



**AGREEMENT BETWEEN BROWARD COUNTY AND CHEN MOORE AND ASSOCIATES, INC.
FOR CONSULTING SERVICES FOR PORT EVERGLADES
(RFP # PNC2119212P1)**

This Agreement ("Agreement") is made and entered by and between Broward County, a political subdivision of the State of Florida ("County"), and Chen Moore and Associates, Inc., a Florida corporation ("Consultant") (each a "Party" and collectively referred to as the "Parties").

RECITALS

- A. County issued a request for proposals ("RFP") No. PNC2119212P1 for a qualified firm to provide professional architectural, engineering, and related services for Port Everglades.
- B. Consultant represents that it is experienced in providing services as detailed in the RFP.
- C. County has met the requirements of Section 287.055, Florida Statutes, the Consultants' Competitive Negotiation Act, and has selected Consultant to perform the services hereunder.
- D. Negotiations pertaining to these services were undertaken between County and Consultant, and this Agreement incorporates the results of such negotiations.

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE 1. DEFINITIONS

- 1.1 **Board** means the Board of County Commissioners of Broward County, Florida.
- 1.2 **Contract Administrator** means the Deputy Port Director or the Director of the Seaport Engineering & Facilities Maintenance Division. The Contract Administrator is the representative of County concerning this Agreement.
- 1.3 **Contractor** shall mean the person, firm, corporation, or other entity who enters into an agreement with County to perform the construction work for a project.
- 1.4 **County Business Enterprise** or **CBE** means an entity certified as meeting the applicable requirements of Section 1-81, Broward County Code of Ordinances.
- 1.5 **Notice to Proceed** means a written authorization to proceed with the services issued by the Contract Administrator.
- 1.6 **Purchasing Director** means County's Director of Purchasing as appointed by the Broward County Administrator.

1.7 **Services** means the work and services described in Article 3 and in Exhibit A, Scope of Services, as applicable.

1.8 **Small Business Enterprise or SBE** means an entity certified as meeting the applicable requirements of Section 1-81, Broward County Code of Ordinances.

1.9 **Subconsultant** means an entity or individual providing services to County through Consultant for all or any portion of the Services under this Agreement. The term "Subconsultant" shall include all subcontractors.

1.10 **Work Authorization** means a document issued by County under this Agreement that authorizes Consultant to perform specified Services and details the terms of payment and scope of work for the specified Services authorized.

ARTICLE 2. EXHIBITS

Exhibit A	Scope of Services
Exhibit B	Maximum Billing Rates
Exhibit C	Minimum Insurance Coverages
Exhibit D	Work Authorization Form
Exhibit E	Schedule of Subconsultants
Exhibit F	CBE Subconsultants Letters of Intent
Exhibit G	Port Everglades Security Requirements

ARTICLE 3. SCOPE OF SERVICES

3.1 Consultant's Services shall consist of the tasks set forth in each Work Authorization, in accordance with the Scope of Services described in Exhibit A, and may include civil, structural, mechanical, and electrical engineering, architectural services, and other professional services, as applicable for each Work Authorization, for projects in which construction costs do not exceed Two Million Dollars (\$2,000,000). Consultant shall provide all Services as set forth in each Work Authorization including all necessary, incidental, and related activities and services required by the Scope of Services and contemplated in Consultant's level of effort.

3.2 A Work Authorization may not delineate every detail and minor work task required to be performed by Consultant to complete the Services described therein. If, during the course of the performance of the Services included in a Work Authorization, Consultant determines that work should be performed to complete the Services described in the Work Authorization that is in Consultant's opinion outside the level of effort originally anticipated, whether or not the Work Authorization identifies the work items, Consultant shall notify Contract Administrator in writing in a timely manner before proceeding with the work. If Consultant proceeds with such work without notifying the Contract Administrator, the work shall be deemed to be within the original level of effort, whether or not specifically addressed in the Work Authorization. Notice to Contract Administrator does not constitute authorization or approval by County to Consultant to perform the work. Unless there is a dispute as set forth in Section 7.3, any work performed by

Consultant outside the originally anticipated level of effort without prior written County approval shall be at no additional cost to County.

3.3 Exhibit A generally describes the professional services that may be included in each Work Authorization. Each Work Authorization will be negotiated between County and Consultant and will include the permissible scopes of services, compensation, time for performance, and other related matters.

3.4 County shall assist Consultant by placing at Consultant's disposal all information County has available pertinent to each Work Authorization, including previous reports and any other data relative to the Services in each Work Authorization. County shall arrange for access to, and make all provisions for, Consultant to enter upon public and private property as required for Consultant to perform its Services. County shall review any itemized deliverables and documents required to be submitted by Consultant and respond in writing with any comments within the time set forth in each Work Authorization. County shall give prompt written notice to Consultant whenever County observes or otherwise becomes aware of any material defect in the work of the Contractor or other material development that affects the scope or timing of Consultant's Services.

3.5 Notwithstanding any other remedy otherwise available to County, where the Services of Consultant is found to be deficient for the purpose for which it was produced, Consultant shall correct the deficiency at no cost to County.

3.6 Funding for services performed under this Agreement will be funded by County as provided for in the annual budget, as amended. Award of this Agreement does not guarantee work will be issued to Consultant. Failure to issue work under this Agreement will not be deemed a breach of this Agreement.

ARTICLE 4. WORK AUTHORIZATION

4.1 All Services to be performed by Consultant under this Agreement must first be authorized in writing by a Work Authorization, in accordance with the requirements of this article.

4.1.1 Before issuance of any Work Authorization, Consultant shall provide Contract Administrator with a written estimate for all charges expected to be incurred for the tasks associated with the Work Authorization. Each Work Authorization (including as amended) may be executed on behalf of County as follows: (a) the Contract Administrator may execute any individual Work Authorization for which the cost to County is \$50,000 or less; (b) the Purchasing Director may execute any individual Work Authorization for which the cost to County is within the Purchasing Director's delegated authority (if required under the Procurement Code, any such Work Authorization shall also be executed by the County Administrator); and (c) any individual Work Authorization above the Purchasing Director's delegated authority must be approved by the Board. The sum of all Work Authorizations issued under this Agreement in any annual period must not exceed the applicable annual maximum amount stated in Section 6.1.

4.1.2 After complete execution of a Work Authorization under this Agreement, Contract Administrator will issue a Notice to Proceed for that authorized work. Consultant must not commence such work until receipt of a Notice to Proceed.

4.1.3 Any modifications to a Work Authorization will require an amended Work Authorization approved by Contract Administrator, COUNTY's Purchasing Director, or Board in accordance with the aggregate dollar limitations set forth above. Consultant's compensation will not exceed the amount approved in the Work Authorization unless such additional amount received the prior written approval from the appropriate authority.

4.1.4 All Work Authorizations must be delineated in the attached Exhibit D, or in a form substantially similar, and must contain, at a minimum, the following information and requirements:

4.1.4.1 A description of the Services to be undertaken (which description must specify in detail the individual tasks and other activities to be performed by Consultant), a reference to this Agreement under which the Services to be undertaken is authorized, and a statement of the method of compensation.

4.1.4.2 A budget establishing the amount of compensation, which amount will constitute a guaranteed maximum and must not be exceeded unless prior written approval of County is obtained. If County does not approve an increase in the guaranteed maximum amount, and the need for such action is not the fault of Consultant, the Work Authorization will be terminated, and Consultant will be paid in full for all Services completed to that point, but said amount will in no case exceed the guaranteed maximum amount. The information contained in the budget shall be in sufficient detail to identify the various elements of costs.

4.1.4.3 A time established for completion of the Services undertaken by Consultant or for the submission to County of documents, reports, and other information under this Agreement.

4.1.4.4 Any other additional instructions or provision relating to the Services authorized under this Agreement.

4.1.4.5 Work Authorizations must be dated, serially numbered, and signed.

ARTICLE 5. TERM AND TIME FOR PERFORMANCE; DAMAGES

5.1 The term of this Agreement shall begin on the date it is fully executed by the Parties ("Effective Date") and shall end at 11:59 PM on the day prior to the third anniversary of the Effective Date ("Initial Term"), it being the intention of the Parties that the Initial Term be for a

period of three (3) years. County may renew this Agreement, under the same terms and conditions, for up to two (2) additional one (1) year terms by sending notice of renewal to Consultant at least thirty (30) days prior to the expiration of the then-current term. The Purchasing Director is authorized to exercise this renewal option. Consultant shall perform the services described in each Work Authorization within the time periods specified in the Work Authorization with said time periods commencing from the date of the Notice to Proceed for such services.

5.2 Within ten (10) days after issuance of a Notice to Proceed for each Work Authorization, Consultant shall provide a detailed activity schedule for activities required to meet the completion date set forth in the Work Authorization. The schedule must be accompanied by an anticipated payout and fiscal progress curve.

5.3 If the Contract Administrator determines that Consultant is unable to complete Services under any Work Authorization because of delays resulting from untimely review by County or other governmental agencies having jurisdiction over the project and such delays are not the fault of Consultant, or because of delays caused by factors outside the control of Consultant, County shall grant a reasonable extension of time for completion of the Services and shall provide reasonable compensation, if appropriate. It shall be the responsibility of Consultant to notify the Contract Administrator in writing whenever a delay in approval by a governmental agency is anticipated or experienced, and whenever a delay has been caused by factors outside of Consultant's control, and to inform the Contract Administrator of all facts and details related to the delay. Consultant must provide such written notice to the Contract Administrator within three (3) business days after the occurrence of the event causing the delay.

5.4 For any construction phase services authorized by a Work Authorization, if Contractor fails to substantially complete the construction on or before the substantial completion date specified in its agreement with County, and the failure to substantially complete is caused in whole or in part by Consultant, then Consultant shall pay to County its proportional share of any claim for damages to Contractor arising out of the delay. The provisions for the computation of delay costs, damages, or any other amounts, whether direct or indirect, in the agreement between the Contractor and County are incorporated herein. This section shall not affect the indemnification rights or obligations of either Party otherwise set forth in this Agreement.

5.5 If Consultant is performing Services under a Work Authorization scheduled to be completed after the expiration of this Agreement, Consultant agrees to continue the Services until completion under the same terms and conditions as stated in the existing Work Authorization.

ARTICLE 6. COMPENSATION AND METHOD OF PAYMENT

6.1 Amount and Method of Compensation. The total annual cumulative amount authorized for all Work Authorizations issued under this Agreement shall not exceed One Million Dollars (\$1,000,000). The method of compensation to be paid under each individual Work Authorization will be under one or a combination of the following methods as specified in the operative Work

Authorization and based on the Salary Costs described in Exhibit B.

6.1.1 Maximum Amount Not-To-Exceed Compensation. County will pay compensation to Consultant for the performance of services identified in the Work Authorization, as payable on a "Maximum Amount Not-To-Exceed" basis, and as otherwise required by this Agreement, based upon the Salary Costs as described in Section 6.2 and Exhibit B, up to an agreed upon maximum not-to-exceed amount. Consultant shall perform all services designated as maximum amount not-to-exceed set forth in the Work Authorization for total compensation in the amount of or less than that stated therein.

6.1.2 Lump Sum Compensation. County will pay compensation to Consultant for the performance of all services identified in the Work Authorization as payable on a "lump sum" basis, and as otherwise required by this Agreement, no more than the lump sum amount stated in the Work Authorization.

6.1.3 Reimbursable Expenses. County may establish a maximum amount not-to-exceed for potential reimbursable expenses that may be utilized pursuant to Section 6.3. Unused amounts of those monies shall be retained by County.

6.1.4 Salary Costs. The maximum billing rates payable by County for each of Consultant's employee categories are shown on Exhibit B and are further described in Section 6.2.

6.1.5 Subconsultant Fees. Consultant shall bill Subconsultant fees using the employee categories for Salary Costs on Exhibit B as defined in Section 6.2 and Reimbursable Expenses defined in Section 6.3. Consultant shall bill Subconsultant fees with no mark-up and within any applicable maximum not to exceed amount.

6.2 Salary Costs. The term Salary Costs as used herein shall mean the hourly rate actually paid to all personnel engaged directly on the tasks under a Work Authorization, as adjusted by an overall multiplier that consists of the following: 1) a fringe benefits factor; 2) an overhead factor; and 3) an operating margin. Said Salary Costs are to be used only for time directly attributable to those tasks. The fringe benefit and overhead rates shall be Consultant's most recent and actual rates determined in accordance with Federal Acquisition Regulation ("FAR") guidelines and audited by an independent Certified Public Accountant. For the purposes of this Agreement, the rates must be audited for fiscal periods of Consultant within eighteen (18) months preceding the execution date of this Agreement. These rates shall remain in effect for the term of this Agreement except as provided for in this Section 6.2 inclusive of the subsections below.

6.2.1 Consultant shall require all of its Subconsultants to comply with the requirements of Section 6.2.

6.2.2 Salary Costs for Consultant and Subconsultants as shown in Exhibit B are the Maximum Billing Rates, which are provisional, subject to audit of actual costs, and if the audit discloses that the actual costs are less than the costs set forth on Exhibit B for Consultant or any Subconsultant, Consultant shall reimburse County based upon the

actual costs determined by the audit. County may withhold the amount Consultant is required to reimburse County from any payment due Consultant.

6.2.3 Unless otherwise noted, the Salary Costs stated above are based upon Consultant's "home office" rates. Should it become appropriate during the course of this Agreement that a "field office" rate be applied, then it is incumbent upon Consultant to submit a supplemental Exhibit B reflective of such rates for approval by Contract Administrator and, upon such County approval, invoice County accordingly.

6.2.4 The total hours payable by County for any "exempt" or "nonexempt" personnel shall not exceed forty (40) hours per employee in any week. If the work requires Consultant's or Subconsultant's personnel to work in excess of forty (40) hours per week, any additional hours must be authorized in advance, in writing, by the Contract Administrator. If approved, Salary Costs for additional hours of service provided by nonexempt (hourly) employees or exempt (salaried) employees shall be invoiced at no more than one and one-half of the employee's hourly rate and in a manner consistent with Consultant's or Subconsultant's applicable certified FAR audit and all other provisions of Section 6.2. If a "Safe Harbor" rate is elected for use by Consultant or Subconsultant, then the additional hours are payable at no more than the employee's regular rate.

6.2.5 Consultant and any of its Subconsultants may alternatively use a "Safe Harbor" combined fringe benefit and overhead rate of 110% in lieu of providing fringe benefit and overhead cost factors certified by an independent Certified Public Accountant in accordance with the FAR guidelines. The Safe Harbor rate, once elected, shall remain in place for the entire term of this Agreement, and be applicable for use as "home" and "field" fringe benefit and overhead rates, if applicable, and shall not be subject to audit under this Agreement. All other provisions of Section 6.2 remain in place.

6.3 Reimbursable Expenses. For reimbursement of any travel costs, travel-related expenses, or other direct nonsalary expenses directly attributable to a Work Authorization, Consultant agrees to adhere to Section 112.061, Florida Statutes, except to the extent otherwise stated herein or detailed in the operative Work Authorization. County shall not be liable for any such expenses that have not been approved in writing in advance by the Contract Administrator. Reimbursable Subconsultant expenses must also comply with the requirements of this section.

6.4 Method of Billing.

6.4.1 For Maximum Amount Not-To-Exceed Compensation under Section 6.1.1. Consultant shall submit billings that are identified by the specific project number on a monthly basis in a timely manner for all Salary Costs and Reimbursable Expenses attributable to the Work Authorization. These billings shall identify the nature of the work performed, the total hours of work performed, and the employee category of the individuals performing same. Billings shall itemize and summarize Reimbursable

Expenses by category and identify the personnel incurring the expense and the nature of the work with which such expense was associated. Where prior written approval by Contract Administrator is required for Reimbursable Expenses, a copy of said approval shall accompany the billing for such reimbursable. Billings shall also indicate the cumulative amount of CBE participation to date. The statement shall show a summary of Salary Costs and Reimbursable Expenses with accrual of the total and credits for portions paid previously. External Reimbursable Expenses and Subconsultant fees must be documented by copies of invoices or receipts that describe the nature of the expenses and contain a project number or other identifier that clearly indicates the expense is identifiable to the services authorized by the operative Work Authorization. Subsequent addition of the identifier to the invoice or receipt by Consultant is not acceptable except for meals and travel expenses. Internal expenses must be documented by appropriate Consultant's cost accounting forms with a summary of charges by category. When requested, Consultant shall provide backup for past and current invoices that records hours and Salary Costs by employee category, Reimbursable Expenses by category, and Subconsultant fees on a task basis, so that total hours and costs by task may be determined.

6.4.2 For Lump Sum Compensation under Section 6.1.2. Consultant shall submit billings that are identified by the specific project number on a monthly basis in a timely manner. These billings shall identify the nature of the work performed, the task, and the estimated percent of work accomplished. Billings shall also indicate the cumulative amount of CBE participation to date. The statement shall show a summary of fees with accrual of the total and credits for portions paid previously. When requested, Consultant shall provide backup for past and current invoices that record hours, salary costs, and expense costs on a task basis, so that total hours and costs by task may be determined.

6.5 Method of Payment.

6.5.1 County shall pay Consultant within thirty (30) days after receipt of Consultant's proper invoice, as defined by County's Prompt Payment Ordinance, minus any applicable retainage or other deductions permitted by this Agreement.

6.5.2 Unless otherwise provided in this section, retainage in the amount of ten percent (10%) of each invoice shall be retained by County until satisfactory completion of the applicable phase or task. When the Services to be performed on all phases or tasks in the operative Work Authorization are fifty percent (50%) complete, upon written request by Consultant and written approval by the Contract Administrator that the operative Work Authorization is progressing in a satisfactory manner, the Contract Administrator, in his or her sole discretion, may authorize the reduction of retainage to five percent (5%) of each invoice for subsequent payments. No amount shall be withheld from payments for Reimbursable Expenses or for Services performed during the construction phase.

6.5.3 Upon Consultant's completion of each Work Authorization to the satisfaction of the Contract Administrator, County shall remit to Consultant any amounts withheld as retainage for that operative Work Authorization. Final payment for the operative Work Authorization must be approved by the Purchasing Director.

6.5.4 Payment will be made to Consultant at the following address: Chen Moore and Associates, Inc., Attn: Accounting Department, 500 West Cypress Creek Road, Suite 630, Fort Lauderdale, FL 33309.

6.6 Fiscal Year. The continuation of this Agreement or any Work Authorization issued thereon beyond the end of any County fiscal year is subject to both the appropriation and the availability of funds in accordance with Chapter 129, Florida Statutes.

6.7 Consultant shall pay Subconsultants and suppliers providing Services under this Agreement within fifteen (15) days following receipt of payment from County for such subcontracted work or supplies. If Consultant withholds an amount as retainage from a Subconsultant or supplier, Consultant shall release such retainage and pay same within fifteen (15) days following receipt of payment of retained amounts from County. The Contract Administrator may, at its option, increase allowable retainage or withhold progress payments unless and until Consultant demonstrates timely payments of sums due to all Subconsultants and suppliers. Consultant shall include requirements substantially similar to those set forth in this section in its contracts with Subconsultants and suppliers.

ARTICLE 7. ADDITIONAL SERVICES; CHANGES IN SCOPE OF SERVICES

7.1 County or Consultant may request changes that would increase, decrease, or otherwise modify the Scope of Services to be provided under an operative Work Authorization. Unless otherwise expressly permitted herein, such changes must be made in accordance with the provisions of the Broward County Procurement Code and must be contained in a written amendment, executed by the Parties hereto, with the same formality and of equal dignity herewith.

7.2 Costs of additional services identified by the Contract Administrator during the life of any Work Authorization and as contained in any written amendment will be compensated on an hourly basis, or an agreed upon lump sum, or as a reimbursable as provided in Article 6. Additional services authorized by the Contract Administrator shall include a required completion date for Consultant's performance of those additional services.

7.3 If a dispute between the Contract Administrator and Consultant arises over whether any work requested by County is within the scope of contracted Services and such dispute cannot be resolved by the Contract Administrator and Consultant, such dispute shall be promptly presented to the County Administrator or his or her designee for resolution, whose decision shall be in writing and shall be final and binding on the Parties. During the pendency of any dispute, Consultant shall promptly perform the disputed work.

ARTICLE 8. REPRESENTATIONS AND WARRANTIES

8.1 Representation of Authority. Consultant represents and warrants that this Agreement constitutes the legal, valid, binding, and enforceable obligation of Consultant, and that neither the execution nor performance of this Agreement constitutes a breach of any agreement that Consultant has with any third party or violates any law, rule, regulation, or duty arising in law or equity applicable to Consultant. Consultant further represents and warrants that execution of this Agreement is within Consultant's legal powers, and each individual executing this Agreement on behalf of Consultant is duly authorized by all necessary and appropriate action to do so on behalf of Consultant and does so with full legal authority.

8.2 Claims Against Consultant. Consultant represents and warrants that there is no action or proceeding, at law or in equity, before any court, mediator, arbitrator, governmental, or other board or official, pending or, to the knowledge of Consultant, threatened against or affecting Consultant, the outcome of which may (a) affect the validity or enforceability of this Agreement, (b) materially and adversely affect the authority or ability of Consultant to perform its obligations under this Agreement, or (c) have a material and adverse effect on the consolidated financial condition or results of operations of Consultant or on the ability of Consultant to conduct its business as presently conducted or as proposed or contemplated to be conducted.

8.3 Solicitation Representations. Consultant represents and warrants that all statements and representations made in Consultant's proposal, bid, or other supporting documents submitted to County in connection with the solicitation, negotiation, or award of this Agreement, including during the procurement or evaluation process, were true and correct when made and are true and correct as of the date Consultant executes this Agreement, unless otherwise expressly disclosed in writing by Consultant.

8.4 Contingency Fee. Consultant represents that it has not paid or agreed to pay any person or entity, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. If this Agreement is subject to Section 287.055, Florida Statutes, the Parties agree and stipulate that the statutory language stated in Section 287.055(6)(a) is deemed included and fully incorporated herein.

8.5 Truth-In-Negotiation Representation. Consultant's compensation under this Agreement is based upon its representations to County, and Consultant certifies that the wage rates, factual unit costs, and other information supplied to substantiate Consultant's compensation, including, without limitation, in the negotiation of this Agreement, are accurate, complete, and current as of the date Consultant executes this Agreement. Consultant's compensation will be reduced to exclude any significant sums by which the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs.

8.6 Public Entity Crime Act. Consultant represents that it is familiar with the requirements and prohibitions under the Public Entity Crime Act, Section 287.133, Florida Statutes, and represents that its entry into this Agreement will not violate that Act. Consultant further

represents that there has been no determination that it committed a "public entity crime" as defined by Section 287.133, Florida Statutes, and that it has not been formally charged with committing an act defined as a "public entity crime" regardless of the amount of money involved or whether Consultant has been placed on the convicted vendor list.

8.7 Discriminatory Vendor and Scrutinized Companies Lists. Consultant represents that it has not been placed on the "discriminatory vendor list" as provided in Section 287.134, Florida Statutes, and that it is not a "scrutinized company" pursuant to Section 215.473, Florida Statutes. Consultant represents and certifies that it is not ineligible to contract with County on any of the grounds stated in Section 287.135, Florida Statutes.

8.8 Warranty of Performance. Consultant represents and warrants that it possesses the knowledge, skill, experience, and financial capability required to perform and provide all required and optional Services under this Agreement, and that each person and entity that will provide Services under this Agreement is duly qualified to perform such services by all appropriate governmental authorities, where required, and is sufficiently experienced and skilled in the area(s) for which such person or entity will render Services. Consultant represents and warrants that the Services under this Agreement shall be performed in a skillful and respectful manner, and that the quality of all such services shall equal or exceed prevailing industry standards for the provision of such services.

8.9 Domestic Partnership Requirement. Unless this Agreement is exempt from the provisions of the Broward County Domestic Partnership Act, Section 16½-157, Broward County Code of Ordinances, Consultant certifies and represents that it will comply with the provisions of Section 16½-157 for the duration of this Agreement. The contract language referenced in Section 16½-157 is deemed incorporated in this Agreement as though fully set forth in this section.

8.10 Breach of Representations. In entering into this Agreement, Consultant acknowledges that County is materially relying on the representations, warranties, and certifications of Consultant stated in this article. County shall be entitled to recover any damages it incurs to the extent any such representation or warranty is untrue. In addition, if any such representation, warranty, or certification is false, County shall have the right, at its sole discretion, to terminate this Agreement without any further liability to Consultant, to deduct from the compensation due Consultant under this Agreement the full amount of any value paid in violation of a representation or warranty, and to recover all sums paid to Consultant under this Agreement. Furthermore, a false representation may result in debarment from County's procurement activities.

ARTICLE 9. TERMINATION

9.1 Termination. This Agreement or any Work Authorization issued under this Agreement may be terminated for cause by the aggrieved Party if the Party in breach has not corrected the breach within ten (10) days after receipt of written notice from the aggrieved Party identifying the breach. This Agreement or any Work Authorization may also be terminated for convenience by the Board. Termination for convenience by the Board shall be effective on the termination

date stated in written notice provided by County, which termination date shall be not less than thirty (30) days after the date of such written notice. If this Agreement or any Work Authorization was entered into on behalf of County by someone other than the Board, termination by County may be by action of the County Administrator or County representative (including his or her successor) who entered in this Agreement on behalf of County. This Agreement or any Work Authorization may also be terminated by the County Administrator upon such notice as the County Administrator deems appropriate under the circumstances if the County Administrator determines that termination is necessary to protect the public health, safety, or welfare. If County erroneously, improperly, or unjustifiably terminates for cause, such termination shall be deemed a termination for convenience and shall be effective thirty (30) days after such notice of termination for cause was provided and Consultant shall be eligible for the compensation provided in Section 9.4 as its sole remedy.

9.2 This Agreement or any Work Authorization may be terminated for cause by County for reasons including, but not limited to, any of the following:

9.2.1 Consultant's failure to suitably or continuously perform the Services in a manner calculated to meet or accomplish the objectives in this Agreement or Work Authorization, or repeated (whether negligent or intentional) submission for payment of false or incorrect bills or invoices;

9.2.2 By the Contract Administrator or the Director of Office of Economic and Small Business Development ("OESBD") for any fraud, misrepresentation, or material misstatement by Consultant in the award or performance of this Agreement or that otherwise violates any applicable requirement of Section 1-81, Broward County Code of Ordinances; or

9.2.3 By the Director of the OESBD upon the disqualification of Consultant as a CBE or SBE if Consultant's status as a CBE or SBE was a factor in the award of this Agreement and such status was misrepresented by Consultant, or upon the disqualification of one or more of Consultant's CBE or SBE participants by County's Director of the OESBD if any such participant's status as a CBE or SBE firm was a factor in the award of this Agreement and such status was misrepresented by Consultant during the procurement or the performance of this Agreement.

9.3 Notice of termination shall be provided in accordance with the "Notices" section of this Agreement except that notice of termination by the County Administrator to protect the public health, safety, or welfare may be oral notice that shall be promptly confirmed in writing.

9.4 If this Agreement or any Work Authorization issued under this Agreement is terminated for convenience, Consultant shall be paid for any Services properly performed under this Agreement or Work Authorization through the termination date specified in the written notice of termination, subject to any right of County to retain any sums otherwise due and payable. Consultant acknowledges that it has received good, valuable, and sufficient consideration for

County's right to terminate this Agreement for convenience in the form of County's obligation to provide advance notice to Consultant of such termination in accordance with Section 9.1.

9.5 If this Agreement or any Work Authorization is terminated, for any reason, any amounts due Consultant shall be withheld by County until Consultant has provided all documents required to be provided to County. In addition to any right of termination stated in this Agreement, County shall be entitled to seek any and all available remedies, whether stated in this Agreement or otherwise available at law or in equity.

ARTICLE 10. INSURANCE

10.1 For the duration of the Agreement, Consultant shall, at its sole expense, maintain the minimum insurance coverages stated in Exhibit C in accordance with the terms and conditions of this article. Consultant shall maintain insurance coverage against claims relating to any act or omission by Consultant, its agents, representatives, employees, or Subconsultants in connection with this Agreement. County reserves the right at any time to review and adjust the limits and types of coverage required under this article.

10.2 Consultant shall ensure that "Broward County" is listed and endorsed as an additional insured as stated in Exhibit C on all policies required under this article.

10.3 On or before the date this Agreement is fully executed or at least fifteen (15) days prior to commencement of Services, Consultant shall provide County with a copy of all Certificates of Insurance or other documentation sufficient to demonstrate the insurance coverage required in this article. If and to the extent requested by County, Consultant shall provide complete, certified copies of all required insurance policies and all required endorsements within thirty (30) days after County's request.

10.4 Consultant shall ensure that all insurance coverages required by this article shall remain in full force and effect for the duration of this Agreement and until all performance required by Consultant has been completed, as determined by Contract Administrator. Consultant or its insurer shall provide notice to County of any cancellation or modification of any required policy at least thirty (30) days prior to the effective date of cancellation or modification, and at least ten (10) days prior to the effective date of any cancellation due to nonpayment, and shall concurrently provide County with a copy of its updated Certificates of Insurance evidencing continuation of the required coverage(s). Consultant shall ensure that there is no lapse of coverage at any time during the time period for which coverage is required by this article.

10.5 Consultant shall ensure that all required insurance policies are issued by insurers: (1) assigned an A. M. Best rating of at least "A-" with a Financial Size Category of at least Class VII; (2) authorized to transact insurance in the State of Florida; or (3) a qualified eligible surplus lines insurer pursuant to Section 626.917 or 626.918, Florida Statutes, with approval by County's Risk Management Division.

10.6 If Consultant maintains broader coverage or higher limits than the minimum insurance requirements stated in Exhibit C, County shall be entitled to any such broader coverage and higher limits maintained by Consultant. All required insurance coverages under this article shall provide primary coverage and shall not require contribution from any County insurance, self-insurance or otherwise, which shall be in excess of and shall not contribute to the insurance required and provided by Consultant.

10.7 Consultant shall declare in writing any self-insured retentions or deductibles over the limit(s) prescribed in Exhibit C and submit to County for approval at least fifteen (15) days prior to the date this Agreement is fully executed or commencement of Services. Consultant shall be solely responsible for and shall pay any deductible or self-insured retention applicable to any claim against County. County may, at any time, require Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. Consultant agrees that any deductible or self-insured retention may be satisfied by either the named insured or County, if so elected by County, and Consultant agrees to obtain same in endorsements to the required policies.

10.8 Unless prohibited by the applicable policy, Consultant waives any right to subrogation that any of Consultant's insurer may acquire against County and agrees to obtain same in an endorsement of Consultant's insurance policies.

10.9 Consultant shall require that each Subconsultant maintains insurance coverage that adequately covers the Services provided by that Subconsultant on substantially the same insurance terms and conditions required of Consultant under this article. Consultant shall ensure that all such Subconsultants comply with these requirements and that "Broward County" is named as an additional insured under the Subconsultants' applicable insurance policies.

10.10 If Consultant or any Subconsultant fails to maintain the insurance required by this Agreement, County may pay any costs of premiums necessary to maintain the required coverage and deduct such costs from any payment otherwise due to Consultant. Consultant shall not permit any Subconsultant to provide Services under this Agreement unless and until the requirements of this article are satisfied. If requested by County, Consultant shall provide, within one (1) business day, evidence of each Subconsultant's compliance with this section

10.11 If any of the policies required under this article provide claims-made coverage: (1) any retroactive date must be prior to the date this Agreement is fully executed; (2) the required coverage must be maintained after termination or expiration of the Agreement for at least the duration stated in Exhibit C, and (3) if coverage is canceled or nonrenewed and is not replaced with another claims-made policy form with a retroactive date prior to the date this Agreement is fully executed, Consultant must obtain and maintain "extended reporting" coverage that applies after termination or expiration of the Agreement for at least the duration stated in Exhibit C.

**ARTICLE 11. EQUAL EMPLOYMENT OPPORTUNITY AND CBE/SBE
COMPLIANCE**

11.1 No Party may discriminate on the basis of race, color, sex, religion, national origin, disability, age, marital status, political affiliation, sexual orientation, pregnancy, or gender identity and expression in the performance of this Agreement. Consultant shall include the foregoing or similar language in its contracts with any Subconsultants, except that any project assisted by the U.S. Department of Transportation funds shall comply with the nondiscrimination requirements in 49 C.F.R. Parts 23 and 26.

11.2 Consultant shall comply with all applicable requirements of Section 1-81, Broward County Code of Ordinances, in the award and administration of this Agreement. Failure by Consultant to carry out any of the requirements of this article shall constitute a material breach of this Agreement, which shall permit County to terminate this Agreement or exercise any other remedy provided under this Agreement, the Broward County Code of Ordinances, the Broward County Administrative Code, or under other applicable law, all such remedies being cumulative.

11.3 Consultant will meet the required CBE goal by utilizing the CBE firms listed in Exhibit F (or a CBE firm substituted for a listed firm, if permitted) for twenty-five percent (25%) of total Services under this Agreement (the "Commitment").

11.4 In performing the Services, Consultant shall utilize the CBE firms listed in Exhibit F for the scope of work identified on each Letter of Intent. Consultant shall incorporate and identify in each Work Authorization issued under this Agreement, by use of a Letter of Intent, Consultant's participating CBE firms, addresses, scope of services, and the percentage of work amounts. Promptly upon execution of this Agreement or each operative Work Authorization by County, Consultant shall enter into formal contracts with the CBE firms listed in Exhibit F and, upon request, shall provide copies of the contracts to the Contract Administrator and OESBD.

11.5 Each CBE firm utilized by Consultant to meet the CBE goal must be certified by OESBD. Consultant shall inform County immediately when a CBE firm is not able to perform or if Consultant believes the CBE firm should be replaced for any other reason, so that OESBD may review and verify the good faith efforts of Consultant to substitute the CBE firm with another CBE firm. Whenever a CBE firm is terminated for any reason, Consultant shall provide written notice to OESBD and, upon written approval of the Director of OESBD, shall substitute another CBE firm in order to meet the CBE goal, unless otherwise provided in this Agreement or agreed in writing by the Parties. Such substitution shall not be required in the event the termination results from modification of the Scope of Services and no CBE firm is available to perform the modified Scope of Services; in which event Consultant shall notify County, and OESBD may adjust the CBE goal by written notice to Consultant. Consultant shall not terminate a CBE firm for convenience without County's prior written consent, which consent shall not be unreasonably withheld.

11.6 The Parties stipulate that if Consultant fails to meet the Commitment, the damages to County arising from such failure are not readily ascertainable at the time of contracting. If Consultant fails to meet the Commitment and County determines, in the sole discretion of the

OESBD Program Director, that Consultant failed to make Good Faith Efforts (as defined in Section 1-81, Broward County Code of Ordinances) to meet the Commitment, Consultant shall pay County liquidated damages in an amount equal to fifty percent (50%) of the actual dollar amount by which Consultant failed to achieve the Commitment, up to a maximum amount of ten percent (10%) of the total contract amount, excluding costs and reimbursable expenses. An example of this calculation is stated in Section 1-81.7, Broward County Code of Ordinances. As elected by County, such liquidated damages amount shall be either credited against any amounts due from County, or must be paid to County within thirty (30) days after written demand. These liquidated damages shall be County's sole contractual remedy for Consultant's breach of the Commitment, but shall not affect the availability of administrative remedies under Section 1-81. Any failure to meet the Commitment attributable solely to force majeure, changes to the scope of work by County, or inability to substitute a CBE Subconsultant where the OESBD Program Director has determined that such inability is due to no fault of Consultant, shall not be deemed a failure by Consultant to meet the Commitment.

11.7 Consultant acknowledges that the Board, acting through OESBD, may make minor administrative modifications to Section 1-81, Broward County Code of Ordinances, which shall become applicable to this Agreement if the administrative modifications are not unreasonable. Written notice of any such modification shall be provided to Consultant and shall include a deadline for Consultant to notify County in writing if Consultant concludes that the modification exceeds the authority under this section. Failure of Consultant to timely notify County of its conclusion that the modification exceeds such authority shall be deemed acceptance of the modification by Consultant.

11.8 County may modify the required participation of CBE firms under this Agreement in connection with any amendment, extension, modification, change order, or Work Authorization to this Agreement that, by itself or aggregated with previous amendments, extensions, modifications, change orders, or Work Authorizations, increases the initial Agreement price by ten percent (10%) or more. Consultant shall make a good faith effort to include CBE firms in work resulting from any such amendment, extension, modification, change order, or Work Authorization, and shall report such efforts, along with evidence thereof, to OESBD.

11.9 Consultant shall provide written monthly reports to the Contract Administrator attesting to Consultant's compliance with the CBE goal stated in this article. In addition, Consultant shall allow County to engage in onsite reviews to monitor Consultant's progress in achieving and maintaining Consultant's contractual and CBE obligations. The Contract Administrator in conjunction with OESBD shall perform such review and monitoring, unless otherwise determined by the County Administrator.

11.10 The presence of a "pay when paid" provision in a Consultant's contract with a CBE firm shall not preclude County or its representatives from inquiring into allegations of nonpayment or exercising any right stated in Section 6.7.

ARTICLE 12. MISCELLANEOUS

12.1 Contract Administrator Authority. The Contract Administrator is authorized to coordinate and communicate with Consultant to manage and supervise the performance of this Agreement. Unless expressly stated otherwise in this Agreement or otherwise set forth in an applicable provision of the Broward County Procurement Code, Broward County Code of Ordinances, or Broward County Administrative Code, the Contract Administrator may exercise any ministerial authority under this Agreement in connection with the day-to-day management of this Agreement provided that such instructions and determinations do not change the Scope of Services. The Contract Administrator may designate one or more County employees with authority pertaining to day-to-day project management or activities. Consultant shall notify Contract Administrator in writing of Consultant's representative(s) to whom matters involving the project shall be addressed.

12.2 Rights in Documents and Work. Any and all reports, photographs, surveys, documents, materials, or other work created by Consultant in connection with performing Services shall be owned by County, and Consultant hereby transfers to County all right, title, and interest, including any copyright or other intellectual property rights, in or to the work. Upon termination of this Agreement, any reports, photographs, surveys, and other data and documents prepared by Consultant, whether finished or unfinished, shall become the property of County and shall be delivered by Consultant to the Contract Administrator within seven (7) days after termination of this Agreement. Any compensation due to Consultant may be withheld until all documents are received as provided in this Agreement. Consultant shall ensure that the requirements of this section are included in all agreements with its Subconsultant(s).

12.3 Ownership of Documents. All finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, specifications, and reports prepared or provided by Consultant in connection with this Agreement shall be the property of County, whether the project for which they are made is completed or not, and shall be delivered by Consultant to Contract Administrator within fifteen (15) days after the receipt of the written notice of termination. If applicable, County may withhold any payments then due to Consultant until Consultant complies with the provisions of this section.

12.4 Public Records. To the extent Consultant is acting on behalf of County as stated in Section 119.0701, Florida Statutes, Consultant shall:

12.4.1 Keep and maintain public records required by County to perform the services under this Agreement;

12.4.2 Upon request from County, provide County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law;

12.4.3 Ensure that public records that are exempt or confidential and exempt from public record requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion or termination of this Agreement if the records are not transferred to County; and

12.4.4 Upon completion or termination of this Agreement, transfer to County, at no cost, all public records in possession of Consultant or keep and maintain public records required by County to perform the services. If Consultant transfers the records to County, Consultant shall destroy any duplicate public records that are exempt or confidential and exempt. If Consultant keeps and maintains the public records, Consultant shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to County upon request in a format that is compatible with the information technology systems of County.

A request for public records regarding this Agreement must be made directly to County, who will be responsible for responding to any such public records requests. Consultant will provide any requested records to County to enable County to respond to the public records request.

Any material submitted to County that Consultant contends constitutes or contains trade secrets or is otherwise exempt from production under Florida public records laws (including Chapter 119, Florida Statutes) ("Trade Secret Materials") must be separately submitted and conspicuously labeled "EXEMPT FROM PUBLIC RECORD PRODUCTION – TRADE SECRET." In addition, Consultant must, simultaneous with the submission of any Trade Secret Materials, provide a sworn affidavit from a person with personal knowledge attesting that the Trade Secret Materials constitute trade secrets under Section 812.081, Florida Statutes, and stating the factual basis for same. If a third party submits a request to County for records designated by Consultant as Trade Secret Materials, County shall refrain from disclosing the Trade Secret Materials, unless otherwise ordered by a court of competent jurisdiction or authorized in writing by Consultant. Consultant shall indemnify and defend County and its employees and agents from any and all claims, causes of action, losses, fines, penalties, damages, judgments, and liabilities of any kind, including attorneys' fees, litigation expenses, and court costs, relating to the nondisclosure of any Trade Secret Materials in response to a records request by a third party.

IF CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (954) 468-3501, JORHERNANDEZ@BROWARD.ORG, 1850 ELLER DR., SUITE 603, FORT LAUDERDALE, FLORIDA 33316.

12.5 Audit Rights and Retention of Records. Consultant shall preserve all Contract Records (as defined below) for a minimum period of three (3) years after expiration or termination of this Agreement or until resolution of any audit findings, whichever is longer. Contract Records shall, upon reasonable notice, be open to County inspection and subject to audit and reproduction

during normal business hours. County audits and inspections pursuant to this section may be performed by any County representative (including any outside representative engaged by County). County may conduct audits or inspections at any time during the term of this Agreement and for a period of three (3) years after the expiration or termination of this Agreement (or longer if required by law). County may, without limitation, verify information, payroll distribution, and amounts through interviews, written affirmations, and on-site inspection with Consultant's employees, Subconsultants, vendors, or other labor.

Contract Records include any and all information, materials, and data of every kind and character, including, without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, daily diaries, drawings, receipts, vouchers, memoranda, and any and all other documents that pertain to rights, duties, obligations, or performance under this Agreement. Contract Records include hard copy and electronic records, written policies and procedures, time sheets, payroll records and registers, cancelled payroll checks, estimating work sheets, correspondence, invoices and related payment documentation, general ledgers, insurance rebates and dividends, and any other records pertaining to rights, duties, obligations or performance under this Agreement, whether by Consultant or Subconsultants.

County shall have the right to audit, review, examine, inspect, analyze, and make copies of all Contract Records at a location within Broward County. Consultant hereby grants County the right to conduct such audit or review at Consultant's place of business, if deemed appropriate by County, with seventy-two (72) hours' advance notice. Consultant agrees to provide adequate and appropriate work space. Consultant shall provide County with reasonable access to Consultant's facilities, and County shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement.

Consultant shall, by written contract, require its Subconsultants to agree to the requirements and obligations of this section.

Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for County's disallowance and recovery of any payment upon such entry. If an audit or inspection in accordance with this section discloses overpricing or overcharges to County of any nature by Consultant or its Subconsultants in excess of five percent (5%) of the total contract billings reviewed by County, the reasonable actual cost of County's audit shall be reimbursed to County by Consultant in addition to making adjustments for the overcharges. Any adjustments or payments due as a result of such audit or inspection shall be made within thirty (30) days after presentation of County's findings to Consultant.

12.6 Subconsultants. Consultant shall utilize only the Subconsultants identified in Exhibit E, Schedule of Subconsultants, to provide the Services under this Agreement. Consultant shall obtain written approval of Contract Administrator prior to changing or modifying the Schedule of Subconsultants, which shall be automatically updated upon such written approval. Consultant shall bind in writing each and every approved Subconsultant to the terms stated in this

Agreement, provided that this provision shall not, in and of itself, impose the insurance requirements set forth in Article 9 on Consultant's Subconsultants.

12.7 Assignment. Neither this Agreement nor any interest herein shall be assigned, transferred, or encumbered without the written consent of the other Party. Any assignment, transfer, encumbrance, or subcontract in violation of this section shall be void and ineffective, constitute a breach of this Agreement, and permit the non-assigning Party to immediately terminate this Agreement, in addition to any other remedies available to the non-assigning Party at law or in equity.

12.8 Indemnification of County. Consultant shall indemnify and hold harmless County and its current, past, and future officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of Consultant or other persons employed or utilized by Consultant in the performance of this Agreement. The provisions of this section shall survive the expiration or earlier termination of this Agreement. To the extent considered necessary by Contract Administrator and County Attorney, any sums due Consultant under this Agreement may be retained by County until all of County's claims subject to this indemnification obligation have been settled or otherwise resolved, and any amount withheld shall not be subject to payment of interest by County.

12.9 Prior Agreements Superseded. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein; and the Parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, the Parties agree that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.

12.10 Amendments. No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

12.11 Notices. In order for a notice to a Party to be effective under this Agreement, notice must be sent via U.S. first-class mail, hand delivery, or commercial overnight delivery, each with a contemporaneous copy via e-mail, to the addresses listed below and shall be effective upon mailing or hand delivery (provided the contemporaneous email is also sent). The addresses for notice shall remain as set forth in this section unless and until changed by providing notice of such change in accordance with the provisions of this section.

FOR COUNTY:

Broward County Port Everglades Department
Attn: Director of Seaport Engineering & Facilities Maintenance Division
1850 Eller Drive, Suite 504
Fort Lauderdale, FL 33316
Email address: jfoglesong@broward.org

FOR CONSULTANT:

Chen Moore and Associates, Inc.
Attn: Peter Moore, President
500 West Cypress Creek Road, Suite 630
Fort Lauderdale, FL 33309
Email address: pmoore@chenmoore.com

12.12 Interpretation. The titles and headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement. All personal pronouns used in this Agreement shall include the other gender, and the singular shall include the plural, and vice versa, unless the context otherwise requires. Terms such as "herein," "hereof," "hereunder," and "hereinafter" refer to this Agreement as a whole and not to any particular sentence, paragraph, or section where they appear, unless the context otherwise requires. Whenever reference is made to a section or article of this Agreement, such reference is to the section or article as a whole, including all of the subsections of such section, unless the reference is made to a particular subsection or subparagraph of such section or article. Any reference to "days" means calendar days, unless otherwise expressly stated.

12.13 Consultant's Staff. Consultant will provide the key staff identified in its proposal for the RFP related to this Agreement as long as said key staff are in Consultant's employment. Consultant will obtain prior written approval of Contract Administrator to change key staff. Consultant shall provide Contract Administrator with such information as necessary to determine the suitability of proposed new key staff. Contract Administrator will be reasonable in evaluating key staff qualifications. If Contract Administrator desires to request removal of any of Consultant's staff, Contract Administrator shall first meet with Consultant and provide reasonable justification for said removal; upon such reasonable justification, Consultant shall use good faith efforts to remove or reassign the staff at issue.

12.14 Drug-Free Workplace. To the extent required under Section 21.31(a)(2), Broward County Administrative Code, or Section 287.087, Florida Statutes, Consultant certifies that it has a drug-free workplace program and that it will maintain such drug-free workplace program for the duration of this Agreement.

12.15 Independent Contractor. Consultant is an independent contractor under this Agreement, and nothing in this Agreement shall constitute or create a partnership, joint venture, or any other relationship between the Parties. In providing Services under this Agreement, neither Consultant nor its agents shall act as officers, employees, or agents of County, except as authorized by the Contract Administrator for permitting, licensing, or other regulatory requirements. Consultant shall not have the right to bind County to any obligation not expressly undertaken by County under this Agreement.

12.16 Regulatory Capacity. Notwithstanding the fact that County is a political subdivision with certain regulatory authority, County's performance under this Agreement is as a Party to this

Agreement and in the capacity as owner of the project. If County exercises its regulatory authority, the exercise of such authority and the enforcement of any rules, regulation, laws, and ordinances shall have occurred pursuant to County's regulatory authority as a governmental body separate and apart from this Agreement, and shall not be attributable in any manner to County as a Party to this Agreement.

12.17 Sovereign Immunity. Except to the extent sovereign immunity may be deemed to be waived by entering into this Agreement, nothing herein is intended to serve as a waiver of sovereign immunity by County nor shall anything included herein be construed as consent by County to be sued by third parties in any matter arising out of this Agreement. County is a political subdivision as defined in Section 768.28, Florida Statutes, and shall be responsible for the negligent or wrongful acts or omissions of its employees pursuant to Section 768.28, Florida Statutes.

12.18 Third-Party Beneficiaries. Neither Consultant nor County intends to directly or substantially benefit a third party by this Agreement. Therefore, the Parties acknowledge that there are no third-party beneficiaries to this Agreement and that no third party shall be entitled to assert a right or claim against either of them based upon this Agreement.

12.19 Conflicts. Neither Consultant nor its employees shall have or hold any continuing or frequently recurring employment or contractual relationship that is substantially antagonistic or incompatible with Consultant's loyal and conscientious exercise of judgment and care related to its performance under this Agreement. During the term of this Agreement, none of Consultant's officers or employees shall serve as an expert witness against County in any legal or administrative proceeding in which he, she, or Consultant is not a party, unless compelled by court process. Further, such persons shall not give sworn testimony or issue a report or writing, as an expression of his or her expert opinion that is adverse or prejudicial to the interests of County in connection with any such pending or threatened legal or administrative proceeding unless compelled by court process. The limitations of this section shall not preclude Consultant or any persons in any way from representing themselves, including giving expert testimony in support of such representation, in any action or in any administrative or legal proceeding. If Consultant is permitted pursuant to this Agreement to utilize Subconsultants to perform any Services required by this Agreement, Consultant shall require such Subconsultants, by written contract, to comply with the provisions of this section to the same extent as Consultant.

12.20 Materiality and Waiver of Breach. Each requirement, duty, and obligation set forth in this Agreement was bargained for at arm's-length and is agreed to by the Parties. Each requirement, duty, and obligation set forth in this Agreement is substantial and important to the formation of this Agreement, and each is, therefore, a material term of this Agreement. County's failure to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement. To be effective, any waiver must be in writing signed by an authorized signatory of the waiving Party.

12.21 Compliance with Laws. Consultant and the Services must comply with all applicable federal, state, and local laws, codes, ordinances, rules, and regulations including, without limitation, American with Disabilities Act, 42 U.S.C. § 12101, Section 504 of the Rehabilitation Act of 1973, and any related federal, state, or local laws, rules, and regulations.

12.22 Severability. If any part of this Agreement is found to be unenforceable by any court of competent jurisdiction, that part shall be deemed severed from this Agreement and the balance of this Agreement shall remain in full force and effect.

12.23 Joint Preparation. This Agreement has been jointly prepared by the Parties and shall not be construed more strictly against either Party.

12.24 Priority of Provisions. If there is a conflict or inconsistency between any term, statement, requirement, or provision of any document or exhibit attached to, referenced by, or incorporated in this Agreement and any provision of Articles 1 through 12 of this Agreement, the provisions contained in Articles 1 through 12 shall prevail and be given effect.

12.25 Law, Jurisdiction, Venue, Waiver of Jury Trial. This Agreement shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. The exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement shall be in the state courts of the Seventeenth Judicial Circuit in and for Broward County, Florida. If any claim arising from, related to, or in connection with this Agreement must be litigated in federal court, the exclusive venue for any such lawsuit shall be in the United States District Court or United States Bankruptcy Court for the Southern District of Florida. **BY ENTERING INTO THIS AGREEMENT, CONSULTANT AND COUNTY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

12.26 Reuse of Project. County may, at its option, reuse (in whole or in part) the resulting end-product or deliverables resulting from Consultant's Services (including, but not limited to, drawings, specifications, other documents, and services as described herein and in the operative Work Authorization); and Consultant agrees to such reuse in accordance with this provision. If the Contract Administrator elects to reuse the services, drawings, specifications, and other documents, in whole or in part, prepared for a project under this Agreement for other projects on other sites, Consultant will be paid a reuse fee to be negotiated between Consultant and County, subject to approval by the proper awarding authority. Each reuse shall include all Services and modifications to the drawings, specifications, and other documents normally required to adapt the design documents to a new site. This reuse may include preparation of reverse plans, changes to the program, provision for exceptional site conditions, preparation of documents for off-site improvements, provisions for revised solar orientation, provisions for

revised vehicular and pedestrian access, and modifications to building elevations, ornament, or other aesthetic features. In all reuse assignments, the design documents shall be revised to comply with building codes and other jurisdictional requirements current at the time of reuse for the new site location. The terms and conditions of this Agreement shall remain in force for each reuse project, unless otherwise agreed by the Parties in writing.

12.27 Payable Interest.

12.27.1 Payment of Interest. County shall not be liable to pay any interest to Consultant for any reason, whether as prejudgment interest or for any other purpose, and in furtherance thereof Consultant waives, rejects, disclaims, and surrenders any and all entitlement it has or may have to receive interest in connection with a dispute or claim arising from, related to, or in connection with this Agreement. This subsection shall not apply to any claim for interest, including for post-judgment interest, if such application would be contrary to applicable law.

12.27.2 Rate of Interest. If the preceding subsection is inapplicable or is determined to be invalid or unenforceable by a court of competent jurisdiction, the annual rate of interest payable by County under this Agreement, whether as prejudgment interest or for any other purpose, shall be, to the full extent permissible under applicable law, one quarter of one percent (0.25%) simple interest (uncompounded).

12.28 Incorporation by Reference. Any and all Recital clauses stated above are true and correct and are incorporated in this Agreement by reference. The attached Exhibits are incorporated into and made a part of this Agreement.

12.29 Counterparts and Multiple Originals. This Agreement may be executed in multiple originals, and may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

12.30 Additional Security Requirements. Consultant shall comply with the Port Everglades Security Requirements attached hereto as Exhibit G.

(The remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the Parties hereto have made and executed this Agreement:
BROWARD COUNTY, through its BOARD OF COUNTY COMMISSIONERS, signing by and through
its Mayor or Vice-Mayor authorized to execute same by Board action on the _____ day of
President, 20____, and CHEN MOORE AND ASSOCIATES, INC., signing by and through its
_____, duly authorized to execute same.

County

ATTEST:

BROWARD COUNTY, by and through
its Board of County Commissioners

Broward County Administrator, as
ex officio Clerk of the Broward County
Board of County Commissioners

By _____
Mayor

_____ day of _____, 20____

Approved as to form by
Andrew J. Meyers
Broward County Attorney
Port Everglades Department
1850 Eller Drive, Suite 502
Fort Lauderdale, Florida 33316
Telephone: (954) 523-3404
Telecopier: (954) 468-3690

By Al A DiCalvo 10/2/2020
Al A DiCalvo (Date)
Assistant County Attorney

By Russell J. Morrison 10/2/2020
Russell J. Morrison (Date)
Senior Assistant County Attorney

AAD/cr
ChenMoore-PNC2119212P1-ConsultingSvcsAgmt_v2Final-2020-0918
9/18/20
#20-3004.01

**AGREEMENT BETWEEN BROWARD COUNTY AND CHEN MOORE AND ASSOCIATES, INC., FOR
CONSULTING SERVICES FOR PORT EVERGLADES (RFP # PNC2119212P1)**

Consultant

ATTEST:



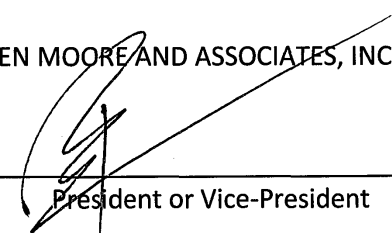
Secretary

Safiya Brea

(Print/Type Name)

(Seal)

CHEN MOORE AND ASSOCIATES, INC.

By 

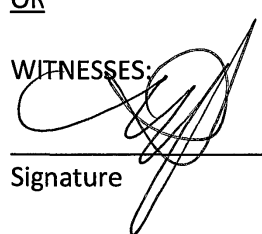
President or Vice-President

Peter Moore, President

(Print/Type Name and Title)

29th day of September, 2020

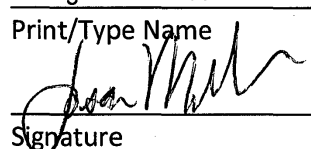
OR

WITNESSES:


Signature

Megan Schmidt

Print/Type Name



Signature

Jason McClair

Print/Type Name

EXHIBIT A

SCOPE OF SERVICES

Consulting Services for Port Everglades RFP # PNC2119212P1

A. BACKGROUND

Consultant may be tasked to provide professional architectural, engineering, and related services for individual projects in which the estimated construction cost of each individual project does not exceed Two Million Dollars (\$2,000,000). Services shall include, all architectural and engineering services necessary and related to the design, construction, and construction management of each individual project. Consultant shall comply with all Federal, State, and local laws, ordinances, rules and building standards. All projects tasked to Consultant will be located within the Port Jurisdictional Area.

B. GENERAL DESCRIPTION OF SERVICES

Consultant shall provide all professional design, engineering and construction management services needed to complete each project tasked. Consultant shall provide all necessary subconsultants needed to complete each project tasked, including, but not limited to, surveyor, geotechnical engineering, plumbing engineering, civil engineering, mechanical engineering, structural and electrical engineering, transportation and traffic engineering, telecommunications and data engineering, environmental engineering, fire protection engineering, materials testing and Leadership in Energy and Environmental Design (LEED) accredited professional (AP). Consultant may be required to provide additional specialty subconsultants for specific projects, to be determined by the scope of each individual project. Professional services for specific projects may include, but are not limited to:

- a. Development of full design and construction contract documents.
- b. Specification and bid document development.
- c. Supporting calculations; code analysis; jurisdictional review and permitting assistance and procurement.
- d. Bid/award support and concurrence.
- e. Contractor negotiation support services.
- f. Inspections, construction observation and progress documentation.
- g. Post construction surveys and related services.

- h. Construction cost analysis, project scheduling, subaqueous inspections, damage assessment and remediation construction documents; project-related claims analysis and support.
 - i. Surveying; materials and contract compliance and quality control testing services.
 - j. Computer-aided and manually generated graphics support and preparation of narratives and other project support.
 - k. Photographic and video-graphic project support.
 - l. Building information modeling (BIM) project support.
 - m. Geographic information systems (GIS) project support.
 - n. Leadership in Energy and Environmental Design (LEED) certification, LEED commissioning, LEED consulting services and associated assistance with the LEED process.
 - o. Assistance in collecting existing and new as-built utility information for the Port Everglades Geographical Information System (GIS) application. All data shall be provided in a compatible format for Environmental Systems Research Institute (ESRI) software in NAD 1983 HARN State Plane Florida East FIPS 0901 Feet.
 - p. Material testing and inspection services including, soil reports & recommendations, concrete testing, weld inspections, soil density, and other related testing services.
 - q. Providing waterproofing specialist who can assist in the prevention of water intrusion during the design and construction phases, as well as determine the source of water intrusion in existing facilities and post-construction instances.
- C. BUILDING INFORMATION MODELING (BIM) & ELECTRONIC MEDIA SUBMITTALL REQUIREMENTS.

Refer to Attachment 1

Attachment 1
BIM and Electronic Media Submittal Requirements

A. INTRODUCTION

The Contract Administrator will be utilizing electronic media as the principal way it develops, communicates and archives information concerning its various construction programs for the County. To that end, County's standard Professional Services Agreements for Consultant services and Construction Agreements for construction services require submittal of documents produced on electronic media. The County requires Building Information Modeling (BIM) based design, documentation and construction deliverables, scaled to the County's needs, especially for all major projects, including all new construction. These BIM processes are achieved through collaborative efforts of the Consultant and the Contractor and generally conclude with the completion of the Consultant's Design Model and a Contractor's As-Constructed Model as outlined in the Scope of Work and in the BIM Project Execution Plan (BIM PxP).

For projects utilizing BIM delivery, Consultant and Contractor will provide native BIM format and Industry Foundation Class (IFC) electronic BIM deliverables in addition to all other electronic copies of hardcopy submissions and other files that support the intent of the project at all project milestones. Data interoperability is important to the County. Design Authoring software shall be used throughout the project lifecycle and shall be parametric. It is also important that nationally defined standards and protocols be used when developing BIM's so that data may be normalized for multiple uses, now and in the future. Most current versions of standards such as the National BIM Standards, BIMForum LOD Specification Part 1 and Commentary, OmniClass, Uniformat and MasterFormat, should be used whenever possible.

The Consultant will derive any two-dimensional (2D) deliverables from the Building Information Model. Further, it is the intent of the County to require open-standard facility management data as a project deliverable at all milestones. An important goal for the Construction Management Division is to not only enhance the value of all team efforts to efficiently design and construct lean, new and renovated construction projects using BIM, but also to assist in achieving a dependable use and development of BIM across multiple building types and for a wide range of County agencies.

Predictable, reliable, and uniform data will help to ensure a building dataset that will facilitate ongoing building operation and maintenance protocols. Project Consultant shall initiate and jointly develop BIM and Construction Operations Building Information Exchange (COBie) information to be completed by the Contractors throughout their corresponding phases of the project.

Definitions and Identifications for BIM terms used in this Attachment, requirements for electronic media, the BIM/CADD Standard of Care, LOD, COBie and other requirements are presented in Sections 1, 2 and 3 of this Attachment 2. The detailed BIM PxP Template is provided in Section 4 and is required to be developed at project initiation to provide a master information and data management plan and assignment of roles and responsibilities for model creation and data integration. Wherever possible, the BIM PxP will be developed through a collaborative approach involving all Project Consultants, Contractors and applicable County staff. A small sample of the Model Progression Schedule/Agent Responsible Matrix Template

(MPS) is provided in Section 5 and will be made available in its native Excel format upon request. The County template includes minimum LODs but will be adapted if needed for the Project. An Introduction and directions for completion are described on the first page of the document.

1 - Definitions and Identifications

The following BIM oriented definitions and identifications in this Section apply to this Attachment 2 unless the context, the Agreement in which the word or phrase is used, requires a different definition. In the event of a conflict, the Contract Administrator will determine its final resolution:

- 1.1 3D Coordination & Conflict Analysis: A process in which clash detection software is utilized during the coordination process to determine field conflicts by comparing 3D models of building systems. The goal of clash detection is to eliminate the major system conflicts prior to installation.
- 1.2 As-Constructed BIMs: Multiple Construction BIMs, delivered and validated by the Contractor before closing-up spaces and reviewed by the Consultants that represent the final As-Constructed building and components, including embedded data as required by the Contract Documents.
- 1.3 Asset Management: A process in which an organized management system will efficiently aid in the maintenance and operation of a facility and its assets. Asset Management utilizes the data contained in a record model to determine cost implications of changing or upgrading building assets, segregate costs of assets for financial tax purposes, and maintain a current comprehensive database that can produce the value of a company's assets.
- 1.4 Augmented Reality Simulation (AR): A Model Use where 3D models - combined with other technologies - allow users to experience virtual objects superimposed on top of physical objects or places, thus allowing images from the physical and virtual worlds to appear as one. AR is typically experienced through hand-held screens, wearables, holograms and projections.
- 1.5 BIM: Building Information Modeling as such term is defined by the US National Building Information Model Standard Project Committee. BIM is not a specific product or technology, instead it's a collection of software applications and processes designed to facilitate coordination and project collaboration through a facilities lifecycle. BIM is a process for developing design, construction and operations and maintenance documentation by virtually constructing a building, bridge or other form of infrastructure – before anything is built. As used herein, the BIM may also refer to a specific model derived from the BIM process (sometimes redundantly identified as a BIM model). References to Building Information Model, BIM, or the Model, include the primary design model or models and all linked, related, affiliated or subsidiary models developed for design, analysis, estimating, detailing, fabrication, construction, operation or maintenance of the project, or any portion or element of the project.

- 1.6 BIM Project Execution Plan (BIM PxP or PxP): A document that defines the appropriate uses for Building Information Modeling on a project (e.g., design authoring, design review and 3D coordination), along with a detailed design and documentation process for executing BIM throughout a facility's lifecycle, team contacts, team responsibilities, team roles, definitions, delivery methods / formats, LOD matrix, work flow and process maps are among other information outlined in the BIM PxP.
- 1.7 Building Maintenance Scheduling: A process in which the functionality of the building structure (walls, floors, roof, etc.) and equipment serving the building (mechanical, electrical, plumbing, etc.) are maintained over the operational life of a facility.
- 1.8 BIM2Field: See definition for Digital Layout.
- 1.9 CAD/CADD: Computer Aided Design/Computer Aided Design and Drafting. Interchangeably used terms interpreted as 2D, (Two Dimensional) representations in electronic format. CAD represents all pre-BIM digital tools and their 2D/3D deliverables.
- 1.10 CAD/BIM Manager: The System Administrator and/or person responsible for leading the BIM implementation processes within an organization and supporting it in developing/delivering new BIM services and model-based efficiencies. Also responsible for the management of all CAD and BIM data and processes.
- 1.11 CAFM – Computer Aided Facility Management: A software platform that streamlines facilities management and maintenance. CAFM software spans space and workplace management, asset management, project management, building operations, preventive maintenance, and more. These systems leverage facilities data and drawings into performance metrics and planning tools to optimize the process of managing facilities.
- 1.12 CIM - Sub-Surface: Civil Information Modeling and subsurface utility mapping that relates and is coordinated with the building modeling.
- 1.13 Clash Detection - Clash Rendition: A process in which clash detection software is used during the coordination process to determine field conflicts by comparing 3D models of building systems prepared by different disciplines. Rendition or the visual representation of the native-format model file is be used specifically for spatial coordination processes. The key benefit is to eliminate major system conflicts prior to installation, reducing errors, and hence costs, prior to commencement of construction.
- 1.14 CMMS: Computerized Maintenance Management System. A software system that provides maintenance managers a detailed look into the maintenance of a facility and keeps track of work costs and orders, machine history, labor records and critical equipment and can generate preventive maintenance work orders.
- 1.15 COBie: Construction Operations Building Information Exchange specifications as administered through the buildingSMART alliance, National Institute of building Sciences, Washington, DC. http://www.nibs.org/?page=bsa_cobie.

- 1.16 Code Validation: A process in which code validation software is utilized to check model parameters against specific codes.
- 1.17 Commissioning: The process of verifying in new construction that agreed upon building systems achieve the County's project requirements.
- 1.18 Compatible Data: Data that can be accessed directly by the target BIM or CADD system upon delivery to the County, without further translation or post-processing of the electronic digital data files. It is the responsibility of Consultant to ensure this minimum level of compatibility.
- 1.19 Constructability - PEER Review: Constructability can be defined as a review of the building model along with drawings, specifications to determine feasibility to assembly the project in the manner documented. The review includes, but does not limit, evaluating and identifying efficiencies, assemblies, systems and obstacles to construction.
- 1.20 Construction System Design: A process in which 3D System Design Software is utilized to design and analyze the construction of a complex building system (e.g. form work, glazing, tiebacks, etc.) in order to improve planning.
- 1.21 Cost Analysis: A process in which a BIM can offer a preliminary analysis of the costs of constructing a Project during the design process and provide cost benefit effects of additions and modifications with potential to save time and avoid budget overruns. The accumulation, examination, and manipulation of cost data for comparisons and projections
- 1.22 Cost Estimation: A process in which a BIM is used to develop accurate quantity take-offs for the purpose of creating or validating cost estimates.
- 1.23 Design Authoring: A process in which 3D software is used to develop a BIM based on criteria that is important to the translation of the building's design. Design authoring tools are a first step towards BIM, connecting the 3D model with a database of properties, quantities, means and methods and schedules.
- 1.24 Design for Maintenance: An evaluation process where each object selected during design for inclusion in a BIM are evaluated for maintenance issues, such as recommended, or code required clearances to perform routine maintenance activates to include complete replacement of the object or any of its components.
- 1.25 Design Model: is an object-based 3D model generated by the Design Team (individually or as a group) for the purposes of design analysis, Clash Detection and documentation.
- 1.26 Design Reviews: A process in which a 3D model is used to showcase the proposed design to the stakeholders and to help evaluate whether it has met deliverable requirements.
- 1.27 Digital Fabrication: A process that utilizes machine technology to prefabricate objects directly from a 3D Model. The Model is spooled into appropriate sections and input into fabrication equipment for production of system assemblies.

- 1.28 Digital Layout - BIM2Field: A process that allows information in a BIM to be transferred to digital layout tools for layout in conformance to the model. This information can be used to validate (QA/QC) the physical facility against the model.
- 1.29 Disaster Planning - EM Preparation: A process in which emergency responders would have access to critical building information in the form of model and information system. The BIM would provide critical building information to the responders, that would improve the efficiency of the response and, more importantly, minimize the safety risks. The dynamic building information would be provided by a building automation system (BAS), while the static building information, such as floor plans and equipment schematics, would reside in a BIM model. These two systems would be integrated via a wireless connection and emergency responders would be linked to an overall system. The BIM coupled with the BAS would be able to clearly display where the emergency was located within the building, possible routes to the area, and any other harmful locations within the building.
- 1.30 Electrical Analysis: A process in which intelligent modeling software uses the BIM model to determine the most effective electrical system based on engineering and design specifications. These analysis tools and performance simulations can significantly improve the design of the facility and its energy consumption during its lifecycle in the future.
- 1.31 Energy Analysis: A process in which intelligent modeling software uses the BIM model to determine the most effective facility energy plan based on engineering and design specifications. These analysis tools and performance simulations can significantly improve the design of the facility and its energy consumption during its lifecycle in the future.
- 1.32 Existing Conditions Modeling: A process in which a project team develops a parametric 3D model of the existing conditions for a site, facilities on a site, or a specific area within a facility. This model can be developed in multiple ways depending on what is desired and what is most efficient. Once the model is constructed, it can be queried for information, whether it be for new construction or a modernization project.
- 1.33 Facility Data Exchange: A process where a facility data schema is developed to ensure information is supplied to the BIM in electronic form so that it can be easily exchanged between the BIM and the organizations selected tool. The capability should include textural as well as graphic entities.
- 1.34 Federated BIM: A BIM model which links (does not merge) several single-discipline models together. Federated Models do not merge the properties of individual models into a single database. A federated model is useful for design coordination, clash avoidance and clash detection, approvals processes, design development, estimating and so on, but the individual models do not interact, they have clear authorship and remain separate. This means that the liabilities of the originators of the separate models are not changed by their incorporation into the federated model.
- 1.35 IFC: Industry Foundation Classes, open sharable standards for building information as defined by the buildingSMART alliance, National Institute of building Sciences, Washington, DC. <http://www.buildingSmart.org/compliance/certified-software>

- 1.36 Information Manager: The BIM Protocol refers to and provides for the appointment of 'Information Manager' by the Consultants, Contractors or County. This is the project manager, or BIM Manager who is responsible for managing the processes of information exchange on projects, using BIM procedures and methods.
- 1.37 Integrated Project Delivery* (IPD): The owner's goal who's primary motive is to bring the teams together early on in the project. A full implementation of BIM also requires the project teams to collaborate from the inception stage and formulate model sharing and ownership contract documents. *NOTE: True IPD employs various constructs, many of which the County is precluded from using by state law. (such as the use of multi-party contracts, and profit sharing). The County's integrated delivery approach leverages aspects of IPD that are allowed by law.
- 1.38 Laser Scanning and Point Cloud Integration: A process where the application is the controlled steering of laser beams followed by a distance measurement at every pointing direction. This is used to rapidly capture shapes of objects, buildings and landscapes. The point cloud generated is then interpreted by software to create a BIM of the existing conditions.
- 1.39 Life Cycle Assessment - Life-cycle assessment (LCA, also known as life-cycle analysis) is a cradle-to-grave environmental impact assessment for built assets, in terms of materials and energy. The energy and materials used, along with waste and pollutants produced as a consequence of a product or activity, are quantified over the whole life cycle; the result representing the environmental load of that asset. ISO 14040 defines LCA methodology.
- 1.40 Lighting Analysis: A process in which intelligent modeling software uses the BIM model to determine the most effective lighting method based on engineering and design specifications. These analysis tools and performance simulations can significantly improve the design of the facility and its energy consumption during its lifecycle in the future.
- 1.41 LOD: Level Of Development Specification for Building Information Models. See Section 3 – BIM/CADD Standards of Care and the current edition of the BIMForum LOD Specification for additional information. <http://BIMForum.org/lof>
- 1.42 Maintenance & Repair Information: A function to allow the collection and storage of maintenance and repair information about objects brought into a BIM.
- 1.43 Mechanical Analysis: A process in which intelligent modeling software uses the BIM model to determine the most effective mechanical system design based on engineering and design specifications. These analysis tools and performance simulations can significantly improve the design of the facility and its energy consumption during its lifecycle in the future.
- 1.44 Model Progression Schedule/Agent Responsible Matrix (MPS): A worksheet that is a guide for the project team to define model creation scope of work, minimum model level of development and responsible agent. The LOD will aid in determining the level of involvement of the project stakeholders from planning through facility turnover. This

worksheet is intended to guide the project team in achieving project goals, accommodate required BIM uses, meet schedule requirements for the project and identify the responsible agents at differing phases of the project.

- 1.45 **OmniClass:** OmniClass Construction Classification System (OCCS), is a means of organizing and retrieving information specifically designed for the construction industry. This agreement incorporates Table 23 establishing National Standards for the classification of construction products. OmniClass uses MasterFormat and UniFormat as the basis of its Tables wherever possible. <http://www.omniclass.org/about>
- 1.46 **Owner (County) Approval:** A business process which takes advantage of information stored in a BIM to help validate progress as well as observing that the County's intent for the facility is being honored both conceptually and contractually.
- 1.47 **Phase Planning - 4D Modeling:** A process in which a 4D model (3D models with the added dimension of time) is utilized to effectively plan the phased occupancy in a renovation, retrofit, addition, allow construction scheduling or to show the construction sequence and space requirements on a building site.
- 1.48 **Programming:** A process in which a spatial program is utilized to efficiently and accurately assess design performance in regard to spatial requirements. Use of the BIM model allows the project team to critically analyze space and understand the complexity of space standards and regulations for discussion with the County and other stakeholders.
- 1.49 **PxP:** Abbreviated form of (BIM PxP). See definition for BIM Project Execution Plan.
- 1.50 **RAW Image Format:** A camera raw image file contains minimally processed data from the image sensor of either a digital camera, a motion picture film scanner, or other image scanner. Raw files are named so because they are not yet processed and therefore are not ready to be printed or edited with a bitmap graphics editor.
- 1.51 **Quality Assurance/Quality Control - QA/QC:** QA/QC as a BIM Use refers to ensuring that the BIMs follow County requirements and all components of the approved BIM Execution Plan, and that the BIMs accurately represent the building geometry and data to meet the purposes for which they are developed.
- 1.52 **Quantity Take Off (QTO):** A model use representing how 3D models are used to calculate the quantity of Furniture, Fixtures and Equipment or building material to create a detailed measurement of materials and labor needed to complete a construction project. Estimators review drawings, specifications and BIMs to find these quantities.
- 1.53 **Record BIMs:** The updated BIMs generated by the Architecture/Engineering Team of record that includes the Contractors' As-Constructed BIMs.
- 1.54 **Security - Key Management:** A process to identify and evaluate the security zones in the facility using BIM. The process includes identifying the door keys required for openings through the security perimeters established to ensure that the level of security defined is maintained.

- 1.55 Site Analysis: A process in which BIM/GIS tools are used to evaluate properties in a given area to determine the most optimal site location for a future project. The site data collected is used to first select the site and then the position the building based on engineering criteria (e.g. solar path, utility availability, hazardous material).
- 1.56 Site Utilization Planning: A process in which a 4D model is used to graphically represent both permanent and temporary facilities on site, with the construction activity schedule. Additional information incorporated into the model can include labor resources, materials and associated deliveries, and equipment location.
- 1.57 Space Management: A process in which BIM is utilized to effectively allocate, manage, and track space types, workspaces, occupancy and resources within physical spaces.
- 1.58 Specification Production: A data based three-part specification system linked to the objects selected in a BIM which responds to any changes or alternatives items added or subtracted from the model.
- 1.59 Structural Analysis: A process in which analytical modeling software utilizes the BIM design authoring model to determine the behavior of a given structural system. Based on this analysis further development and refinement of the structural design takes place to create effective, efficient, and constructible structural systems.
- 1.60 Sustainability & LEED Evaluation: A BIM process in which a project is evaluated based on LEED or other sustainability criteria. This can refer to materials, performance, or a process. Sustainability evaluations can be applied across all four phases of a construction project, Planning, Design, Construction, and Operation. Sustainability evaluation is most effective when it is done in planning and design stages and then applied in construction and operations phase.
- 1.61 Tolerance: Acceptable dimension or variation from precise material, fabrication, or assembled condition as a unit of measure to be specified allowable variations in strength, stability, dimension, the mix of a material, the performance of a system, temperature ranges and so on.
- 1.62 Total Cost of Ownership / Service Life: A financial estimate intended to help buyers and owners determine all direct and indirect costs of a product or system.
- 1.63 Virtual Design and Construction (VDC): The management of integrated multi-disciplinary performance models of design-construction projects, the work processes and organization of the teams to support business objectives.
- 1.64 Virtual Reality Simulation (VR): A Model Use where 3D models are part of an Immersive Environment where users experience simulated places, objects and processes. As opposed to Augmented Reality Simulation, VR may require full 'immersion' within multi-projection rooms and/or through stereoscopic goggles and other specialized gear.
- 1.65 Visualization: Any technique for creating images, diagrams, or animations to communicate information. BIM can be used as a tool to show visual clarity of simple and complex systems and data to help understand project scope, design options, constructability, coordination and for QA/ QC.

2 - Electronic Media

2.1 General Requirements:

2.1.1 All Work, including drawings, land surveying work, maps, details or other drawing information to be provided in electronic media by Consultant shall be accomplished and developed using Computer-Aided Design and Drafting (CADD), or Building Information Modeling (BIM), or a coordinated combination of both as determined by the Contract Administrator and may also include other software and procedures conforming to the following criteria.

2.2 BIM and CAD/CADD Graphic Formats:

2.2.1 Provide all CAD/CADD data in Autodesk, Inc.'s AutoCAD release 2019 or higher for Windows in native .dwg electronic digital format. CAD/CADD data required for Contract submittals shall be provided in native .dwg format. Provide copies of all drawing sheets or other CAD/CADD and/or PDF format produced documents intended for hardcopy plotting or printing in plot (.plt) and drawing web format (.dxf) versions of all sheets/documents.

2.2.2 Provide all BIM models and data in Autodesk Revit 2019 or higher. Provide all BIM and data in any of the following software formats:

- a. Autodesk, Inc. Revit 2019 or higher.
- b. Alternative compatible BIM software formats that conform to the requirements of Section 2.2 of this Attachment if accepted in writing by the County's Contract Administrator.

2.2.3 BIM data required for Contract submittals shall be provided in their native (.rvt typical) format as well as .ifc format in conformance with IFC (Industry Foundation Classes) IFC2x4 or higher, as established by the buildingSMART International Alliance for Interoperability. Use of BIM vendor's or systems that incorporate the International Alliance for Interoperability IFC standard above are acknowledged but their use must be approved in writing in advance by the County's Contract Administrator and otherwise comply with this Attachment.

2.2.4 Building Positioning to be accomplished for the intended project site by using "Auto – by Shared Coordinates" process or similar. Obtain State Plane Coordinates from Project survey information and utilize this same positioning process for all BIM files.

2.2.5 CAD/CADD data required for Contract submittals shall be provided in native .dwg format or be contained within the structure of the BIM data required in Section 2.2.2.

- a. Ensure that all digital files and data (e.g., constructs, elements, base files, prototype drawings, reference files and images, blocks, attribute links, pen settings and all other files external to the drawing itself) are Compatible Data with the Contract Administrator's target BIM and/or CADD system (i.e., BIM and CADD software, platform, database software), and adhere to the standards and requirements specified herein.

2.2.6 Target platform: A personal computer with Windows 10 operating system that meets or exceeds the minimum manufacturer's requirements to operate the version of software utilized for the project.

2.2.7 Any non-graphical database delivered with prepared drawings must be provided in relational database format compatible with Microsoft Access 2016 or higher, or other compatible SQL format database. All database tables must conform to the structure and field-naming guidance provided upon request by the Contract Administrator.

- a. Maintain all linkages of non-graphical data with graphic elements, relationships between database tables, and report formats.

2.2.8 CAD/CADD Standards:

- a. Standard plotted drawing size: 24-inch x 36-inch sheets (Arch D-sized sheet)
- b. Coordinate with the Contract Administrator concerning the standard file naming protocol to be utilized.
- c. Drawing Set Organization and Sheet Identification per the United States National CAD Standard - V5. Provide dots in lieu of dashes at all uses.

2.2.9 CAD/CADD Layering:

- a. Conform to the guidelines defined by the American Institute of Architect's (AIA) standard document, U.S. National CAD standards version 5 (V5). "CAD Layer Guidelines", 2nd edition or later.
- b. Provide an explanatory list of which layers are used at which drawing and an explanatory list of all layers which do not conform to the standard AIA CAD Layer Guidelines including any user definable fields permitted by the guidelines.
- c. Layering: The Contract Administrator may, from time to time, supplement the AIA CAD Layer Guidelines with the Contract Administrator's specific requirements for Facilities or Construction Management and other related information. Obtain latest Contract Administrator specific layering from Contract Administrator prior to production of documents and incorporate into drawings.

2.2.10 Attribute Definitions:

- a. Obtain latest guidance from the Contract Administrator concerning attribute definition, database linking and other information embedding requirements prior to production of documents.

2.2.11 Federated Models: The following colors shall be utilized for all federated models including Design, Construction, Coordination, As-Constructed, and Record Models:

- a. Architectural Models
 1. Architectural - White
 2. Envelope (Curtainwall, Precast, Other) - Default
 3. Masonry - Gray
- b. Civil & Site Improvement Model

1. TBD

c. Structural Models

1. Steel – Maroon
2. Concrete - Gray
3. Masonry - Gray

d. MEP/FP Models

1. Mechanical Ductwork Supply - Blue
2. Mechanical Ductwork Return - Magenta
3. Mechanical Ductwork Exhaust – Medium Orchid
4. Mechanical Piping Supply – Gold
5. Mechanical Piping Return- Violet
6. Electrical Conduit – Light Yellow
7. Cable Tray- Dark Orange
8. Electrical Lighting – Light Golden Rod Yellow
9. Plumbing Domestic Water - Lime
10. Plumbing Storm / Roof Drain – Dark Green
11. Plumbing Waste / Vent - Olive
12. Medical Gas – Light Green
13. Fire Protection - Red
14. Fire Alarm – Golden Rod
15. Data/IT / Controls - Aqua
16. Pneumatic Tubing – Dark Slate Gray

e. Miscellaneous Models

1. Framing – Sandy Brown
2. Equipment Models (by Equip. Planners) – Burly Wood
3. Clearances - Dark Red

2.2.12 Deviations from Standards:

- a. Submit a written request for approval of any deviations from the Contract Administrator's established electronic media standards. Pre-coordinate the development, use and submittal of 3-D modeling, Building Information Models (BIM), photo-realistic renderings, animations, presentations and other visualization/information tools utilized during the design and construction process to ensure compatibility of submittal with County's intended use and information systems.
- b. No deviations from the County's established BIM/CADD standards will be permitted unless prior written approval of such deviation has been received from the Contract Administrator.
- c. Contract Administrator reserves the right to review, accept or reject AutoCAD files, BIMs and other Digital Deliverables. If the Digital Deliverables do not comply with the provisions of the agreement between County and the External Project Team member, the External Project Team member will be required to correct the work at no additional cost to County or delay to the Project Schedule.

- d. Contract Administrator also reserves the right to review, accept or reject Facility Data deliverables when required by contractual agreements. To ensure successful integration into County's CAFM software, milestone reviews may be conducted by County to export or link BIM data into these designated programs to ensure compatibility and capability. During the development of the BIM PXP, the required BIM outputs allowing for this integration will be determined. If the Facility Data integration with the computer aided facility management software fails because of the BIMs non-compliance with the provisions of the agreement between County and the External Project Team member, or the data imported does not accurately reflect the current state of the Project, the External Project Team member will be required to correct the work at no additional cost to the owner or delay to the Project Schedule.

2.3 Non-BIM/CADD Graphic Format:

2.3.1 Provide digital photography files and other miscellaneous graphics in High Resolution JPEG, PDF in 600 dots per inch (dpi) or higher resolution or PNG format. Provide RAW files when available.

2.4 Non-Graphic Format:

2.4.1 Provide word processing files in Microsoft Word 2016 or higher compatible file formats including all fonts, typefaces, bitmap and vector graphics and other information necessary for remote printing.

2.4.2 Provide spreadsheet files in Microsoft Excel 2016 or higher for windows compatible file formats including all fonts, typefaces, bitmap and vector graphics and other information necessary for remote printing.

2.4.3 Provide database files in relational database format compatible with Microsoft Access 2016 or higher, PDF or other compatible SQL format database including all tables, form and report formats, fonts, typefaces, bitmap and vector graphics and other information necessary for remote printing. Ensure integrity of relational database structure.

2.5 Delivery Media and Format:

2.5.1 Submit copies of all BIM/CADD data and other electronic files developed under this contract on electronic digital media as required for project phase submittals to 400 dots per inch (dpi) resolution.

2.5.2 Provide electronic digital data and files on labeled ISO-9660 CD-ROM., DVD's, Flash drives or other acceptable alternatives if approved by the Contract Administrator. Each device or disc shall contain identifying County project information in their disk name.

2.5.3 The electronic digital media shall be in the format which can be read and processed by the Contract Administrator's target CADD or BIM system. See also Section 2.2.

2.5.4 The external label or archival case for each electronic digital media shall contain, as a minimum, the following information:

- a. The Project Number, Project Title and date.
- b. The Facility Name
- c. The format and version of operating system software.
- d. The name and version of utility software used for preparation (e.g., compression/decompression) and copying files to the media.
- e. A list of the filenames, (a separate sheet will be accepted).

2.5.5 Before a CADD file is placed on the delivery electronic digital media, the following procedures shall be performed:

- a. Ensure that drawing sheets, viewports, paper-space, line weights, fonts, and other drawing components are correctly configured for Contract Administrator's viewing and plotting.
- b. Make sure all reference files are attached using a "relative" path setting and without device or directory specifications.
- c. Transmit function should be used in AutoCAD to assemble files for submittal. For each 2D drawing, provide one bound file containing drawing sheet with associated XREFs and one un-bound file containing the associated XREFs.
- d. Compress and reduce all design files using PKZIP, WINZIP or other compatible file compression/decompression software approved by the Contract Administrator. If the file compression/decompression software is different from that specified above, then an electronic digital media copy of the file compression/decompression software shall be purchased for the Contract Administrator and provided with the delivery media.
- e. Include all files, both graphic and non-graphic, required for the project (i.e., color tables, pen tables, font libraries, block libraries, user command files, plot files, and other elements of drawing definition). All blocks not provided as Contract Administrator-furnished materials must be provided as a part of the electronic digital deliverables.
- f. Make sure that all support files such as those listed above are in the same directory and that references to those files do not include device or directory specifications.
- g. Document any fonts, tables, or other similar customized drawing element developed by Consultant or not provided among Contract Administrator-furnished materials. Contractor shall obtain Contract Administrator approval before using anything other than Contract Administrator's standard fonts, line types, tables, blocks, or other drawing elements available from Contract Administrator.
- h. Include any standard sheets (i.e., abbreviation sheets, standard symbol sheets, or other listing) necessary for a complete project.
- i. Check completed files are free of any known viruses or unrequired attachments.

2.6 Drawing Development Documentation:

2.6.1 Provide the following information for each finished drawing in the nonplot layer X****-NPLT:

- a. How the data were input (e.g., keyed in, downloaded from a survey total station instrument (include name and model), and other identification data).
- b. Brief drawing development history (e.g., date started, modification date(s) with brief description of item(s) modified, author's name, and other identifying data.).
- c. The names of the reference, blocks, symbols, details, tables, and schedule files required for the finished drawing.
- d. Layer assignments and lock settings.
- e. Text fonts, line styles/types used, and pen settings.

2.7 Submittals / Deliverables:

2.7.1 Submit as Project Record Documents specified above and as required for project phase submittals and project record documents.

2.7.2 Submit electronic media with a transmittal letter containing, as a minimum, the following information:

- a. The information included on the external label of each media unit (e.g., CD, DVD, flash drive, etc.), along with the total number being delivered, and a list of the names and issue dates of all files on the media.
- b. Brief instructions for transferring the files from the media.
- c. Confirm that all delivery media is free of known computer viruses. A statement including the name(s) and release date(s) of the virus-scanning software used to analyze the delivery media, the date the virus-scan was performed, and the operator's name shall also be included with the certification. The release or version date of the virus-scanning software shall be the current version that has detected the latest known viruses at the time of delivery of the digital media.
- d. The following "Plot File Development and Project Documentation Information" as an enclosure or attachment to the transmittal letter provided with each electronic digital media submittal:
 1. List of all new figures, symbols, tables, schedules, details, and other blocks created for the project, which were not provided to Consultant with the Contract Administrator-furnished materials, and any associated properties.
 2. List of all database files associated with each drawing, as well as a description and documentation of the database format and schema design.
 3. Recommended modifications which will be necessary to make the data available for GIS use.

2.7.3 Prime Contractors are responsible for ensuring that the Digital Deliverables prepared by their Subcontractors or Subconsultants comply with the standards and policies outlined in this document.

2.8 Ownership:

2.8.1 County has ownership and all rights to all finished or unfinished digital deliverables developed for this Project. Any digital deliverables generated under any County Consulting

or Construction Agreements or Contracts, including those generated by the External Project Team Members' Subcontractors or Subconsultants, shall become the property of County. County will have unlimited use of the digital deliverables produced for the Project. County acknowledges that the digital deliverables are an instrument of service of the external project team member and that the author of the digital deliverable does not represent or guarantee that the digital deliverable will be useful to County for any purposes beyond those uses that they were authored.

2.8.2 County will have unlimited rights under the Agreement of which this document is a part to all information and materials developed under these and other contractual requirements and furnished to the Contract Administrator and documentation thereof, reports, and listings, and all other items pertaining to the work and services pursuant to this agreement including any copyright.

2.8.3 Unlimited rights under this contract are rights to use, duplicate, or disclose text, data, drawings, and information, in whole or in part in any manner and for any purpose whatsoever without compensation to or approval from author except where otherwise limited within the Contract.

2.8.4 The Contract Administrator will at all reasonable times have the right to inspect the work and will have access to and the right to make copies of the above-mentioned items.

2.8.5 All text, electronic digital files, data, and other products generated under this contract shall become the property of County except where otherwise limited within the Contract.

2.9 Contract Administrator-Furnished Materials to the Construction Contractor:

2.9.1 The Contract Administrator and Consultant may make various electronic information available to the Contractor during the Pre-Construction and Construction phases of the Project. To this end, Consultant shall make the following information available to the Contractor in electronic format:

- a. Work-files: Selected work product files, copies of BIM and/or CAD files, reports, spreadsheets, databases, specifications, drawings and other documentation of Consultant's work in progress may be provided to the Contractor, Managing General Contractor, or other County consultant on an as required basis. Consultant shall cooperate and facilitate the secure exchange of these electronic media documents.
- b. Where electronic media submittals of final site surveys are required: Provide electronic copies of any existing site survey data already on electronic media conforming to Section 2.2 of this Attachment.
- c. Where Electronic Project Record Documents are required, Consultant will provide the Contractor one set of contract drawings in an electronic file format conforming to Section 2.2 of this Attachment, to be used for as-constructed drawing markups at the Contractor's option. Make electronic file drawings available on media in conformance with Section 2.5 of this Attachment.

2.10 Other Digital Information:

2.10.1 A variety of digital information may be generated by participants in the design process including the Contract Administrator, Consultant, Subconsultants, Contractor, subcontractors, the Contract Administrator's commissioning authority, local jurisdictional authorities and other project team members.

2.10.2 Consultant shall facilitate and participate in this digital exchange of information by conforming to the standards expressed above and as further described in Attachments.

3 - BIM/CADD Standards of Care

3.1 General Provisions:

3.1.1 The Model(s) shall be developed to include the systems described below as they would be built, the processes of installing them, and to reflect final As-Constructed construction conditions. The deliverable 3D Model at all phases shall be developed to include as many of the systems described below as are necessary and appropriate to the design/construction stage. The BIM shall be provided in an editable form and from its inception shall include automatic model positioning using a common reference point (Point of Origin), based on "Florida State Plane Coordinates" derived from the project survey.

3.1.2 The Model shall be developed using Building Information Modeling ("BIM") supplemented with Computer Aided Drafting and Design ("CADD") content as necessary to produce a complete set of Construction Documents.

3.1.3 Provide all Building Information Modeling (BIM) for Space Management and Program Validation in conformance to the General Service Administration's (GSA) "Building Information Modeling Guide 02 -Spatial Program Validation," dated May 21, 2015 or later. Provide space identification, charts and information in conformance with this Guide.

3.1.4 The parties shall utilize the appropriate Levels of Development (LOD) described below in completing the Model, which establishes the required LOD for each Model Element at each phase of the Project.

3.1.5 The following Level of Development (LOD) descriptions are summaries of Level Of Development Specification for Building Information Models as developed by BIMForum. (<http://bimforum.org/lod>), current edition (2017 or later). Each subsequent LOD builds on the previous level and includes all the characteristics of previous levels. See also "Section 5 BIM Model Progression Schedule" for examples and graphic descriptions of Levels of Development. The following list is a simplified summary of the adopted Levels of Development:

- LOD 100 elements are not geometric presentations. They may be symbols or other generic representations of information that can be derived from other model elements. Any information derived from LOD 100 elements must be considered approximate.

- LOD 200 elements are represented graphically but are generic placeholders, e.g., volume, quantity, location, or orientation. Any information derived from LOD 200 elements must be considered approximate.
- LOD 300 elements are graphically represented as specific systems, objects, or assemblies from which quantity, shape, size, location, and orientation can be measured directly, without having to refer to non-modeled information such as notes or dimension callouts.
- LOD 350 elements are enhanced beyond LOD 300 by the addition of information regarding interfaces with other building systems. For example, an LOD 350 masonry wall element would include jamb conditions, bond beams, grouted cells, dowel locations, and joints – information that enables the model user to coordinate the wall element with other systems in the structure.
- LOD 400 elements are modeled at sufficient detail and accuracy for fabrication of the represented component.

NOTE - County and the LOD Specification do not address LOD 500 since that LOD relates to field verification and is not an indication of progression to a higher level of geometry or information.

3.1.6 The parties shall utilize the appropriate Levels of Development (LOD) described below in completing the Model, which establishes the required LOD for each Model Element at each phase of the Project. LODs and Model Definition: There is no such thing as an “LOD ### model.” As previously noted, project models at any stage of delivery will invariably contain elements and assemblies at various levels of development. As an example, it is not logical to require an “LOD 200 model” at the completion of the schematic design phase. Instead, the “100% SD Model” will contain modeled elements at LOD 100 as well as various other levels of development. Consultants will be required to submit a LOD Model Progression as part of the Project Execution Plan.

3.2 Level of Development (LOD) – Expanded Descriptions

3.2.1 LOD 100: (Predesign preferred) and Schematic Design (Basic Services)

- a. Model Content Requirements: Overall building massing indicative of area, height, volume, location, and orientation may be modeled in three dimensions or represented by other data.
- b. Potential Uses:
 1. Analysis: The Model may be analyzed based on volume, all spaces, area, solar orientation and configuration by application of generalized performance criteria assigned to the representative Model Elements.
 2. Cost Estimating: The Model may be used to develop a cost estimate based on current area, volume or similar conceptual estimating techniques (e.g., square feet of floor area, etc.), as opposed to components.
 3. Schedule: The Model may be used for project phasing and overall duration.

3.2.2 LOD 200: Design Development (Basic Service)

- a. Model Content Requirements: Model Elements are modeled as generalized systems or assemblies with approximate quantities, size, shape, location, and

orientation. Non-geometric information may also be attached to Model Elements. Partitions and simple furniture models shall be included at this phase.

b. Potential Uses:

1. Analysis. The Model may be analyzed for performance of selected systems and orientation by application of generalized performance criteria assigned to the representative Model Elements.
2. Cost Estimating. The Model may be used to develop cost estimates based on the approximate data provided and conceptual estimating techniques (e.g., volume and quantity of elements or type of system selected).
3. Schedule. The Model may be used to show ordered, time-scaled appearance of major elements and selected systems.

3.2.3 LOD 300: Construction Documents (Basic Service)

a. Model Content Requirements: Model Elements are modeled as specific assemblies accurate in terms of quantity, size, shape, location, and orientation. Non-geometric information may also be attached to Model Elements.

b. Facility Management information: Consultant will be required to input all new products installed under the scope of work for this project in conformance with an agreed upon list in OmniClass Table 23 format per Table 1 herein. County and Consultant to meet to refine the scope of the COBie information following issuance of the Schematic Phase NTP.

c. Potential Uses:

Suitable for the generation of traditional construction documents and shop drawings.

1. Analysis. The Model may be analyzed for performance of selected systems by application of specific performance criteria assigned to the representative Model Elements.
2. Cost Estimating. The Model may be used to develop cost estimates based on the specific data provided and industry estimating techniques.
3. Schedule. The Model may be used to show ordered, time-scaled appearance of detailed elements and systems.
4. Clash Detection. The Model may be used to identify architectural and engineering conflicts for primary systems and elements. Areas of study include HVAC ductwork and equipment, structural elements, above ground plumbing and drainage piping, fire sprinklers and risers.

3.2.4 LOD 350: Construction (Contractor to provide this LOD as part of its Scope of Work, using the Consultants model unless County elects Consultant to provide as Optional Service)

a. Model Content Requirements: Model Elements are modeled as constructed assemblies, actual and accurate in terms of size, shape, location, quantity, and orientation. Clearances and access requirements to be included in model elements where applicable, (e.g. VAV access, HVAC access panels, equipment door swings, maintenance panel access, etc.). Non-geometric information may also be attached to modeled elements.

b. Facilities Management information: Consultant to provide complete BIM model(s) to Contractor for its use containing Construction Operations Building Information Exchange (COBIE) standards in conformance with Table 1 herein.

c. Potential Uses:

1. Clash Detection. The model may be used to coordinate the configuration, installation and positioning of all building elements.
2. Facility Management. The Model may be utilized for maintaining, altering, and adding to the Project. Update and confirm As-Constructed COBie data and Space Management information.
3. Analysis. The Model may be analyzed for performance of selected systems by application of specific performance criteria assigned to the representative Model Elements.
4. Cost Estimating. The Model may be used to develop cost estimates due to change in project scope based on the specific data provided and estimating techniques.
5. Schedule. The Model may be used to show ordered, time-scaled appearance of detailed elements and systems.

3.2.5 Detailed BIM Delivery Breakdown for LOD 300 and 350:

- a. Architectural/Interior Design. The Architectural systems Model may vary in level of detail for individual building elements, but at a minimum the model must include all features that would be included on a quarter inch ($1/4" = 1'-0"$) scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. Additional minimum Model requirements include:
 1. Spaces. The Model shall include spaces defining actual net square footage, net volume and holding data to develop the room finish schedule including room names and numbers. Include program information to verify design space against programmed space, using this information to validate area quantities.
 2. Walls and Curtain Walls. Each wall shall be depicted to the exact height, length, width, materiality and ratings (thermal, acoustic, fire) to properly reflect wall types. The Model shall include all walls, both interior and exterior, and the necessary intelligence to produce accurate plans, sections and elevations depicting these design elements.
 3. Doors, Windows and Louvers. Doors, windows and louvers shall be depicted to represent their actual size, type and location. Doors and windows shall be modeled with the necessary intelligence to produce accurate window and door schedules.
 4. Roof. The Model shall include the roof configuration, drainage system, penetrations, specialties, and the necessary intelligence to produce accurate plans, building sections and wall sections where roof design elements are depicted.
 5. Floors. The floor slab(s) shall be developed in the Structural Model and then referenced by the Architectural Model.
 6. Ceilings. All heights and other dimensions of ceilings, including soffits, ceiling materials, or other special conditions shall be depicted in the Model with the necessary intelligence to produce accurate plans, building sections and wall sections where ceiling design elements are depicted.
 7. Vertical Circulation. All continuous vertical components (i.e., non-structural shafts, architectural stairs, ramps, conveying systems, handrails and guardrails) shall be accurately depicted and shall include the necessary intelligence to produce accurate plans, elevations and sections in which such design elements

are referenced.

8. Architectural Specialties. All architectural specialties (i.e., toilet room accessories, toilet partitions, grab bars, lockers, and display cases) and millwork (i.e., cabinetry and counters) shall be accurately depicted with the necessary intelligence to produce accurate plans, elevations, sections and schedules in which such design elements are referenced.
 9. Signage. The Model shall include all signage and the necessary intelligence to produce accurate plans and schedules.
 10. Schedules. Provide door, window, hardware sets using Builders Hardware Manufacturers Association (BHMA) designations, flooring, wall finish, and signage schedules from the Model, indicating the type, materials and finishes used in the design.
- b. Furniture. The furniture Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch (1/4" = 1'-0") scaled drawing and have necessary intelligence to produce accurate plans. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. Representation of furniture elements is to be 3D. 3D Examples of furniture include, but are not limited to, desks, furniture systems, seating, tables, and office storage. Additional minimum Model requirements include:
1. Furniture Coordination. Furniture that makes use of electrical, data or other features shall include the necessary intelligence to produce coordinated documents and data. Models shall be sufficient to enable their use to demonstrate complete furniture mounted electrical and data installation locations.
- c. Equipment. The Model may vary in level of detail for individual elements. Equipment shall be depicted to meet layout and clearance requirements with the necessary intelligence to produce accurate plans and schedules, indicating the configuration, materials, finishes, mechanical, electrical requirements and all other related utilities. Examples of equipment include but are not limited to copiers, printers, refrigerators, ice machines, microwaves, and equipment specifically related to the operations and functions of the facility.
1. Schedules. Provide furniture and equipment schedules from the model indicating the materials, finishes, mechanical, and electrical requirements.
- d. Structural. The structural systems Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch (1/4" = 1'-0") scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. Additional minimum Model requirements include:
1. Foundations. All necessary foundation and/or footing elements, with necessary intelligence to produce accurate plans and elevations.
 2. Floor Slabs. Structural floor slabs shall be depicted with all necessary recesses, curbs, pads, closure pours, and major penetrations accurately depicted. Major penetrations shall include A/C duct chases and pipes larger than 6" dia. only.

3. Structural Steel. All steel columns, primary and secondary framing members, and steel bracing for the roof and floor systems (including decks), including all necessary intelligence to produce accurate structural steel framing plans, related building/wall sections, and schedules.
 4. Cast-in-Place Concrete. All walls, columns, beams, including necessary intelligence to produce accurate plans and building/wall sections, depicting cast-in-place concrete elements.
 5. Precast/Tilt-up/CMU. All walls, columns, beams, including necessary intelligence to produce accurate plans and building/wall sections, depicting such elements.
 6. Expansion Joints. Joints shall be accurately depicted.
 7. Stairs. All framing members for stair systems, including necessary intelligence to produce accurate plans and building/wall sections depicting stair design elements.
 8. Shafts and Pits. All shafts and pits, including necessary intelligence to produce accurate plans and building/wall sections depicting these design elements.
 9. Openings and Penetrations. All major openings and penetrations.
- e. Mechanical. The mechanical systems Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch ($1/4" = 1'-0"$) scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. Small diameter (less than $3/4"$ NPS) field-routed piping is not required to be depicted in the Model. Additional minimum Model requirements include:
1. HVAC. All necessary heating, ventilating, air-conditioning and specialty equipment, including air distribution for supply, return, ventilation and exhaust ducts, control systems, chillers, registers, diffusers, grills, and hydronic baseboards with necessary intelligence to produce accurate plans, elevations, building/wall sections and schedules.
 2. Mechanical Piping. All necessary piping and fixture layouts, and related equipment, including necessary intelligence to produce accurate plans, elevations, building/wall sections, and schedules.
 3. Equipment Clearances. All Mechanical equipment clearances shall be modeled for use in interference management and maintenance access requirements.
- f. Plumbing. All necessary plumbing piping and fixture layouts, floor and area drains, and related equipment, including necessary intelligence to produce accurate plans, elevations, building/wall sections, riser diagrams, and schedules. Piping shall include slope requirements.
1. Equipment Clearances. All equipment clearances shall be modeled for use in interference management and maintenance access requirements.
- g. Electrical/Telecommunications/Data. The electrical and telecommunications systems Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch ($1/4" = 1'-0"$) scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary

details. Small diameter (less than 1" Ø) field-routed conduit is not required to be depicted in the Model unless banks of 3 or more conduits are run on racks. Additional minimum Model requirements include:

1. Interior Electrical Power and Lighting. All necessary interior electrical components (i.e., lighting, receptacles, special and general-purpose power receptacles, lighting fixtures, panel boards, cable trays and control systems), including necessary intelligence to produce accurate plans, details and schedules. Lighting and power built into furniture/equipment shall be modeled. Whips servicing lighting fixtures are required to be modeled.
 2. Special Electrical. All necessary special electrical components (i.e., mass notification, nurse call and other special electrical occupancy sensors, and control systems), including necessary intelligence to produce accurate plans, details and schedules.
 3. Grounding. All necessary grounding components (i.e., lightning protection systems, static grounding systems, communications grounding systems, cadweld locations and bonding), including necessary intelligence to produce accurate plans, details and schedules.
 4. Telecommunications/Data. All existing and new telecommunications service controls and connections, both above ground and underground, with necessary intelligence to produce accurate plans, details and schedules. Cable tray routing shall be modeled without detail of cable contents.
 5. Exterior Building Lighting. All necessary exterior lighting including all lighting fixtures, mounting details, relevant existing and proposed support utility lines and equipment with necessary intelligence to produce accurate plans, details and schedules.
 6. Exterior Electrical Equipment. All new transformers, pads, disconnects, site power receptacles, photocells, with necessary intelligence to produce accurate plans and details.
 7. Photovoltaic Panel Systems. Panels, transformers, inverters, fuses, switches, disconnects, communication panels and all underground conduit 1-1/2" or larger in diameter, with necessary intelligence to produce accurate plans and details.
 8. Electric Car Charging Stations. All new charging stations and conduit to point of power connection, including devices and disconnects, with necessary intelligence to produce accurate plans and details.
 9. Equipment Clearances. All electrical equipment clearances shall be modeled for use in interference management and maintenance access requirements.
- h. Fire Protection. The fire protection system Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch (1/4" = 1'-0") scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. All fire protection piping should be modeled. Additional minimum Model requirements include:
1. Fire Alarms. Fire alarm/mass notification devices and detection systems, audible and visual, shall be indicated with necessary intelligence to produce accurate plans depicting them.
 2. Fire Protection System. All relevant fire protection components (i.e., branch piping, sprinkler heads, fittings, drains, pumps, tanks, sensors, control panels)

- with necessary intelligence to produce accurate plans, elevations, building/wall sections, riser diagrams, and schedules, including necessary intelligence to produce accurate plans, details and schedules.
3. Exterior Fire Protection elements. All fire hydrants, fire department connections, valves and fire line piping shall be indicated with necessary intelligence to produce accurate plans depicting them on drawings.
- i. Security. The security system Model may vary in level of detail for individual elements, but at a minimum must include all devices and components that would be included on a quarter inch ($1/4" = 1'-0"$) scaled drawing. Where applicable and as required for construction documents, the model, or host platform will include additional scales as required to show necessary details. Additional minimum Model requirements include, but not limited to:
1. Closed Circuit Television (CCTV). Security cameras, devices, components, and detection systems shall be indicated with necessary intelligence to produce accurate plans depicting them on drawings.
 2. Emergency Notification systems. All relevant security protection components (i.e. panic buttons, card readers, door controls, monitoring stations, security computer room, room/ corridor sensors, audible/visible annunciators, and security control panels) with necessary intelligence to produce accurate plans depicting the system(s).
 3. Burglar alarm systems. Building security including motion detectors, glass-break sensors, audible devices, and other intrusion detection devices as well control system for above shall be indicated on plans.
 4. Public address system. Speakers, zone control reflected on plan.
 5. Low-voltage systems. Various systems for communication, or customer services including Wi-Fi, FIBS/BIDS boards, phone chargers, lighting, Public Art, induction systems, wayfinding, solar PV, wind, and other systems.
 6. Bi-Directional Antenna system (BDA). – Antennas, trunk lines, branch line, control boxes, repeaters, emergency or redundant power sources, primary interface components, & home run room.
 7. Distributed Antenna system (DAS). Antennas, splitters, feeders, nodes, headend and other distribution system and signal source equipment.
 8. Public Address system (PA). Speakers, amplifiers, microphone locations and backbone.
-
- j. Conveying Systems. The conveying systems models should indicate primary equipment, all necessary plumbing piping, electrical panels, fixture layouts and other related equipment, that would appear on a quarter inch ($1/4" = 1'-0"$) scaled drawing. Clearly indicate equipment clearances.
1. Elevator Equipment. All necessary equipment and control systems, including necessary intelligence to produce accurate plans, sections and elevations depicting these design elements. Provide indicators and call buttons.
 2. Escalator and other Conveyance Equipment. All relevant components of the escalator/conveyance system including accurate modeling of stair tread, size and placement. Indicate areas where 6'-8" clear headroom exists below the finished escalator if applicable.

- k. Landscape. The Landscape Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a quarter inch (1/4" = 1'0") scaled drawing and have necessary intelligence to produce accurate plans. Representation of Landscape elements is to be diagrammatic. Examples of landscape material include but are not limited to trees and shrubs.
 - 1. Irrigation system. Primary components, including pumps, wells, control valves, timers and main and secondary piping, (1-1/4" in size and above).
 - 2. Site Elements. Benches, Bike Racks, Postal Equipment and Trash Receptacles.
- l. Civil. The Civil Model may vary in level of detail for individual elements, but at a minimum must include all features that would be included on a one inch (1" = 100' to 1" = 20') scaled drawing. Additional minimum Model requirements include:
- m. Terrain (DTM). All relevant site conditions and proposed grading, including necessary intelligence to produce accurate Project site topographical plans and cross sections.
- n. Drainage. All existing and new drainage piping and structures including upgrades thereto, including necessary intelligence to produce accurate plans and profiles for the Project site.
- o. Cisterns. All new above or below ground water storage structures, pumps, filters, treatment equipment, backflow preventers, rainwater leaders, overflow piping, automatic and manual shutoffs or valves and supply piping to the rainwater's intended use.
- p. Storm Water and Sanitary Sewers. All existing and new sewer structures and piping, cleanouts including upgrades thereto, with necessary connections to mains or other distribution points as appropriate, including necessary intelligence to produce accurate plans and profiles.
- q. Potable Water. All new water piping to the building, meters, backflow preventers, valves, distribution and access boxes, including interconnection to cistern makeup water connections.
- r. Utilities. All necessary new utilities connections from the Project building(s) to the existing or newly created utilities, and all existing above ground and underground utility conduits, including necessary intelligence to produce accurate plans and site-sections.
- s. Roads and Parking. All necessary roadways, parking lots, and parking structures, light poles, including necessary intelligence to produce accurate plans, profiles and cross-sections.
- t. Sidewalks and Paths. All concrete, paver, asphalt, rubber, synthetic turf or other permanent material used for activity areas, pedestrian walkways and bicycle paths.
- u. Potential Uses:
 - a. Suitable for the generation of traditional construction documents and shop drawings.
 - b. Analysis. The Model may be analyzed for performance of selected systems by application of specific performance criteria assigned to the representative Model Elements.
 - c. Cost Estimating. The Model may be used to develop cost estimates based on the specific data provided and conceptual estimating techniques.

- d. Schedule. The Model may be used to show ordered, time-scaled appearance of detailed elements and systems.

3.2.6 LOD 400: BIM for Fabrication. (Optional Service).

- a. Model Content Requirements. Model Elements are modeled as specific assemblies that are accurate in terms of size, shape, location, quantity, and orientation with complete fabrication, assembly, and detailing information. Non-geometric information may also be attached to Model Elements.
- b. Potential Uses:
 - 1. Construction. Model Elements are virtual representations of the proposed element and are suitable for construction.
 - 2. Analysis. The Model may be analyzed for performance of approved selected systems based on specific Model Elements.
 - 3. Cost Estimating. Costs are based on the actual cost of specific elements at buyout.
 - 4. Schedule. The Model may be used to show ordered, time-scaled appearance of detailed specific elements and systems including construction means and methods.

3.3 BIM for Facility Management

BIMs shall be provided by Contractor or Managing General Contractor (MGC). Contractor or MGC shall submit an As Constructed BIM to the A/E Consultant demonstrating the successful extraction and validation of COBie in Excel format for building operations, maintenance and management.

3.4 As-Constructed Model Content Requirements

- a. Model Content Requirements. Contractor shall model Elements as constructed assemblies, actual and accurate in terms of size, shape, location, quantity, and orientation. Non-geometric information may also be attached to modeled elements. Facilities Management/CAFM data completed with all requested information developed to County required Construction Operations Building Information Exchange (COBIE) standards. A model that accurately depicts rooms, names, uses, final room numbering, sizes and identifiers for on-going space management of the completed facility.
- b. Potential Uses:
 - 1. Facility & Construction Management. The Model may be utilized for maintaining, altering, and adding to the Project and generating reports.
 - 2. Project Record Documents. As-Constructed data accurately portrayed in the BIM model for future reference and reuse.

3.5 COBie Data

- a. Within 30 days from the issuance of the Notice To Proceed (NTP) for Schematic Design, the County and Consultant shall finalize and select items from the following OmniClass 23 table to establish the basis of COBie elements that need maintenance, to be tracked and delivered in the completed model.

23-11	Products
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23-13 00 00	Structural and Exterior Enclosure Products
23-15 00 00	Interior and Finish Products
23-17 00 00	Openings, Passages, and Protection Products
23-21 00 00	Furnishings, Fixtures and Equipment Products
23-23 00 00	Conveying Systems and Material Handling Products
23-27 00 00	General Facility Services Products
23-29 00 00	Facility and Occupant Protection Products
23-31 00 00	Plumbing Specific Products and Equipment
23-33 00 00	HVAC Specific Products and Equipment
23-35 00 00	Electrical and Lighting Specific Products and Equipment
23-37 00 00	Information and Communication Specific Products and Equipment

Table 1.0 – Selected Excerpt from OmniClass Table 23

3.6 BIM Project Execution Plan (BIM PxP or PxP)

3.6.1 The BIM PxP template is included in this Attachment 1, as “Section 3.6 – BIM Project Execution Plan (BIM PxP). The Consultants BIM PxP Coordinator for the Project has the responsibility of documenting the Project Execution Plan (PxP), gathering the required information from the External Project Team, scheduling and leading the PxP meetings and establishing and implementing protocols for revisions and sharing the PxP

3.6.2 The development of the PxP is a collaborative effort by all members of the Project team and will be reviewed and updated in meetings specifically scheduled for this purpose. All members of the Project team are required to submit initial information for their scope to the designated PxP Coordinator within 15 calendar days of commencing work. At a minimum PxP meetings shall be conducted at the end of each project phase and a revised PxP shall be issued to County and the External Project Team. A record PxP shall be provided to the owner at handover including all updated requirements.

3.6.3 The PxP is subject to review and approval by County at each project phase.

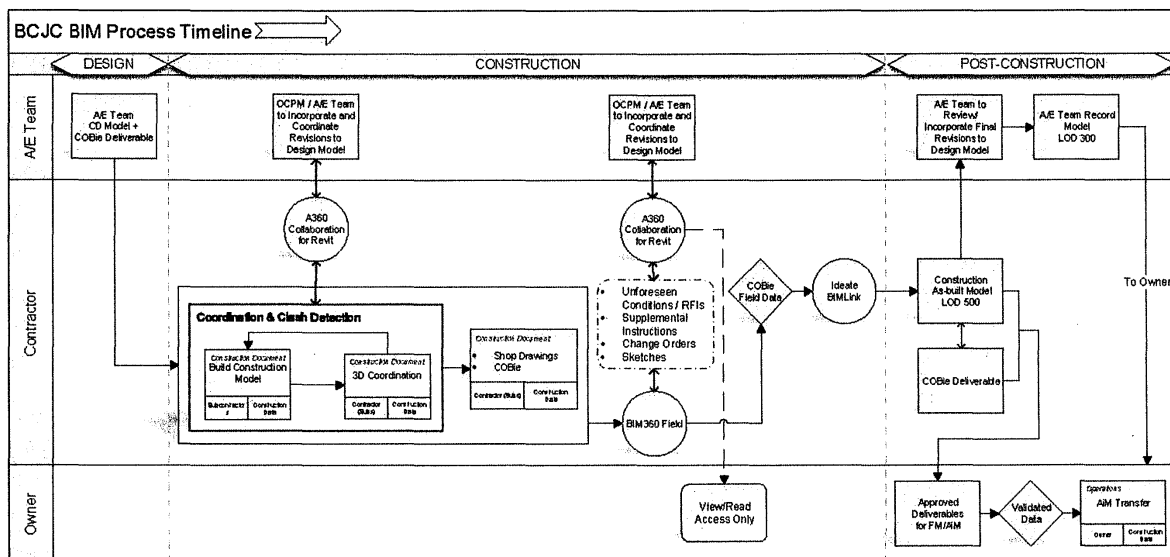
3.6.4 The design & construction teams shall submit a written BIM PxP using the attached template, subject to review and written approval by County prior to proceeding with the process. The BIM PxP will outline all methods and procedures for collaboration between the design and construction teams as well as coordination of VDC/BIM efforts of the subcontractors. The Contract Administrator, Consultant, Contractor and all sub-consultants and subcontractors engaged in the BIM process will sign agreement to adhere to the BIM Project Execution Plan.

3.6.5 The BIM Project Execution Plan shall include as a minimum:

- a. Project Information
- b. Key Project Contacts
- c. Project VDC / BIM Uses
- d. Organizational Roles and Staffing
- e. VDC / BIM Process for preconstruction, construction and handover
- f. BIM Information Exchanges

- g. BIM and Facility Data Requirements
- h. Collaboration and coordination procedures
- i. Quality Control
- j. Technological Infrastructure Needs
- k. A Model Progression Schedule identifying LODs and Authors for each category of model (built) element.
- l. Clash detection approach
- m. Cost estimating level
- n. BIM Deliverables
- o. Signature approval page

3.6.6 A BIM Process Flow Chart provides a graphic visualization of the processes and approval points to be used during the life of the project. The County encourages the development of this chart as an effective practice and communication tool. An example BIM Flow Chart is provided below:



3.6.7 To promote efficiency and continuity, the 2D construction documents must be extracted directly from the Design Model and both the BIMs and the 2D Deliverables will be integral parts of the contract documents. Two dimensional (2D) details, enlargements, General Notes, externally generated Schedules, and specifications will take precedence over the Design Models.

3.7 BIM Uses

3.7.1 County has identified the Required, Preferred and Optional BIM uses as it relates to this project. The County acknowledges that Design and Construction Consultants will work together to achieve these Uses. Implementation of these uses and timing are to be documented and explained by the Consultant.

3.7.2 The County's typical BIM Uses for New Construction Projects are as follows:

County Typical BIM Use - New Construction	
BIM Use	County Intent
3D Coordination / Conflict Analysis	Required
As Constructed Model	Required
Asset Management	Required
CIM / Subsurface	Required
Constructability/Peer Review	Required
Design 4 Maintenance (D4M)	Required
Design Authoring	Required
Design Reviews	Required
Existing Conditions Modeling	Required
Facility Data Exchange	Required
Owner Approvals	Required
QA/QC	Required
Record Modeling	Required
Site Utilization Planning	Required
Spatial Analysis	Required
Visualization	Required
Commissioning	Preferred
Cost Estimation	Preferred
Energy / Mechanical Analysis	Preferred
Programming	Preferred
Program / Code Validation	Preferred
Quantity Take-Off	Preferred
Site Analysis	Preferred
Space Management / Tracking	Preferred
Structural Analysis	Preferred
Sustainability / LEED	Preferred
Total Cost Of Ownership	Preferred
BIM2field - Digital Layout	Optional
Building Maintenance Scheduling	Optional
Building System Analysis	Optional

BIM Use	County Intent
Code Analysis	Optional
Construction System Design	Optional
Digital Fabrication	Optional
Disaster Planning	Optional
Electrical Analysis	Optional
Field and Material Tracking	Optional
Laser Scanning	Optional
Lighting Analysis	Optional
Pay Applications	Optional
Phase Planning 4D	Optional
Security / Key Management	Optional
Specification Production	Optional

3.8 3D Coordination and Conflict Analysis

3.8.1 The Design Team shall use BIM to employ a managed approach to advanced collaborative reviews, including automated element collision detection using software such as Autodesk Navisworks and model checkers such as Solibri by Nemetschek. By coordinating BIM data during the design phases, this can reduce the number of potential major conflicts that might arise during the construction phase.

3.8.2 This approach is not meant to replace the traditional quality control process, or the early airspace zone MEP strategy approach used by the project team and participating consultants but will enhance the ability of the project team to visualize the design and detect interferences between discipline components.

3.8.3 Consultant Team Coordination

- a. The Design Team shall produce a design in which all MEP/FP systems fit within the intended spaces provided, including necessary and required clearances, egress zones, and access zones. To help achieve this goal, the Design Team shall have a formal 3D spatial analysis and clash resolution process that forms the backbone of the QA/QC process. The spatial analysis and clash resolution process shall include regularly scheduled clash review meetings and the use of software tools to analyze and resolve clashes.
- b. County does not expect a completely “clash-free” design, however County expects a design that has been spatially analyzed and validated such that all systems are constructible within the space designed.
- c. Clash reports will be required at project milestone deliverables for both Design and Construction.
- d. Utilities coordination & invert elevations

3.8.4 Contractor Team Coordination

- a. Contractor shall carry out clash detection analysis and complete preliminary virtual design and construction (VDC) activities as part of the Constructability Reviews.
- b. Weekly, the CM shall conduct coordination meetings with each Contractor, Subcontractor, PM, County and Consultant Team as needed.
- c. The CM shall prepare clash detection reports and distribute minutes/ reports to all attendees.

3.9 Model Content Requirements

3.9.1 A Model Progression Schedule/Agent Responsibility Matrix (MPS) shall be used as a tool to help Model Contributors throughout the Design, Construction and Operation phases understand what should be included in the BIMs when at each project milestone.

- a. The Construction Models should reflect the exact geometric properties of the materials and/or systems being submitted. These models should reflect the exact material properties and performance data.
- b. It is the responsibility of the Design and Construction Team to use the MPS as part of the BIM PxP or JBIM PxP to establish how they progressively reach the County's expectations.

3.10 Shop Drawings, Sleeve Drawings and Fabrication

3.10.1 Shop Drawings shall be produced directly from the construction BIMs. No parallel 2D process will be accepted

- a. Sleeve Drawings -Sleeve drawings for cast-in-place or precast systems shall be produced after BIM Coordination is completed for the area of construction requiring the sleeve drawings.
- b. Fabrication & Preassembly -Whenever possible the Cont Team shall use the Construction BIMs to fabricate or preassemble their systems.

3.11 BIM in the field for Installation

3.11.1 The Contractor shall take measures to assure that what is being installed at the field is what was agreed upon on the Coordinated Federated Construction BIM. Any deviations must be documented as updates to the BIMs and the party responsible for resulting conflicts will be liable for costs associated with such deviations.

3.12 Submittals

3.12.1 Upon Substantial Completion, BIM files shall be submitted to County, and shall be cleaned of extraneous "scrap" or "working space", stories, abandoned designs, object creation and testing places, and other content which is typically produced in or during BIM construction coordination.

- a. The Contractor shall be responsible for providing the County an As-Constructed Model that includes all building systems. The Model shall be coordinated and "clash free" except as noted.

- b. Contractor shall provide a native file of the final As-Constructed Model for building systems used in the multi-discipline coordination process (version as agreed in BIM PxP)
- c. Contractor shall identify native file formats used in the final As-Constructed Model for building systems for the multi-discipline coordination process (version as agreed in BIM PxP)
- d. Contractor shall provide IFC files (ISO 16739) of As-Constructed models (version as agreed in BIM PxP)
- e. Contractor shall provide COBie / data compliant file containing room and product data information (version as agreed in BIM PxP)

3.12.2 County will not accept BIM files that have become un-useable, or too memory or C.P.U. intensive for normal use . Proper care shall be taken to strip all BIMs of any and all miscellaneous files that are not directly part of the BIMs. The BIM Compliance Checklist, shown below, is required to be submitted with each BIM Deliverable as part of the QA/QC process and to show compliance.

BIM Compliance Checklist	
Description	Y / N
Detach all BIM's from the Central File.	
Ensure the proper and updated completion of all information on the 'Start Screen' page for all Revit models.	
Scrub and remove all unused or alternative versions, elements and objects from the model.	
Ensure that drawing sheets, viewports, paper-space, line weights, fonts, and other drawing components are correctly configured for Contract Administrator's viewing and plotting.	
Make sure all reference files are attached using a "relative" path setting and without device or directory specifications.	
"Transmit a Model" function should be used in Revit to assemble files for submittal.	
Compress and reduce all design files using PKZIP, WINZIP or other compatible file compression/decompression software approved by the Contract Administrator.	
Include all files, both graphic and non-graphic, required for the project (i.e., color tables, pen tables, font libraries, block libraries, user command files, plot files, and other elements of drawing definition).	
Ensure that all support files such as those listed above are in the same directory and that references to those files do not include device or directory specifications.	
Model content is representative of their discipline developments according to the MPS.	
Model file name and folder structure conforms to County Standards.	
All annotations and title blocks are per the County standards.	

BIM Compliance Checklist	
All floor plans types have been created for each floor or mezzanine in the project model.	
All schedules are populated with all the required data for the project.	
The model is correctly assembled as per visual inspection.	
The color code for Federated BIMs conforms to County Standards.	
All the model contents are correctly placed per their element categorization in the correct work set and conform to standards.	
All non-transmittal linked-in files (CAD/Revit) have been removed from the model.	
All non-required views / legends / schedules / sheets / images have been removed from the model.	
Unwanted Design Options have been removed from the model (applicable for Contract Document Phase through Project completion and handover).	
All unnecessary groups have been removed from the model. All groups used to model the building have been ungrouped and purged from the deliverables to reduce the file size of the model.	
As a last step, the model has been purged (repeat the process three times -- materials are only removed after the parent object has been removed). This will reduce the file size.	
3D Solids Check – No wireframe or lines are accepted. Surface modeling shall be reserved for Topography modeling only. Other use of surface modeling shall require prior approval by County.	
Errors or Warnings - check that there are not any generated within the BIM Authoring software. It is the Design & Construction Teams' responsibility to ensure BIM quality and data integrity.	
Model Elements are not duplicated. i.e. Columns in both Architectural and Structural models.	
Objects are correctly defined under the proper Revit Family Category and sub-category.	
Check completed files are free of any known viruses or unrequired attachments.	

3.13 Responsibilities Related to the Final Record BIM

3.13.1 Design Team Responsibilities

- a. The Design Team will update the Architectural and Structural Design Models as changes occur throughout the construction phase, incorporating all updates and/or revisions to the models as necessary to reflect design changes initiated by Architect's Supplemental Instructions (ASI), Request for Information (RFI), Conformed Documents, Construction Change Directives, Owner Changes, coordination with existing conditions or other changes to the work.

3.13.2 Construction Team Responsibilities

- a. During the construction phase, and while the work is still visible, the Construction Team will maintain “red-line” As-Constructed drawings or demonstrate regular updates to the BIM models during the progress of the work.
- b. In preparation for Substantial Completion, the Contractor Team will:
 - 1. Make all necessary final updates and/or revisions to the models to reflect the As-Constructed information to the tolerance specified in the Standard or agreed upon in the BIM PxP. It is the responsibility of each subcontractor to keep accurate “red-line” markups and records from the field in order to produce accurate As-Constructed models and drawings.
 - 2. Final updates to material/equipment data and properties where installations differ from the “basis of design” included in the Design Team Models.
 - 3. Incorporation or linking of certain close-out documents to the Federated Model (as agreed in BIM PxP).
- c. All model updates by the Construction Team shall be complete one (1) week prior to Final Completion at which time all the required close out BIM deliverables shall be transmitted to the Consultant for review and to be incorporated with the updated Design Models to create the Record Model deliverable. (as agreed in BIM PxP).

**EXHIBIT B
MAXIMUM BILLING RATES**

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Chen Moore and Associates, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER 3.00	=	MAXIMUM BILLING RATE (\$/HR)
Principal	\$108.17		3.00		\$250.00*
Project Director	\$82.69		3.00		\$248.07
Senior Project Manager	\$68.86		3.00		\$206.58
Project Manager	\$63.76		3.00		\$191.28
Senior Engineer	\$54.50		3.00		\$163.50
Project Engineer	\$40.62		3.00		\$121.86
Associate Engineer	\$34.00		3.00		\$102.00
Engineer	\$32.50		3.00		\$97.50
Senior Landscape Architect	\$66.95		3.00		\$200.85
Project Landscape Architect	\$44.57		3.00		\$133.71
Associate Landscape Architect	\$30.05		3.00		\$90.15
Senior Designer	\$43.35		3.00		\$130.05
Designer	\$35.00		3.00		\$105.00
Senior Technician	\$28.05		3.00		\$84.15
Technician	\$26.11		3.00		\$78.33
Senior Construction Specialist	\$40.63		3.00		\$121.89
Construction Specialist	\$31.00		3.00		\$93.00
Engineering Intern	\$15.00		3.00		\$45.00
Administrative Assistant	\$21.00		3.00		\$63.00

Multplier of **3.00** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (140.80)%

FRINGE = HOURLY RATE X FRINGE (32.38) %

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) X OPERATING MARGIN (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + OPERATING
MARGIN) / HOURLY RATE = **3.00**

Notes:

*Maximum Billing Rate will not exceed \$250.00 per hour.

**EXHIBIT B
MAXIMUM BILLING RATES**

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Cummins Cederberg, Inc.

	MAXIMUM HOURLY RATE		MULTIPLIER		MAXIMUM BILLING RATE
TITLE	(\$/HR)	X	2.31	=	(\$/HR)
Principal	\$62.50		2.31		\$144.38
Project Director	\$62.50		2.31		\$144.38
Sr. Engineer	\$57.69		2.31		\$133.27
Project Engineer	\$43.27		2.31		\$99.95
Senior Project Manager	\$43.27		2.31		\$99.95
Associate Engineer II	\$37.50		2.31		\$86.63
Senior Designer	\$35.10		2.31		\$81.07
Associate Engineer I	\$31.25		2.31		\$72.19
Project Scientist	\$28.85		2.31		\$66.63
Associate Scientist II	\$21.63		2.31		\$49.98

Multiplier of **2.31** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (100.00)%

FRINGE = HOURLY RATE X FRINGE (10.00) %

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) X OPERATING MARGIN (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + OPERATING
MARGIN) / HOURLY RATE = **2.31**

Notes:

Consultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 6.2.5.

**EXHIBIT B
MAXIMUM BILLING RATES**

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Jacobs Engineering Group Inc.

	MAXIMUM HOURLY RATE (\$/HR)		MULTIPLIER		MAXIMUM BILLING RATE (\$/HR)
TITLE		X	2.31	=	
Principal	\$112.26		2.31		\$250.00*
Senior Technical Expert	\$107.89		2.31		\$249.23
Senior Engineer/ Senior Technologist	\$97.10		2.31		\$224.30
Environmental/Permit Manager	\$80.89		2.31		\$186.86
Senior Technician/Designer	\$66.96		2.31		\$154.68
Engineer/Technologist	\$63.63		2.31		\$146.99
Technician	\$37.67		2.31		\$87.02
Project Controls	\$35.84		2.31		\$82.79
Administrative Assistant	\$35.57		2.31		\$82.17

Multiplier of **2.31** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (100.00)%

FRINGE = HOURLY RATE X FRINGE (10.00) %

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) X OPERATING MARGIN (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + OPERATING
MARGIN) / HOURLY RATE = **2.31**

Notes:

Consultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 6.2.5.

*Maximum Billing Rate will not exceed \$250.00 per hour.

**EXHIBIT B
MAXIMUM BILLING RATES**

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Stoner & Associates, Inc.

	MAXIMUM HOURLY RATE (\$/HR)		MULTIPLIER		MAXIMUM BILLING RATE (\$/HR)
TITLE		X	2.52	=	
Principal Land Surveyor	\$48.08		2.52		\$121.16
Sr. Professional Land Surveyor	\$39.90		2.52		\$100.55
Professional Land Surveyor	\$37.98		2.52		\$95.71
Field Crew Supervisor	\$27.89		2.52		\$70.28
Survey/CAD Technician	\$23.00		2.52		\$57.96
Survey Crew (3 Person)	\$62.50		2.52		\$157.50
Administrative Assistant	\$28.85		2.52		\$72.70

Multiplier of **2.52** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (99.33)%

FRINGE = HOURLY RATE X FRINGE (30.06) %

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) X OPERATING MARGIN (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + OPERATING MARGIN) / HOURLY RATE = **2.52**

**EXHIBIT B
MAXIMUM BILLING RATES**

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Pan Geo Consultants, LLC

	MAXIMUM HOURLY RATE		MULTIPLIER		MAXIMUM BILLING RATE
TITLE	(\$/HR)	X	2.31	=	(\$/HR)
Principal	\$60.00		2.31		\$138.60
Senior Engineer	\$50.00		2.31		\$115.50
Project Engineer	\$45.00		2.31		\$103.95
Technician	\$18.00		2.31		\$41.58
Draft Person/Cad Operator	\$20.00		2.31		\$46.20
Administrative Assistant	\$15.00		2.31		\$34.65

Multiplier of **2.31** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (100.00)%

FRINGE = HOURLY RATE X FRINGE (10.00) %

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) X OPERATING MARGIN (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + OPERATING
MARGIN) / HOURLY RATE = **2.31**

Notes:

Consultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 6.2.5.

EXHIBIT C**MINIMUM INSURANCE COVERAGES**

Project: Consulting Services for Port Everglades

Agency: Port Everglades – Seaport Engineering & Facilities Maintenance Division

TYPE OF INSURANCE	ADDL INSD	SUBR WVD	MINIMUM LIABILITY LIMITS		
				Each Occurrence	Aggregate
GENERAL LIABILITY - Broad form <input checked="" type="checkbox"/> Commercial General Liability <input checked="" type="checkbox"/> Premises-Operations <input type="checkbox"/> XCU Explosion/Collapse/Underground <input checked="" type="checkbox"/> Products/Completed Operations Hazard <input checked="" type="checkbox"/> Contractual Insurance <input checked="" type="checkbox"/> Broad Form Property Damage <input checked="" type="checkbox"/> Independent Contractors <input checked="" type="checkbox"/> Personal Injury Per Occurrence or Claims-Made: <input checked="" type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made Gen'l Aggregate Limit Applies per: <input type="checkbox"/> Project <input type="checkbox"/> Policy <input type="checkbox"/> Loc. <input type="checkbox"/> Other _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bodily Injury Property Damage Combined Bodily Injury and Property Damage Personal Injury Products & Completed Operations	\$ 1 mil \$ 2 mil	
AUTO LIABILITY <input checked="" type="checkbox"/> Comprehensive Form <input checked="" type="checkbox"/> Owned <input checked="" type="checkbox"/> Hired <input checked="" type="checkbox"/> Non-owned <input checked="" type="checkbox"/> Any Auto, If applicable <i>Note: May be waived if no driving will be done in performance of services/project.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bodily Injury (each person) Bodily Injury (each accident) Property Damage Combined Bodily Injury and Property Damage	\$ 500 k	
<input type="checkbox"/> EXCESS LIABILITY / UMBRELLA Per Occurrence or Claims-Made: <input type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made <i>Note: May be used to supplement minimum liability coverage requirements.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> WORKER'S COMPENSATION <i>Note: U.S. Longshoremen & Harbor Workers' Act & Jones Act is required for any activities on or about navigable water.</i>	N/A	<input checked="" type="checkbox"/>	Each Accident	STATUTORY LIMITS	
<input checked="" type="checkbox"/> EMPLOYER'S LIABILITY			Each Accident	\$500 k	
<input type="checkbox"/> POLLUTION / ENVIRONMENTAL LIABILITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If claims-made form: Extended Reporting Period of: *Maximum Deductible:	\$ 2 years	
<input checked="" type="checkbox"/> PROFESSIONAL LIABILITY (ERRORS & OMISSIONS) All engineering, surveying and design professionals.	N/A	<input checked="" type="checkbox"/>	If claims-made form: Extended Reporting Period of: *Maximum Deductible:	\$ 1 mil 2 years	
<input type="checkbox"/> Installation floater is required if Builder's Risk or Property are not carried. <i>Note: Coverage must be "All Risk", Completed Value.</i>			*Maximum Deductible (Wind and/or Flood): *Maximum Deductible:	Not to exceed 5% of completed value \$10 k	Completed Value
Description of Operations: "Broward County" shall be listed as Certificate Holder and endorsed as an additional insured for liability, except as to Professional Liability. County shall be provided 30 days written notice of cancellation, 10 days' notice of cancellation for non-payment. Vendor insurance shall provide primary coverage and shall not require contribution from the County, self-insurance or otherwise. Any self-insured retention (SIR) must be declared to and approved by County and may require proof of financial ability to meet losses. Vendor is responsible for all coverage deductibles unless otherwise specified in the agreement.					
CERTIFICATE HOLDER: Broward County 1850 Eller Drive Fort Lauderdale, Florida 33316 Attention: Donald Ellis			Digitally signed by Normagene Dmytriw DN: cn=Normagene Dmytriw, o, ou, email=ndmytriw@broward.org, c=US Date: 2019.03.11 10:09:20 -04'00' Risk Management Division		

EXHIBIT D
(Sample – County Commission Approval Level)

Work Authorization No. _____
Under
Agreement Between Broward County and _____
for

1. This Work Authorization is issued pursuant to the Agreement between Broward County ("County") and _____ ("Consultant") (collectively referred to as the "Parties") for Continuing Professional Services for _____ (the "Agreement"), which was approved by the Board of County Commissioners on _____ (Item ____).

2. This Work Authorization permits Consultant to provide the services described in Exhibit A to this Work Authorization. These services are authorized by Article 4 of the Agreement.

3. Compensation and Method of Payment.

3.1 Payment for the services authorized by this Work Authorization will be in accordance with Article 6 of the Agreement, and the agreed method of compensation will be as follows (check those boxes that apply):

☐ 3.1.1 Maximum Amount Not-To-Exceed Compensation. County shall pay Consultant for the performance of Basic Services identified in Exhibit A to this Work Authorization as payable on a "Maximum Amount Not-To-Exceed" basis, and as required under the terms of the Agreement, based upon the Salary Costs described in Section 6.2 of the Agreement up to a maximum amount not-to-exceed of \$_____.

☐ 3.1.2 Lump Sum Compensation. County shall pay Consultant for the performance of all Basic Services identified in Exhibit A to this Work Authorization as payable on a "Lump Sum" basis, and as required under the terms of the Agreement, a total lump sum of \$_____.

☐ 3.1.3 Reimbursable Expenses. County has established a maximum amount not-to-exceed of \$_____ for potential reimbursable expenses that may be utilized pursuant to Section 6.3 of the Agreement. County will retain any unused amounts of those monies established for reimbursable expenses.

3.2 Payments for this Work Authorization shall be charged against:

Budget No. _____

4. Consultant shall perform the services described in Exhibit A within:
☐ _____ calendar days ("Time for Performance"), or
☐ the time periods specified in the Project Schedule included in Exhibit A ("Time for Performance"); said Time for Performance shall commence from the date of the Notice to Proceed for such services.

- ☐ 4.1 If this box is checked, this paragraph is applicable. If Contractor fails to substantially complete the project on or before the substantial completion date specified in its agreement with County, and the failure to substantially complete is caused in whole or in part by Consultant, then Consultant shall pay to County its proportional share of any claim or damages to Contractor arising out of the delay. By reference hereto, the provisions for the computation of delay costs/damages and any amounts included therein, whether direct or indirect, in the agreement between the Contractor and County are incorporated herein. This provision shall not affect the rights and obligations of either party as set forth in Section 12.8, Indemnification of County, of the Agreement.
- ☐ 4.2 If this box is checked, liquidated damages are applicable. If Consultant fails to complete the services identified in Exhibit A to this Work Authorization on or before the Time for Performance set forth above, Consultant shall pay to County the sum of dollars identified below for each calendar day after the applicable Time for Performance, plus approved time extensions thereof, until completion of the service:

<u>Services</u>	<u>Amount</u>
	\$ TBD
	\$ TBD
	\$ TBD

These amounts are not penalties but are liquidated damages to County for Consultant's inability to proceed with, and complete, the service in a timely manner pursuant to the agreed upon Time for Performance. Liquidated damages are hereby fixed and agreed upon by the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by County as a consequence of such delay, and both Parties desiring to obviate any question or dispute concerning the amount of said damages, and the cost and effect of the failure of Consultant to complete the services within the applicable Time for Performance. This provision shall not affect the rights and obligations of either party as set forth in Section 12.8, Indemnification of County, of the Agreement.

5. CBE Goals.

5.1 In an effort to assist County in achieving its overall goal as set forth in the Agreement, Consultant agrees to meet the following CBE participation goals by utilizing the CBE firms for the work and dollar values described in paragraph 5.2 below: _____%.

5.2 In performing services under this Work Authorization, County and Consultant hereby incorporate Consultant's participating CBE firms, addresses, scope of work, and dollar value identified in the Letter of Intent (attached hereto and incorporated herein as Exhibit B).

6. The terms and conditions of the Agreement are hereby incorporated into this Work Authorization. Nothing contained in this Work Authorization shall alter, modify, or change in any way the terms and conditions of the Agreement with the County.

[Remainder of This Page Is Intentionally Left Blank.]

IN WITNESS WHEREOF, the Parties have made and executed this Work Authorization No. _____ : BROWARD COUNTY, by and through its BOARD OF COUNTY COMMISSIONERS, signing by and through its Mayor or Vice-Mayor, authorized to execute same by Board action on the _____ day of _____, 20____, and _____, signing by and through its _____, duly authorized to execute same.

County

ATTEST:

BROWARD COUNTY, by and through
its Board of County Commissioners

Broward County Administrator, as
ex officio Clerk of the Broward County
Board of County Commissioners

By _____
Mayor

_____ day of _____, 20____

Approved as to form by
Andrew J. Meyers
Broward County Attorney
Port Everglades Department
1850 Eller Drive, Suite 502
Fort Lauderdale, Florida 33316
Telephone: (954) 523-3404
Telecopier: (954) 468-3690

By _____
Al A DiCalvo (Date)
Assistant County Attorney

By _____
Russell J. Morrison (Date)
Senior Assistant County Attorney

4/30/20
CCNAContinuingContract(2020)_Exhibit D__

Work Authorization No. _____ Under Agreement Between Broward County and
_____ for _____

Consultant

ATTEST:

[Insert Corporate Name]

Secretary

By _____
President or Vice-President

(Print/Type Name)

(Print/Type Name and Title)

(Seal)

____ day of _____, 20____.

OR

WITNESSES:

Signature

Print/Type Name

Signature

Print/Type Name

EXHIBIT E
SCHEDULE OF SUBCONSULTANTS

Project No: PNC2119212P1
Project Title: Consulting Services for Port Everglades
Consultant/
Subconsultant Name: Chen Moore and Associates, Inc.

No.	Firm Name	Discipline
1.	Cummins Cederberg, Inc.	Container Terminals, Environmental Compliance and Coastal Resilience, Maritime Structural, Environmental Compliance and Permitting, Construction Administration
2.	Jacobs Engineering Group Inc.	Maritime Civil, Container Terminals, Cruise Terminal Design, Transportation and Traffic Engineering, Intermodal and Rail, Maritime Structural, Environmental Compliance and Permitting, Mechanical/Electrical/Plumbing and Fire Protection, Geotechnical Engineering/Materials Testing, Telecommunications, GIS & BIM, Cost Estimating
3.	Pan Geo Consultants, LLC	Geotechnical Engineering, Materials Testing
4.	Stoner & Associates, Inc.	Land Surveying and Subsurface Utility Engineering

EXHIBIT F

Broward County Board of
County Commissioners

PNC2119212P1



**LETTER OF INTENT
BETWEEN BIDDER/OFFEROR AND
COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER**

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

Solicitation No.: PNC2119212P1

Project Title: Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates

Address: 500 W Cypress Creek Road Suite 630 **City:** Fort Lauderdale **State:** FL **Zip:** 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, ENV SP, LEED AP **Phone:** 954.730.0707

CBE Firm/Supplier Name: Stoner and Associates, Inc.

Address: 4341 SW 62nd Avenue **City:** Davie **State:** FL **Zip:** 33314

Authorized Representative: James Stoner, PSM **Phone:** _____

- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

Work to be performed by CBE Firm

Description	NAICS ¹	CBE Contract Amount ²	CBE Percentage of Total Project Value
Surveying	541370		5 %
			%
			%

AFFIRMATION: I hereby affirm that the information above is true and correct.

CBE Firm/Supplier Authorized Representative

Signature: James D. Stoner Title: President Date: 8/28/2019

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, ENV SP, LEED AP Title: President Date: September 9, 2019

¹ Visit Census.gov and select **NAICS** to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

² To be provided only when the solicitation requires that bidder/offeror include a dollar amount in its bid/offer.

In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

Rev.: June 2018

Compliance Form No. 004

3-24

Broward County Bid #PNC2119212P1
Consulting Services for Port Everglades

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Broward County Board of
County Commissioners

PNC2119212P1

EXHIBIT F



LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

Solicitation No.: PNC2119212P1

Project Title: Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates

Address: 500 W Cypress Creek Road Suite 630 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, ENV SP, LEED AP Phone: 954.730.0707

CBE Firm/Supplier Name: Pan Geo Consultants, LLC

Address: 21090 SW 10th Avenue City: Fort Lauderdale State: FL Zip: 33315

Authorized Representative: Paul Catledge, P.E. Phone: 954.200.4019

- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

Work to be performed by CBE Firm

Description	NAICS ¹	CBE Contract Amount ²	CBE Percentage of Total Project Value
Geotechnical Engineering			20%
			%
			%

AFFIRMATION: I hereby affirm that the information above is true and correct.

CBE Firm/Supplier Authorized Representative

Signature: Paul C. Catledge, P.E. Title: Principal Date: August 27, 2019
2019.08.27 10:43:28-04'00'

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, Title: President Date: September 9, 2019
ENV SP, LEED AP

¹ Visit Census.gov and select **NAICS** to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

² To be provided only when the solicitation requires that bidder/offeror include a dollar amount in its bid/offer.

In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

Rev.: June 2018

Compliance Form No. 004



Broward County Bid #PNC2119212P1
Consulting Services for Port Everglades

Page 2 of 2

EXHIBIT G
PORT EVERGLADES SECURITY REQUIREMENTS

- A. The Port Everglades Department requires persons to present, at port entry, a valid driver's license, and valid reason for wishing to be granted Port access in order to obtain a temporary visitor ID badge. For persons who will visit the Port more than 15 times in a 90 day period, a permanent identification badge must be obtained and paid for by the contractor for all employees, subcontractors, agents and servants visiting or working on the Port project. A restricted access badge application process will include fingerprints and a comprehensive background check. Badges must be renewed annually and the fees paid pursuant to Broward County Administrative Code, Section 42.6. For further information, please call (954) 765-4225.
- B. All vehicles that are used regularly on the dock apron must have a Dockside Parking Permit. Only a limited number of permits will be issued per business entity. The fee is \$100.00 per permit/vehicle. Individuals requesting a permit must possess a valid Port-issued Restricted Access Area badge with a "Dock" destination. Requests for Dockside Parking Permits must be submitted in writing, on company letterhead, to the ID Badge Office. Applicants must demonstrate a need for access to the dock apron. Requests shall be investigated, and approved, if appropriate justification is provided. Supporting documentation must be supplied, if requested. Dock permits are not transferable and must be affixed to the lower left corner of the permitted vehicle's windshield. Should the permit holder wish to transfer the permit to another vehicle during the term of issuance, the permit will be removed and exchanged at no charge for a new permit. Only one business entity representative will be permitted on the dock at a time at the vessel location.
- C. The Federal Government has instituted requirements for a Transportation Worker Identification Credential (TWIC) for all personnel requiring unescorted access to designated secure areas within Port Everglades. The contractor will be responsible for complying with the applicable TWIC requirements. For further information, please call 1-855-347-8371, or go online to <https://www.tsa.gov/for-industry/twic>.