to gate and escort visitor to Design-Builder facility.

The Design-Builder will provide and operate an escort vehicle to lead other vehicles when operating within the AOA.

6. The Design-Builder is responsible for immediate cleanup of any debris deposited along the access route as a result of Design-Builder's construction traffic. The entire access route and construction site will be kept free and clean of all debris at all times, will be maintained in good repair by the Design-Builder or its agents, and will be immediately repaired to the satisfaction of the Owner. Directional signing along the delivery route to the storage area or work site will be as directed by the Owner.

P. Load Restrictions:

1. The Design-Builder will comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the Work. A special permit will not relieve the Design-Builder of liability for damage which may result from the moving of material or equipment.

2. The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction will be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Design-Builder will be responsible for all damage done by Design-Builder's hauling equipment and will correct such damage at Design-Builder's own expense.

3. It is especially noted that the existing Airport pavements may not be capable of supporting certain types of construction equipment. Prior to submitting the Bid, the Design-Builder will fully satisfy itself as to the ability of the existing Airport pavements to satisfactorily sustain the type of equipment Design-Builder plans to use. Should damage occur as a result of construction operations,

the Design-Builder will repair the damaged areas to an acceptable condition at Design-Builder's expense.

Q. Design-Builder's Security Requirements:

1. General Intent: It is intended that the Design-Builder will comply with all requirements of the Airport Security Plan and with the Safety Plan specified herein. The Design-Builder will designate to the Owner, in writing, the name of its Design-Builder Security Officer (CSO). The CSO will be the Design-Builder's representative on the "Construction Security Committee" and will be accountable for these security requirements for the Design-Builder.

2. Design-Builder Security Personnel Orientation: The CSO will be responsible for all safety precautions. Prior to the commencement of the Work, the CSO will provide the Owner an outline of a proposed accident and fire protection plan for all Work contemplated under the Contract. The CSO will also conduct safety meetings as directed by the Owner for each shift and require the attendance of all supervisors at such meetings. Copies of the minutes of safety meetings will be kept on file in the Design-Builder's Office.

3. Identification - Personnel: All employees of the Design-Builder or subcontractors requiring access to the construction site are required to be supplied with identification badges to be worn at all times while within the area. Badges will be supplied by the Design-Builder and will state "**TPA – (Project Name) Contractor.**" Badges can be plastic wallet size, metal pin or sticker with a minimum of 2-1/2" diameter and worn on outer garments so as to be clearly visible. Badging is to be uniform in appearance and sufficiently distinctive in design or color to clearly distinguish, on sight, employees assigned to this Contract. The badge number will be prominent for easy identification. Badges are to be identified numerically and issued individually to whom it was assigned. Blocks of numbers can be assigned to subcontractors. Responsibility for supply issuance and control of identification badges will be that of the Design-Builder, through the CSO.

In addition, for all Work within the AOA at Tampa International Airport only, the Design-Builder's onsite supervisors will be badged with Airport ID badges provided by Authority Operations. Supervisors requiring unescorted access to the Security Identification Display Area (SIDA) will be subjected to a FBI fingerprint-based Criminal History Records Check (CHRC) and a Transportation Security Administration Security Threat Assessment (STA). An ID badge will not be issued to an individual until they successfully pass a CHRC and STA.

New applicants applying for a TPA ID badge will continue to be charged \$27.00 for the CHRC and an additional \$3.00 (ID badge with an expiration less than 12 months from date of issue) or \$6.00 (ID badge with an expiration greater than 12 months from date of issue). The new STA fees will also apply to ID badge renewals. Each time an individual renews their ID badge (including lost, stolen, name change, etc.), the authorized issue will be charged the STA fee of either \$3.00 or \$6.00 (depending on expiration date period).

Personnel will wear the badge on outermost garment at all times while on the AOA. All employees of Design-Builder or subcontractor requiring access to the construction site are required to be supplied with identification badges to be worn at all times while within the area. Blocks of numbers can be assigned to subcontractors. Responsibility for supply issuance and control of identification badges will be that of the Design-Builder, through the CSO and the Owner. The Design-Builder will be assessed Three Hundred Dollar (\$300.00) in liquidated damages for each security badge that is not returned to the Owner at the time of badge expiration or Project completion. These liquidated damages will be paid promptly by the Design-Builder by company check, or the amount will be withheld by Owner from payments due to the Design-Builder. Design-Builder agrees that liquidated damages described herein are not a penalty and are reasonable considering the impacts that a Breach of Security could have to public safety and welfare and the operations of the Airport.

4. Identification - Vehicles: The Design-Builder, through the CSO, will establish and maintain a list of Design-Builder and subcontractor vehicles authorized to operate on the Project site and will issue a TPA validation sticker to each vehicle to be made available upon demand by the Owner or any Airport Security Officer. Vehicle validation sticker will be placed on the front left portion of the vehicle and be assigned in a manner to assure positive identification of the vehicle at all times. In lieu of issuing individual vehicle permits, the CSO can require each vehicle to display a large company sign on both sides of the vehicle and advise the Owner of a current list of companies authorized to enter and conduct Work on the Airport.
5. Identification – Equipment: The Design-Builder will clearly identify all on-site equipment such as portable motorized or non-motorized equipment, job boxes, material storage containers, port-a-lets, etc., whether owned or rented, with the Design-Builder’s name. Identification must be physically marked on equipment or attached with a durable removable device such as a wire tie.
6. Employee Parking:
 - a. Area for parking of the Design-Builder's employee's vehicles is in the Design-Builder's Construction Area or Staging Area to be defined by the Owner. Parking will be accomplished in straight equally spaced rows. Design-Builder will organize traffic flow and parking patterns, and supply traffic control signs and markings subject to approval of the Owner. Maintain the parking surface and pick up trash daily. No storage will be allowed at parking site. The Design-Builder will restore the shape and grade of this parking area upon Project completion, seed and mulch portions where existing ground cover is damaged and perform all Work required to restore the area to its original condition.
 - b. When the Design-Builder's employees parking area is adjacent to another Design-Builder's parking area performing other construction for the Owner, cooperation is required to avoid any

interferences in the performance of each respective construction. Any difficulties experienced will be brought to the attention of the Owner immediately.

c. All vehicles entering any public parking garages will be required to pay the normal parking fee which will be calculated at the exit. Free parking will not be authorized.

7. Materials Delivery to the Site: All Design-Builder's material orders for delivery to the Work site will use as a delivery address the street name and number assigned to the access point onto the Airport.

8. Breach of Security Fine: Design-Builder agrees that liquidated damages in the amount of Ten Thousand Dollar (\$10,000.00) per occurrence will be assessed against the Design-Builder if the Design-Builder violates the requirements of the Airport Security Plan or the Security requirements specified herein. Design-Builder agrees that liquidated damages described herein are not a penalty and are reasonable considering the impacts that a Breach of Security could have to public safety and welfare and the operations of the Airport. Notwithstanding the foregoing, repeated and/or flagrant violations of the Security Plan will be grounds for the suspension of the Work at no cost to the Owner, default of the Design-Builder and/or termination of the Contract.

9. Amendments to this Safety Plan and Security requirements may be made by the Owner and will be immediately binding on Design-Builder.

END OF SECTION

SECTION 01545 - UTILITIES

PART 1 - GENERAL

1.01 GENERAL

- A. Existing facilities, utilities, and features depicted on the Drawings are not guaranteed to be accurate with respect to location, condition, and characteristics. Also, there may be additional facilities, utilities, and features existing that could affect the construction of the Work which are not depicted or described in the Contract Documents.
- B. Prior to Bidding, the Design-Builder will make a thorough investigation of the Project area to satisfy itself as to the location, condition, and characteristics of any and all facilities, utilities, and features which may affect Design-Builder's Work. No additional compensation will be made for any extra expense relating to an existing facility, utility, or feature.
- C. The Design-Builder hereby agrees to make no claims against the Owner and/or its representatives relating to the existence, or lack thereof, location, condition, and/or characteristics of any existing facilities, utilities, or features.
- D. Design-Builder will pay for the removal and installation of all utilities required by the Contract Documents.

1.02 PROTECTION OF EXISTING UTILITIES

- A. The term "utilities" includes FAA power and control cables, TECO power lines, telephone cables, lines and fiber optics, Sheriff's Department lines, elevator control cables, airline communication cables, computer cables, airfield lighting cables, Owner underground electrical and communication lines, cables and fiber optics, water lines, irrigation lines, HVAC equipment, sanitary force mains, sanitary lines, stormwater lines and fuel and gas lines. These utilities may be located in the areas of construction. Disruption of these utilities could seriously disrupt the operation of the airport. Although the Drawings attempt to locate the cables and all utilities including fuel and gas lines, actual locations are uncertain and the Design-Builder is required to verify all locations.
- B. To the extent that such public and private utility services, FAA facilities, or utility services of another government agency are known to exist within the limits of the Work, the approximate locations have been indicated on the Drawings and some, but not all, utility services and FAA facilities are indicated as follows:

Utility Service or Facility	Person to Contact	Telephone
(To the best of the Authority's knowledge, the below information is correct, but it may change without notice.)		
FAA Control Cables	Mr. Charles Hinnant, FAA	(813) 371-7751
HCAA	Mr. Nick D'Jimas	(813) 676-4346
TECO	Mr. Greg Keininger	(813) 228-4231
Fuel Lines	Mr. Enos Sage	(813) 396-3626

Irrigation Lines	Mr. Bruce Sather	(813) 870-7883
City of Tampa - Water	Mr. Chad Bailey	(813) 274-3344
City of Tampa – Wastewater	Mr. Jeff Hilton	(813) 274-7844

- C. Any intentional, temporary interruption of existing utilities for the purpose of carrying out the Work will be carried out so as to minimize the length and scope of the interruption. Before any such interruption, Design-Builder will give a minimum of 72 hours written notice to the Owner and will also give at least 72 hours' notice to the appropriate "Person to Contact" listed in Paragraph B of this Section.
- D. The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the Work.
- E. Design-Builder will not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or FAA facilities located within the limits of the Work without the written permission of the Owner.
- F. Should the Owner, public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or FAA facility during the progress of the Work, the Design-Builder will cooperate with such utility service or FAA facility by arranging and performing the Work in this Contract so as to facilitate such construction, reconstruction, or maintenance by others. In addition, the Design-Builder will control its operations to prevent the unscheduled interruption of such utility services, FAA facility, and other facilities. It is understood and agreed that the Design-Builder will not be entitled to make any claim due to such authorized construction by others or for any delay to the Work resulting from such authorized construction. The Design-Builder will coordinate all Work with all utility services, FAA facility, or other facility.
- G. To the extent that such public or private utility services, FAA or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the Contract Work, the approximate locations can be obtained by the Design-Builder from the Owner.
- H. It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, FAA facilities or structures that may be shown on the Drawings or encountered in the Work. Any inaccuracy or omission in such information will not relieve Design-Builder of its responsibility to protect such existing features from damage or unscheduled interruption of service.
- I. It is further understood and agreed that Design-Builder will, upon execution of the Contract, notify all utility services, FAA facility, or other facilities of the Design-Builder's plan of operations. Such notification will be in writing addressed to the Person to Contact as provided herein. A copy of each notification will be given to the Owner.
- J. In addition to the general written notification hereinbefore provided, it will be the responsibility of the Design-Builder to keep such individual utility service or FAA facility advised of changes in Design-Builder's plan of operation that would affect such utility

service or FAA facility.

- K. Prior to commencing the Work in the general vicinity of an existing utility service or FAA facility, the Design-Builder will (1) Call Sunshine 811, and (2) again notify each such utility service or FAA facility in writing, copying the Owner, of Design-Builder's plan of operations. If, in the Design-Builder's opinion, assistance is needed to locate the utility service or FAA facility or the presence of a representative of the utility service or FAA facility is desirable to observe the Work, such advice will be included in the written notification. Such notification will be given by the most expeditious means to reach the utility service or FAA facility Person to Contact no later than two business days prior to the Design-Builder's commencement of operations in such general vicinity. The Design-Builder will furnish a written summary of the notification to the Owner.
- L. Failure of the Design-Builder to properly coordinate in advance Work on or near existing utilities will be cause for the Owner to suspend Design-Builder's operations in the general vicinity of such utilities.
- M. Power and control cables leading to and from any FAA facilities will be marked in the field by the local FAA Airway Facilities Sector personnel for the information of the Design-Builder before any Work in the general vicinity is started. Thereafter, through the entire time of the Work, the Design-Builder will not allow any construction equipment to cross these cables without first protecting the cable with steel boiler plate or similar structural devices on 3-feet either side of the marked cable route. All excavation within 3-feet of existing cables will be accomplished by hand digging only. No grading will be permitted over FAA cables under any conditions.
- N. Approval to work in areas where active utility services or FAA facilities are located is subject to withdrawal at any time because of change in the weather, emergency conditions on the existing airfield areas, anticipation of emergency conditions, or for any other reason determined by the Owner or the designated FAA and/or utility service representative. All instructions by the Owner, the utility service, or the FAA facility (by radio or other means) to the Design-Builder to clear any given area, at any time, will be immediately executed. Construction Work will be commenced in the cleared area only when additional instructions are issued by the Owner.
- O. FAA CABLES AND UTILITIES MUST BE PROTECTED AT ALL TIMES.
- P. Where the outside limits of an underground utility service or FAA facility have been located and staked on the ground, the Design-Builder will be required to use excavated methods acceptable to the Owner within 3-feet of such outside limits at such points as may be required to insure protection from damage due to the Design-Builder's operations.
- Q. If damage occurs to any utilities, the Design-Builder may be assessed a fee of \$2,000 liquidated damages per cut per cable, line or strand, which liquidated damages will only represent the expense incurred by the Owner in coordinating the repair, and which will not prevent the Owner or others from recovering from the Design-Builder other costs, damages, or expenses of any other nature incurred on account of damages to utilities. Design-Builder agrees that these liquidated damages are reasonable and are not a penalty

and a reasonable consideration of the impact that damage to utilities could have to the operation of the Airport.

- R. FAA FACILITIES AND CABLE RUNS. The Design-Builder is hereby advised that the construction limits of the Project include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The Design-Builder, during the prosecution of the Project work, will comply with the following:
1. The Design-Builder will permit FAA maintenance personnel the right of access to the Project work site for purposes of inspecting and maintaining all existing FAA owned facilities.
 2. The Design-Builder will notify the above named FAA Airway Facilities Point-of-Contact seven days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.
 3. If prosecution of the Project work requires a facility outage, the Design-Builder will contact the above named FAA Person to Contact a minimum of 72 hours prior to the time of the required outage.
 4. If prosecution of the Project work results in damages to existing FAA equipment or cables, the Design-Builder will repair the damaged item in conformance with FAA Airway Facilities' standards to the satisfaction of the above named FAA Point-of-Contact.
 5. If the Project work requires the cutting or splicing of FAA owned cables, the above named FAA Point-of-Contact will be contacted a minimum of 72 hours prior to the time the cable work commences. The FAA reserves the right to have an FAA Airway Facilities representative on site to observe the splicing of the cables as a condition of acceptance. All cable splices are to be accomplished in accordance with FAA Airway Facilities' specifications and require approval by the above named FAA Point-of-Contact as a condition of acceptance by the Owner. The Design-Builder is hereby advised that FAA Airway Facilities restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA Airway Facilities, the Design-Builder will furnish and install a sufficient length of new cable that eliminates the need for any splice.
- S. Should the Design-Builder damage or interrupt the operation of a utility service or FAA facility by accident or otherwise, Design-Builder will immediately notify the proper utility service or FAA facility and the Owner and will take all reasonable measures to prevent further damage or interruption of service. The Design-Builder, in such an event, will cooperate with the utility service or FAA facility and the Owner continuously until such damage has been repaired and service restored to the satisfaction of the utility service or FAA facility.
- T. The Design-Builder will immediately repair, at Design-Builder's own expense, with identical material by skilled workers, all utilities, FAA cables, and other facilities which are damaged by Design-Builder's workers, equipment, or work. Prior approval of the

appropriate utility service and/or FAA facility and Owner will be obtained for the materials, workers, time of day or night, method of repairs, and for any temporary or permanent repairs the Design-Builder proposes to make to any FAA cables or utility service damaged by the Design-Builder.

- U. Airport publicly owned facilities and privately owned facilities located on Airport property, including underground cables, pavements, piping, buildings, turfed areas, vehicles and other facilities/improvements, that are damaged by the Design-Builder will, at the election of the Owner, (1) be replaced/repared by the Design-Builder to the satisfaction of the Owner or (2) be replaced/repared by the Owner at the Design-Builder's expense.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01560 - PREVENTION, CONTROL AND ABATEMENT OF EROSION
AND WATER POLLUTION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This specification includes requirements for prevention, control and abatement of erosion, siltation and water pollution resulting from construction of the Project until Final Acceptance.
- B. Design-Builder will comply with all applicable provisions of local Codes concerning grading, filling, excavation, and soil removal.

1.02 PERMITS

It will be the responsibility of the Design-Builder to obtain all federal, state, and local permits and to conduct its Work in the manner designated by all applicable permits. Violations of any permit by the Design-Builder will in no way involve the Owner regardless of who obtained the permit initially.

1.03 ECOLOGICAL REQUIREMENTS

- A. Design-Builder shall take sufficient precautions to prevent pollution of rivers, streams, lakes, tidal waters, reservoirs, canals and other water impoundments with fuels, oils, bitumens, calcium chloride or other harmful materials. Also, Design-Builder shall conduct and schedule operations so as to avoid interference with movement of migratory fish. No residue from dust collectors or washers will be dumped into any live stream.
- B. Construction operations in rivers, streams, lakes, tidal waters, reservoirs, canals and other water impoundments will be restricted to those areas where it is necessary to perform filling or excavation to accomplish the Work shown in the Plans and to those areas which must be entered to construct temporary or permanent structures. As soon as conditions permit, rivers, streams, lakes, tidal waters, reservoirs, canals and other water impoundments will be promptly cleared of all obstructions placed therein or caused by construction operations.
- C. Except as necessary for construction, excavated material will not be deposited in rivers, streams, lakes, tidal waters, reservoirs, canals and other water impoundments, or in a position close enough thereto to be washed away by high water or runoff.
- D. Design-Builder shall not disturb lands or waters outside the limits of construction except as may be found necessary and authorized by the Owner.

1.04 SCHEDULING/COORDINATION

- A. Clearing and grubbing will be so scheduled and performed that grading operations can follow immediately thereafter. Grading operations will be so scheduled and performed

that permanent erosion control features can follow immediately thereafter if conditions on the Project permit.

- B. Design-Builder shall schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposed, uncompleted construction to the elements will be as short as practicable.

1.05 PROTECTION OF STORM DRAINS

- A. Storm drainage facilities, both open and closed conduit, serving the construction area will be protected from pollutants and contaminants.
- B. If the Owner determines that siltation of drainage facilities has resulted due to the Project, the Owner will advise the Design-Builder to remove and properly dispose of the deposited materials. At the Owner's sole discretion, the Design-Builder (DB) may be directed the DB to camera the line to ensure that all siltation or materials have been removed. Cost for this work will not be an increase to the GMP
- C. Should the Design-Builder fail to or elect not to remove the deposits, the Owner will provide maintenance cleaning as necessary and charge all costs of such service against the amount of money due or to become due the Design-Builder.

1.06 PREVENTION, CONTROL AND ABATEMENT REQUIREMENTS

- A. Design-Builder shall provide, install, construct, and maintain all coverings, mulching, sodding, sand bagging, berms, slope drains, hay and straw bales, sedimentation structures, or other devices necessary to meet City, State and Federal regulatory agency codes, rules and laws, and as indicated on the Drawings.
- B. The locations of and methods of operation in all detention areas, borrow pits, material supply pits and disposal areas furnished by the Design-Builder will meet the approval of the Owner as being such that erosion during and after completion of the Work will not likely result in detrimental siltation or water pollution.
- C. The Owner may limit the surface areas of unprotected erodible earth exposed by clearing and grubbing, excavation or filling operations and may direct the Design-Builder to provide immediate erosion or pollution control measures to prevent siltation or contamination of any river, stream, lake, tidal water, reservoir, canal, and other water impoundment or to prevent damage to the Project or property outside the Project limits.

PART 2 – PRODUCTS

Not used.

PART 2 – EXECUTION

Not used.

END OF SECTION

SECTION 01561 - CONSTRUCTION CLEANING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Design-Builder shall execute daily cleaning during progress of Work. Design-Builder shall execute final cleanup prior to Substantial Completion and again prior to Final Acceptance.
- B. Hazards Control:

Design-Builder shall:
 - 1. Store volatile wastes in covered metal containers.
 - 2. Remove containers from premises daily.
 - 3. Prevent accumulation of wastes which create hazardous conditions.
 - 4. Provide adequate ventilation during use of volatile or noxious substances.
- C. Design-Builder shall conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws:
 - 1. Design-Builder shall not burn or bury rubbish and waste materials on Project site.
 - 2. Design-Builder shall not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
- D. Design-Builder shall transport waste materials and debris across Airport property in covered trucks.

PART 2 - PRODUCTS

2.01 MATERIALS

Design-Builder shall use cleaning materials recommended by manufacturer of surface to be cleaned which will not create hazards to health or property and which will not damage surfaces.

PART 3 - EXECUTION

3.01 CLEANING DURING CONSTRUCTION

- A. Design-Builder shall execute periodic cleaning to keep building, grounds, and public properties free of accumulation of waste materials, rubbish, and wind-blown debris resulting from construction operations.
- B. Design-Builder shall apply protective covering on newly installed Work where reasonably required to ensure freedom from damage or deterioration at time of Substantial

Completion and Final Acceptance. Design-Builder shall clean and perform maintenance on other newly installed Work as frequently as necessary through remainder of construction period.

- C. Design-Builder shall adjust and lubricate operable components to ensure operability without damaging effects.
- D. Design-Builder shall furnish on-site containers for collection of waste materials, debris, and rubbish.
- E. Design-Builder shall remove waste material, debris, and rubbish from Project site daily.
- F. Design-Builder shall not drop or throw materials from heights.
- G. Design-Builder shall continue cleaning daily until building is ready for occupancy.

3.02 DUST CONTROL

Design-Builder shall:

- A. Clean interior building areas prior to start of finish painting or special coatings.
- B. Wet down materials and rubbish or other dust control measures to prevent blowing dust
- C. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

3.03 FINAL CLEANING

- A. Design-Builder shall provide final cleaning of the Work, including all adjacent protection areas surface or unit of Work to normal "clean" condition expected for a first-class building cleaning and maintenance program. Design-Builder shall comply with manufacturer's instructions for cleaning operations. The following are examples, but not by way of limitation, of cleaning levels required:
 - 1. Removal of labels which are not required as permanent labels.
 - 2. Cleaning of transparent materials, including mirror, window, and door glass, to polished condition. Remove substances which are noticeable as vision obscuring materials.
 - 3. Replacing of broken glass and damaged transparent materials.
 - 4. Cleaning of exposed exterior and interior hard-surfaced finishes to dirt-free condition, free of dust, stains, films, and similar noticeable distracting substances.
 - 5. Restoring of reflective surface to original reflective condition.
 - 6. Wiping of surfaces of mechanical and electrical equipment clean, including

elevator equipment.

7. Removal of excess lubrication and other substances.
 8. Removal of debris and surface dust from limited access spaces including roofs, plenums, shafts, trenches, equipment vaults, manholes, and similar spaces.
 9. Broom cleaning of concrete floors in non-occupied spaces.
 10. Vacuum cleaning of carpeted surfaces and similar soft surfaces.
 11. Cleaning of plumbing fixtures to sanitary condition, free of stains, including those resulting from water exposure.
 12. Cleaning of equipment to condition of sanitation ready and acceptable for intended use.
 13. Cleaning of light fixtures and lamps to function with full efficiency.
 14. Cleaning of Project site, including landscape development areas, of litter and foreign substances.
 15. Sweeping of paved areas to broom-clean condition. Remove stains, petrochemical spills, and other foreign deposits.
 16. Raking of grounds which are neither planted nor paved to smooth, even-textured surface.
- B. Design-Builder shall remove waste materials from Project site daily and dispose of in a lawful manner.
- C. Protection - Limiting Exposures: Design-Builder shall supervise construction operations to assure that no part of the construction completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
- D. Removal of Protection:
- Design-Builder shall remove temporary protection devices and facilities which were installed during course of the Work to protect previously completed Work during remainder of construction period.

END OF SECTION

SECTION 01600 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 TRANSPORTATION AND HANDLING

Design-Builder shall:

- A. Deliver, handle, and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss, including theft.
- B. Control delivery schedule to minimize long-term storage of products at Project site from overcrowding of construction spaces. Coordinate delivery and installation to minimize holding of storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.
- C. Deliver products in undamaged conditions, in manufacturer's original containers and prepackaging, with identifying labels intact and legible.
- D. Immediately upon delivery, inspect shipments for compliance with requirements of Contract Documents and accepted submittals and to verify that products are properly protected and undamaged.
- E. Promptly remove unsatisfactory materials from Project site.
- F. Furnish equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.
- G. Provide transportation and delivery F.O.B. Project Site.

1.02 STORAGE

Design-Builder shall:

- A. Store materials subject to damage from exposure to weather in weather tight storage facilities of suitable size with floors raised above ground. Materials not subject to weather damage may be stored on blocks off ground.
- B. Store fabricated products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store products subject to damage by elements in weather tight enclosures. Maintain temperature and humidity within range required by manufacturer's instructions.
- C. Cover materials which are subject to deterioration with impervious sheet covering providing adequate ventilation to avoid condensation.
- D. Store loose granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter and cover during inclement weather. Store cementitious and clay

products clear of earth or concrete floors, away from walls.

- E. Arrange storage in manner to permit easy access for inspections.
- F. Protect metal from damage, dirt, or dampness. Furnish flat, solid support for sheet products during storage.
- G. Make periodic inspections of stored materials to verify that products are maintained under specified conditions and are free from damage or deterioration.
- H. Not use materials in Work which have deteriorated, become damaged, or are otherwise unfit for use.
- I. Store and mix paints in assigned room or area kept under lock and key.
- J. Remove oil, rags, and other combustible materials daily and take precautions to prevent fire hazards.
- K. Not load structure during construction by storing materials with load greater than structure can bear safely.

PART 2 - PRODUCTS

2.01 MATERIAL AND EQUIPMENT INCORPORATED INTO WORK

Design-Builder shall:

- A. Comply with applicable Specifications and Standards.
- B. Comply with size, make, type, and quality specified or as specifically accepted in writing by Owner.
- C. Design, fabricate, and assemble products in accordance with engineering and shop practices normal to trade.
- D. To greatest extent possible, for each unit of Work, provide products, materials, or equipment of singular generic kind and from single source.
- E. Manufacture like parts of duplicate units to standard interchangeable sizes and gages. Two or more items of same kind may be identical by same manufacturer.
- F. Provide products suitable for service conditions.
- G. Adhere to equipment capacities, sizes, and dimensions shown or specified unless variations are specifically accepted in writing.
- H. Not use material or equipment for any purpose other than that for which it is designed or is specified.

- I. Nameplates:
 - 1. Not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on exterior of Work, except for Testing Laboratory approval labels and operating data.
 - 2. Locate required labels and stamps on concealed surface or, where required for observation after installation, on accessible surface which in occupied spaces are not conspicuous.

- J. Equipment Nameplates:
 - 1. Provide permanent nameplate on each item of service-connected or power-operated equipment.
 - 2. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings, and similar essential operating data.
 - 3. Locate nameplates on an easily accessed surface which, in occupied spaces, is not conspicuous.

- K. Provide products which comply with requirements, which are undamaged and unused at time of installation, and which include accessories, trim, finish, safety guards, and other devices and details needed for installation, intended use, and effect.

- L. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.

- M. Design-Builder shall affix Owner property tags to all equipment required to be inventoried by Owner. Design-Builder shall verify requirement with Owner for each purchased equipment.

PART 3 - EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

Design-Builder shall:

- A. When Contract Documents require that installation of Work will comply with manufacturer's printed instructions, obtain and distribute copies of instructions to parties in installation, including two copies to the Owner, prior to commencing Work.

- B. Maintain one set of complete instructions at Project site during installation and until completion.

- C. Maintain copies for Project Record Documents.

- D. Handle, install, connect, clean, condition, and adjust products in strict accord with manufacturer's instructions and in conformity with specified requirements.
- E. Inspect substrate to receive Work and conditions under which Work is to be performed.
- F. Notify the Owner in writing for further instructions, should job conditions or specified requirements conflict with manufacturer's instructions and not proceed with Work without clear written instructions.
- G. Perform Work in accordance with manufacturer's instructions and not omit preparatory steps or installation procedures.
- H. Install Work during conditions of temperature, humidity, exposure, forecasted weather, and status of Project completion which will ensure best possible results for each item of material or equipment.
- I. Isolate noncompatible materials to prevent deterioration.
- J. Mount individual units of Work at industry recognized standard mounting heights for applications indicated and refer questionable mounting height choices to Owner for final decision.

3.02 PROTECTION

Design-Builder shall:

- A. Furnish protection against weather. Cover building openings to protect interior of building from weather.
- B. Maintain Work, materials, apparatus, and fixtures free from damage.
- C. Protect items having factory finish to prevent damage to finish and equipment.
- D. At end of day's Work, cover new Work likely to be damaged or otherwise protect as necessary.
- E. After installation, secure substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations.
- F. Remove protection when no long needed and upon completion of Work, remove storage facilities from Project site.
- G. Install and maintain barricades, stanchions, or other means of protection to keep traffic off of installed product as necessary.

END OF SECTION

SECTION 01605 - PRODUCTS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Definitions: Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents, including such terms as, "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction" and similar terms. Such terms are self-explanatory and have recognized meanings in the construction industry.
1. "Products" are defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for Project or taken from Design-Builder's stock of previously purchased products.
 2. "Named Products" are products identified by use of the Manufacturer's name for a product, including such items as a make or model designation, as recorded in published product literature, of the latest issue as of the date of the Contract Documents.
 3. "Materials" are defined as products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed or applied to form units of Work.
 4. "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, etc.).
- B. Substitutions: The Design-Builder's requests for changes in the products, materials, equipment and methods of construction required by the Contract Documents are considered requests for "substitutions" and are subject to the requirements specified herein.
1. The requirements for substitutions do not apply to specified Design-Builder options on products and construction methods. Revisions to Contract Documents, where requested by the Owner or Design-Builder's Design Professional, are "changes" not "substitutions".
 2. Requested substitutions during subcontractor bidding period, which have been accepted prior to Receipt of Bids, are included in Contract Documents and are not subject to requirements for substitutions as specified herein.
 3. Design-Builder's determination of and compliance with governing regulations and orders issued by governing authorities does not constitute "substitutions", and does not constitute a basis for Change Orders, except as provided for in the Contract Documents. Otherwise, Design-Builder's requests for changes in products, materials and methods of construction required by Contract Documents are considered requests for "substitutions" and are subject to the

requirements hereof.

C. Standards:

Refer to Specification Section 01095 - DEFINITIONS AND STANDARDS for acceptability of industry standards to products of Project and for acronyms used in text of Specification sections.

1.02 REQUIREMENTS INCLUDED

- A. Materials specified are to define standard of quality or performance and to establish basis for evaluation of selections.
- B. Size of each item of material and equipment shown on the Drawings is based on dimensions of individual manufacturers. While other manufacturers may be acceptable, it will be responsibility of the Design-Builder to determine whether or not material and equipment proposed will fit into available space.
- C. Compliance requirements for individual products as indicated in Contract Documents are multiple in nature and may include generic, descriptive, proprietary, performance, prescriptive, compliance with standards, compliance with codes, conformance with graphic details, and other similar forms and methods of indicating requirements, all of which must be complied with. Allowances, alternatives, and similar provisions of the Contract Documents will have bearing on selection process.
- D. Where materials or equipment are specified by trade or brand name, it is not intended to discriminate against an equivalent product of another manufacturer, except where specifically noted NO SUBSTITUTION.
- E. Design-Builder's options for selecting products are limited by Contract Document requirements and governing regulations and are not controlled by industry traditions or procedures experienced by Design-Builder on previous construction projects.
- F. Revisions to Contract Documents, where requested by Owner or Design-Builders' Design Professional, are changes not substitutions.
- G. When specified products do not comply with requirements or are not a feasible selection, advise Owner in writing before proceeding.

1.03 QUALITY ASSURANCE

- A. Source Limitations:
 - 1. To the greatest extent possible for each unit of Work, provide products, materials, or equipment of a singular generic kind from a single source.
 - 2. When it is discovered that specified products are available only from sources that do not or cannot produce a quality adequate to complete Project requirements in a timely manner, consult with the Design Professional for a determination of

the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities to the fullest extent possible.

B. Compatibility of Options:

When the Design-Builder is given the option of selecting between two or more products for use on the Project, the product selected will be compatible with products previously selected, even if previously selected products were also options. Complete compatibility between the various choices available to the Design-Builder is not assured by the various requirements of the Contract Documents but will be provided by the Design-Builder.

1.04 SUBSTITUTIONS

A. Procedures:

1. After this Part 2 Contract as modified is awarded:

a. Design-Builder's written request for substitutions will be received and considered when extensive revisions to Contract Documents are not required and changes are in keeping with general intent of Contract Documents, when timely, fully documented and properly submitted, and when one or more of the following conditions are satisfied, all as judged by the Owner. Otherwise requests will be returned without action except to record non-compliance with these requirements.

(1) Where request is directly related to an "or equal" clause or other language of same effect in Contract Documents.

(2) Where required product, material or method cannot be provided within Contract Time, but not as a result of Design-Builder's failure to pursue the Work promptly or to coordinate various activities properly.

(3) Where required product, material or method cannot be provided in a manner which is compatible with other materials of the Work, or cannot be properly coordinated therewith, or cannot be warranted as required, or cannot be used without adversely affecting Owner's insurance coverage on completed Work, or will encounter other substantial non-compliances which are not possible to otherwise overcome except by making requested substitution, which Design-Builder thereby certifies to overcome such non-compatibility, non-coordination, non-warranty, non-insurability or other non-compliance as claimed.

(4) Where required product, material or method cannot receive required approval by a governing authority and requested substitution can be so approved.

- b. Noncomplying requests will be returned without action except to record noncompliance with requirements.
- c. Properties of proposed substitution, including but not limited to the following, as applicable, will be considered:
 - (1) Physical dimension requirements to satisfy space limitations.
 - (2) Static and dynamic weight limitations, structural properties.
 - (3) Audible noise levels.
 - (4) Vibration generation.
 - (5) Interchangeability of parts or components.
 - (6) Accessibility for maintenance, possible removal or replacement.
 - (7) Colors, textures, and compatibility with other materials, products, assemblies, and components.
 - (8) Equipment capacities and performance characteristics.
 - (9) Electromagnetic interference.
- d. Substitutions will not be considered if:
 - (1) They are indicated or implied on Shop Drawing, Project Data submittals, or mock-ups without formal request.
 - (2) Acceptance will require substantial revision of Contract Documents as determined by Owner.
 - (3) Additional cost to Owner is involved.
 - (4) Requests for substitutions are not submitted in a timely fashion.
- e. Design-Builder will bear all costs for additional compensation to Design-Builder's Design Professional for redesign and evaluation services, increased costs of other work by Owner or separate contractors, and other incurred costs or similar considerations due to acceptance of substitution.
- f. Should substitution be accepted under provisions of above clauses, and substitution subsequently proves defective or otherwise unsatisfactory for service for which it was intended within warranty period, the Design-Builder will replace defective material with material specified at no additional cost to Owner.
- g. Submittal of, and Design-Builder's acceptance of, shop drawings, product data, or samples which relate to work not complying with requirements of Contract Documents does not constitute an acceptable and valid request for substitution, nor approval thereof.
- h. If proposed substitution is not accepted or all requirements are not entirely complied with, provide specified product or material. Costs for delays will be borne by Design-Builder.

B. Form of Requests:

1. Submit three copies, fully identified for product or method being replaced by substitution, including related Specifications section and drawing number(s), and fully documented to show compliance with requirements for substitutions.
2. Proposed substitutions will state:
 - a. Product Data, Drawings.
 - b. Changes required in other elements of Work because of substitution.
 - c. Availability of maintenance service and source of replacement parts as applicable.
 - d. When requested, test data from independent testing laboratory to show compliance with performance characteristics specified.
 - e. Related Specifications sections and drawing numbers, fully documented to show compliance with requirements for substitutions.
 - f. Description of methods.
 - g. Samples where applicable.
 - h. Detailed comparison of significant qualities between specified item and proposed substitution.
 - i. Statement of effect on construction time and coordination with other affected work.
 - j. Statement to the effect that proposed substitution will result in Work equal to or better than Work originally indicated.
 - k. Cost information or proposal.

C. Shop Drawings, Product Data and Sample Submittals:

Design-Builder's submittal of (and Owner's acceptance of) Shop Drawings, mock-ups, Product Data or samples which relate to Work not complying with requirements of Contract Documents does not constitute an acceptable or valid request for a substitution, nor approval thereof.

1.05 DESIGN-BUILDER'S REPRESENTATIONS

A. Request for substitution constitutes representation that Design-Builder:

1. Has investigated proposed product and determined that it is equal to or superior in all respects to that specified.

2. Will furnish same warranties or bonds for substitution as for product specified.
3. Will coordinate installation of accepted substitution into Work and make such other changes as may be required to make Work complete in all respects.
4. Waives all claims for additional costs which may subsequently become apparent.

1.06 OWNER'S DUTIES

- A. Owner will determine acceptability of proposed substitutions.
- B. Owner will review requests for substitutions with reasonable promptness and notify Design-Builder, in writing, of decision to accept or reject requested substitution. Owner's judgment and decision is final.
- C. Review of Owner's acceptance or failure to take exceptions to substitutions or other review documents will not relieve Design-Builder of its responsibility for item actually meeting performance or other requirements of Contract Documents.

1.07 SUBMITTALS

- A. Product List Schedule:
 1. Prepare a schedule showing products specified in a tabular form acceptable to the Owner. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 2. Coordinate the product listing with the Design-Builder's Construction Schedule and the Schedule of Submittals.
 3. Form:
 - a. Prepare the product listing schedule with information on each item tabulated under the following column headings:
 - (1) Related Specification heading number.
 - (2) Generic name used in Contract Documents.
 - (3) Proprietary name, model number and similar designations.
 - (4) Manufacturer's name and address.
 - (5) Supplier's name and address.
 - (6) Installer's name and address.
 4. Initial Submittal:

Within 21 days after date of commencement of the Work, submit initial product list schedule. Provide a written explanation for omissions of data and for known variations from Contract requirements.
 5. Owner's Action:

- a. The Owner will respond in writing to the Design-Builder. The Owner's response will include the following:
 - (1) A list of unacceptable product selections, containing a brief explanation of reasons for this action.
 - (2) A request for additional data necessary for the review and possible acceptance of the products and manufacturer's listed.

PART 2 - PRODUCTS

2.01 GENERAL PRODUCT REQUIREMENTS

A. General:

1. Provide products which comply with requirements, which are undamaged and unused at time of installation, and which are complete with accessories, trim, finish, safety guards, and other devices and details needed for complete installation and for intended use and effect.
2. Compliance with codes, graphic details, allowances, and similar provisions of the Contract Documents also have a bearing on the selection process.
3. Refer to Section 01600 - MATERIALS AND EQUIPMENT.

B. Standard Products:

Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.

C. Continued Availability:

Where additional amounts of a product, by nature of its application, are likely to be needed by Owner at a later date for maintenance and repair or replacement work, provide a standard, domestically produced product which is likely to be available to Owner at such later date.

2.02 PRODUCT SELECTION LIMITATIONS

A. Product Selection Procedures: Design-Builders options in product selection are governed by the Contract Documents and governing regulations, not by previous industry tradition or project experience. Procedures governing product selection include, but are not limited to, the following:

1. Proprietary Specification Requirements:
 - a. Where a single product or manufacturer is named, provide the product indicated. Other products may be considered by the Owner in compliance

with provisions concerning substitutions. Where the term NO SUBSTITUTION is indicated, provide only product indicated.

- b. Advise the Owner before proceeding when it is discovered that the named product is not a feasible solution.

2. Semi-proprietary Specification Requirements:

- a. Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted, unless the Specifications indicate possible consideration of other products.
- b. Acceptable Manufacturers: When products are specified by one or more manufacturers' model or performance criteria with reference to other acceptable manufacturers, products manufactured by acceptable manufacturers listed must meet minimum performance criteria specified or meet quality of models specified.
- c. Advise the Owner before proceeding when it is discovered that the named product is not a feasible solution.
- d. Where products or manufacturers are specified by name accompanied by the term "or equal" or "or approved equal," comply with Item 1.04 SUBSTITUTIONS of this Section for procedural requirements governing substitutions to obtain approval for use of an unnamed product.

3. Non-Proprietary Specifications:

When the Contract Documents list products or manufacturers that are available and may be incorporated in the Work but do not restrict the Design-Builder to use of these products only, the Design-Builder may propose any available product that complies with Contract Document requirements. Comply with Item 1.04 SUBSTITUTIONS of this Section for procedural requirements to obtain approval for use of an unnamed product.

4. Descriptive Specification Requirements:

Where Contract Documents describe a product or assembly listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides those characteristics and otherwise complies with the Contract Documents.

5. Prescriptive Requirements:

Provide products which have been produced in accordance with prescriptive requirements, using specified ingredients and components and complying with specified requirements for mixing, fabricating, curing, finishing, testing, and similar operations in manufacturing process.

6. Performance Specification Requirements:
 - a. Where Contract Documents require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
 - b. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
7. Compliance with Standards, Codes and Regulations:

Where the Contract Documents only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
8. Visual Matching:
 - a. Where Contract Documents require matching an established sample, the Owner's decision will be final on whether a proposed product matches satisfactorily.
 - b. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another category, or for noncompliance with specified requirements.
9. Visual Selection:
 - a. Where specified product requirements include the phrase ".....as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Owner will select the color, pattern and texture from the product line selected.
 - b. Where specified product requirements include "..as selected from standard colors, patterns, textures available within the industry..", or words to that effect, selection of product complying with requirements and within established cost category is Owner's and Design Professional's selection, including designation of manufacturer where necessary to obtain desired color, pattern, or texture.
10. Compatibility of Products:
 - a. Where more than one choice is available as an option for Design-Builder's selection of product or material, select option which is compatible with other products and materials already selected which may have been from

among options for other products and materials.

- b. Total compatibility among options is not assured by limitations within Contract Documents, but must be provided by Design-Builder.
- c. Compatibility is basic general requirement of product and material selections.

2.03 NAMEPLATES

- A. Except as otherwise indicated for required approval labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on exterior of the Work.
 - 1. Labels: Locate required labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
 - 2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power-operated equipment. Locate nameplates on an easily accessed surface which, in occupied spaces, is not conspicuous. The nameplate will contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

PART 3 - EXECUTION

3.01 INSTALLATION OF PRODUCTS

- A. Except as otherwise indicated in individual sections of the Contract Documents, comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion of the whole Work.

END OF SECTION

SECTION 01640 - PRODUCT HANDLING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope:

Design-Builder shall protect products scheduled for use in the Work by means including, but not necessarily limited to, those described in this Section.

B. Related Work:

Additional procedures also may be prescribed in other Sections of these Contract Documents.

See Section 014000 – Quality Control, 1.14 Material Receipt and Storage Inspections.

1.02 QUALITY ASSURANCE

Design-Builder shall:

- A. Include within the Design-Builder's quality assurance program such procedures as are required to assure full protection of Work and materials and:
- B. Submit a material receipt, offloading, and storage plan to the Owner for approval that addresses the following at a minimum:
1. Delivery, handling, and storage of products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss, including theft.
 2. Control delivery schedules to minimize long-term storage of products at Project site and overcrowding of construction spaces.
 3. In particular, provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.
 4. Delivery of products to the Project site in the manufacturer's sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
 5. Inspection of products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected. Submission of a material receipt inspection report including checklists, pictures, etc. along with the daily production report.
 6. Storage of products at the Project site in a manner that will facilitate inspection and measurement of quantity or counting of units.

7. Storage of heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
 8. Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
 9. Compliance with laws and regulations regarding storage of material and equipment such as quantity restrictions, stacking, compatibility with adjacent material, fire protection, containment, etc.
 10. Provision of drawings indicating delivery routes, off-loading and lay-down areas, and storage areas.
- C. Revise and resubmit the material receipt, offloading, and storage plan to the Owner for approval as onsite conditions change and/or project phasing progresses.

1.03 MANUFACTURER'S RECOMMENDATIONS

Except as otherwise approved by the Owner, Design-Builder shall determine and comply with manufacturer's recommendations on product handling, storage, and protection.

1.04 PACKAGING

- A. Design-Builder shall deliver products to the Project site in their manufacturer's original containers, with labels intact and legible.

Design-Builder shall:

1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 2. At the time of delivery, inspect and remove damaged material and unsuitable items from the Project site, and promptly replace with material(s) meeting the specified requirements, at no additional cost to the Owner.
- B. The Owner may reject as non-complying such material and products that do not bear identification satisfactory to the Owner as to manufacturer, grade, quality, and other pertinent information.

1.05 PROTECTION

Design-Builder shall:

- A. Protect finished surfaces, including jambs and soffits of openings used as passageways, through which equipment and materials are handled.

- B. Provide protection for finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.
- C. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the Owner.
- D. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
- E. Restore storage areas to their previous condition regarding cleanliness. Remove all trash, debris, and clean up any spills.

1.06 REPAIRS AND REPLACEMENTS

Design-Builder shall:

- A. In event of damage, promptly make replacements and repairs to the approval of the Owner and at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by the Owner to justify an extension in the Contract Time.

1.07 REMOVAL OF NON-COMPLIANT MATERIAL AND EQUIPMENT

- A. Material or equipment that is determined to be non-compliant with contract requirements shall not be off-loaded or stored onsite. The Design-Builder shall make prompt arrangements to have the material or equipment removed from the site. In the event the Design-Builder cannot or refuses to remove the material or equipment, the Owner reserves the right to have the non-compliant material or equipment removed from the site and stored at an appropriate location at the Design-Builder's expense.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01650 – CONSTRUCTION SALVAGE AND WASTE MANAGEMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes demolition and construction salvage and construction waste management requirements. This section does not include hazardous materials removed. Refer to other sections, as applicable, for hazardous materials removed.

1.02 DEFINITIONS

- A. Alternative Daily Cover (ADC): Material, other than earthen material, placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter and scavenging.
- B. Co-mingled or Off-site Separation: Collecting all material types into a single bin or mixed collection System and separating the waste materials into recyclable material types at an off-site facility.
- C. Construction and Demolition Waste (CDW): Includes all nonhazardous solid wastes resulting from construction, remodeling, alterations, repair, and demolition. This includes material that is recycled, reused, salvaged or disposed as garbage.
- D. Diversion Rate: $(\text{Total Waste Diverted from Landfill} / \text{Total Waste produced by project}) \times 100$.
- E. Garbage: Product or material typically considered to be trash or debris that is unable to be salvaged for resale, salvaged and reused, returned, or recycled.
- F. Hazardous Materials/Hazardous Substance: Any substance that is or becomes defined as a “hazardous waste”, “hazardous material”, “hazardous substance”, “pollutant”, or “contaminant” under any environmental law or any substance that is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, or otherwise hazardous or any substance that contains gasoline, diesel fuel, oil, or other petroleum hydrocarbons or volatile organic compounds; or any substance that contains polychlorinated biphenyls, asbestos or urea Formaldehyde foam insulation; or any substance that contains or emits radioactive particles, waves, or materials, including, without limitation, radon gas.
- G. Land Clearing Debris (LCD): Materials that are natural (e.g., rock, soil, stone, vegetation). This also includes uncontaminated soils that are designated as geotechnically unsuitable or excess excavation.

- H. Proper Disposal: Disposal pursuant to all laws, rules, regulations and codes of the law.
- I. Recyclable Materials: Products and materials that can be recovered and remanufactured into new products.
- J. Recycling: The process of sorting, cleaning, treating and reconstituting materials for the purpose of using the material in the manufacture of a new product. This may be conducted on-site (e.g., as in the grinding of concrete).
- K. Recycling Facility: An operation that is permitted to accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product.
- L. Salvage for Reuse: Existing usable product or material that can be saved and reused in some manner on the project site or other projects off-site.
- M. Salvage for Resale: Existing usable product or material that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.
- N. Solid Waste including Universal Waste: Any waste that is or becomes defined as a “solid waste”, “waste”, “special waste”, “garbage”, or “commercial solid waste” under any environmental law or any waste that can require special handling and management, including but not limited to, white goods, waste tires, used oil, lead-acid batteries, construction and demolition debris, ash residue, yard trash, biological wastes, pesticides, pharmaceuticals and mercury-containing devices and lamps; or any waste that is not hazardous waste and that is not prohibited from disposal in a lined landfill or yard trash, construction and demolition debris, processed tires, asbestos, carpet, cardboard, paper, glass, plastic, or furniture other than appliances.
- O. Source Reduction: Eliminating project waste through reduced packaging, prefabrication, modular construction, or incorporating standard material lengths or sizes into construction documents.
- P. Source-Separated Materials: Materials that are sorted at the site into separate containers for the purpose of reuse or recycling.
- Q. Sources Separation: Sorting the recovered materials into specific material types with no, or a minimum amount of, cross-contamination on site.
- R. Time-Based Separation: Collecting waste during each phase of construction or deconstruction that results in primarily one major type of recovered material. The material is removed before it becomes mixed with the material from the next phase of construction.

- S. Waste Diversion: A management activity that disposes of waste through methods other than incineration or landfilling. Examples include reuse and recycling.
- T. Waste-to-Energy: The conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, anaerobic digestion, and landfill gas (LFG) recovery.

1.03 SUBMITTALS

- A. Construction Waste Management Plan
- B. Contractor Staging Area Site Plan
- C. Construction Waste Management Monthly Report
- D. Construction Waste Management Final Report

1.04 PERFORMANCE GOALS

- A. General: Divert CDW and LCD from landfill disposal by one or more combination of the following activities:
 - 1. Salvage
 - 2. Reuse or refurbishment
 - 3. Source separated recycling
 - 4. Co-mingled recycling
 - 5. Donation to approved non-profit organization
 - 6. Resale in accordance with Authority Standard Procedure S440.05 Transfer/Disposal of Equipment/Construction Salvage
 - 7. Incineration in approved waste-to-energy facility
- B. CDW materials that can be salvaged, resold, reused or recycled, include, but are not limited to the following:
 - 1. Clean dimensional wood, pallet wood, plywood, Oriented Strand Board (OSB), and particleboard
 - 2. Asphalt
 - 3. Concrete and concrete masonry units
 - 4. Brick
 - 5. Ferrous and non-ferrous metals
 - 6. Gypsum products
 - 7. Acoustical ceiling tile
 - 8. Glass, both window and bottle
 - 9. Plastics, including plastic film
 - 10. Carpet and pad
 - 11. Cardboard packaging
 - 12. Insulation

13. Field office waste paper, aluminum cans, glass, plastic, and cardboard
14. Non-hazardous solid waste or universal waste

1.05 CONSTRUCTION WASTE MANAGEMENT PLAN

- A. Unless specifically waived by the Director of Construction (or his designee) in writing, the Design-Builder shall include a Construction Waste Management Plan as outlined in this section.
- B. Submit to the Engineer a Construction Waste Management (CWM) Plan narrative in accordance with these specifications.
- C. The Construction Waste Management Plan shall include the following:
 1. Name of designated Waste Management Coordinator.
 2. The plan must account for all materials, including land-clearing debris, materials to be used for alternative daily cover (ADC), and other materials not contributing to diversion but not included in the diverted waste total.
 3. A list of [Note to Designer: Insert # of applicable waste streams to project scope here, typically no greater than five (5)] demolition or construction waste materials that will be diverted from landfill disposal. Materials may be structural or non-structural.
 4. Include approximate percentage of overall project waste each materials represents.
 5. Separately track CDW, LCD, landfill disposal, and recycled materials.
 6. Identify materials as demolition or construction waste.
 7. Include reference to separate hazardous materials removal, tracking and disposal procedures in accordance with other sections, as applicable.
 8. Identify waste handling methods to be used, including one or more of the following:
 - a. Method 1 - Design-Builder or subcontractor(s) hauls recyclable materials to an approved recycling facility.
 - b. Method 2 - Contracting with diversion/recycling hauler to haul recyclable material to an approved recycling or material recovery facility.
 - c. Method 3 - Recyclable material reuse on-site.
 - d. Method 4 - Recyclable material salvage for resale.
 9. Identification of each recycling or material recovery facility to be utilized, including name, address, types of materials being recycled at each facility and/or how the materials will be disposed or reused onsite.
 10. Description of the method to be employed in collecting, and handling, waste materials.
 11. Description of methods to communicate Construction Waste Management Plan to personnel and subcontractors.

1.06 CONTRACTOR STAGING AREA SITE PLAN

- A. Submit a Contractor Staging Area Site Plan to achieve salvage and waste management goals prior to the start of construction.
 - 1. Identify designated areas in coordination with the Owner for stockpiling recyclable materials, including non-contaminated soils for re-use on site, including but not limited to infrastructure elevation changes, development of noise berms and consideration for landscape needs.
 - 2. Designate on-airport contractor haul routes in coordination with the Owner, focusing on safety and minimizing on-airport travel distances.

1.07 CONSTRUCTION WASTE MANAGEMENT MONTHLY REPORTS

- A. Submit a monthly construction waste management status report.
 - 1. Include items-to-date as noted in 1.08 CONSTRUCTION WASTE MANAGEMENT FINAL REPORT.

1.08 CONSTRUCTION WASTE MANAGEMENT FINAL REPORT

- A. Submit a Construction Waste Management Final Report. The report shall list the following for the project:
 - 1. A record of each waste material type and quantity recycled, reused, salvaged, or disposed from the Project.
 - 2. Include total quantity of waste material removed from the site and hauled to a landfill.
 - 3. Percentage of total waste material generated that was recycled, reused, or salvaged.
 - 4. Documentation of recycling rates for commingled facilities if applicable.
 - 5. Total waste per gross floor area of project if applicable.
- B. Quantities shall be reported by weight (tons) unless otherwise approved by the Owner.
- C. Submit copies of manifests, weight tickets, recycling/disposal receipts or invoices, which validate the calculations or a signed certification of completeness and accuracy of the final quantities reported.
- D. Submit a construction and demolition waste calculator or equivalent tool, tracking total and diverted waste streams.
- E. The final reporting of hazardous materials removal will be in accordance with other sections and will not be included in the project's tracking total.

1.09 QUALITY ASSURANCE

- A. Regulatory Requirements: The Design-Builder shall maintain compliance with all applicable Federal, State, or Local laws.
- B. Disposal Sites, Recyclers and Waste Materials Processors: All facilities utilized for management of any materials covered under this specification must maintain all necessary permits as required by federal, state and local jurisdictions.

PART 2 – PRODUCTS - Not used.

PART 3 – EXECUTION

3.01 SOURCE-SEPARATED CDW AND LCD RECYCLING

- A. Provide individual containers for separate types of CDW and LCD to be recycled clearly labeled with a list of acceptable and unacceptable materials.

3.02 CO-MINGLED CDW AND LCD RECYCLING

- A. Provide containers for co-mingled CDW and LCD to be recycled, clearly labeled with a list of acceptable and unacceptable materials.

3.03 LANDFILL

- A. Provide containers for CDW and LCD that are to be disposed of in a landfill clearly labeled as such.

3.04 REMOVAL OF CDW and LCD FROM PROJECT SITE

- A. Transport CDW and LCD off Owner's property and legally dispose of it.

PART 4 – MEASUREMENT AND PAYMENT

4.01 GENERAL

- A. No separate measurement or payment will be made for the work required by this section. The cost for this portion of the Work will be considered incidental to and included in the payments made for the applicable project amount or bid item(s).

END OF SECTION

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION

Closeout is hereby defined as the performance of activities and the preparation and submittal of documents following Substantial Completion as specified in the Contract Documents as necessary to Final Acceptance and Contract closure. Specific requirements for individual units of Work are specified in other Sections. Should phased Substantial Completion be requested by the Design-Builder, the Design-Builder and Owner will establish the extent of the area and scope that reached Substantial Completion. For each phased Substantial Completion area, the Design-Builder shall comply with this section.

1.02 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. Prior to requesting Design-Builder and Owner's inspection for Certificate of Substantial Completion, for either the whole Work or designated portions thereof, complete the following and list known exceptions in request:
1. In progress payment request, coinciding with, or first following date claimed, show 100% completion for portion of Work claimed as substantially completed, or list incomplete items, value of incompleteness, and reasons for being incomplete.
 2. Include supporting documentation for completion as indicated in the Contract Documents.
 3. Not used.
 4. Advise Owner of pending insurance change-over requirements.
 5. Obtain and submit releases enabling Owner's full and unrestricted use of the Work and access to services and utilities, including, where required, occupancy permits, operating certificates, and similar releases.
 6. Deliver tools, spare parts, extra stocks of materials, and similar physical items to Owner.
 7. Make final change-over of locks and transmit keys to Owner, and advise Owner's personnel of change-over in security provisions.
 8. Complete start-up testing of systems and instructions of Owner's operating-maintenance personnel. Discontinue, or change over, and remove from Project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.

In Owner's sole discretion, it may waive the above requirements in writing and provide a deadline after Substantial Completion, but before final completion for compliance.

B. Cleaning and Repairs:

Immediately prior to the Design-Builder's and Owner's inspection for Substantial Completion of the whole Work or designated portions thereof, the Design-Builder will completely clean the premises. Concrete and ceramic surfaces will be cleaned and washed. Resilient coverings will be cleaned, waxed and buffed. Woodwork will be dusted and cleaned. Sash, fixtures, and equipment will be thoroughly cleaned. Stains, spots, dust, marks, and smears will be removed from all surfaces. Hardware and all metal surfaces will be cleaned and polished. Glass and plastic surfaces will be thoroughly cleaned by professional window cleaners. All damaged, broken or scratched glass or plastic will be replaced by the Design-Builder at the Design-Builder's expense. Refer to Section 01561 - CONSTRUCTION CLEANING.

C. Inspection Procedures:

1. Incomplete Items Prior to Substantial Completion:

- a. One week prior to anticipated date of Substantial Completion, the Design-Builder will furnish the Owner a list of items which Design-Builder expects will be incomplete at date of Substantial Completion.
- b. The Owner will review the list and confirm its acceptability, or itemize objections and transmit such to the Design-Builder for action. Approval of this list by Owner will be a precondition for conducting the Substantial Completion inspection.

2. Upon receipt of Design-Builder's request for inspection, the Owner will either proceed with inspection or advise Design-Builder of prerequisites that are not fulfilled. Following initial inspection, the Owner will either prepare the Certificate of Substantial Completion or advise Design-Builder of work which must be performed prior to issuance of certificate. The Owner will repeat inspection when requested and when assured that the work has been substantially completed. A listing of work to be completed or corrected and the submission of closeout documents specified in Paragraph 1.03.A.1 will constitute the Final Acceptance punch list.

- a. For projects under \$10 million, the Final Acceptance punch list will be developed within 30 days after Substantial Completion and will be provided to the Design-Builder within three days after its completion.
- b. For projects over \$10 million, the Final Acceptance punch list will be developed within 60 days after Substantial Completion and will be provided to the Design-Builder within five days after its completion.

3. Following Substantial Completion, the Design-Builder will correct or complete all Final Acceptance punch list items, excluding closeout documents, to the satisfaction of the Owner within 30 days after delivering the Final Acceptance punch list for projects under \$10 million and 60 days for projects above \$10 million. If subsequent inspections are necessary after the prescribed time in order to eliminate all deficiencies, the cost of all subsequent inspections with respect

to Owner's time will be paid by the Design-Builder. When ready, the Design-Builder will request in writing a final inspection of the Work. Upon completion of re-inspection, the Owner will either prepare a Certificate of Final Acceptance or advise Design-Builder of Work that is not completed or obligations that are not fulfilled as required for Final Acceptance. If necessary, procedures will be repeated. In the event of unacceptable Work discovered on the final inspection or if the submission of the closeout document is incomplete, the issuance of the Certificate of Final Acceptance will be withheld until all Final Acceptance punch list items and closeout documents are corrected or submitted to the Owner's satisfaction.

1.03 PREREQUISITES FOR FINAL COMPLETION AND ACCEPTANCE

- A. Prior to requesting Owner's final inspection for Certification of Final Acceptance as required by this Part 2 Contract, complete the following and list known exceptions in requests:
1. Submit certified copy of Final Acceptance punch list with a statement that each item has been completed, submitted or otherwise resolved for acceptance, and has been endorsed and dated by Owner. The Final Acceptance punch list will contain the requirement that the following named items will be submitted as closeout documents:
 - a. Consent of Surety to Payment
 - b. Design-Builder's Final Affidavit of Payment of Debts and Claims
 - c. Design-Builder's Affidavit of Release of Liens
 - d. List of Design Builder's first tier and second tier subcontractors and suppliers, including addresses, phone numbers and a summary of the scope of work.
 - e. Final release of lien from each subcontractor and supplier listed in d. above
 - f. Statement of compliance with labor standards and payment of all applicable taxes
 - g. Statement of Design-Builder's one-year general warranty
 - h. Specific warranties as specified in Contract Documents and include the subcontractor or supplier with its contact information when applicable.
 - i. Accounting of final Contract amount
 - j. Accounting of actual DBE (W/MBE) participation
 - k. 2D As-Built drawings and a 3D As-Built Model in Navisworks and original BIM format.
 - l. O&M manuals, Record Project Manual and record documents (see paragraph 1.06)
 - m. Evidence of continuing insurance complying with specified requirements
 - n. Design-Builder's final pay application
 - o. Final amendment – when applicable
 2. Submit final meter readings for utilities, measured record of stored fuel, and similar data either as of time of Substantial Completion or when Owner took possession of and responsibility for corresponding elements of the Work.

3. Complete final cleaning requirements, including touch-up of marred surfaces. Refer to Section 01561 - CONSTRUCTION CLEANING, Paragraph 3.03 FINAL CLEANING.
4. Touch-up and otherwise repair and restore marred exposed finishes.

1.04 PREREQUISITES TO FINAL PAYMENT

- A. Final Payment: Final Payment will be made after Final Acceptance of the whole Work by the Owner upon request by the Design-Builder and on condition that the Design-Builder:
1. Acceptance and final payment: The Owner will check the final estimate submitted by the Design-Builder of the items of Work actually performed. The Design-Builder will approve the Owner's final estimate or advise the Owner of Design-Builder's objections to the final estimate which are based on disputes in measurements or computations of the final quantities.

The Design-Builder and the Owner will resolve all disputes in the measurement and computation of final quantities to be paid within 30 days of the Design-Builder's submission of the final estimates. If, after such 30 day period, a dispute still exists, the Design-Builder may approve the Owner's estimate under protest of the portions of Work in dispute, and such disputed quantities will be considered by the Owner as a claim in accordance with the Contract Documents.

- a. After the Design-Builder has approved, or approved under protest, the Owner's final estimate, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Design-Builder less all previous payments and all amounts to be deducted under the provisions of the Contract. All prior progress payments will be subject to correction in the final estimate and payment.
- b. If the Design-Builder has filed a claim for additional compensation under the provisions of the Contract, such claims will be considered by the Owner. Upon final resolution of such claims, any additional payment determined to be due the Design-Builder will be paid.

1.05 COMPLIANCES

- A. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at Project site, bury debris or excess materials on Owner's property, or discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of in a lawful manner.
- B. Where extra materials of value remain after Work has been completed and become Owner's property, they will be relocated and stored as directed by Owner.

1.06 AS-BUILT DOCUMENT SUBMITTALS (this needs to be updated to reflect electronic version of as-builts)

- A. Specific requirements for As-Built documents are shown in this Section. Other requirements are indicated in the General Conditions. General submittal requirements are indicated in submittals sections. Design-Builder should not use record documents for construction purposes, should protect record documents from deterioration and should provide access to record documents for Owner's reference during normal working hours.
1. Definition: As-Built documents are defined to include those documents relating directly to performance of the Work which Design-Builder is required to prepare or maintain for Owner's records and which record the Work as actually performed. In particular, As-built documents show changes in the Work in relation to way in which shown and specified by original Contract Documents and show additional information of value to Owner's records but not indicated by original Contract Documents. As-Built documents include newly-prepared drawings (if any are specified), marked-up copies of Contract Documents, specifications, addenda and change orders, field records for variable and concealed conditions such as excavations and foundations, and miscellaneous record information on Work which is otherwise recorded only schematically or not at all.
 2. As-Built Drawings: Upon receipt of acceptable as-built drawings, Design-Builder will produce the official As-Built drawings in the manner prescribed by the Contract Documents. The Design-Builder will submit the as-built drawings to the Owner at project completion. Final As-Built Drawings shall be sent electronically through the Owner's Management Software.
 3. As-Built Project Manual: Upon completion of mark-up, submit to Owner for Owner's records. As-Built Project Manual shall be sent electronically through the Owner's Management Software.
 4. Maintenance Manuals: Design-Builder will submit to Owner for Owner's records. Maintenance Manuals shall be sent electronically through the Owner's Management Software (close-out module) prior to required training and before substantial completion when applicable.
 5. Miscellaneous Record Submittals: As defined in F, 1, a-g of this Section: Provide Reports from Owner's Management Software for each of the areas of Miscellaneous Records with Bookmarks for each section. Complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to Owner for Owner's records through the Owner's Management Software Close-out Module after Substantial Completion.
- B. Design-Builder's as-built drawings:
1. As-built drawings: The Design-Builder will maintain one conformed set of as-built drawings at the Project site. These will be kept legible and current and will be available for inspection at all times by the Owner. Changes or work added on these drawings will be shown in a contrasting color. Should as-built drawings be maintained electronically, the Owner shall have access to them at all times.
 - a. Mark-up Procedure: During progress of the Work, maintain a white-set

(blue-line or black-line) of contract drawings and shop drawings, with mark-up of actual installations which vary substantially from the Work as originally shown. Mark fully and accurately whatever drawing is most capable of showing actual physical condition. Where shop drawings are marked-up, mark cross-reference on contract drawings at corresponding location. Mark with erasable colored pencil, using separate colors where feasible, or editable in electronic format, to distinguish between changes for different categories of Work at same general location. Mark-up important additional information which was either shown schematically or omitted from original drawings. Give particular attention to information on Work concealed which would be difficult to identify or measure and record at a later date. Note alternate numbers, change order numbers and similar identification. Require each person preparing mark-up to initial and date mark-up and indicate name of firm. Label each sheet "AS-BUILT" in 1/2 inch high letters.

- b. Show actual position of all underground and otherwise concealed civil, mechanical and electrical lines, conduit, pipes, ducts, etc. Items in areas with accessible ceilings or other ready access will not be considered as being concealed.
- c. In showing changes in the Work, use the same legends as used on the original drawings. Indicate exact locations by dimensions and exact elevations by job datum. Give dimensions from a permanent point.
- d. When manholes, boxes, underground conduits, plumbing hot or chilled water lines, invert, etc., are involved as part of the Work, the Design-Builder will furnish true elevations and locations, all properly referenced by using the original bench mark used for this Project.
- e. The Design-Builder will submit completed as-built drawings to the Owner for coordination. The Design Builder will transmit original 1/2 size hard copy to the Owner and the Design Builder will submit a consolidated electronic copy via Owner's Management Software and organized by design packages inclusive of all ASIs/ESIs.
- f. As-built drawings will contain the names, addresses and phone numbers of the Design-Builder and the major subcontractors.
- g. As-built drawings will be reviewed monthly for compliance and acceptability.
- h. The Owner will be the sole judge of the acceptability of the as-built drawings. Receipt and acceptance of the as-built drawings is a pre-requisite for Final Payment.

C. Record Project Manual:

- 1. During progress of the work, maintain one copy of the record project manual, including addenda, change orders and similar modifications issued in printed form during construction. Mark-up variations in actual Work in comparison with text of specification and modification as issued. Give particular attention to

substitutions, selection of options, and similar information on Work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation.

2. Not used.
3. Upon completion of the Work, the document information maintained during construction such as addenda, alternates, construction change directives, change orders, work orders, etc. will be recorded as follows:
 - a. Neatly cross out the non-conforming portion of the record project manual and add by writing in the revised portion of the record project manual. Do not revise the record project manual by cutting and pasting the actual addenda, alternates, construction change directive, change orders, work orders, etc., as actually issued by the Owner. The revisions have to be actually written by the Design-Builder.
 - b. The volume(s) of record project manual will be clearly marked "PROJECT RECORD" in 1/2 inch high letters and bear the name of the Design-Builder and, where applicable, the name of the subcontractor.
 - c. The Design-Builder will review the completed record project manual and ascertain that all data furnished in the record project manual is accurate and truly represents the Work as actually installed.
 - d. Any deviations from the method of executing the record project manual as described above will be considered just cause for disapproval by the Owner and the Design-Builder will be required to conform and resubmit.
 - e. Submit the record project manual to the Owner for compliance review and approval through the Owner's Management Software Close-out Module
 - f. Upon Owner's approval, the Design-Builder will submit the completed record project manual to the Owner through the Owner's Management Software Close-out Module
4. Information maintained during construction such as addenda, alternates, construction change directives, change orders, work orders, etc. will also be electronically recorded in original word processed documents converted to PDF format prior to submittal using strike-throughs for deletions, bold and italic for revisions and additions, and/or other acceptable method(s) where feasible to distinguish between changes. All of this information is to be submitted through the Owner's Management Software in individual records for each document.

D. Record Product Data:

During progress of the Work, maintain electronic copies of each product data submittal and mark-up significant variations in the actual Work in comparison with submitted information. Include both variations in product as delivered to Project site and variations

from manufacturer's instructions and recommendations for installation. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and mark-up of record drawings and specifications. Product Data should be submitted through the Owner's Management Software Close-out Module by Specification Division with each Specification Subdivision requirement bookmarked. Submit prior to Final Completion.

E. Record Sample Submittal:

After Substantial Completion, and prior to Final Completion, Owner's personnel will meet with Design-Builder at Project site and will determine if any of submitted samples maintained by Design-Builder during progress of the Work are to be transmitted to Owner for record purposes. Comply with Owner's instruction for packaging, identification marking, and delivery to Owner's sample storage space. Dispose of other samples in manner specified for disposal of surplus and waste materials, unless otherwise indicated by Owner.

F. Miscellaneous Record Submittals:

1. Refer to other Sections of these Contract Documents for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to date(s) of Substantial Completion, complete miscellaneous records should be properly entered in to the Owner's Management Software in the appropriate modules for the types of records, and ready for continued use and reference. For Close-Out submission, provide reports as described in section 1.06.A.5 above. Categories of requirements resulting in miscellaneous work records are recognized to include, but, the following:
 - a. Required field records on excavations, foundations underground construction, wells and similar Work.
 - b. Accurate survey showing locations and elevations of underground lines, including invert elevations of drainage piping, valves, tanks and manholes.
 - c. Surveys establishing lines and levels of building.
 - d. Soil treatment certification.
 - e. Inspection and Test Reports, where not processed as shop drawings or product data.
 - f. Concrete mix design record.
 - g. Concrete Block Certification.

G. Digital Electronic Format:

1. The Design-Builder will submit Record Documents, after review and approval by the Owner, in digital electronic format as follows:
 - a. All textual data will be provided in PDF with Optical Character Recognition (OCR) and a report quality of 300 dpi or higher format. All formatting and tabular data will be preserved. Tabular data will be embedded in the document in Excel for Windows format.
 - b. All Drawings will be provided as a PDF document of each drawing.
 - c. After the documents are in correct digital electronic format, they will be submitted to the Owner on a solid state hard drive containing all documents in an organized document library.

1.07 GUARANTEES AND WARRANTIES

- A. After Substantial Completion and prior to Final Acceptance, all guarantees and warranties, as specified under various sections of the Contract Documents, will be obtained by the Design-Builder, addressed to and in favor of the Owner.
- B. Delivery of said guarantees and/or warranties will not relieve the Design-Builder from any obligations assumed under any other provision of the Contract.
- C. If, within any guarantee and/or warranty period, repairs or changes are required in connection with the guaranteed and/or warranted work, which in the opinion of the Owner is rendered necessary as the result of the use of materials, equipment or workmanship which are defective, inferior or not in accordance with the terms of the Contract, the Design-Builder will, upon receipt of notice from the Owner, and without expense to the Owner, proceed within fourteen calendar days to:
 1. Place all guaranteed and/or warranted work in satisfactory conditions correct all defects therein, and make good all damages to the structure or site.
 2. Make good all work or materials, or the equipment and contents of structures or site, disturbed in fulfilling any such guarantee and/or warranty.
- D. If the Design-Builder, after notice, fails to comply with the terms of the guarantee and/or warranty, the Owner may have the defects corrected and the Design-Builder and Design-Builder's surety will be liable for all expenses incurred, including Owner's fees.
- E. All Guarantees and Warranties will be submitted to the Owner through the Owner's Management Software Close-Out Module

1.08 OPERATING INSTRUCTIONS AND MAINTENANCE MANUALS

- A. Prior to any required training, and prior to Final Acceptance, complete operating instructions and maintenance manuals will be obtained by the Design-Builder for each piece of equipment or system furnished under the Contract. Organize operating and maintenance data into suitable sets of manageable size. Each manual will be uploaded to the Owner's Management Software Close-out Module in a separate record and the

documents will be properly bookmarked for ease of use.

1. In addition to the electronic version submitted through Owner's Management Software, the Design Builder will submit one copy of each completed manual on equipment and systems, in final form, to the Owner for review and distribution. There should be an individual manual that is organized and indexed for each unit of equipment, each operating system, and each electric and electronic system.
2. Refer to Specification Sections for individual requirements on operating and maintenance of the various pieces of equipment and operating systems.

B. Equipment and Systems:

1. As part of the product data and O & M Manuals, provide the following information for each piece of equipment, each building operating system, and each electric or electronic system.
 - a. Description: Provide a complete description of each unit and related component parts, including the following:
 - (1) Equipment or system function.
 - (2) Operating characteristics.
 - (3) Limiting conditions.
 - (4) Performance curves.
 - (5) Engineering data and tests.
 - (6) Complete nomenclature and number of replacement parts.
 - b. Manufacturer's Information: For each manufacturer of a component part of a piece of equipment provide the following:
 - (1) Printed operating and maintenance instructions.
 - (2) Assembly drawings and diagrams required for maintenance.
 - (3) List of items recommended to be stocked as spare parts.
 - c. Maintenance Procedures: Provide information detailing essential maintenance procedures, including the following:
 - (1) Routine operations.
 - (2) Trouble-shooting guide.
 - (3) Disassembly, repair and reassembly.
 - (4) Alignment, adjusting and checking.
 - d. Operating Procedures: Provide information on equipment and system operating procedures, including the following:
 - (1) Start-up procedures.
 - (2) Equipment or system break-in.
 - (3) Routine and normal operating instructions.
 - (4) Regulation and control procedures.
 - (5) Instructions on stopping.

- (6) Shut-down and emergency instructions.
 - (7) Summer and winter operating instructions.
 - (8) Required sequences for electric or electronic systems.
 - (9) Special operating instructions.
- e. Servicing Schedule: Provide a schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts.
 - f. Controls: Provide a description of the sequence of operation and as-installed control diagrams by the control manufacturer for systems requiring controls.
 - g. Coordination Drawings will be submitted through the BIM Model submittal requirement.
 - h. Valve Tags: Provide charts of valve tag numbers with the location and function of each valve.
 - i. Circuit Directories: For electric and electronic systems, provide complete circuit directors of panel-boards, including the following:
 - (1) Electric service.
 - (2) Controls.
 - (3) Communication.

1.09 REPLACEMENT MATERIALS

Prior to Final Acceptance, Design-Builder will transmit and turn over, at the Project site, in a location directed by Owner, all replacement materials which may be required by other sections of these Contract Documents.

PART 2 - PRODUCTS

"Not Used"

PART 3 - EXECUTION

3.01 EQUIPMENT OPERATIONAL DEMONSTRATIONS (Video Documentation necessary)

- A. Prior to Substantial Completion of the whole Work or designated portions thereof, and prior to Final Acceptance, the Design-Builder will provide a competent and experienced person thoroughly familiar with the Work to demonstrate and instruct the Owner's personnel in operation, adjustment and maintenance of products, equipment and systems. This instruction will include normal start-up, run, stop, and emergency operations, location and operation of all controls, alarms and alarm systems, etc. The instruction will include tracing the system in the field and on the diagrams in the instruction booklets so that the Owner's operating personnel will be thoroughly familiar with both the system and the data supplied. Provide instruction at mutually agreed upon times.

1. Use operation and maintenance manuals for each piece of equipment or system as the basis of instruction. Review contents in detail to explain all aspects of operation and maintenance.
 2. For equipment that requires seasonal operation, provide similar instruction during other seasons.
- B. If installers and/or Design-Builder's personnel are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:
1. Maintenance manuals.
 2. Record documents.
 3. Spare parts and materials.
 4. Tools.
 5. Lubricants.
 6. Fuels.
 7. Identification systems.
 8. Control sequences.
 9. Hazards.
 10. Cleaning.
 11. Warranties and bonds.
 12. Maintenance agreements and similar continuing commitments.
 13. Similar procedures and facilities.
 14. Any other appropriate item.
- C. As part of instruction for operating equipment, demonstrate the following procedures:
1. Start-up.
 2. Shut down.
 3. Emergency operations.
 4. Noise and vibration adjustments.
 5. Safety procedures.
 6. Economy and efficiency adjustments.
 7. Effective energy utilization.
 8. Similar operations.
 9. Any other appropriate procedure.
- D. Review maintenance and operations in relation to applicable warranties, agreements to maintain bonds, and similar continuing commitments.
- E. Owner will be notified in writing of scheduling and completion of all equipment operational instructions and demonstrations.

END OF SECTION

SECTION 01740 - WARRANTIES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
 - 1. Refer to Part 2 Contract as modified for terms of the Design-Builder's special warranty of workmanship and materials.
 - 2. General closeout requirements are included in Section 01700 - PROJECT CLOSEOUT.
 - 3. Specific requirements for warranties for the Work and products and installation that are specified to be warranted are included in the individual Sections of the Specifications.
 - 4. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- B. Disclaimers and Limitations:
 - . Manufacturer's disclaimers and limitations on product warranties do not relieve the Design-Builder of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Design-Builder.

1.02 DESCRIPTION OF REQUIREMENTS/DEFINITIONS

- A. Categories of Specific Warranties:
 - 1. It is recognized that warranties on the Work are in several categories, including those of the conditions of the Contract and including (but not necessarily limited to) the following specific categories related to the individual units of Work specified in the sections of the Specifications:
 - a. Special Warranty (Guarantee): A warranty specifically written and signed by the Design-Builder for a defined portion of the Work; and, where required, countersigned by subcontractor, installer, manufacturer or other entity engaged by Design-Builder. Formerly generally recognized as (and sometimes specified in Contract Documents as) a "guarantee".
 - b. Specified Product Warranty: A warranty which is required by Contract Documents to be provided for a manufactured product which is incorporated into the Work, regardless of whether the manufacturer has published the warranty without consideration for specific incorporation

of product into the Work, or has written and executed the warranty as a direct result of Contract Documents requirements.

- c. Coincidental Product Warranty: A warranty which is not specifically required by Contract Documents (other than as specified in this Section) but which is available on a product incorporated into the Work by virtue of the fact that the manufacturer of the product has published the warranty in connection with purchases and uses of product without regard for specific applications, except as otherwise limited by terms of the warranty.

B. Definition: Manufactured Product:

A physical item for incorporation into the Work which has been produced from raw or natural materials by a manufacturing process and which is purchased from a manufacturer either specifically for the Work or for Design-Builder's/subcontractor's/fabricator's/installer's stock from which it is drawn for incorporation into the Work.

C. General Limitations:

- 1. It is recognized that specific warranties are intended primarily to protect Owner against failure of Work to perform as required and against deficient, defective and faulty materials and workmanship, regardless of sources. Except as otherwise indicated, specific warranties do not cover failures in Work which result from:
 - a. Damage or defect caused by abuse;
 - b. Modifications not executed by the Design-Builder;
 - c. Improper operations, or normal wear and tear under normal usage.
- 2. Although manufacturer's commitments in product warranties on products used in the Work are generally written to exclude product failures which result from failure of other Work (such as failure of substrate supporting product), such limitations in product warranties do not relieve Design-Builder of the more general warranties on Work which incorporates use of such products. Except as otherwise indicated, this same relationship applies to units of Work performed by other entities (other than manufacturers), such as fabricators, installers and subcontractors, who are required to countersign special Project warranties with Design-Builder for such units of Work.
- 3. Owner's signature on any manufacturer's or other warranties does not excuse the Design-Builder from its common law warranty obligations or its contractual warranty obligations.

1.03 WARRANTY REQUIREMENTS

A. Related Damages and Losses:

When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty:

When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty will be equal to the original warranty.

C. Replacement Cost:

Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Design-Builder is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse:

1. Written warranties made to the Owner are in addition to contractual and implied warranties and will not limit the duties, obligations, rights and remedies otherwise available under the law, nor will warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - a. Rejection of Warranties: The Owner reserves the right to reject warranties. The Owner reserves the right to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
2. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work until evidence is presented that entities required to countersign such commitments are willing to do so.
3. Written warranties shall not require the signature of the Owner for compliance.

1.04 SUBMITTALS

A. Submit written warranties to the Owner prior to the date certified for Final Payment.

1. When a special warranty is required to be executed by the Design-Builder, or the Design-Builder and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties.

Submit a draft to the Owner for approval prior to final execution.

- a. Refer to individual sections of Division 2 through 16 for specific content requirements and particular requirements for submittal of special warranties.
 2. Submit specific warranties for beginning of the warranty periods. Date(s) will be inserted to correspond with certification or acceptance dates, as established and accepted by the Owner.
- B. Form of Submittal:
1. Compile two copies of each required warranty properly executed by the Design-Builder, or by the Design-Builder, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Record Project Manual.
 2. Bind warranties in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, with thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
 - a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer.
 - b. Identify each binder on the front and the spine with the typed or printed title 'WARRANTIES AND BONDS,' the Project title or name, and the name of the Design-Builder.
 3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

ATTACHMENT 5

To

Contract Between Owner and Design/Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

DESIGN CRITERIA MANUAL

The Design Criteria Manual is posted on the Authority's website at Tampaairport.com/Airport Business under Capital Development/Resources.

ATTACHMENT 6

To

Contract Between Owner and Design/Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

E-VERIFY CERTIFICATION

ATTACHMENT 6



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

E-Verify Certification

Solicitation No. 18-411-001
Main Terminal Curbside Expansion, New Energy Plant and Related Work

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]

Main Terminal Curbside Expansion, New Energy Plant and Related Work
Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

ATTACHMENT 7

To

Contract Between Owner and Design/Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

OWNER DIRECT PURCHASE

With respect to Owner Direct Purchase, in the event of a conflict between the terms of this Attachment and the terms of the Contract, the terms of this Attachment shall prevail.

OWNER DIRECT PURCHASE

The Owner reserves the right, at the Owner's option, to direct purchase materials, equipment, supplies and furnishings involved in the Project, so as to save sales tax which would otherwise have been due with regard to the purchase of the materials, equipment, supplies and furnishings. Pursuant to Section 212.08 Fla. Stat. and Rules 12A-1.094 and 12A-1.038 Fla. Admin. Code, the Owner and Design Builder agree to the following procedure regarding the Owner's direct purchase from suppliers, vendors and materialmen of certain material, equipment, supplies and furnishings to be used in the Project:

- 1.1 The Design Builder shall provide the Owner a list of all materials, equipment, supplies and furnishings required for the project and the proposed suppliers, vendors and materialmen for those materials, equipment, supplies and furnishings as well as the date upon which those materials, equipment, supplies and furnishings are required to be delivered to the site, a description of the materials, estimated quantities and prices. This list shall be submitted at the same time as the preliminary schedule of values and the Project schedule.
- 1.2 The Owner shall determine the materials, equipment, supplies and furnishings it will direct purchase and provide that information to the Design Builder no later than 60 days after award of the Part 2 Contract.
- 1.3 In order to not delay the project, the Design Builder shall submit to the Owner no later than ten calendar days prior to the date that the purchase order must be issued for timely delivery of the materials, equipment, supplies and/or furnishings a Purchase Order Requisition Form indicating the proposed supplier, vendor or materialman for the materials, equipment, supplies and furnishings, the description of the materials, equipment, supplies and furnishings and the price, quantity, delivery terms, delivery location, warranties and guarantees. Prior to the delivery of the Purchase Order Requisition Form, the Design-Builder must enter into a contractual relationship with the supplier, vendor or materialman that includes the materials, equipment, supplies and furnishings to be direct purchased and incorporates these terms. All purchase orders made by the Owner that direct purchase materials, equipment supplies or furnishings shall be subject to the Owner's standard PO terms and conditions which are made a part hereof.
- 1.4 The Design-Builder, prior to initiating the Purchase Order Requisition Form, will prepare and submit to the Owner a deductive change order request to the Contract. It is agreed that the Owner's purchase order will not be processed until the deductive change to the prime contract has been completed. No later than 10 calendar days after receipt of the Purchase Order Requisition Form, Owner shall prepare its Purchase Order for materials, equipment, supplies and furnishings specified by the Design Builder which the Owner chooses to

purchase directly. The Owner will deliver the Purchase Order to the Design Builder and promptly upon receipt of each Purchase Order, Design Builder shall verify the terms and conditions of the Purchase Order prior to Owner's issuance to supplier and in a manner to assure proper and timely delivery of items. After such verification by the Design Builder, the Owner shall issue the Purchase Order to the supplier, vendor or materialman. The Purchase Order shall require that the supplier, vendor or materialman provide the required shipping and handling insurance and retain ownership until received in an acceptable condition by the Design Builder. The Purchase Order shall also require that the supplier, vendor or materialman invoice the Owner directly for the purchase price of the Owner Direct Purchased materials, equipment, supplies and furnishings. The Purchase Order shall also require the delivery of the Owner Direct Purchased materials, equipment, supplies and furnishings on the delivery date provided by the Design Builder in the Purchase Order Requisition Form and shall indicate F.O.B. jobsite. The Owner's Purchase Orders shall contain or be accompanied by the Owner's exemption certificate and must include the Owner's name, address, and exemption number with issue and expiration date shown. The Owner shall issue each supplier, vendor or materialman a Certificate of Entitlement on the Certificate of Entitlement Form attached hereto with each Purchase Order.

- 1.5 Design Builder shall be fully responsible for all matters relating to the receipt of materials, equipment, supplies and furnishings in accordance with these Procedures, including, but not limited to, verifying correct quantities, verifying documentation of orders in a timely manner, coordinating purchases, providing and obtaining all warranties and guarantees in favor of and for the benefit of the Owner required by the Contract Documents, inspection and acceptance of the goods at the time of delivery and insuring that all materials, equipment, supplies and furnishings meet the contract requirements and specifications. At the time of, and subsequent to, the delivery of such materials, equipment, supplies and furnishings, the Owner shall be liable for all loss or damage to materials, equipment, supplies and furnishings purchased pursuant to the Purchase Order. To the maximum extent permitted by law and in addition to the Design Builder's obligations to provide insurance and defend the Owner, the Design Builder agrees to indemnify and hold harmless the Owner, and its Board Members, officers, employees, servants, volunteers, and agents, from any and all claims of whatever nature resulting from non-payment of goods to suppliers, vendors and materialmen arising from the actions or directions of Design Builder. In addition to the duty to indemnify and hold harmless, the Design Builder agrees to defend the Owner, and its Board Members, officers, employees, servants, volunteers and agents from any and all claims of whatever nature resulting from non-payment of goods to suppliers, vendors and materialmen resulting from the actions or directions of the Design Builder. Notwithstanding the foregoing, the Owner shall be responsible for payment of the invoices issued by the supplier, vendor or materialman pursuant to the

procedures outlined herein and will rely on the Design Builder's proper acceptance of the delivered materials, equipment, supplies and furnishings.

- 1.6 Upon receipt of the materials, equipment, supplies and furnishings, the Design Builder shall verify in writing to the Owner that the materials, equipment, supplies and furnishings were received and agree to approve the invoice for payment. The invoice shall be thereupon furnished to the Owner for processing and payment in the manner as all other Owner invoices are processed. The Owner and Design Builder shall agree to a deductive change order for the amount of the materials plus the amount of the sales tax saved through the direct purchase. These deductive change orders may be combined and issued monthly for the convenience of the Owner at the Owner's discretion.
- 1.7 The Design Builder shall be responsible for obtaining and managing all warranties and guarantees in favor of and for the benefit of the Owner for all materials, equipment, supplies and furnishings as required by the Contract. All repairs, maintenance or damage repair calls shall be forwarded to the Design Builder for resolution with the appropriate supplier, vendor or materialman pursuant to the terms of the warranty provisions contained elsewhere in the Agreement.
- 1.8 The transfer of possession of Owner Direct Purchased materials, equipment, supplies and furnishings from the Owner to the Design Builder shall constitute a bailment for mutual benefit of the Owner and the Design Builder. The Owner shall be considered the bailor and the Design Builder the bailee of the Owner Direct Purchased materials, equipment, supplies and furnishings. Owner Direct Purchased materials, equipment, supplies and furnishings shall be considered returned to the Owner for purposes of its bailment at such time as they are incorporated into the Project or consumed in the process of completing the Project. Bailee shall have the duty to safeguard, store and protect all Owner Direct Purchased materials, equipment, supplies and furnishings.
- 1.9 The Design Builder shall maintain insurance in favor of and for the benefit of the Owner pursuant to the Contract requirements which shall be sufficient to protect against any loss of or damage to Owner Direct Purchased materials, equipment, supplies and furnishings. Such insurance shall cover the full value of any Owner Direct Purchased materials, equipment, supplies and furnishings not yet incorporated into the Project from the time the Owner first takes title which shall be at the time of delivery and acceptance of the materials, equipment, supplies and furnishings by the Design Builder as provided in above.
- 1.10 In order to arrange for the prompt payment to the supplier, vendor or materialman, the Design Builder shall provide to the Owner, a list indicating the acceptance of the materials, equipment, supplies and furnishings in accordance with the established monthly Payment Request Schedule. The list shall include a copy of the applicable Purchase Order, invoices, delivery tickets, written

acceptance of the delivered items, and such other documentation as may be reasonably required by the Owner. Upon receipt and verification of the appropriate documentation, the Owner shall prepare a payment to the supplier, vendor or materialman based upon the receipt of data provided. This payment will be released, delivered and remitted directly to the supplier, vendor or materialman by the Owner. The Design Builder agrees to assist the Owner to immediately obtain partial or final release of lien waivers or bond waivers as appropriate.

- 1.11 From the time of delivery and acceptance, the Owner shall have and retain title to any and all Owner Direct Purchased materials, equipment, supplies and furnishings.
- 1.12 Risk of Loss
 - 1.12.1 Notwithstanding any provision in this Agreement to the contrary, except with respect to tangible personal property purchased by the Owner for the purpose of receiving a tax exemption under Section 212.08(6), Fla. Stat., if any, the risk of loss shall remain with the Design Builder until Final Completion.
 - 1.12.2 The Owner shall retain the risk of loss of and damage to Owner furnished materials, equipment, supplies and furnishings for the purpose of receiving a tax exemption under Section 212.08(6), Fla. Stat., which meets the criteria in Rule 12A 1.094(4)(b)(1-4), Fla. Admin. Code, to determine if the Owner is the purchaser for the purposes of the tax exemption under Section 212.08(6), Fla. Stat.
 - 1.12.3 The Owner shall be solely entitled to the proceeds paid and attributable to damage or loss to Owner furnished materials, equipment, supplies and furnishings under the Property/Builders Risk policies.
- 1.13 The Design Builder shall provide a final summary of the materials, equipment, supplies and furnishings purchased directly by the Owner and the sales tax savings recognized by the Owner at the close out of each Project.
- 1.14 The current State Sales Tax is 6% and the current Hillsborough County Discretionary Sales Tax is 2.5%. The sales tax calculation is 6% on the total purchase and 2.5% on the purchase up to and including the first \$5,000.00.

ATTACHMENT 8

To

Contract Between Owner and Design/Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

SAMPLE CHANGE ORDER

CHANGE ORDER
HILLSBOROUGH COUNTY AVIATION AUTHORITY

PROJECT: Main Terminal Curbside Expansion, New Energy Plant and Related Work

CHANGE ORDER No:

INITIATION DATE:

OWNER: Hillsborough County Aviation Authority
P.O. Box 22287
Tampa, Florida 33622-2287

HCAA PROJECT No: 8200 18, 8205 18, 8900 18,
8230 18 and 8310 19

FAA AIP No: N/A

FDOT FM No: N/A

CONTRACT DATE: June 6, 2019

TO (Design-Builder): Hensel Phelps Construction Co.
6557 Hazeltine National Dr., Suite One, Orlando, FL 32822

You are directed to make the following changes in this Contract dated **June 6, 2019** by and between yourself and the Hillsborough County Aviation Authority, in accordance with its conditions. The Contract Documents shall apply to this Change Order. All terms and conditions of the Contract remain unchanged, except as they may be expressly modified by the terms of this Change Order. Unless expressly reserved in this Change Order, This Change Order addresses all adjustments to the Contract Sum and Contract Time for which the Design-Builder may be entitled with respect to the subject change work, including all labor, materials, equipment, services, overhead and profit necessary to accomplish the change work, which change work includes all items that are expressly identified in this Change Order, as well as all items that are reasonably inferable as being necessary or appropriate for the satisfactory completion of the subject change work by the Design-Builder. Unless expressly reserved, the total cost adjustment to the Contract Sum reflected in this Change Order, if any, includes all direct, indirect and impact costs resulting from the subject change, including, but not limited to, extended or unabsorbed home office overhead costs, extended general conditions and field overhead, extra equipment (whether operating or idle), costs relating to labor and equipment inefficiency, taxes, insurance costs, bonds, profit, interest and all other fees and costs for which the Design-Builder may have entitlement to under the Contract or otherwise, arising out of or relating to the change work that is the subject of this Change Order. In addition, unless expressly reserved, this Change Order encompasses all time adjustments to the Contract Time, if any, relating to any delay, disruption, acceleration, interference, escalation, or other time related impacts for which the Design-Builder may be entitled under the Contract or otherwise, arising out of or relating to the change work that is the subject of this Change Order. In addition, this Change Order constitutes a full accord and satisfaction for all of the Design-Builder's outstanding extra work items, claims, overtime charges, changes to and/or interpretations of the Contract Documents with respect to the Contract. It is agreed and understood that the Design-Builder, by executing this Change Order, hereby waives all claims, through the date of this Change Order, with respect to the Work or the Project. Notwithstanding the foregoing, this Change Order does not address or include adjustments for the items listed in the space provided for Reserved Items and any claim for an adjustment to the Contract Sum or Contract Time for such items are not waived or released and are expressly reserved. This Change Order in no way relieves the Design-Builder from providing all outstanding obligations to the Owner under the Contract, including, but not limited to, close-out obligations, punch list items, warranty and correction of defective and non-conforming work. Reserved Items: _____.

Description:

Not valid until signed by the Owner. Signature by the Design-Builder indicates final agreement herewith, including all adjustments in the Contract Sum and/or the Contract Time.

The original Contract Sum was _____ \$ _____
Net change by previously authorized Change Order _____ \$ _____
The Contract Sum prior to this Change Order was _____ \$ _____
The Amount of this Change Order is _____ \$ _____
The new Contract Sum including this Change Order will be _____ \$ _____

The Contract Time will be Increased , Decreased , Unchanged , 0 days

The Date of Substantial Completion as a result of this Change Order for this additional Work is therefore .

The original D/W/MBE expectancy for construction is %. The D/W/MBE expectancy for construction as a result of this Change Order will be %.

The original D/W/MBE expectancy for design is %. The D/W/MBE expectancy for design as a result of this Change Order will be %.

Agreed To:

Hensel Phelps Construction Co.
Design-Builder
6557 Hazeltine National Dr., Suite One, Orlando, FL 32822

Address

Reviewed By:

Hillsborough County Aviation Authority
Owner

By: Jeff Siddle, P.E. Date
Vice President of Planning and Development

By: _____ Date

Authorized:

Hillsborough County Aviation Authority
Owner

By: Joseph W. Lopano, Chief Executive Officer Date

ATTACHMENT 9

To

Contract Between Owner and Design/Builder, Part 2 Contract as modified

For

**Main Terminal Curbside Expansion, New Energy Plant and
Related Work**

Project Nos. 8200 18, 8205 18, 8900 18, 8230 18 and 8310 19

Tampa International Airport

**DISPUTE AVOIDANCE AND RESOLUTION
PANEL**

DISPUTE AVOIDANCE AND RESOLUTION PANEL

1. Purpose. The purpose of this dispute avoidance and resolution process is primarily to assist in the prevention of disputes between the Owner and Design-Builder and the mitigation of impacts to the Project, and secondarily to assist in the resolution of disputes and claims between the Design-Builder and Owner arising out of the Contract Documents. The intent of the establishment of the Dispute Avoidance and Resolution Panel ("Panel") is to facilitate contemporaneous agreement as to the resolution of events occurring during the progress of the work, and if agreement cannot be quickly reached, then to fairly and impartially consider disputes placed before it and to provide verbal or written recommendations for resolution of these disputes to both the Owner and the Design-Builder. All decisions of the Panel are non-binding on the parties. **Submission of a disputed matter to the Panel for its written recommendation is an absolute condition precedent to filing suit with regard to the matter.**

2. Panel Scope

2.1 Operations. The Panel will formulate its own rules of operation, which will be kept flexible to adapt to changing situations. The Owner and Design-Builder will keep the Panel informed of construction activity and progress of the work by submitting to the Panel regular written progress reports and other relevant data. Selected project records including, but not limited to, schedule updates, requests for information, requests for work orders, and requests for change orders, will be furnished to the Panel at the same time as they are initially furnished to the other parties engaged on the projects. The Panel will visit the project at regular intervals and at times of critical construction events and meet with the representatives of the Owner and Design-Builder.

2.2 Membership of the Panel. The Panel shall consist of three neutral members who shall not have been previously employed in any capacity for either party; provided however that prior services as a dispute panel member shall not automatically disqualify a potential member. One member shall be nominated by Design-Builder and one member shall be nominated by Owner. Unless reasonably objected to by the other party, the nominees shall be appointed to the Panel. The third member, who shall serve as Chair, shall be selected by agreement of the parties or, if the parties are unable to reach agreement within 30 days after the award of the Contract by the two party-appointed members. Unless the parties agree otherwise, each Panel member shall have significant construction experience, with the Chair being a board certified member in construction of the Florida Bar and the other two members not being lawyers.

The members of the Panel shall be selected no later than 15 days after the award of Contract. Claims by either party arising out of events occurring prior to the selection of the Panel are waived and released.

2.3 Meetings' confidentiality. The first meeting of the Panel shall occur within 21 days of the selection of the Panel. Subsequent meetings will be held on site as set forth in Frequency of Meetings below. Statements made in regular meetings of the Panel will be confidential and inadmissible to the same degree as proceedings in a mediation under Florida law. Records of the Panel shall be retained in accordance with Chapter 119, Florida Statutes, but shall remain privileged until the conclusion of the Project or commencement of any litigation resulting from the Project, whichever comes earlier. Each meeting will consist of an informal round table

discussion and, if possible, a field inspection of the work. The round table discussion will be attended by representatives of the Owner and Design-Builder. The round table discussions shall include presentations from the Owner and Design-Builder to the Panel that address the following items: construction work accomplished since the last meeting, current status of the work, current and future schedule, payment status, potential future problems that may come before the Panel, proposed solutions to those problems, and an update regarding previously handled or ongoing problems. It is contemplated that other project participants will be invited to attend regular Panel meetings, including the project designer and major subcontractors of the Design-Builder. In addition to round table discussions, agendas for regular meetings of the Panel may include the following:

2.3.1 Presentations by representatives of the parties with respect to any issues that have arisen or have been properly presented to the Panel through the below stated Request for Hearing process. Issues that were not submitted to the Panel pursuant to the procedures delineated herein shall not be presented to the Panel for consideration without the agreement of both parties.

2.3.2 Rebuttals, if requested, by representatives of the parties with respect to presentations made by the representatives of the other party.

2.3.3 Set a tentative date for next meeting.

3. Frequency of Meetings. The Owner and Design Builder shall mutually agree in writing with respect to the frequency of meetings. If conditions warrant, the Design-Builder and the Owner, may reduce/increase the time between meetings to better serve the parties. Factors to be considered when setting the time between meetings include work progress, occurrence of unusual events and the number and complexity of ongoing or potential disputes.

4. Procedure for scheduling disputed matters before the Panel. The parties should attempt to resolve potential disputes without resorting to use of the Panel. However, in the event that a resolution is unlikely, the following procedures must be followed:

4.1 Before referring a matter to the Panel for a hearing, following the Management Representative's meeting, a party that desires to initiate a Panel hearing must first submit a letter titled Notice of Disagreement to the other party describing the issue that has arisen. The party receiving the notice shall have 7 days from receipt of the letter to submit a response. If, after 14 days from the initial receipt of the Notice of Disagreement, the issue has not been resolved, the party who sent the original Notice may file a written Request for a Hearing to the Panel and the matter will be scheduled before the Panel. The written Request shall contain a copy of the initial Notice of Disagreement and the response to this Notice, if any, by the other party. No Request may be filed with the Panel without first having complied with the Notice of Disagreement requirements of this section, unless both parties agree to an expedited presentation.

4.2 Upon receipt of a Request for a Hearing, the Chair will schedule the matter for Hearing at Tampa International Airport within 30 days. The parties may request that the matter be deferred in the event that additional preparation is necessary. The parties may request an informal verbal

Panel recommendation, or the parties may request a formal written recommendation from the Panel.

4.3 The parties shall provide to the Panel position papers with appropriate supporting documentation no later than 7 calendar days before the commencement of the Hearing. The parties shall provide rebuttal papers, if any, no later than 2 calendar days before the Hearing.

4.4 The party submitting the Request shall be responsible to provide the Panel with 3 copies of each document submitted with the Request, one for each Panel member. The party furnishing any written evidence or documentation to the Panel shall also furnish copies of such information to the other party concurrently when furnishing the documents to the Panel. The Panel may request that additional written documentation and explanations from both parties be sent to each member and to the other party for study before the hearing begins.

4.5 Both parties will be afforded an opportunity to be heard by the Panel and to offer evidence. The Panel members may ask questions, request clarification, or ask for additional data. In large or complex disputes, additional hearing days may be necessary in order to consider and fully understand all the evidence presented by both parties.

4.6 Attorneys may attend the Panel meetings, but are not required. Any participation in a hearing by legal counsel or independent claims or technical experts will be for the sole purpose of facilitating a party's presentation. Legal counsel may not examine directly or by cross-examination any witness, object to questions asked or factual statements made during the hearing, or make or argue legal motions. Either must give the other party 7 calendar days notice that it intends to have its attorney present

4.7 All of the Panel's written recommendations for resolution of disputes will be given to the Owner and the Design-Builder within 10 days of completing the Hearing(s). In cases of extreme complexity, both parties may agree to allow additional time for the Panel to formulate its recommendations. The Panel's initial 10-day written recommendation will address contractual entitlement and the number of days of extension of milestones and/or Contract Time, if at issue. The parties will have 7 days after the 10-day written recommendation to resolve the issue. The parties may agree to mediate the resolution during this 7-day period. If the parties cannot agree on the resolution of the 10-day recommendation during this 7-day period, the Panel shall issue a written recommendation addressing monetary damages no later than 14 days from completion of the Hearing. The Panel must make its recommendation based on the requirements of the Contract and applicable law.

4.8 No provisions associated with the Panel shall in any way abrogate the Design-Builder's responsibility for preserving a claim filed in accordance with the requirements set forth in the Contract Documents.

4.9 In the event that the Owner is not in agreement with a decision or recommendation of the Panel, the Owner may elect to issue a Work Order or Change Order, with an appropriate reservation of its rights.

4.10 Although the Panel's recommendations are non-binding, all records and written recommendations of the Panel will be admissible as evidence in any subsequent court proceeding or other dispute resolution procedures.

4.11 By agreement of the parties and the Panel, the steps listed under this section may be omitted and the time periods shortened in order to hasten resolution.

5. Neutrality of Panel members. All Panel members shall act impartially and independently when performing their functions as Panel members including in the consideration of any Contract provisions and the facts and conditions surrounding any written Request to the Panel by the Owner or the Design-Builder. Ex parte communications between a Panel member and any party are strictly prohibited. Panel members shall not discuss or communicate with any party without the other party being present. Seeking any Panel member's advice or consultation is expressly prohibited, unless it is done in the open at a Panel meeting and in the presence of the other party.

6. Records of Meetings. While the Panel may take notes or keep other records during the consideration of a Notice of Disagreement, it is not necessary for the Panel to keep a formal record. If possible, it is desirable to keep the hearings completely informal. However, records of the formal Hearings in regards to Notices of Disagreements will be transcribed by a court reporter if requested by one party. The party requesting the court reporter shall be responsible for any costs. Audio and/or video recording of the meeting is prohibited without prior written agreement by the Panel and the parties.

7. Recommendations of the Panel. All written recommendations of the Panel shall be executed by all Panel members and supported by at least two members. Recommendations will be based on the pertinent Contract provisions and the facts and circumstances involved in the dispute. This provision shall not prevent the Panel from issuing informal verbal recommendations.

8. Reconsiderations. Either party may seek written reconsideration of a written recommendation within 3 working days of receipt of such recommendation from the Panel.

9. Construction Site Visits. The Panel members shall visit the site on a regular basis to keep abreast of construction activities and to develop a familiarity of the work in progress. The frequency, exact time, and duration of these visits shall be as mutually agreed between the Owner, the Design-Builder, and the Panel.

10. Coordination and Logistics. The Owner, in cooperation with the Design-Builder, will coordinate the operations of the Panel.

11. Time for Beginning and Completion. The Panel is to be in operation until all Requests for Hearing submitted prior to Final Acceptance of the Project are heard or Final Acceptance of the Project, whichever is later.

12. Payment. The maximum not to exceed daily fee to be paid to each Panel member shall be Two Hundred Dollars (\$200.00) per hour up to a maximum of One Thousand Five Hundred Dollars (\$1,500.00) and travel costs in accordance with Owner procedures and Florida law.

12.1 Regular Meetings. The amounts paid to the Chair of the Panel and the other Panel members for their services, including travel costs, shall be paid from an Account established

within the Owner's Project budget for that purpose. The Panel members shall submit a request to the Owner for payment of all expenses incurred. Owner shall process and pay Panel members' expenses.

12.2 Payment - Hearings. In the event a party files a Request for a Hearing, the requesting party shall be responsible for 100% of the expenses and fees incurred by the Panel members in connection with the Hearing. Panel members will be compensated at the agreed upon hourly rate. Costs for Hearings are non-reimbursable costs from the GMP.

12.3 Payment – Non-hearing. In addition, Panel members shall be compensated for a maximum of 4 hours per month of time spent reviewing project records outside of meeting or hearing days; provided however, that this limitation shall not apply to the review of records in connection with the Panel's consideration of a dispute which is the subject of a Hearing.

13. Costs and Accounting Records. The Panel members shall keep available the cost records and accounts pertaining of all of the work by the Panel for inspection by representatives of the Owner or the Design-Builder for a period of five years after final payment. If any litigation, claim, or audit arising out of, in connection with, or related to the Contract is initiated before the expiration of the five year period, the cost records and accounts shall be retained until such litigation, claim, or audit involving the records in completed.

14. Termination of Panel. Upon formal written amendment to this Contract, this dispute resolution process may be terminated.

15. Termination or Withdrawal/Replacement of Panel Members.

15.1 Panel members may withdraw from the Panel by providing four weeks written notice to the other Panel members and the Owner.

15.2 Should the need arise to appoint a replacement Panel member, the replacement Panel member shall be selected as was the departing Panel member. The selection of a replacement Panel member shall begin promptly upon notification of the necessity for a replacement.

15.3 The Chair of the Panel may be terminated without cause by agreement of the parties. Each party may change its appointed Panel member on one occasion during the life of the Contract on a without cause basis.

15.4 Panel members may be terminated for cause by any of the parties. The party desiring to terminate a Panel member for cause will notify the other party and the other Panel members and shall provide an explanation for the requested termination. If the other party does not agree that cause exists, the remaining Panel members shall convene and decide whether cause exists and such decision shall be effectuated.

16. Independent Contractor. Each Panel member, in the performance of his or her duties on the Panel, shall act in the capacity of an independent agent and not as an employee of either the Owner or the Design-Builder. Each Panel member shall have the same immunity as does a mediator appointed

by Court order, as provided by Florida law.

17. Public Records. Records of the Panel shall remain privileged until the conclusion of the Project or commencement of litigation, whichever is earlier. Each Panel member, Design-Builder, and the Owner shall allow public access to all documents, papers, letters, and other material made or received by the parties that are related to this Panel and the activities of this Panel, subject to the provisions of Chapter 119, Florida Statutes. However, upon receipt of any such public records request, the parties hereto shall immediately notify the Owner and obtain prior written consent from the Owner before releasing such records. Plans, schematics, security plans and other project elements may not be eligible for release.

18. Statute Of Limitations. None of the procedures delineated herein will in any way toll any statutes of limitations for either of the parties.

19. No Bonus. Panel members shall not be paid nor will they receive or accept any Commission, percentage, bonus, or consideration of any nature, other than the payment provided for in this Article, for their performance and services.

20. No Conflict. The members of the Panel shall affirm that at no time, while performing their duties under this section, shall they have any direct or indirect ownership or financial interest in or be employed in any capacity by the Owner, the Design-Builder, any Consultant or Consultant organization working on the Project, any Subconsultant, Subcontractor or supplier of the project, or any other Panel member. The members of the Panel shall affirm and agree that, except for services as a Panel member on other Owner or Design-Builder projects, that they have not been an employee, Subcontractor, or Consultant to the Owner, Design-Builder, any Consultant or Consultant organization working on the Project, any Subconsultant or supplier of the Project, or of another Panel member, and that during the term of this Contract they shall not become so involved. The members of the Panel, the Owner, and the Design-Builder agree that during the life of the Contract, no discussion or agreement will be made between any Panel member and any party to this Contract for employment after the Contract is completed. The members of the Panel Agree to complete and comply with the Owner's Conflict of Interest Checklist.

21. Interpretation. Nothing herein shall in any way limit the rights of the Owner to issue Work Orders or Change Orders, issue any other type of order or instruction, or take any other type of action that is permitted by the Contract. Nor shall any of the provisions herein limit the remedies or obligations of the Design-Builder pursuant to Contract, except that submission of a disputed matter to the Panel for a written recommendation as to resolution shall be a condition precedent to pursuit of any claim in litigation.

22. Subsequent Proceedings. In the event that a party files suit or initiates arbitration in connection with this project, no member of the Panel shall be called to testify in such proceedings, and the personal notes of Panel members shall not be admissible or used for impeachment. Any and all claims against any of the Panel members arising out of the work of the Panel are waived.