

**AGREEMENT BETWEEN BROWARD COUNTY AND CHEN MOORE AND ASSOCIATES, INC.
FOR CONTINUING CONSULTANT SERVICES FOR ARCHITECTURAL AND ENGINEERING
CONSULTING SERVICES FOR PORT EVERGLADES
(RFP # PNC2130373P1)**

This agreement (“Agreement”) is 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 request for proposals (“RFP”) No. PNC 2130373P1 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. This Agreement is subject to the requirements of Section 287.055, Florida Statutes, the Consultants’ Competitive Negotiation Act, as amended (“CCNA”), and County has met the requirements of the CCNA and has selected Consultant to perform the services stated herein.

D. County wishes to retain Consultant for continuing services as may be requested by County, and Consultant agrees to perform work for County pursuant to such Work Authorizations and the terms of this Agreement.

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. **Applicable Law** means all applicable laws, codes, advisory circulars, rules, regulations, and ordinances of any federal, state, county, municipal, or other governmental entity, as amended.

1.2. **Board** means the Board of County Commissioners of Broward County, Florida.

1.3. **Code** means the Broward County Code of Ordinances.

1.4. **Contract Administrator** means the Director of Seaport Engineering and Construction, the Assistant Director of Seaport Engineering and Construction, or such other person designated by the Director of Seaport Engineering and Construction in writing. The Contract Administrator is the representative of County concerning this Agreement.

1.5. **Contractor** shall mean the person, firm, corporation, or other entity (if any) that enters into an agreement with County to perform construction work related to the work to be

performed by Consultant under a Work Authorization. If no Contractor has been retained by County, the obligations of Consultant regarding Contractor in this Agreement shall not apply.

1.6. **County Business Enterprise** or **CBE** means an entity certified as meeting the applicable requirements of the Broward County Business Opportunity Act, Section 1-81 et seq., of the Code.

1.7. **Notice to Proceed** means a written authorization issued by the Contract Administrator for Consultant to proceed with an activity, phase, or task, as specified in a Work Authorization.

1.8. **Project** means any professional services and resulting construction-related activities (if any) identified in the applicable Work Authorization.

1.9. **Purchasing Director** means County's Director of Purchasing.

1.10. **Services** means the work described in the applicable Work Authorization, and all applicable professional services associated therewith.

1.11. **Small Business Enterprise** or **SBE** means an entity certified as meeting the applicable requirements of the Broward County Business Opportunity Act, Section 1-81, et seq., of the Code.

1.12. **Subconsultant** means any entity or individual, including any subcontractor and any third party issued a Form 1099 by Consultant, that provides Services to County through Consultant, regardless of tier.

1.13. **Work Authorization** means the document(s) issued pursuant to this Agreement setting forth the Services to be performed by Consultant, payment terms, schedule, deliverables, and/or other requirements established by the Contract Administrator, issued on a County form appropriate to the award authority for joint execution as more fully described in Article 5.

ARTICLE 2. EXHIBITS

Exhibit A	General Scope of Services
Exhibit B	Maximum Billing Rates
Exhibit B-1	Reimbursables for Direct Non-Salary Expenses
Exhibit C	Minimum Insurance Requirements
Exhibit D	Work Authorization Form
Exhibit E	Schedule of Subconsultants
Exhibit F	CBE Subconsultants and Letters of Intent
Exhibit G	Port Everglades Security Requirements

ARTICLE 3. SCOPE OF SERVICES; WORK AUTHORIZATIONS

3.1. Consultant shall provide all Services stated in each fully executed Work Authorization, including all necessary, incidental, and related activities required for full and complete performance of this Agreement. Award of this Agreement to Consultant does not guarantee work

will be requested by County, and County's election not to issue Work Authorization(s) shall not be deemed a breach of this Agreement.

3.2. The Services described in a Work Authorization do not delineate every detail and minor work task required to be performed by Consultant. If Consultant determines that additional work should be performed to complete the Services and, in Consultant's opinion, that work is outside the level of effort originally anticipated, whether or not the Work Authorization identifies such activities, Consultant will promptly notify the Contract Administrator in writing and seek written approval of the Contract Administrator before proceeding with the additional work. If Consultant proceeds with such work without notifying the Contract Administrator and obtaining the Contract Administrator's written approval, the work shall be deemed to be within the original level of effort, whether or not specifically addressed in the Work Authorization, with no additional compensation or time for such work. Notice to the Contract Administrator does not constitute authorization or approval by County to Consultant to perform the work. In addition, any such work that would entail additional compensation to Consultant by County, or additional time for performance, requires an amendment to the Agreement or to the Work Authorization pursuant to the terms of this Agreement. Unless there is an executed amendment to the Agreement or to the Work Authorization (or a dispute as set forth in Section 6.2), 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. County will place at Consultant's disposal all information County reasonably has available that is pertinent to the Services to be performed. County shall arrange for access to, and make all provisions for, Consultant to enter upon public and private property if required for Consultant to perform the Services. Deliverables and documents required to be submitted by Consultant to County under this Agreement and/or a Work Authorization will be reviewed by County and responded to in writing with any comments within the time for such comments, if any, set forth in the applicable Work Authorization.

3.4. If the Services relate to a construction project, Consultant acknowledges that it is aware of all the duties and responsibilities and agrees to perform such duties and responsibilities as set forth in County's standard form documents or those County documents governing forms of construction delivery. Consultant agrees to meet with County at reasonable times after reasonable notice.

3.5. Work Authorizations. All Services must be authorized in writing by a Work Authorization in accordance with the requirements of this section.

3.5.1. Before Services are commenced pursuant to a Work Authorization, Consultant must supply the Contract Administrator with an estimate for all charges expected to be incurred for those Services.

3.5.2. Work Authorizations shall be prepared on forms provided by the Contract Administrator, dated, serially numbered, and executed by both County and Consultant.

3.5.3. Work Authorizations, including amended Work Authorizations, are subject to approval by County as set forth herein based upon the total aggregate cost to County of the Work Authorization (or amended Work Authorization, if applicable), inclusive of all amendments to that Work Authorization to date: the Contract Administrator may approve if \$50,000 or less; the Purchasing Director may approve if within the Purchasing Director's delegated authority; Board approval is required if more than the Purchasing Director's delegated authority.

3.5.4. If this Agreement is subject to the CCNA, in no instance may a Work Authorization or any amendment thereto be issued that exceeds any applicable limitation on estimated construction costs or other monetary limitations in that statute.

3.5.5. Any change of scope in a Work Authorization requiring charges in excess of the amount approved in the Work Authorization requires an amended Work Authorization. Consultant's compensation shall not exceed the amount approved in the Work Authorization or amended Work Authorization, as applicable.

3.5.6. All Work Authorizations must contain, as a minimum, all of the following information and requirements:

3.5.6.1. A statement of the method of compensation (maximum amount not to exceed or lump sum), and a budget establishing the amount of compensation and reimbursables to be paid, which amount shall constitute a guaranteed maximum and shall not be exceeded without prior written approval of County. 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 shall be terminated and Consultant shall be paid in full for all work completed to that point, but shall in no case more than the guaranteed maximum amount. If County does not approve an increase in the guaranteed maximum amount and the need for such action arises out of or relates to the acts or omissions of Consultant, a Subconsultant, or anyone acting by, through, or under Consultant and/or one or more Subconsultants, Consultant is required to perform all such additional work without any increase in compensation. The information contained in the budget shall be in sufficient detail so as to identify the various elements of costs.

3.5.6.2. A time established for completion of the Services and/or for the submission to County of documents, reports, and other information pursuant to the Work Authorization.

3.5.6.3. Any other additional instructions or provisions relating to the Work Authorization.

3.5.7. Work Authorizations may not be split in order to meet lower authorization thresholds as described in the Procurement Code or avoid the requirements of the CCNA.

3.6. Consultant will complete each Work Authorization and component tasks assigned without regard to whether such completion would cause work to be performed after any expiration date provided for in this Agreement. Any Work Authorization with a duration or specified term that extends beyond the expiration date of this Agreement may be amended after that expiration date to allow additional work, additional time, and/or additional fees to the extent allowed in this Agreement, provided said work is within the Services originally authorized by the existing Work Authorization. The terms and conditions of this Agreement continue to apply to that Work Authorization notwithstanding the expiration of this Agreement.

3.7. Notwithstanding any other remedy otherwise available to County, where the work product 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. Pursuant to Section 558.005(1), Florida Statutes, the Parties agree to opt out of the requirements of Section 558.005, Florida Statutes.

ARTICLE 4. TIME FOR PERFORMANCE; DAMAGES

4.1. This Agreement begins on the execution of this Agreement and ends three (3) years after that date, unless otherwise terminated or renewed. County may renew this Agreement on the same terms and conditions for up to two (2) additional one-year terms. To exercise any renewal authorized by this section, the Purchasing Director must notify Consultant in writing at least fifteen (15) days prior to the end of the then-current term. Notice to Consultant of such renewal by electronic mail alone shall be effective and sufficient. Consultant shall perform the Services within the time periods specified in the applicable Work Authorization. Time periods shall commence from the date of the applicable Notice to Proceed.

4.2. Consultant must receive a Notice to Proceed from the Contract Administrator prior to commencement of Services (and prior to commencing any phase or task of Services for which a separate Notice to Proceed is required per the applicable Work Authorization). The Contract Administrator may, at their discretion, require Consultant to submit the deliverables and documents from one phase identified in any Work Authorization for the Contract Administrator's review and approval prior to Consultant commencing Services for another phase.

4.3. If the Contract Administrator determines that Consultant is unable to timely complete all or any portion of the Services because of delays resulting from untimely review by County or other governmental agencies having jurisdiction and such delays are not the result of an act or omission by Consultant, a Subconsultant, or anyone acting by, through, or under Consultant and/or one or more Subconsultants, or because of delays caused by factors outside the control of Consultant, the Contract Administrator has authority, in their sole discretion, and subject to a written amendment to either this Agreement or the applicable Work Authorization, to grant a reasonable extension of time for completion of the Services and additional reasonable compensation, if deemed 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, along with an estimate of expected additional time necessary to complete the applicable Services and any request for additional compensation. Consultant must provide such written notice to the Contract Administrator within three (3) business days after the occurrence of the event causing the delay.

4.4. This section is only applicable if (a) the Services relate to construction work, (b) County has retained a Contractor, and (c) the Services include construction engineering and inspection services related to Contractor's work. If Contractor fails to substantially complete the Services on or before the substantial completion date specified in its agreement with County through no fault of Consultant, or if Contractor is granted an extension of time beyond said substantial completion date and the time for completion of Services is extended beyond the substantial completion date through no fault of Consultant, then Consultant shall be compensated in accordance with Article 5 for all Services rendered by Consultant beyond the substantial completion date. If Contractor's failure to substantially complete the construction work on or before the substantial completion date specified in its agreement with County is caused in whole or in part by Consultant, a Subconsultant, or anyone acting by, through, or under 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.

ARTICLE 5. COMPENSATION AND METHOD OF PAYMENT

5.1. Amount and Method of Compensation. The aggregate maximum amount of all Work Authorizations issued pursuant to this Agreement shall not exceed a total of One Million and 00/100 Dollars (\$1,000,000.00) per year, calculated on the basis of the anniversary date of complete execution of this Agreement.

5.1.1. Maximum Amount Not-To-Exceed Compensation. For Work Authorizations in which the method of compensation is a maximum not-to-exceed amount, County shall pay Consultant for all Services performed based on the Salary Costs specified in the applicable Work Authorization and reimburse Consultant for reimbursables as defined in Section 5.3. The "maximum amount not-to-exceed" method of compensation means that Consultant shall perform all Services set forth in the applicable Work Authorization for total compensation in the amount of or less than that amount. The hourly rates payable by County for Consultant's employees shall be the actual salary rates for each respective employee, provided such rates do not exceed the rates shown on Exhibit B, Maximum Billing Rates, for the applicable employee category.

5.1.2. Lump Sum Compensation. For Work Authorizations in which the method of compensation is lump sum compensation, County shall pay Consultant for completion of all Services the lump sum amount stated in the applicable Work Authorization.

5.1.3. Reimbursable Expenses. Subject to Section 5.3, County will reimburse Consultant

for authorized Reimbursable Expenses as defined in that section. Any unused amounts shall be retained by County.

5.1.4. Subconsultant Fees. Consultant shall bill County for Subconsultant fees using the employee categories for Salary Costs on Exhibit B and Reimbursable Expenses defined in Section 5.3. Consultant shall bill Subconsultant fees with no mark-up and within any applicable maximum amount.

5.2. Salary Costs. The term "Salary Costs" as used herein shall mean the hourly rate actually paid to the personnel engaged directly in performing the Services, adjusted by an overall multiplier that consists of the following: 1) a fringe benefits factor; 2) an overhead factor; and 3) a final operating margin. Said Salary Costs are to be used only for time directly attributable to the performance of Services. 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 duration of this Agreement unless otherwise provided for in this Agreement or a Work Authorization.

5.2.1. Consultant shall require all of its Subconsultants to comply with the requirements of Section 5.2.

5.2.2. Salary Costs shown in Exhibit B are the maximum billing rates for each Consultant and Subconsultant employee category, and are provisional subject to audit of actual costs; if the audit discloses that the actual costs are less than the costs set forth on Exhibit B for Consultant or any Subconsultant, Consultant will promptly 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 under this Agreement.

5.2.3. 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, Consultant must submit a supplemental Exhibit B reflective of such rates to the Contract Administrator for review and, subject to Contract Administrator's written approval, may invoice County accordingly.

5.2.4. The total hours payable by County to Consultant for any "nonexempt" personnel (i.e., personnel subject to overtime pay) shall not exceed forty (40) hours per employee in any week. If the Services require Consultant's or Subconsultant's nonexempt personnel to work in excess of forty (40) hours per week, any additional hours for nonexempt personnel must be authorized in advance, in writing, by the Contract Administrator. If approved, Consultant shall invoice Salary Costs for such additional hours provided by nonexempt employees 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 5.2. If a "Safe Harbor" rate is elected for use by

Consultant or Subconsultant, then the additional hours for both “exempt” (i.e., not subject to overtime pay) and nonexempt employees are payable at no more than the employee’s regular rate.

5.2.5. 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 duration of this Agreement, shall 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 5.2 remain in place.

5.2.6. Indemnification Related to Paycheck Protection Program Forgiveness. If the State of Florida, federal government, or any other authority seeks recovery from County, whether through offset or any other means, of Paycheck Protection Program (“PPP”) funds received by Consultant or any Subconsultant under the Coronavirus Aid, Relief, and Economic Security (“CARES”) Act and/or any forgiveness of such funds pursuant to Section 1106 of the CARES Act, Consultant must indemnify and hold harmless 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, arising from or relating thereto.

5.3. Reimbursable Expenses. Reimbursement of any travel costs, travel-related expenses, or other direct non-salary expenses directly attributable to the Services (collectively, “Reimbursable Expenses”) shall be limited to those permitted under Section 112.061, Florida Statutes, except as otherwise stated herein or detailed in Exhibit B-1, Reimbursables for Direct Non-salary Expenses. Mileage for travel within Palm Beach, Broward, and Miami-Dade Counties is not reimbursable. County shall not be liable for any Reimbursable Expenses that have not been approved in writing in advance by the Contract Administrator. Reimbursable Expenses of Subconsultants must also comply with the requirements of this section. Reimbursables for Direct Non-salary Expenses shall only be invoiced or reimbursed to the extent stated in Exhibit B-1.

5.4. Method of Billing.

5.4.1. For Maximum Amount Not-To-Exceed Compensation. Consultant shall submit invoices to the Contract Administrator in a timely manner, no more frequently than on a monthly basis, for all Salary Costs and Reimbursable Expenses attributable to each Work Authorization. Invoices are due within fifteen (15) days after the end of the month covered by the invoice, except that the final invoice must be received no later than sixty (60) days after the expiration or earlier termination of this Agreement. Consultant’s delayed submission of any invoice by more than sixty (60) days, absent good cause approved in writing by the Contract Administrator, may, at the Contract Administrator’s sole discretion, result in a waiver of any right to payment for the invoiced Services. Invoices must identify the specific project number (if any), the nature of the Services

performed, the total hours performed, and the employee category of the applicable individuals. Invoices must itemize and summarize all expenses by category and identify the personnel incurring the expense and the nature of the Services with which such expense was associated. Where prior written approval by Contract Administrator is required for the expense, a copy of said approval must accompany the invoice for such reimbursable. Invoices must also indicate the cumulative amount of CBE participation to date. The statement must show a summary of Salary Costs and Reimbursable Expenses with accrual of the total and credits for portions paid previously. Reimbursables for Direct Non-salary Expenses and Subconsultant fees must be documented by copies of paid invoices or receipts that describe the amount and nature of the expenses and contain a project number (if any) or other identifier that clearly indicates the expense is identifiable to the 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 must provide backup for past and current invoices that records hours and Salary Costs by employee category, expenses by category, and Subconsultant fees on a task basis, so that total hours and costs by task may be determined.

5.4.2. For Lump Sum Compensation. Consultant shall submit invoices to the Contract Administrator in a timely manner, no more frequently than on a monthly basis. Invoices are due within fifteen (15) days after the end of the month covered by the invoice, except that the final invoice must be received no later than sixty (60) days after the expiration or earlier termination of this Agreement. Consultant's delayed submission of any invoice by more than sixty (60) days, absent good cause approved in writing by the Contract Administrator, may, at the Contract Administrator's sole discretion, result in a waiver of any right to payment for the invoiced Services. These invoices must identify the specific project number (if any), the nature of the Services performed, the phase of work, and the estimated percent of Services accomplished on each phase. Invoices for each phase shall not exceed the amounts allocated to said phase. Invoices must also indicate the cumulative amount of CBE participation to date. The statement must show a summary of fees with accrual of the total and credits for portions paid previously. When requested, Consultant must 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.

5.5. Method of Payment.

5.5.1. 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. To be deemed proper, all invoices must: (a) comply with all applicable requirements, whether set forth in this Agreement or the Code; (b) be submitted pursuant to instructions prescribed by the

Contract Administrator; and (c) be submitted to both the County's Accounting Division (via email at AccountsPayable@Broward.org) and to the Contract Administrator.

5.5.2. Unless otherwise provided in this section, County shall have the right to retain an amount equal to ten percent (10%) of each invoice ("retainage") until satisfactory completion of the applicable phases specified in Exhibit A. No amount shall be withheld from payments for Reimbursable Expenses or for Services performed during the construction phase, if applicable. Any decision by County not to retain amounts as provided for in this section shall not be construed as a waiver of any right or claim that County may have associated with any failure of Consultant to complete the applicable phase. County may set off any amounts Consultant owes to County under this Agreement against any amounts County owes to Consultant under this Agreement.

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

5.5.4. Payment will be made to Consultant at the address for notices in Section 11.11, unless otherwise requested by Consultant in writing and approved by the Contract Administrator in writing.

5.5.5. After the expiration of this Agreement, Consultant and County shall continue to perform their obligations in accordance with the terms and conditions of this Agreement with respect to all Work Authorizations fully executed prior to the expiration date of this Agreement, provided that neither this Agreement nor the applicable Work Authorization have been terminated in accordance with the terms of this Agreement.

5.6. Fiscal Year. The continuation of this Agreement beyond the end of any County fiscal year (October 1 through September 30) is subject to both the appropriation and the availability of funds pursuant to Chapter 129 and, if applicable, Chapter 212, Florida Statutes. If amounts to be paid by County under this Agreement are budgeted to be funded with transportation surtax proceeds pursuant to Section 212.055(1), Florida Statutes, and such proceeds are not appropriated or available for any reason, County shall have no obligation to use ad valorem funds or any other funding source to make any payment(s) required under this Agreement and County may terminate this Agreement for convenience pursuant to Article 8.

5.7. Payments to Subconsultants. Consultant must pay Subconsultants and suppliers within fifteen (15) days after 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 the same within fifteen (15) days after 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.

5.8. Withholding by County; Overcharges. Notwithstanding any provision of this Agreement to the contrary, County may withhold payment, in whole or in part, (a) in accordance with Applicable Law, or (b) to the extent necessary to protect itself from loss on account of (i) inadequate or defective work that has not been remedied or resolved in a manner satisfactory to the Contract Administrator, or (ii) Consultant's failure to comply with any provision of this Agreement. The amount withheld shall not be subject to payment of interest by County. In the event of an overcharge by Consultant in any amount, Consultant shall promptly refund to County such overcharged amount. If the overcharge exceeds five percent (5%) of the total amount charged in the invoice where the overcharge occurred, Consultant shall, in addition to refunding the overcharged amount, pay liquidated damages in the amount of fifteen percent (15%) of the overcharged amount within thirty (30) days after demand by County as just compensation for damages incurred by County due to the overcharge, including, but not limited to, County's administrative costs and loss of potential investment returns (including interest).

5.9. Foreign Entity Tax Withholding. Amounts due to certain foreign persons or entities may be subject to backup withholding taxes under federal law. If Consultant is a foreign person or entity that is required to complete an Internal Revenue Service ("IRS") form to evidence exemption from backup withholding (e.g., Form W-8ECI) ("Foreign Tax Form"), Consultant shall provide County a copy of Consultant's current Foreign Tax Form prior to issuance of any invoice or payment under this Agreement. If Consultant fails to timely provide a completed, current Foreign Tax Form, County will withhold all backup withholding taxes from the amounts due Consultant, remit such sums to the IRS, and pay Consultant only the remainder. County makes no representation regarding the tax treatment of amounts due to Consultant, and Consultant releases and holds County harmless from any claims or damages in any way relating to or arising from any tax withholding by County pursuant to this section.

ARTICLE 6. CHANGES IN SERVICES

6.1. County or Consultant may request changes that would increase, decrease, or otherwise modify the Services to be provided. 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.

6.2. 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 the County Administrator's written 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, unless otherwise directed by the Contract Administrator.

ARTICLE 7. REPRESENTATIONS AND WARRANTIES

7.1. 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 Applicable Law. 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.

7.2. 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.

7.3. 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.

7.4. Contingency Fee. Consultant represents and warrants that it has not employed or retained any person or entity, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement, and 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.

7.5. 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 may be reduced by County, in its sole discretion, to correct any inaccurate, incomplete, or noncurrent information provided to County as the basis for Consultant's compensation in this Agreement.

7.6. 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 statute. 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.

7.7. Discriminatory Vendor and Scrutinized Companies Lists; Countries of Concern. Consultant represents that it has not been placed on the “discriminatory vendor list” as provided in Section 287.134, Florida Statutes, and that it has not been identified as a company or other entity subject to scrutiny under Sections 215.473 or 215.4725, Florida Statutes. Consultant represents and certifies that it is not, and for the duration of the Agreement will not be, ineligible to contract with County on any of the grounds stated in Section 287.135, Florida Statutes. Consultant represents that it is, and for the duration of this Agreement will remain, in compliance with Section 286.101, Florida Statutes.

7.8. Verification of Employment Eligibility. Consultant represents that Consultant and each Subconsultant have registered with and use the E-Verify system maintained by the United States Department of Homeland Security to verify the work authorization status of all newly hired employees in compliance with the requirements of Section 448.095, Florida Statutes, and that entry into this Agreement will not violate that statute. If Consultant violates this section, County may immediately terminate this Agreement for cause and Consultant shall be liable for all costs incurred by County due to the termination.

7.9. 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 is duly qualified and, to the extent required, licensed and certified by all appropriate governmental authorities to perform such Services, 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 shall be performed in a skillful and respectful manner, that it has or will obtain all necessary permits and approvals by applicable regulatory entities to perform the Services unless otherwise expressly stated herein, and that the quality of all Services shall equal or exceed prevailing industry standards for the provision of such services.

7.10. Prohibited Telecommunications. Consultant represents and certifies that Consultant and all Subconsultants do not use, and for the duration of this Agreement will not provide or use, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, as such terms are used in 48 C.F.R. §§ 52.204-24 through 52.204-26.

7.11. Criminal History Screening Practices. If this Agreement is subject to the requirements of Section 26-125(d) of the Code, Consultant represents and certifies that Consultant will comply with Section 26-125(d) of the Code for the duration of the Agreement.

7.12. Entities of Foreign Concern. The provisions of this section apply only if this Agreement provides access to an individual's personal identifying information. By execution of this Agreement, the undersigned authorized representative of Consultant hereby attests under penalty of perjury as follows: Consultant is not owned by the government of a foreign country of concern, is not organized under the laws of nor has its principal place of business in a foreign country of concern, and the government of a foreign country of concern does not have a controlling interest in Consultant; the undersigned authorized representative of Consultant declares that they have read the foregoing statement and that the facts stated in it are true. Terms used in this section that are not otherwise defined in this Agreement shall have the meanings ascribed to such terms in Section 287.138, Florida Statutes.

7.13. Domestic Partnership Requirement. Unless this Agreement is exempt from the provisions of the "Broward County Domestic Partnership Act," Section 16½-157 of the Code ("Act"), Consultant certifies and represents that it shall at all times comply with the provisions of the Act. The contract language referenced in the Act is deemed incorporated in this Agreement as though fully set forth in this section.

7.14. Breach of Representations. Consultant acknowledges that County is materially relying on the representations, warranties, and certifications of Consultant stated in this article, and County shall be entitled to exercise any or all of the following remedies if any such representation, warranty, or certification is untrue: (a) recovery of damages incurred; (b) termination of this Agreement without any further liability to Consultant; (c) set off from any amounts due Consultant the full amount of any damage incurred; and (d) debarment of Consultant.

ARTICLE 8. TERMINATION

8.1. Termination for Cause. 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 may be terminated for cause by County for reasons including, but not limited to, any of the following:

8.1.1. Consultant's (a) failure to suitably or continuously perform the Services in a manner calculated to meet or accomplish the objectives in this Agreement or Work Authorization, (b) suspension or debarment by a state or federal governmental entity or by a local governmental entity with a population in excess of one million people, or (c) repeated submission (whether negligent or intentional) for payment of false or incorrect bills or invoices;

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

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

Unless otherwise stated in this Agreement, if this Agreement was approved by Board action, termination for cause by County must be by action of the Board or the County Administrator; in any other instance, termination for cause may be by the County Administrator, the County representative expressly authorized under this Agreement, or the County representative (including any successor) who executed this Agreement on behalf of County. If County erroneously, improperly, or unjustifiably terminates this Agreement or any Work Authorization for cause, such termination shall be deemed a termination for convenience pursuant to Section 8.2 effective thirty (30) days after such notice was provided and Consultant shall be eligible for the compensation provided in Section 8.2 as its sole remedy.

8.2. Termination for Convenience; Other Termination. This Agreement or any Work Authorization may also be terminated for convenience by the Board with at least thirty (30) days advance written notice to Consultant. Consultant acknowledges that it has received good, valuable, and sufficient consideration for County's right to terminate this Agreement or any Work Authorization for convenience, including in the form of County's obligation to provide advance written notice to Consultant of such termination in accordance with this section. 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 this Agreement or any Work Authorization issued under this Agreement is terminated by County pursuant to this section, Consultant shall be paid for any Services properly performed 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, and County shall have no further obligation to pay Consultant for Services under this Agreement.

8.3. 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.

8.4. In addition to any termination rights stated in this Agreement, County shall be entitled to seek any and all available contractual or other remedies available at law or in equity, including recovery of costs associated with Consultant's failure to comply with any term(s) of this Agreement.

ARTICLE 9. INSURANCE

9.1. 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.

9.2. 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.

9.3. On or before the date this Agreement is fully executed or at least fifteen (15) days prior to commencement of Services, as may be requested by County, 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.

9.4. Consultant shall ensure that all insurance coverages required by this article remain in full force and effect without any lapse in coverage for the duration of this Agreement and until all performance required of 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).

9.5. All required insurance policies must be placed with insurers or surplus line carriers authorized to conduct business in the State of Florida with an A.M. Best rating of A- or better and a financial size category class VII or greater, unless otherwise approved by County's Risk Management Division in writing.

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

9.7. 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. Any deductible or self-insured retention may be satisfied by either the named insured or County, if so elected by County, and Consultant shall obtain the same in endorsements to the required policies.

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

9.9. 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. Consultant shall not permit any Subconsultant to provide Services unless and until all applicable requirements of this article are satisfied.

9.10. 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. If requested by County, Consultant shall provide, within one (1) business day, evidence of each Subconsultant's compliance with this article.

9.11. 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 10. EQUAL EMPLOYMENT OPPORTUNITY AND CBE/SBE COMPLIANCE

10.1. Consultant and Subconsultants shall not discriminate on the basis of race, color, sex, religion, national origin, disability, age, marital status, political affiliation, pregnancy, or any other basis prohibited by Applicable Law 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 U.S. Department of Transportation funds shall comply with the nondiscrimination requirements in 49 C.F.R. Parts 23 and 26.

10.2. Consultant shall comply with all applicable requirements of the Broward County Business Opportunity Act, Section 1-81, et seq., of the Code, 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 or Applicable Law, all such remedies being cumulative.

10.3. Consultant must meet or exceed 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 (the "Commitment") for the scope of work and the percentage of work amounts

identified on each Letter of Intent. Promptly upon execution of this Agreement 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.

10.4. Each CBE firm utilized by Consultant to meet the CBE goal must be certified and their participation approved in advance 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, as applicable. 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 if the termination results from modification of the Services and no CBE firm is available to perform the modified Services; in which event Consultant shall notify County, and OESBD may adjust the CBE goal by written notice to Consultant.

10.5. 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 1-81.1 of the Code) 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 of the Code. As elected by County, such liquidated damages amount shall be either credited against any amounts due from County, or 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, et seq. Consultant acknowledges and agrees that the liquidated damages provided in this section are proportionate to an amount that might reasonably be expected to flow from a breach of the Commitment and are not a penalty. 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.

10.6. Consultant acknowledges that the Board, acting through OESBD, may make minor administrative modifications to Section 1-81, et seq., of the Code, 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.

10.7. County may modify the required participation of CBE firms 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.

10.8. Consultant shall provide monthly utilization reports, using the form available at <https://www.broward.org/EconDev/SmallBusiness/Pages/Compliance.aspx> or such other form or system as may be designated by OESBD, to the Contract Administrator, to OESBD at SBCOMP@broward.org, and to the Small Business Specialist identified by OESBD. In addition, Consultant shall allow County to engage in onsite reviews to monitor Consultant's progress in achieving and maintaining the Commitment. The Contract Administrator, in conjunction with OESBD, shall perform such review and monitoring, unless otherwise determined by the County Administrator.

10.9. 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 claims of nonpayment or exercising any right stated in Section 5.8.

ARTICLE 11. MISCELLANEOUS

11.1. Contract Administrator Authority. The Contract Administrator is authorized to coordinate and communicate with Consultant to manage and supervise the performance of this Agreement. Consultant acknowledges that the Contract Administrator has no authority to make changes that would increase, decrease, or otherwise materially modify the Services except as expressly set forth in this Agreement or, to the extent applicable, in the Broward County Procurement Code. Unless expressly stated otherwise in this Agreement or otherwise set forth in the Code or the Broward County Administrative Code, the Contract Administrator or designee may exercise ministerial authority in connection with the day-to-day management of this Agreement provided that such instructions and determinations do not change the Services. The Contract Administrator may also approve in writing minor modifications to the Services that do not increase the total cost to County or waive any rights of County. Consultant shall notify Contract Administrator in writing of Consultant's representative(s) to whom matters involving the Services shall be addressed.

11.2. Rights in Documents and Work. Except as provided in the section of this Agreement titled "Reuse of Materials, Deliverables, and other Work Product," any and all documents, reports, studies, photographs, surveys, drawings, maps, models, photographs, specifications, materials, or other work created by Consultant specifically for County in connection with performing Services, in their native file format, whether finished or unfinished ("Documents and Work"), 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 Documents and Work, and shall provide any documentation necessary to effectuate such transfer. Unless otherwise

expressly stated herein, County has the right to use, reproduce, modify, distribute, and publicly display the Documents and Work, in whole or in part, in any medium and for any purpose, in perpetuity and without restriction. Consultant represents and warrants that it has all necessary legal rights to provide the Documents and Work and to grant County the rights stated in this Agreement. Consultant must deliver the Documents and Work to the Contract Administrator within ten (10) business days after expiration or termination of this Agreement. Any compensation due to Consultant may be withheld until all Documents and Work are provided as set forth herein. Consultant shall ensure that the requirements of this section are included in all Consultant's agreements with Subconsultants.

11.3. Public Records. Notwithstanding any other provision in this Agreement, any action taken by County in compliance with, or in a good faith attempt to comply with, the requirements of Chapter 119, Florida Statutes, shall not constitute a breach of this Agreement. If Consultant is acting on behalf of County as stated in Section 119.0701, Florida Statutes, Consultant shall:

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

11.3.2. 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 Applicable Law;

11.3.3. Ensure that public records that are exempt or confidential and exempt from public record requirements are not disclosed except as authorized by Applicable Law for the duration of this Agreement and after completion or termination of this Agreement if the records are not transferred to County; and

11.3.4. 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 requirements of Applicable Law 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.

If Consultant receives a request for public records regarding this Agreement or the Services, Consultant must immediately notify the Contract Administrator in writing and provide all requested records to County to enable County to timely respond to the public records request. County will respond to all such public records requests.

Consultant must separately submit and conspicuously label as "RESTRICTED MATERIAL – DO NOT PRODUCE" any material (a) that Consultant contends constitutes or contains its trade secrets under Chapter 688, Florida Statutes, or (b) for which Consultant asserts a right to withhold from

public disclosure as confidential or otherwise exempt from production under Florida public records laws (including Chapter 119, Florida Statutes) (collectively, "Restricted Material"). In addition, Consultant must, simultaneous with the submission of any Restricted Material, provide a sworn declaration or affidavit in a form acceptable to County from a person with personal knowledge attesting that the Restricted Material constitutes trade secrets or is otherwise exempt or confidential under Florida public records laws, including citing the applicable Florida statute and specifying the factual basis for each such claim. Upon request by County, Consultant must promptly identify the specific applicable statutory section that protects any particular document. If a third party submits a request to County for records designated by Consultant as Restricted Material, County shall refrain from disclosing such material unless otherwise ordered by a court of competent jurisdiction, authorized in writing by Consultant, or the claimed exemption is waived. Any failure by Consultant to strictly comply with the requirements of this section shall constitute Consultant's waiver of County's obligation to treat the records as Restricted Material. Consultant must indemnify and hold harmless 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 nondisclosure of Restricted Material in response to a third-party request.

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, EKENNEDY@BROWARD.ORG, 1850 ELLER DRIVE, SUITE 605, FORT LAUDERDALE, FLORIDA, 33316.

11.4. Audit Rights and Retention of Records. Consultant and all Subconsultants 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. This section shall survive any dispute or litigation between the Parties, and Consultant expressly acknowledges and agrees to be bound by this section throughout the course of any dispute or litigation with County. 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 duration of this Agreement and for a period of three (3) years after the expiration or termination of this Agreement (or longer if required by Applicable Law). County may, without limitation, verify information, payroll distribution, and amounts through interviews, written affirmations, and on-site inspections with Consultant's employees, Subconsultants, vendors, or other laborers.

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, e-mails, 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, cost and expense reports, 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 workspace. Consultant shall provide County with reasonable access to Consultant's facilities, and County shall be allowed to interview all employees to discuss matters pertinent to the performance of this Agreement. Consultant shall make all Contract Records available electronically, in common file formats, and/or via remote access, if and to the extent requested by County.

Consultant shall, by written contract, require all 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 based upon such entry. Consultant shall refund to County any overcharged amount identified as a result of an audit, regardless of the amount of the overcharge. If the overcharge exceeds five percent (5%) of the total contract charges audited by County, Consultant shall, in addition to refunding the overcharged amount, pay liquidated damages in the amount of fifteen percent (15%) of the overcharged amount as just compensation for damages incurred by County due to the overcharge, including, but not limited to, County's administrative costs and loss of potential investment returns (including interest). Any adjustments or payments due as a result of such audit must be made within thirty (30) days after presentation of County's findings to Consultant.

11.5. Subconsultants. Consultant shall utilize only the Subconsultants identified in Exhibit E, Schedule of Subconsultants, to provide the Services. 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 of Consultant set forth in Article 9 on Consultant's Subconsultants.

11.6. Subcontracting; Assignment; Change of Control. Neither this Agreement nor any interest herein shall be assigned, transferred, or encumbered without the written consent of the other Party. Any change of control (as defined herein) shall be deemed an assignment. 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 nonassigning Party to immediately

terminate this Agreement, in addition to any other remedies available to the nonassigning Party at law or in equity. County reserves the right to condition its approval of any assignment, transfer, encumbrance, or subcontract upon further due diligence and an additional fee paid to County to reasonably compensate it for the performance of any such due diligence.

For purposes of this section, “change of control” means: (a) a transfer of more than fifty percent (50%) of the ownership interests in Consultant, whether in a single transaction or a series of related transactions; (b) a merger, consolidation, or other reorganization that results in a change in voting control in Consultant or in the entity that controls Consultant’s business; or (c) the sale, lease, or transfer of all or substantially all of Consultant’s assets. A change of control does not include (i) a transfer to an entity wholly owned, directly or indirectly, by Consultant or its parent, or (ii) a transfer between existing owners of Consultant that does not result in a change in majority ownership; provided, however, that any such transfer shall not relieve Consultant of its obligations under this Agreement unless County expressly agrees otherwise in writing.

11.7. Confidential Information; Generative Artificial Intelligence. Unless expressly authorized in this Agreement or in writing in advance by the Contract Administrator, Consultant is strictly prohibited from disclosing, uploading, or otherwise making available to third parties, directly or indirectly, including but not limited to through utilization of generative artificial intelligence tools, any exempt, confidential, sensitive security, or personal information of County. Consultant must ensure that any use of generative artificial intelligence tools by Consultant or its Subconsultants does not involve the disclosure of exempt, confidential, sensitive security, or personal information, including without limitation for large language model learning or training. Consultant must implement and maintain appropriate technological and operational safeguards to ensure compliance with the obligations of this section.

11.8. Indemnification of County. If this Agreement constitutes a construction contract or a professional services contract with a design professional, then Section 11.8.1 shall apply. If this Agreement does not constitute a construction contract or a professional services contract with a design professional, then Section 11.8.2 shall apply. The terms “construction contract,” “professional services contract,” and “design professional” used in this section have the meanings set forth in Sections 725.06 or 725.08, Florida Statutes.

11.8.1. Construction and Professional Services Contracts. 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.

11.8.2. Contracts Other than Construction or Professional Services. Consultant shall indemnify, hold harmless, and defend County and all of County’s current, past, and future officers, agents, and employees (collectively, “Indemnified Party”) from and against any and all causes of action, demands, claims, losses, liabilities, and expenditures of any kind,

including attorneys' fees, court costs, and expenses, including through the conclusion of any appellate proceedings, raised or asserted by any person or entity not a party to this Agreement, and caused or alleged to be caused, in whole or in part, by any breach of this Agreement by Consultant, or any intentional, reckless, or negligent act or omission of Consultant, its officers, employees, or agents, arising from, relating to, or in connection with this Agreement (collectively, a "Claim"). If any Claim is brought against an Indemnified Party, Consultant shall, upon written notice from County, defend each Indemnified Party with counsel satisfactory to County or, at County's option, pay for an attorney selected by the County Attorney to defend the Indemnified Party.

11.8.3. The applicable provisions of Section 11.8 shall survive the expiration or earlier termination of this Agreement. If considered necessary by the Contract Administrator and the County Attorney, any sums due Consultant under this Agreement may be retained by County until all claims subject to indemnification have been settled or otherwise resolved. Any amount withheld shall not be subject to payment of interest by County.

11.9. Prior Agreements. This Agreement represents the final and complete understanding of the Parties regarding the subject matter of this Agreement and supersedes all prior and contemporaneous negotiations and discussions regarding the same. All commitments, agreements, and understandings of the Parties concerning the subject matter of this Agreement are contained herein.

11.10. Amendments. Unless otherwise expressly authorized herein, no modification, amendment, or alteration of any portion of this Agreement is effective unless contained in a written document executed with the same or similar formality as this Agreement and by duly authorized representatives of County and Consultant.

11.11. Notices. Unless otherwise stated herein, for 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). A Party may change its notice address by providing notice of such change in accordance with this section.

FOR COUNTY:

Broward County Port Everglades Department
ATTN: Director of Seaport Engineering and Construction
1850 Eller Dr., Ste. 504, Ft. Lauderdale, FL 33316
Email address: jfoglesong@broward.org

FOR CONSULTANT:

Chen Moore and Associates
500 W. Cypress Creek Rd., Ste. 600, Fort Lauderdale, FL 33309
Email address: Pmoore@chenmoore.com

11.12. 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 any other gender, and the singular shall include the plural, and vice versa, unless the context otherwise requires. Terms such as “herein” 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 subsections thereof, 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. Any reference to approval by County shall require approval in writing, unless otherwise expressly stated.

11.13. Consultant’s Staff. Consultant will provide the key staff identified in Exhibit A (if none listed in Exhibit A, then identified in response to County’s request for a proposal or Consultant’s proposal for each Work Authorization) 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 for County to determine the suitability of the proposed new key staff. Contract Administrator will be reasonable in evaluating key staff qualifications. If Contract Administrator desires to request the 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.

11.14. Independent Contractor. Consultant is an independent contractor of County, and nothing in this Agreement shall constitute or create a partnership, joint venture, or any other relationship between the Parties. In providing Services, 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. Consultant and each Subconsultant shall be responsible for any amounts owed to their respective employees for work performed in excess of forty (40) hours in any week if the employee was misclassified as “exempt.”

11.15. 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. If County exercises its regulatory authority, the exercise of such authority and the enforcement of Applicable Law 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.

11.16. 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.

11.17. Third-Party Beneficiaries. Neither Consultant nor County intends to primarily or directly 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.

11.18. 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 duration 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 they or Consultant is not a party, unless compelled by legal process. Further, such persons shall not give sworn testimony or issue a report or writing, as an expression of such person's 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 legal 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, Consultant shall require such Subconsultants, by written contract, to comply with the provisions of this section to the same extent as Consultant.

11.19. 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. 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 shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of this Agreement. To be effective, any waiver must be in writing and signed by an authorized signatory of the Party granting the waiver.

11.20. Compliance with Laws. Consultant and the Services must comply with all Applicable Law, including, without limitation, the Americans with Disabilities Act, 42 U.S.C. § 12101, Section 504 of the Rehabilitation Act of 1973, and the requirements of any applicable grant agreements, and all deliverables provided for online utilization must meet or exceed the World Wide Web Consortium/Web Content Accessibility Guidelines (WCAG) 2.1 Level AA standard or any higher standard as required by Applicable Law.

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

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

11.23. 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 within an article or section of this Agreement, the article or section shall prevail and be given effect.

11.24. 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. **EACH PARTY HEREBY EXPRESSLY WAIVES ANY RIGHTS IT MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A DEMAND FOR A JURY TRIAL AFTER WRITTEN NOTICE BY THE OTHER PARTY, THE PARTY MAKING THE DEMAND FOR JURY TRIAL SHALL BE LIABLE FOR REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY TO CONTEST THE DEMAND FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

11.25. Reuse of Materials, Deliverables, and other Work Product. County may, at its option, reuse (in whole or in part) the work product, materials, or deliverables resulting from Consultant's Services (including, but not limited to, drawings, specifications, other documents, and Services as described herein and in the applicable Work Authorization) without additional compensation being owed to Consultant; and Consultant agrees to such reuse in accordance with this provision. 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. If County elects to retain Consultant in connection with a reuse assignment, Consultant will be paid a reuse fee to be negotiated between County and Consultant. In connection with any reuse assignment that County elects to retain Consultant to perform, Consultant shall revise the design documents to comply with building codes and other jurisdictional requirements current at the time of reuse for the new use or site location. Except for the reuse payment negotiated between County and Consultant, the terms and conditions of this Agreement shall remain in force for each reuse assignment, unless otherwise agreed by the Parties in writing.

11.26. Payable Interest.

11.26.1. Payment of Interest. Unless prohibited by Applicable Law, County shall not be liable for interest to Consultant for any reason, whether as prejudgment interest or for any other purpose, and Consultant waives, rejects, disclaims, and surrenders any and all entitlement to interest in connection with a dispute or claim arising from, related to, or in connection with this Agreement.

11.26.2. Rate of Interest. If the preceding section 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).

11.27. 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.

11.28. Multiple Originals and Counterparts. This Agreement may be executed in multiple originals or in counterparts, whether signed physically or electronically; each of which shall be deemed to be an original, and all of which, taken together, shall constitute one and the same agreement.

11.29. Polystyrene Food Service Articles. Consultant shall not sell or provide for use on County property expanded polystyrene products or food service articles (e.g., Styrofoam), unencapsulated expanded polystyrene products, or single-use plastic straws or stirrers, as set forth in more detail in Section 27.172, Broward County Administrative Code.

11.30. Public Art and Design. If the Project includes artwork as defined by Section 1-88 of the Code, Consultant shall cooperate with the artist for the purpose of properly incorporating the artist's design(s) into the design of the Project. Consultant shall notify the artist in writing of all design meetings and shall provide the artist with a schedule of milestone dates. If requested by County, Consultant shall provide workspace for the artist during the preliminary design and design phases. The artist's design, as properly incorporated into the design of the Project, shall be included by Consultant in any applicable permitting as part of the master site or facility plan. Consultant's compensation pursuant to this Agreement includes the services to comply with the requirements set forth in this section. Consultant shall ensure that Subconsultants, if any, are informed of Broward County's Public Art and Design Program and any applicable requirements of working with the artist(s). If the Project is funded in whole or in part with proceeds from the transportation surtax, only artistic elements that are not prohibited under Section 212.055, Florida Statutes, may be funded through the surtax.

11.31. Anti-Human Trafficking. By execution of this Agreement by an authorized representative of Consultant, Consultant hereby attests under penalty of perjury that Consultant does not use coercion for labor or services, as such terms are defined in Section 787.06, Florida Statutes. Under penalties of perjury, the undersigned authorized representative of Consultant declares that they have read the foregoing statement and that the facts stated in it are true.

11.32. Workforce Investment Program. This Agreement constitutes a "Covered Contract" under the Broward Workforce Investment Program, Section 19.211, Broward County Administrative Code ("Workforce Investment Program"). Consultant affirms it is aware of the requirements of the Workforce Investment Program and will use good faith efforts to meet the First Source Referral Goal and the Qualifying New Hires Goal as set forth in the Workforce Investment

Program, including by (a) publicly advertising exclusively with CareerSource Broward for at least five (5) business days any vacancies that are the direct result of this Agreement (whether those vacancies are with Consultant or its Subconsultants) and using good faith efforts to interview any qualified candidates referred under the Workforce Investment Program, and (b) using good faith efforts to hire Qualifying New Hires, as defined by the Workforce Investment Program, for at least fifty percent (50%) of the vacancies that are the direct result of this Agreement. Until at least one year after the conclusion of this Agreement, Consultant shall maintain and make available to County upon request all records documenting Consultant's compliance with the requirements of the Workforce Investment Program, and shall submit the required Workforce Investment Reports to the Contract Administrator annually by January 31 and within thirty (30) days after the expiration or termination of this Agreement. Failure to demonstrate good faith efforts to meet the First Source Referral Goal and the Qualifying New Hires Goal shall constitute a material breach of this Agreement.

11.33. Use of County Name or Logo. Consultant shall not use County's name or logo in marketing or publicity materials without prior written consent from the Contract Administrator.

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

11.35. Iron and Steel Products. For any Project that constitutes a "public works project" as defined in Section 255.0993, Florida Statutes, any iron or steel product permanently incorporated in the Project must be produced in the United States, unless specifically exempted in writing by the Contract Administrator in accordance with Section 255.0993, Florida Statutes.

11.36. Emergency Response. If this Agreement is for Services related to emergency response for a natural emergency and Consultant breaches this Agreement during an emergency recovery period, as such period is defined in Section 252.505, Florida Statutes, Consultant must pay County a \$5,000 penalty plus damages, which shall be actual and consequential damages or, if expressly stated otherwise in this Agreement, liquidated damages, in accordance with Section 252.505, Florida Statutes.

(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 _____, 20__; and Consultant, signing by and through its duly authorized representative.

COUNTY

ATTEST:

Broward County, by and through
its Board of County Commissioners

By: _____
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 302
Fort Lauderdale, Florida 33316
Telephone: (954) 523-3404

ANTONIO
LOZADA
By _____
Antonio Lozada (Date)
Senior Assistant County Attorney

Digitally signed by
ANTONIO LOZADA
Date: 2026.02.02 08:28:27
-05'00'

CARLOS A.
RODRIGUEZ-
CABARROCAS
By _____
Carlos Rodriguez-Cabarrocas (Date)
Senior Assistant County Attorney

Digitally signed by CARLOS A.
RODRIGUEZ-CABARROCAS
Date: 2026.02.02 08:59:39
-05'00'

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ChenMoore PNC2130373P1
1/23/2026
#80040-6015

AGREEMENT BETWEEN BROWARD COUNTY AND CHEN MOORE AND ASSOCIATES, INC.
FOR CONTINUING CONSULTANT SERVICES FOR ARCHITECTURAL AND ENGINEERING
CONSULTING SERVICES FOR PORT EVERGLADES
(RFP # PNC2130373P1)

CONSULTANT

CHEN MOORE AND ASSOCIATES, INC.

By: 
Authorized Signer

Jason McClair - Vice President
Print Name and Title

30th day of January, 2026

EXHIBIT A

SCOPE OF SERVICES

Consulting Services for Port Everglades Seaport Engineering and Construction Division

A. Background

Consultant shall provide professional architectural, engineering, and related services, as requested by County through the issuance of a Work Authorization, for projects in which the estimated construction cost of each individual project does not exceed the thresholds defined in 287.055, Florida Statutes. Services shall include all architectural and engineering services necessary and related to the design, construction administration, and construction management of these projects. Consultant shall comply with all Federal, State, and local laws, ordinances, rules and building standards.

B. General Description of Services

Consultant may be tasked to provide comprehensive architectural and/or engineering services on each Work Authorization. Services for Work Authorizations 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, permitting assistance, and procurement.
- d) Bid/award support and concurrence.
- e) Negotiation support services.
- f) Inspection, construction observation, and progress documentation.
- g) Post construction surveys and related services.
- h) Construction cost analysis, 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, preparation of narratives and other textual 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 consulting services and associated assistance with the LEED process.
- o) 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) Evaluating existing infrastructure for regulatory compliance and recommendations for same.
- q) Material testing and inspections, including soil reports and recommendations, concrete testing, weld inspections, soil density, and other related testing.
- r) Development of new designs and repairs for marine infrastructure systems, such as fenders, bollards, high mast lights, site drainage, etc.
- s) Structural engineering assessments and construction document designs for port infrastructure.
- t) Architectural assessments and construction document designs for port buildings.

C. BUILDING INFORMATION MODELING (BIM) & ELECTRONIC MEDIA SUBMITTAL REQUIREMENTS

Electronic media submittal requirements are provided in Exhibit A, Attachment 1. The requirements for BIM, when specified in the applicable Work Authorization, shall be those provided in Exhibit A, Attachment 1.

EXHIBIT A - SCOPE OF WORK
ATTACHMENT 1:
BIM and Electronic Media Submittal Requirements

Preamble

The Contract Administrator will be utilizing electronic media as the principal way it develops, communicates and archives information concerning its various construction programs. 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 encourages Building Information Model (BIM) based design and documentation to the maximum extent possible, especially for all major projects including all new construction.

For projects utilizing BIM delivery, Consultant and Contractor will include native BIM format and Industry Foundation Class (IFC) BIM deliverables at all project milestones. The Consultants will derive any supplementary 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. Consultants and Contractors shall initiate and jointly develop BIM and COBie information throughout all phases of the project. Requirements for these media are presented below.

Table of Contents for - Exhibit A - Scope of Work, Attachment 1:

- 1. Section 1 - Definitions and Identifications**
- 2. Section 2 – Electronic Media**
- 3. Section 3 – BIM/ CADD Standard of Care, Level of Development (LOD), COBie**
- 4. Section 4 - BIM Execution Plan (BIMPxP) *(Template to be completed)***
- 5. Section 5 - Model Progression Schedule *(Template to be completed)***

Section 1 Definitions and Identifications

The following definitions and identifications set forth below apply unless the context, the Agreement, Exhibit A, Scope of Work 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 **BIM:** Building Information Model(ing). BIM is not a specific product or technology, instead it's a collection of software applications designed to facilitate coordination and project collaboration. BIM is a digital representation of physical and functional characteristics of a facility and is used as a process for developing design and construction documentation by virtually constructing a building, bridge or other form of infrastructure – before anything is built.
 - 1.5 **BIM Project Execution Plan (BIMPxP / 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 as outlined in the BIMPxP.
 - 1.6 **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.
 - 1.7 **CAD/CADD:** Computer Aided Design/Computer Aided Design and Drafting. Interchangeably used terms interpreted as 2D, (Two Dimensional) representations in electronic format.
 - 1.8 **CIM / Sub-Surface:** Civil Information Modeling and subsurface utility mapping that relates and is coordinated with the building modeling.
 - 1.9 **Clash detection/ Clash Rendition:** Rendition of the native-format model file is to be used specifically for spatial coordination processes. Used to achieve clash avoidance or for clash detection (between, for example structure and services) between Building Information Models prepared by different disciplines. The key benefit is in reducing errors, and hence costs, pre-construction commencement.
 - 1.10 **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.
 - 1.11 **Code Validation:** A process in which code validation software is utilized to check model parameters against specific codes.
 - 1.12 **Commissioning:** The process of verifying, in new construction agreed upon building systems to achieve Owners project requirements.
 - 1.13 **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.
 - 1.14 **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.

- 1.15 **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, tie-backs, etc.) in order to improve planning.
- 1.16 **Cost Analysis:** A process in which a BIM model can offer a preliminary analysis of the costs of constructing a Project during the design process and provide cost 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.
- 1.17 **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.
- 1.18 **Design Authoring:** A process in which 3D software is used to develop a BIM model based on criteria that are 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.
- 1.19 **Design for Maintenance:** An evaluation process where each object selected during design for inclusion in a BIM is evaluated for maintenance issues, such as clearances to perform routine maintenance activities to include complete replacement of the object or any of its components.
- 1.20 **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.
- 1.21 **Digital Fabrication:** A process that utilizes machine technology to prefabricate objects directly from a 3D Model.
- 1.22 **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.
- 1.23 **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.
- 1.24 **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.
- 1.25 **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.
- 1.26 **Existing Conditions Modeling:** A process in which a project team develops a 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.
- 1.27 **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.
 - 1.28 **Federated BIM Model:** A single federated model is useful for design co-ordination, 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.
 - 1.29 **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>
 - 1.30 **Information Manager:** The CIC BIM Protocol refers to and provides for the appointment of an 'Information Manager' by the employer. This is the project manager, or BIM Manager who is responsible for managing the delivery of the asset using BIM procedures and methods. This is expected to form part of a wider set of duties under an existing appointment and is likely to be performed either by the Design Lead or the Project Lead.
 - 1.31 **Integrated Project Delivery (IPD):** The owner's goal whose 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.
 - 1.32 **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.
 - 1.33 **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.
 - 1.34 **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.
 - 1.35 **LOD:** Level Of Development Specification for Building Information Models. See Section 3 – BIM/CADD Standards of Care and the current edition (2017 or later), of the BIMForum LOD Specification for additional information. <http://BIMForum.org/lod>
 - 1.36 **Maintenance & Repair Information:** A function to allow the collection and storage of maintenance and repair information about objects brought into a BIM.

- 1.37 **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.
- 1.38 **Model Progression Schedule:** A worksheet that is a guide for the project team to define model creation scope of work and model level of development. 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, and meet schedule requirements for the project.
- 1.39 **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. Most recent release date May 16, 2012. OmniClass uses MasterFormat and UniFormat as the basis of its Tables wherever possible. <http://www.omniclass.org/about>
- 1.40 **Owner Approval:** A business process which takes advantage of information stored in a BIM to help validate progress as well as observing that the owner's intent for the facility is being honored both conceptually and contractually.
- 1.41 **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, or to show the construction sequence and space requirements on a building site.
- 1.42 **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 analyze space and understand the complexity of space standards and regulations. Critical decisions are made in this phase of design and brings the most value to the project when needs and options are discussed with the client and the best approach is analyzed.
- 1.43 **PxP:** Abbreviated form of (BIMPxP). See definition for BIM Project Execution Plan.
- 1.44 **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.
- 1.45 **Quantity Take Off:** Quantity take-off's (QTO) are a detailed measurement of materials and labor needed to complete a construction project. Estimators review drawings, specifications and BIMs to find these quantities.
- 1.46 **Record BIMs:** The updated BIMs generated by the Architecture Engineering Team of record that includes the contractors As-constructed BIMs.
- 1.47 **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.
- 1.48 **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 position the building based on engineering criteria (e.g. solar path, utility availability, hazardous material).
- 1.49 **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.
- 1.50 **Space Management:** A process in which BIM is utilized to effectively allocate, manage, and track assigned workspaces and resources.
- 1.51 **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.
- 1.52 **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.
- 1.53 **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.
- 1.54 **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.
- 1.55 **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.
- 1.56 **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.
- 1.57 **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 QA/ QC.

Section 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 CADD Graphic Formats:

2.2.1 Provide all CADD data in Autodesk, Inc.'s AutoCAD release 2018 or higher for Windows in native .dwg electronic digital format. CADD data required for Contract submittals shall be provided in native .dwg format. Provide copies of all drawing sheets or other CADD and/or PDF format produced documents intended for hardcopy plotting or printing in plot (.plt) and drawing web format (.dwt) versions of all sheets/documents.

2.2.2 Provide all BIM models and data in Autodesk Revit 2018 or higher. Provide all BIM and data in any of the following software formats:

- a. Autodesk, Inc. Revit 2018 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 native .rvt 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 must be approved in writing in advance by the County's Contract Administrator and 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 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 BIM & CAD Content:

- a. Provide all Building Information Modeling (BIM) models 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.
- b. See also BIM/CADD Standards of Care.

2.2.9 CADD Standards:

- a. Standard plotted drawing size: 24-inch x 36-inch sheets (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.

2.2.10 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.

2.2.11 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.

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

- a. Architectural Models
 1. Architectural - Default
 2. Envelope (Curtainwall, Precast, Other) - Default
 3. Masonry - Gray

- b. Civil & Site Improvement Model
 - 1. TBD
 - c. Structural Models
 - 1. Steel – Rust
 - 2. Concrete - Gray
 - 3. Masonry - Gray
 - d. MEP/FP Models
 - 1. Mechanical Ductwork Supply - Magenta
 - 2. Mechanical Ductwork Return - Plum
 - 3. Mechanical Ductwork Exhaust – Medium Orchid
 - 4. Mechanical Piping Supply – Hot Pink
 - 5. Mechanical Piping Return- Violet
 - 6. Electrical Conduit - Orange
 - 7. Cable Tray- Yellow
 - 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
- 2.2.13 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 uses and information systems.
 - b. No deviations from the Contract Administrator's established BIM/CADD standards will be permitted unless prior written approval of such deviation has been received from the Contract Administrator.
 - c. County or its Owner's Designated Representative 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. County or its Owner's Designated Representative also reserves the right to review, accept or reject Facility Data deliverables when required by contractual agreements. To ensure successful integration into County's computer aided facility management 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 BIMPxP, 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.

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, bit-map 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, bit-map 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, bit-map 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., or DVD media. Flash drives are acceptable alternatives and shall contain identifying County project information in their disk name. Other media will not be accepted without Contract Administrators approval.

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.

2.5.4 The external label 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 BIM/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. For each drawing, provide one bound file containing drawing sheet with associated XREFs and one un-bound file containing the associated XREFs.
- c. 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 to the Contract Administrator with the delivery media.
- d. 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 to the Contract Administrator as a part of the electronic digital deliverables.
- e. 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.
- f. 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.

- g. Include any standard sheets (i.e., abbreviation sheets, standard symbol sheets, or other listing) necessary for a complete project.
- h. 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 Submittal:

2.7.1 Document any fonts, tables, or other similar customized drawing element developed by Consultant or not provided among the Contract Administrator-furnished materials. The contractor shall obtain Contract Administrator approval before using anything other than the Contract Administrator's standard fonts, line-types, tables, blocks, or other drawing elements available from the Contract Administrator.

2.8 Submittals / Deliverables:

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

2.8.2 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.

2.8.3 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.

2.9 Ownership:

2.9.1 County has ownership and all rights to all finished or unfinished Digital Deliverables developed for this Project. Any Digital Deliverables generated under any County design and construction Contract, 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.

2.9.2 County will have unlimited rights under the Professional Services 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.

2.9.3 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 Consultant except where otherwise limited within the Contract.

2.9.4 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.

2.9.5 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.

2.10 Contract Administrator-Furnished Materials to the Construction Contractor:

2.10.1 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 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-built drawings at the Contractor's option. Make electronic file drawings available on media in conformance with Section 2.5 of this Attachment.

2.11 Other Digital Information:

2.11.1 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.

2.11.2 Consultant shall facilitate and participate in this digital exchange of information by conforming to the standards expressed above and as further described in attachments and Exhibit A Scope of Works.

Section 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-built construction conditions. The deliverable 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 Model 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 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.

3.1.4 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 call-outs.
- **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.

3.1.5 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 200 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 & Schematic Design Phase 0 & 1 (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 and orientation 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.).
 3. **Schedule:** The Model may be used for project phasing and overall duration.

3.2.2 **LOD 200:** Design Development Phase (Basic Service)

- b. **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.
- c. **Potential Uses:**
 1. **Analysis.** The Model may be analyzed for performance of selected systems 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 Document Phase (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 Phase (Contractor to provide this LOD using 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 preliminary COBie data.
 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 1-1/2" 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.
 2. **Elevator Equipment.** All necessary equipment and control systems, including necessary intelligence to produce accurate plans, sections and elevations depicting these design elements.
- 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 1-1/2" 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., security, mass notification, public address, 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, 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, relevant existing and proposed support utility lines and equipment with necessary intelligence to produce accurate plans, details and schedules.
 6. **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. All fire protection piping shall be modeled.
- i. **Security.** Both facilities require a level of security to ensure record and evidence integrity. 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 WiFi, FIBS/BIDS boards, phone chargers, lighting, Public Art, induction systems, way-finding, solar PV, wind, and other systems.
 6. **Bi-Directional Antenna systems (BDA) –** Antennas, trunk lines, branch line, control boxes, repeaters, emergency or redundant power sources, primary interface components, & home run room.
- 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 ($\frac{1}{4}'' = 1'-0''$) 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 ($\frac{1}{4}'' = 1'-0''$) 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.
- 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:
1. **Terrain (DTM).** All relevant site conditions and proposed grading, including necessary intelligence to produce accurate Project site topographical plans and cross sections.
 2. **Drainage.** All existing and new drainage piping, including upgrades thereto, including necessary intelligence to produce accurate plans and profiles for the Project site.

3. Storm Water and Sanitary Sewers. All existing and new sewer structures and piping, including upgrades thereto, with necessary connections to mains or other distribution points as appropriate, including necessary intelligence to produce accurate plans and profiles.
4. 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.
5. Roads and Parking. All necessary roadways, parking lots, and parking structures, including necessary intelligence to produce accurate plans, profiles and cross-sections.

m. **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**

3.3.1 BIMs shall be provided by Contractor or Managing General Contractor (MGC). Contractor or MGC shall submit an as-constructed BIM model to the A/E Consultant for the extraction of COBie in Excel format.

3.4 As Constructed Model Content Requirements

- a. Model Content Requirements. Model Elements are modeled 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 information completed with all requested information developed to Construction Operations Building Information Exchange (COBIE) standards.
- b. Potential Uses:
 - 1. Facility & Construction Management. The Model may be utilized for maintaining, altering, and adding to the Project.
 - 2. Project Record Documents. As-built 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 to be tracked and delivered in the completed model.

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

Table 1.0 – Selected Excerpt from OmniClass Table 23

3.6 BIM Project Execution Plan (BIMPxP or PxP)

3.6.1 The BIMPxP template is included in this Attachment, as “Section 4 - Project Execution Plan (BIMPxP). The Consultants BIMPxP 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 BIMPxP subject to review and written approval by County prior to proceeding with the process. The BIMPxP 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, Design Team and all sub-consultants 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

3.6.6 To promote efficiency and continuity, the 2D construction documents must be extracted directly from the Design BIMs 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 BIMs.

3.7 **BIM Use Agent Responsibility Matrix**

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 should be explained by the Consultant in the BIMPxP, Section F. Roles, responsibilities and timing are to be documented.

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
Code Analysis	Optional
Construction System Design	Optional
Digital Fabrication	Optional
Disaster Planning	Optional

BIM Use	County Intent
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. 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 Design 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 “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. Cost estimating – Level 1 thru 4
- e. Construction Schedule & Duration
- f. 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 Design 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 (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 BIMPxP or JBIMPxP to establish how they progressively reach the County's expectations.
- c. See also Section 4 BIM Project Execution Plan and Section 5 Model Progression Schedule templates.

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 Construction 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 CM@Risk shall be responsible for providing the County a federated as-built Model that includes all building systems. The Model shall be coordinated and “clash free” except as noted.
- b. CM@Risk shall provide a native file of the final federated as-built Model for building systems used in the multi-discipline coordination process (version as agreed in BIM PxP)
- c. CM@Risk shall identify native file formats used in the final federated as-built Model for building systems for the multi-discipline coordination process (version as agreed in BIM PxP)
- d. CM@Risk shall provide IFC files (ISO 16739) of as-built models (version as agreed in BIM PxP)
- e. CM@Risk 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 heavy 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	<input checked="" type="checkbox"/> / <input checked="" type="checkbox"/>
Model content is representative of their discipline developments according to the MPS.	<input type="checkbox"/>
Model file name and folder structure conforms to County Standards.	<input type="checkbox"/>
All annotations and title blocks are per the County standards.	<input type="checkbox"/>
All floor plans types have been created for each floor or mezzanine in the project model.	<input type="checkbox"/>
All schedules are populated with all the required data for the project.	<input type="checkbox"/>
The model is correctly assembled as per visual inspection.	<input type="checkbox"/>
The color code for Federated BIMs conforms to County Standards.	<input type="checkbox"/>
All the model contents are correctly placed per their element categorization in the correct workset and conform to standards.	<input type="checkbox"/>
All non-transmittal linked-in files (CAD/Revit) have been removed from the model.	<input type="checkbox"/>
All non-required views / legends / schedules / sheets / images have been removed from the model.	<input type="checkbox"/>
Unwanted Design Options have been removed from the model (applicable for Contract Document Phase through Project completion and handover).	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>

BIM Compliance Checklist	
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>
Model Elements are not duplicated. i.e. Columns in both Architectural and Structural models.	<input type="checkbox"/>
Objects are correctly defined under the proper Revit Family Category and sub-category.	<input type="checkbox"/>

3.13 **Responsibilities Related to the Final As-Built Model**

3.13.1 Design Team Responsibilities

- a. The Design Team will update the Architectural and Structural model(s) through the end of the construction phase, incorporating all updates and/or revisions to the model(s) as necessary to reflect design changes initiated by Architectural Supplemental Instructions (ASI), Request for Information (RFI), Conformed Documents, Owner Changes, or coordination with existing conditions.

3.13.2 Construction Team Responsibilities

- a. During the construction phase, the Construction Team will maintain “red-line” as-built drawings.
- b. In preparation for Substantial Completion, the Construction Team will:
 1. Make all necessary updates and/or revisions to the model(s) to reflect the as-built information to the tolerance specified in the Standard or agreed upon in the BIMPxP. It is the responsibility of each subcontractor to keep accurate “red-line” markups and records from the field in order to produce accurate as-built 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 Model(s).
 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 deliverables shall be transmitted to the County (as agreed in BIM PXP).

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Section 4 BIM Execution Plan



**BIM PROJECT EXECUTION PLAN
(BIMPxP)
FOR**

Insert Project Name Here in Black Font

**DEVELOPED BY
Broward County - Construction Management Division
(County)**

This template is a required tool that is provided to assist in the development of a BIM Project Execution Plan (BIMPxP) as required by Contract.

Consultants are required to “Track” changes when editing this document so BROWARD COUNTY - CONSTRUCTION MANAGEMENT DIVISION (County) can review and accept any additions and modifications as part of the review process.

BIM PROJECT EXECUTION PLAN

FOR

Insert Project Name Here in Black font

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Introduction

This template exists to document the decisions made by the Design and Construction Teams working through the BIM process. To successfully implement BIM on both the project and organizational levels, Broward County Construction Management Division has developed this BIM Project Execution Plan (BIMPxP) to improve accuracy and consistency of BIM deliverables. This plan will delineate roles and responsibilities while detailing BIM scope of information to be shared that is relevant to the BIM project process. The document is intended to cover both model creation and data integration.

Instructions

Submission Schedule

The Design and Construction Teams are required to submit a completed BIMPxP within 30 days of contract execution. This plan shall identify the entire project team including consulting engineers, specialty consultants and contractors. The BIMPxP should be considered a living document and maintained and updated throughout the project.

Please note: Instructions and examples to assist with the completion of this guide are displayed in italicized blue font. The text can and should be modified to suit the needs of the organization filling out the template. If modified, the format of the text should be changed to match the rest of the document (non- italicized and in black, 12-point, Calibri font typical) and “tracked changes” shall be submitted in electronic form for Broward County Construction Management Division review and approval.

The overall section headings of this template shall remain, but the BIMPxP Coordinator may propose any other changes or additions to this template including expansion of the content of the sections and additional sections and attachments. Changes & additions shall be agreed to by the project team and submitted to Broward County Construction Management Division for approval.

This BIMPxP document is based on the National BIM Standard-United States™ Version 3 and the Pennsylvania State University BIM Project Execution Plan Version 2.0 and customized for Broward County Construction Management Division.

Section A: BIM Project Execution Plan Overview

The Broward County Construction Management Division requires the use of Building Information Modeling (BIM) as a tool in the planning, design, construction and operation of our facilities worldwide. A well-executed BIM project facilitates the collaboration and communication between the owner, the design team and the construction team in order to best meet the project's goals.

The purpose of this process change is to ensure maximum benefit from our assets by improving the building's design and construction, reduce the total cost and time of delivery and improve operations and management after handover. BIM allows for a more complete, efficient, iterative design and construction process. The clearest benefits are the enhanced visualization of the project at all stages of development, the creation of higher quality design and construction deliverables and the reduction of construction coordination conflicts in the field. At the end of construction, the Building Information Models serve as rich databases of digital data captured during design and construction about the building's assets. This single centralized source of information is invaluable to the Facilities Department for the on-going operations and management of the building to ensure our facilities are sustainable and resilient.

To successfully implement Building Information Modeling (BIM) on a project, the project team has developed this detailed template BIM Project Execution Plan.

INSERT ADDITIONAL INFORMATION HERE IF APPLICABLE.

With the help of the project team, develop a brief mission statement here that will give an overview of BIM objectives that are specific to this project. This can be developed at a collaborative brainstorming session at the first BIMPxP meeting. Extensive additional information can be included as an attachment to this document.

Section B: Project Information

This section defines basic project reference information and determined project milestones

1. Client Name: Broward County Construction Management Division
2. Project Name:
3. Project Location and Address:
4. Contract Type / Delivery Method: Managing General Contractor (CM@Risk)
5. Brief Project Description: Refer to Exhibit A, Scope of Work
6. Additional Project Information: none
7. Project Identification Numbers: *Please complete table below*

Team Member	Project Number
Broward County Construction Management Division	
Architect	
MEP Engineers	
Structural Engineer	
Contractor	

Section C: Delivery Strategy

Delivery and Contracting Strategy for the project:

This section is useful primarily when design delivery methods are being utilized that involve early collaboration of the design and construction teams (IPD, Design Assist, etc.). List the Project Delivery strategy for the project below (Design-Bid-Build, CM at Risk, IPD, Design Assist, etc.).

Please note what additional measures need to be taken to successfully use BIM with the selected delivery method and contract type?

Section C.1 - Project Schedule / Phases / Milestones:

In coordination with the project schedule, include BIM milestones, pre-design activities, major design reviews, stakeholder reviews and any other major events which occur during the project lifecycle.

Project Phase / Milestone	Estimated Start Date	Estimated Completion Date	Project Stakeholders Involved
Notice to Proceed			
BIMPxP Kick-off			
Programming			
County Review & Comments			
Design Team Review & Resubmit			
Schematic Design			
County Review & Comments			
Design Team Review & Resubmit			
Design Development			
County Review & Comments			
Design Team Review & Resubmit			
50% CD's			
County Review & Comments			
Design Team Review & Resubmit			
___% CD's			
County Review & Comments			
Design Team Review & Resubmit			
100% CD's			
County Review & Comments			

Project Phase / Milestone	Estimated Start Date	Estimated Completion Date	Project Stakeholders Involved
Design Team Review & Resubmit			
Award / Permit			
Pre-Construction			
Project Coordination Kickoff			
Underground Coordination			
Site Coordination			
Building Exterior Coordination			
Building Interior Coordination (First Floor)			
Building Roof Coordination			
Coordination Sign-Off			

Section C.2 - Project Deliverables

In this section, please check off the BIM Deliverables from Consultant and Contractor on the appropriate tables below that are relevant for this project. Note any and all deviations to these required deliverables below.

Schedule of Deliverables to Broward County Construction Management Division				
CONSULTING ARCHITECTURE AND ENGINEERING TEAM				
Phase	Deliverable	Include Y/N	Due	File Type
Contract Award	BIMPxP		30 days of ATP	Native & PDF
Programming / Feasibility Models	Massing models & Narrative Space & Program Validation Report		Per BIMPxP	Native & IFC & PDF Native & PDF
Planning	Design Models -		Per BIMPxP	Native & IFC (2x3) files
Schematic Design	Design Models -		Per BIMPxP	Native & IFC (2x3) files
Design Development	Existing Conditions Model Design & Analysis Models -		Per BIMPxP	Native & IFC (2x3) files Native & IFC

	Updated BIMPxP Coordination Reports BIM Compliance Checklist			Native & PDF PDF PDF
Construction Documents	Design & Analysis Models 2D documents & Clash Report Updated BIMPxP Coordination Reports BIM Compliance Checklist COBie Data Set - Del 1		Per BIMPxP	Native & IFC (2x3) files PDF Native & PDF PDF PDF COBie2 2.40
Permitting / Conformance	Federated Design Model 2D Documents		Per BIMPxP	Native files PDF
Construction - Approved Submittals	COBie Data Set - Del 2		Per BIMPxP	Native & IFC (2x3) files
Construction - Close-Out Close-Out Close-Out Close-Out Close-Out Close-Out	COBie Data Set - Del 3 COBie Data Set – Final Record Floor Plans Record BIMs Federated Record BIM Coordination Report Record Model Instruction Rpt. Final BIMPxP		Per BIMPxP	COBie2 2.40 COBie2 2.40 DWG Native & IFC (2x3) Native Native & PDF Native & PDF Native & PDF

Schedule of Deliverables to Broward County Construction Management Division				
CONSTRUCTION TEAM				
Phase	Deliverable	Include Y/N	Due	File Type
Contract Award	BIMPxP		Within 30 days	Native & PDF
Pre-Construction	Coordination BIMs BIM Compliance Checklist		Per BIMPxP	
Project Close out	COBie Data Set – Del 3 As-Constructed BIMs BIM Compliance Checklist Coordination Report Federated As-Constructed BIM Final BIMPxP		Per BIMPxP	COBie2 2.40 Native & IFC (2x3) PDF PDF .NWD Native & PDF

Section D: Key Project Contacts

ROLE	CONTACT NAME	ORGANIZATION	EMAIL	PHONE
Owner PM		Broward County CMD		
Owners BIM Manager		Broward County CMD		
BIM PxP Coordinator				
Design Professional's Principal in Charge				
Design Professional's Project Manager				
Design Professional's BIM Manager				
Design Professional's BIM Project Lead				
Consultant's Principal in Charge				
Consultant's Project Manager				
Consultant's BIM Manager				
Consultant's BIM Project Lead (per discipline)				
Contractors PM				
Contractors BIM Manager				
Others				

Section E: Organizational Roles / Staffing

This section should be filled in at the choice of the BIMPxP Coordinator and extended team

BIM Roles and Responsibilities:

Broward County Construction Management Division (CMD): Broward County’s Construction Management Division is responsible for BIM, CAD support, coordination and integration. It is also their responsibility to ensure design and construction document/model compliance with Broward County Construction Management Division Standards while maintaining and facilitating access to record drawings and models.

Describe BIM roles and responsibilities such as BIM Managers, Project Managers, Draftspersons, etc.

Titles	Roles in Design	Roles in Construction
Broward County Construction Management Division	<ul style="list-style-type: none"> • BIM Oversight and Compliance Reviews 	<ul style="list-style-type: none"> • BIM Oversight and Compliance Reviews
Project Manager		
Model Manager		
BIM Coordinator		
Modeler		
COBie Coordinator		

Section F: BIM Uses

Broward County Construction Management Division has developed a BIM Use/Consultant Responsible Matrix for use in the planning and procurement of BIM projects. This matrix defines Broward County Construction Management Division’s priorities for the application of BIM Uses, the responsibilities of the External Team Members, and the phases to which the BIM Uses apply. BIM Uses should only be employed if they offer significant benefit to the Project without compromising cost or schedule.

Insert additional information as needed for this specific project. Items in RED are minimal required by Broward County Construction Management Division.

BIM Use	Consultant Responsible for Implementation	Required Proposed	Plan Design Construct Operate			
			P	D	C	O
Visualization	A & C.	Required	X	X	X	X
Programming						
Site Analysis						
Design Authoring	A, Trades	Required	X	X	X	
Design Reviews	A & C.	Required	X	X	X	
3D Coordination		Required	X	X	X	
Structural Analysis						
Lighting Analysis						
Energy Analysis						
Mechanical Analysis						
Other Eng. Analysis						
Sustainability Evaluation						
Design4Maintenance Review	A & C.	Required		X	X	
3D Coordination and Conflict Analysis	A & C.	Required	X	X	X	
Facility Data Exchange	A & C.	Required		X	X	X
Quality Assurance / Quality Control						
Code Validation						
Commissioning						
Site Utilization Planning	A or C.	Required		X	X	
Construction System Design						
Digital Fabrication						
3D Control and Planning						
4D Phase Planning						
5D Cost Estimation						
Quantity Take Off						
BIM2Field		Required			X	
Laser Scanning						
Point Cloud integration						
Security Key Management						
Building Maintenance Scheduling						

BIM Use	Consultant Responsible for Implementation	Required Proposed	Plan Design Construct Operate			
			P	D	C	O
Record Modeling	A	Required		X		
Way finding						
Virtual / Mixed Reality						
As-Constructed Modeling	C				X	
Building System Analysis						
Asset Management						
Space Management / Tracking	A	Required		X	X	X
Disaster Planning						
Existing Conditions Model						

Section G: BIM Process Design

Define the BIM Process and Workflows that the External Project Team will be implementing on this project as it relates to the BIM Uses that have been selected and contracted for this project. Define a detailed plan for implementing each BIM Use, define the specific exchanges of information and/or BIMs for each activity, the party responsible for each activity, and when in the schedule of the project it should occur. Process maps like those in the Penn State BIM Execution Plan may be included but are optional.

Section H: Model Progression Schedule / LOD

A template Model Progression Schedule/Agent Responsibility Matrix (MPS) template defining minimum requirements for model handover will be provided by the Project Manager and examples are included and referenced in Section 5 of this Attachment. The LOD levels and tolerances in the Handover section of the sample MPS define Broward County Construction Management Division’s requirements for the Existing Conditions, As-constructed and Record BIMs. The External Project Team is to complete and submit a project specific MPS for this project for all project phases as applicable. The columns pertaining to Existing Conditions, As-Constructed Modeling and Record Modeling along with requirements for tolerances and allowable deviations are to be included in the MPS.

The Model Element Rows in Broward County Construction Management Division’s template MPS are high level. The rows in the final project MPS may have a higher level of granularity to be used as required to address the needs of the project and the best practices of the External Project Team.

The executed MPS shall be attached to this BIMPxP.

Section I: BIM and Facility Data Requirements

At a minimum and not limited to, Broward County Construction Management Division will require COBie data sets for all components on the Equipment List per the Construction Documents that require any of the following:

- ✓ Scheduled preventative maintenance i.e. Mechanical, Electrical,
- ✓ Routine maintenance/inspections: i.e. Plumbing
- ✓ Regulatory inspections i.e. life safety related: fire extinguisher, fire dampers, backflow preventers

The list to the right shows Preliminary Asset Type List for Broward County Construction Management Division Projects. This list should be used and further detailed in the BIMPxP Template.

Shown In	BCAD Preliminary Asset Type List	OmniClass- Products Classification - Table 23
ARCH Model	AUTOMATIC EXTERNAL DEFIBRILATOR (AED)	23-25 21 13
	BAGGAGE HANDLING CONVEYOR	23-23 17 15
	ELEVATOR	23-23 11 11
	ESCALATOR	23-23 11 13
	FIRE DOOR	23-17 11 32
	ICE MACHINE	23-21 21 29
	MOVING WALKWAY	23-23 15 11
	SLIDING DOOR	23-17 11 23
	TICKET COUNTER	23-21 19 15
	WATER COOLER	23-31 31 00
ELECT Model	FIELD CONTROL PANEL	23-35 31 15
	GENERATOR	23-35 11 15
	LINE CONTROL PANEL	23-35 31 15
	MOTOR CONTROL CENTER	23-35 31 23
	MOTOR CONTROL PANEL	23-35 31 15
	VARIABLE FREQUENCY DRIVE	23-35 17 15
	VARIABLE SPEED DRIVE	23-35 17 00
MECH Model	AC UNIT	23-33 39 11
	AIR HANDLER	23-33 25 00
	CHILLER	23-33 21 00
	CONDENSER WATER PUMP	23-27 17 00
	CONDENSING UNIT	23-33 43 00
	COOLING TOWER	23-33 23 00
	EXHAUST FAN	23-33 31 19
	FAN COIL UNITS	23-33 33 11
	FAN POWERED BOX	23-33 41 11
	FAN TERMINAL BOX	23-33 41 11
	FAN VARIABLE VOLUME BOX	23-33 41 11
	OUTSIDE AIR HANDLER UNIT	23-33 25 13
	PACKAGE AIR CONDITIONING UNIT	23-33 39 17
	PRIMARY CHILLED WATER PUMP	23-27 17 00
	ROOF TOP UNIT	23-33 25 17
	SECONDARY CHILLED WATER PUMP	23-27 17 00
	SPLIT SYS CONDENSING UNIT	23-33 43 00
SUPPLY FAN	23-33 31 19	
VARIABLE AIR VOLUME BOX	23-33 41 17	
PLUM Model	AIR COMPRESSOR	23-27 21 00
	CHEMICAL STATION	23-27 55 31
	ELECTRIC HOT WATER BOILER	23-33 11 22
	HEAT EXCHANGER	23-27 23 00
	HEAT PUMPS	23-33 17 00
	HOT WATER PUMP REHEAT	23-27 17 00
	SUMP PUMP	23-27 17 00
	TRASH PUMP	23-27 17 00
WATER CIRCULATING PUMP	23-27 17 00	
These assets types may be found in consultant 3D CAD models with limited information embedded. The information required on these asset types would be manual entered into the COBie deliverable worksheets.		
CIVIL	AIR FIELD LIGHTING RUNWAY	N/A
	AIRFIELD BEACON	N/A
	CRASH GATE	23-11 25 15
	CRASH PERIMETER GATE	23-11 25 15
	ENGINEERED MATERIAL ARRESTING SYSTEM - EMAS	N/A
	PEDESTRIAN GATE	23-11 25 15
	PERIMETER GATE	23-11 25 15
CONSULTANT	ABOVE GROUND STORAGE TANK	23-27 29 19
	BAG MEASUREMENT EQUIPMENT	23-23 17 15
	BAGGAGE DIMENSIONER	23-23 17 15
	BAGGAGE HANDLING CAROUSEL	23-23 17 15
	DIESEL FUEL STORAGE TANK	23-27 29 19
	HIGH SPEED DIVERTER	23-23 17 15
	JETWAY	23-23 15 15
	OVER SIZE BAG DOOR	23-23 17 15
SCALE	N/A	

Section J: Collaboration Procedures

Collaboration Strategy:

Provide a brief, general description of how the project team will collaborate. Include items such as communication methods, document management and transfer, and record storage, etc.

FILE LOCATION	FILE STRUCTURE/ NAME	FILE TYPE	PASSWORD PROTECT	FILE OWNER	UPDATED
Collaboration SITE: SITE	Root Project Folder	FOLDER	YES	PT Project Mgr	ONCE
Provide Further Information On Structure Of Collaboration Site	Root Project Folder	FOLDER	YES	PMG Project Mgr	ONCE
Provide Further Information On Structure Of Collaboration Site	TBD	RVT	YES	PMG Project Mgr	WEEKLY

Section J.1 - BIM Meeting Procedures:

There will be several types of collaboration and model review meetings needed for the project, including general progress meetings, design coordination meetings, etc. The following table includes, but is not limited to, some of the types of potential meetings necessary for the project, meeting host(s), required attendees, and required technology. Broward County Construction Management Division understands that these meetings may be in-person, virtual and/ or a combination of both. The following table describes the schedule for coordination meetings, clash detection meetings, and model walkthroughs. Items marked in Red will be REQUIRED.

The meetings listed below reflect typical Broward County Construction Management Division expectations for a project and should be customized for the needs of a project.

MEETING TYPE	DESIGN INTENT MODELS			
	STAGE	FREQUENCY	LOCATION	COMMENTS / PARTICIPANTS
Design Phase BIM Kick-off		1X within 15 days of start of project	On-site	General discussion to make sure all parties are aligned on BIM Requirements
BIM Project Execution Plan Presentation		1X within 30 days of start of project	On-site	BIM PxP Coordinator presents completed BIM PxP to entire team for final sign-off

Design Authoring Coordination Meetings		Weekly	In-Cloud	Coordination and Federation of Design Team Models.
Design Presentations/ Model Walk-throughs		As Needed	On-site	BIM presentations to Project Team for approval and reviews. Geared towards Owner and User Groups.
Design4Maintenance		DD / CD Phases 1X	On-site	BIMs to review equipment maintainability and “soft clash” for clearances.
Data Meeting		DD / CD Phases 1X	In-Cloud / On-site	Review BIMs for data compliance and test import.
Model Handover Meeting		1X	On-site	Meeting to discuss and test interoperability and file exchange.
Design Close-out		2X	On-site	Meeting to finalize Record BIMs and As-built BIMs for close-out.
Construction Phase BIM Kick-off Meeting	STAGE	FREQUENCY	LOCATION	COMMENTS / PARTICIPANTS
Clash / Cord Meetings			On-site	General Guidelines for model laying, area, trade sequencing and reserved zones.
Design4Maintenance			In-Cloud / On-site	
Contractor Handover/ Close-out			On-site	BIMs to review equipment maintainability and “soft clash” for clearances.
Contractor Handover/ Close-out			TBD	Meeting to finalize Record BIMs and As-built BIMs for close-out.

Section J.2 - Model Delivery Schedule of Information Exchange for Submission and Approval:

Document the information exchanges and file transfers that will occur on the project. Modify the DISCIPLINE column to match the way that content is segregated into different models on a project.

DISCIPLINE	FILE TYPE	UPLOAD FREQUENCY	DOWNLOAD FREQUENCY
Architectural (Exterior)			
Architectural (Interior)			

Specialty Equipment			
Furniture			
Structural			
Mechanical			
Electrical			
Plumbing			
Civil			
Landscape			

Section J.3 - Electronic Communication Procedures:

The following document management issues should be resolved, and a procedure should be defined for each: Permissions / access, File Locations, FTP Site Location(s), File Transfer Protocol, File / Folder Maintenance, etc.

Section K: Quality Control

Overall Strategy for Quality Control:

Describe the strategy to control the quality of the model.

Quality Control Checks: The following checks should be performed to assure quality:

CHECKS	DEFINITION	RESPONSIBLE PARTY	SOFTWARE PROGRAM(S)	FREQUENCY
VISUAL CHECK	Ensure there are no unintended model components and that the design intent has been followed	A/E/C	REVIT / NAVIS	Ongoing
INTERFERENCE CHECK	Detect problems in the model where two building components are clashing including soft and hard	A/E/C	NAVIS	Bi-weekly

STANDARDS CHECK	Ensure that the BIM and County Standards have been followed (fonts, dimensions, line styles, family naming, shared coordinates, etc)	A/E/C	REVIT / DATA NORMALIZATION	Weekly
MODEL INTEGRITY CHECKS	Describe the QC validation process used to ensure that the Project Facility Data set has no undefined, incorrectly defined or duplicated elements and the reporting process on non-compliant elements and corrective action plans	A/E/C	REVIT	Ongoing
DATA CONTENT CHECK	Conform to County BIM Requirements	A/E/C	DATA NORMALIZATION / MAXIMO	Weekly then monthly
ERROR / WARNING CHECK	Conform to County BIM Requirements	A/E/C	REVIT	Weekly

Section K.1 - Model Maintenance

The following table describes the recommended process for model maintenance. Each discipline shall be responsible for the maintenance of their models. Broward County Construction Management Division requires that all the below be conducted before submitting model at the completion of each phase of the development of the project. All the below except for removing unused design options shall be conducted before uploading models for exchange with other team members.

PROCESS	FREQUENCY (MINIMUM)
Auditing Central Files	
Compacting	
Removal of Unused Design Options	
Correcting Warning Messages where applicable	On-going (Warnings that have significance shall be resolved. Warnings shall be kept to a reasonable number. An export of warnings in the model shall accompany major milestone deliverables.)
Purging unused objects	
Purging DWG links/imports	
Deletion of unused Sheets & Views	
Resolve duplicate elements	

Section K.2 - Document Revisions

Revisions to documents will be tracked as follows:

DESCRIPTION	DESIGN/ RECORD	AS-CONSTRUCTED MODEL	DESCRIPTION
RFI's			
Revit Model			
Navisworks			
CCD's			
ASI's			
CO's			

Section K.3 - Model Accuracy and Tolerances:

Models should include all appropriate dimensioning as needed for design intent, analysis, and construction.

PHASE	DISCIPLINE	TOLERANCE
EXISTING CONDITIONS MODEL	CIVIL (UNDERGROUND)	ACCURATE TO +/- (6") OF ACTUAL SIZE ACCURATE TO +/- (12") OF ACTUAL LOCATION
EXISTING CONDITIONS MODEL (ACCESSIBLE ITEMS)	ARCHITECTURAL STRUCTURAL MEPFP	ACCURATE TO +/- (1/8") OF DESIGN INTENT SIZE ACCURATE TO +/- (2") OF DESIGN INTENT LOCATION
DESIGN DOCUMENT MODELS	CIVIL ARCHITECTURAL STRUCTURAL MEP FP	ACCURATE TO +/- (1/8") OF DESIGN INTENT SIZE ACCURATE TO +/- (2") OF DESIGN INTENT LOCATION
SHOP DRAWINGS MODELS	CIVIL INTERIORS ENVELOPE STRUCTURAL MEPFP	ACCURATE TO +/- (1/16") OF ACTUAL SIZE ACCURATE TO +/- (1") OF ACTUAL LOCATION
AS-BUILT MODELS	INTERIORS NOT RELATED TO CODE	ACCURATE TO +/- (1/8") OF ACTUAL SIZE ACCURATE TO +/- (2") OF ACTUAL LOCATION
AS-BUILT MODELS	INTERIORS RELATED TO	ACCURATE TO +/- (1/8") OF ACTUAL SIZE ACCURATE TO +/- (1/4") OF ACTUAL LOCATION

PHASE	DISCIPLINE	TOLERANCE
	CODE	
AS-BUILT MODELS	CIVIL INTERIORS ENVELOPE STRUCTURAL MEP FP	ACCURATE TO +/- (1/16") OF ACTUAL SIZE ACCURATE TO +/- (1") OF ACTUAL LOCATION

Section K.4 - BIM Folder Structure for Deliverables:

The following folder structure is the standard folder structure for BIM-related files that will be used on Broward County Construction Management Division projects. No deviations from this folder structure will be permitted without a Proposed Variance Request. However, if desired, each project team may add subfolders where necessary, as defined in the BIMPxP and approved by Broward County Construction Management Division.

Project Documents for Design BIMs

- Design BIM Execution Plan (Owner, AE)
- Design BIM Analysis Reports (Owner, AE)
- Coordination Logs and Reports
- Design Model Deliverables (Public)
 - Models Used to Produce Schematic Design
 - Models Used to Produce Design Development
 - Models Used to Produce Construction Documents
 - Models Used to Produce Agency Submittals
 - Models for Permitting/ Conformance
 - Models for Construction Manager
- COBie Data Deliverables
- BIM Project Close-out
 - Record Floor Plans
 - Record BIMs
 - Federated Record BIM
 - COBie Data Final Deliverable
- Other

Project Documents for Construction BIMs

- Owner BIM Execution Plan (Owner, CM, BIM Subs)
- Construction BIM Analysis Reports (Owner, GC)
- Coordination Logs and Reports
- Coordination Models
- Trade Models

- Models Used to Produce Final Shop Drawings
- Models Used to Produce 4D
 - Schedule Data Used to Produce 4D
- Models Used to Produce 5D
 - Model Quantities Used to Produce 5D
- COBie Data Deliverables
- BIM Project Close-Out
 - As-Built Models
 - Federated As-Built Models
 - Record Models
 - Federated Record Models
 - COBie Data Final Deliverable
- Other

Section L: Technological Infrastructure Needs

1. Software:

Broward County Construction Management Division uses Autodesk Revit for projects. Use of other IFC Compatible software than what is listed in the Broward County Construction Management Division BIM Standard requires approval by Broward County Construction Management Division.

List software used to deliver BIM. List any add-on software that is required to open, read or manipulate files as well. Indicate the 2D export deliverable file format for each software. The lines listed below are a sample and shall be modified for a project.

BIM USE	DISCIPLINE(S)	SOFTWARE	VERSION / BUILD	2D FILE FORMAT DELIVERABLE
Authoring				
Clash Detection				
Energy Analysis				
Cost Analysis				

Section M: Model Structure

Section M.1 - File Naming Structure:

Determine and list the structure for model file names. Design Team CAD File names shall be listed in the Drawing List with Authoring Company and File Names attachment.

FILE NAMES (Design Intent Models)	
Architectural Model	
Civil Model	
Mechanical Model	
Plumbing Model	
Electrical Model	
Structural Model	
Energy Model	
Coordination Model	

FILE NAMES (Construction Models)	
Steel Model	
Mechanical Model	
Plumbing Model	
Electrical Model	
Construction Model	
Coordination Model	

Section M.2 - Model Structure:

Describe how the Model is separated, e.g., by building, by floors, by zone, by areas, and/or discipline. Indicate the connections and hierarchy of linked files, including CAD files. Broward County Construction Management Division requires that all paths in Revit files be relative and that files be overlaid instead of attached unless the project team makes a strong case for alternate strategies.

1. DESIGN PHASE MODEL STRUCTURE:

2. CONSTRUCTION PHASE MODEL STRUCTURE:

Section M.3 - Measurement and Coordinate Systems:

Broward County Construction Management Division will provide a CAD file indicating the Broward County Construction Management Division Site Origin Point and the footprints of the buildings on the campus. Broward County Construction Management Division will also provide 2D and 3D AutoCAD blocks and a 3D generic model family to be placed at the origin of ALL Design Intent BIMs, Construction BIMs and CAD files to confirm that files are aligned.

All Revit files shall have their project base point at the Revit project startup location. All CAD and Revit files that are to be linked to the Revit file using the "Origin to Origin" option. All plan-based CAD files shall use the Broward County Construction Management Division Site Origin Point as well as their 0,0 WCS origin. The 0 level in the "Z" coordinate shall match the survey datum of "0" used by the Civil Engineer in their surveys. This will ensure that all files for all buildings across the Broward County Construction Management Division campus will align to a single origin and that Revit level tags will report the true elevations of the floors.

Civil AutoCAD 2D and Civil 3D files will need to be modified prior to linking because they use an origin point that is different than the Broward County Construction Management Division Site Origin Point. It is typically outside the distance allowed by Revit. Broward County Construction Management Division's CAD-BIM Manager can provide instructions on this.

Units shall be Imperial units. Civil 2D AutoCAD or Civil 3D files may be set with 1 unit equals 1 foot. Revit files will be set with 1 unit equals 1 foot. All other AutoCAD files including Revit exports shall be set with 1 unit equals 1 inch.

Section M.4 - Worksets:

Each discipline shall be responsible for the naming of the worksets within their files. The only required worksets are LinkCAD-Description and LinkBIM-Description. Any linked CAD files or BIM files shall be placed on these worksets so that Revit files can be opened without loading these worksets for ease of upgrading the files.

List Worksets used by discipline below:

DISCIPLINE	WORKSET	DESCRIPTION
Arch, M, E, P, Struct	LinkCAD-All	Workset for all CAD links
M, E, P, Struct	LinkBIM-Arch	Workset for Architectural Revit file
Arch, E, P, Struct	LinkBIM-Mech	Workset for Mechanical Revit file
Arch, M, P, Struct	LinkBIM-Elec	Workset for Electrical Revit file
Arch, M, E, Struct	LinkBIM-Plumb	Workset for Plumbing Revit file
Arch, M, E, P	LinkBIM-Struct	Workset for Structural Revit file
Arch, M, E, P, Struct	Levels and Grids	Levels, Grids
Arch	Shell	Building Shell
Arch	Core	Elevators, Stairs
Arch	Interior-B	Basement Interior Fit-out
Arch	Interior-1	1 st floor Interior Fit-out

Section M.5 - Color Coding:

Federated models shall adhere to Exhibit “A” – Scope of Work Attachment, Section 2.2.12. If approved by the Contract Administrator, a modified color coding may be revised to follow the agreed upon trade colors listed below:

(insert any modified, Contract Administrator approved, color coding selections for this project below)

- a. Architecture: White
- b. Structural Steel: Maroon
- c. Concrete and Masonry: Gray
- d. HVAC Equipment: Gold
- e. HVAC Supply Duct/Diffuser: Blue
- f. HVAC Return Duct/Diffuser: Magenta
- g. HVAC Exhaust Ventilation Ductwork: Medium Orchid
- h. HVAC Piping Supply: Gold
- i. HVAC Piping Return: Violet
- j. Electrical Equipment: Dark Yellow
- k. Electrical Conduits: Light Yellow
- l. Communication Conduit: Light Blue
- m. Electrical Cable Tray: Dark Orange
- n. Electrical Lighting: Light Golden Rod Yellow

- o. Plumbing Domestic Water: Lime
- p. Plumbing Sewer Waste / Vent: Olive
- q. Plumbing Storm/Roof Drain: Dark Green
- r. Fire Protection: Red
- s. Fire Alarm: Golden Rod
- t. Pneumatic Tube: Dark Slate Gray
- u. Equipment: Burly Wood
- v. Specialty Gas: Light Green
- w. Steel: Rust
- x. Security Systems: Orange

Section N: Attachments

1. *List any project specific BIM/P Attachments here*
- 2.

(REMAINDER OF PAGE IS INTENTIONALLY LEFT BLANK)

Approvals:

By signing below, this BIM Project Execution Plan is adopted and agreed upon between the signed companies.

DISCIPLINE	NAME	SIGNATURE	DATE
Broward County Construction Management			
Architect			
Mechanical Engineer			
Electrical Engineer			
Plumbing Engineer			
Fire Protection Engineer			
Structural Engineer			
Civil Engineer			
Surveyor			
Geotech/ Soil borings			
BIM Consultant			
Construction Manager			
Construction Consultants			
Other			

End of Section 4 BIM Execution Plan

Section 5 BIM Model Progression Schedule (Example of "Overview" Tab)

The MPS will be distributed by the Project Manager in an electronic format for use



Model Progression Schedule (MPS) Agent Responsible Matrix (ARM)

Overview and Intent of this Document.

Broward County Public Works Department and the Construction Management Division have created this Model Progression Schedule (MPS) and Agent Responsible Matrix (ARM) for use in the planning and procurement of BIM projects. This Matrix is based upon BIMForum's 2017 LOD (Level of Development) Specification and serves as a reference document. The BIMForum Specification reference enables practitioners to specify and articulate with a high level of clarity the content and reliability of BIMs at various stages in the design and construction process.

The County has prescribed minimum LOD's that are required at project milestones, but does not dictate workflow to achieve these requirements leaving the completion of the Model Progressions to the users in consultation with the County and project team.

This matrix defines Broward County's priorities for the development of project BIMs, the responsibilities of the External Team Members, and the phases to which the BIMs will be delivered and the LOD expected. The "Model Element Table" Tab includes the BIM Elements that are to be defined and the "LOD Definitions" tab includes example Level of Development definitions. This chart will be included in RFP's that require BIM and is a tool to be used for contract negotiation upon project award.

Instructions for completing this Document.

- 1 This MPS/ ARM will be included in the RFP for all BIM Projects. Upon Contract award, your team shall complete the MPS as part of the contract negotiation process, and be prepared to discuss "hand-off" & coordination of the BIM's.
- 2 Click on the "Model Element Table" Tab below to complete the MPS as is applicable to your project.
- 3 Insert the Level of Development (LOD) and the Agent Responsible and contracted to deliver that element.
- 4
- 5 Once agreed upon, this document will become a contract document and will be attached to the teams BIMPxP.
When completing the MPS, Please check the box on the top of the MPS to show the stage of the MPS submittal i.e. RFP, Proposed, Approved as described below:
 - RFP:** Required for this Project by Broward County, the initial stage of review.
 - Proposed:** The Design or Construction Professional changes the status to "Proposed" for all elements that are to be included in the project models.
 - Approved:** The Model Elements and Progression Schedule that is contracted by the Design Consultants and Contractors to be included in their Team's scope of work.

Please Note:

Questions, suggestions or concerns with completing this document during the RFP selection process should be directed to the BC-PurchasingAgent listed on the RFP. The Broward County Project Manager will serve as the primary contact and address all discussions or concerns during negotiations and subsequent Project Phases.

Model Progression Schedule/Agent Responsible Matrix ("Model Element Table" Tab - Partial Example)

Item	SD		BD		SBZ CD		BRCZ CD		Tolerances for B-sign Models		Construction Continuation		Handover At Convicted		Handover Record		Tolerances Installation Accuracy			
	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	LOD	Date	
1	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
2	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
3	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
4	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
5	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
6	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
7	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
8	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
9	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
10	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
11	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
12	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
13	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
14	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
15	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
16	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
17	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
18	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
19	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
20	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
21	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
22	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
23	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
24	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
25	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
26	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
27	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
28	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
29	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
30	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
31	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE
32	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE	2007	AE

BIMForum Level of Development (LOD) Definitions ("LOD Definitions" Tab - Example)

Fundamental LOD Definitions

LOD 100 - Massing / Planning Level

The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements.

BIMForum interpretation: LOD 100 elements are not geometric representations. Examples are information attached to other model elements or symbols showing the existence of a component but not its shape, size, or precise location. Any information derived from LOD 100 elements must be considered approximate.



LOD 200 - Generic Design Level

The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: At this LOD elements are generic placeholders. They may be recognizable as the components they represent, or they may be volumes for space reservation. Any information derived from LOD 200 elements must be considered



LOD 300 - Design Coordination Level

The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs. The project origin is defined and the element is located accurately with respect to the project origin.



LOD 350 - Construction Coordination Level

The Model Element is graphically represented within the Model as a specific system, object, or assembly in terms of quantity, size, shape, location, orientation, and interfaces with other building systems. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: Parts necessary for coordination of the element with nearby or attached elements are modeled. These parts will include such items as supports and connections. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs.



LOD 400 - Fabrication Level

The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: An LOD 400 element is modeled at sufficient detail and accuracy for fabrication of the represented component. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs.



* Definition from the "Level of Development Specification Part 1. November 2017 BIMFORUM.

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End of Attachment 1: BIM and Electronic Media Submittal Requirements

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Subconsultant: Chen Moore and Associates, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
			2.97		
President	\$206.93		2.97		\$325.00*
Principal	\$160.73		2.97		\$325.00*
Principal Engineer	\$134.01		2.97		\$325.00*
Senior Engineer	\$103.10		2.97		\$250.00*
Project Engineer	\$80.81		2.97		\$240.01
Associate Engineer	\$51.76		2.97		\$153.73
Engineer	\$46.37		2.97		\$137.72
Principal Landscape Architect	\$125.39		2.97		\$325.00*
Senior Landscape Architect	\$74.65		2.97		\$221.71
Project Landscape Architect	\$53.26		2.97		\$158.18
Associate Landscape Architect	\$52.94		2.97		\$157.23
Senior Landscape Designer	\$48.39		2.97		\$143.72
Landscape Designer	\$41.90		2.97		\$124.44
Senior Project Manager	\$99.05		2.97		\$294.18
Senior Environmental Scientist	\$61.44		2.97		\$182.48
Project Environmental Scientist	\$45.14		2.97		\$134.07
Senior Designer	\$71.75		2.97		\$213.10
Designer	\$44.80		2.97		\$133.06
Senior Technician	\$40.57		2.97		\$120.49
Technician	\$36.22		2.97		\$107.57
Senior Construction Specialist	\$56.63		2.97		\$168.19
Construction Specialist	\$48.68		2.97		\$144.58
Administrative Staff	\$52.97		2.97		\$157.32
Intern	\$23.18		2.97		\$68.84

* Maximum billing rate capped.

Multiplier of 2.97 is calculated as follows:

OVERHEAD = HOURLY RATE x OVERHEAD (139.01%)

FRINGE = HOURLY RATE x FRINGE (30.73%)

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

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

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Cummins Cederberg, Inc

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	**MULTIPLIER	=	MAXIMUM BILLING RATE
					(\$/HR)
Principal	\$100.32		3.00		\$300.00*
Senior Director	\$100.32		3.00		\$300.00*
Project Director	\$97.52		3.00		\$292.56
Senior Engineer	\$89.17		3.00		\$250.00*
Chief Engineer	\$80.81		3.00		\$242.43
Project Engineer	\$75.23		3.00		\$225.69
Senior Project Manager	\$73.01		3.00		\$219.03
Project Manager	\$66.04		3.00		\$198.12
Senior Scientist	\$54.05		3.00		\$162.15
Associate Engineer II	\$48.49		3.00		\$145.47
Senior GIS Analyst	\$48.49		3.00		\$145.47
Senior Designer	\$47.93		3.00		\$143.79
Project Scientist	\$46.25		3.00		\$138.75
Designer	\$42.35		3.00		\$127.05
GIS Specialist	\$41.80		3.00		\$125.40
Associate Scientist II	\$37.34		3.00		\$112.02
Associate Scientist I	\$32.45		3.00		\$97.35
Technician	\$28.98		3.00		\$86.94
Administrative Assistant	\$20.90		3.00		\$62.70

Multiplier of 3.67** was capped at 3.00.

OVERHEAD = HOURLY RATE x OVERHEAD (151.11%)

FRINGE = HOURLY RATE x FRINGE 82.42%)

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

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

* - Rate capped for Principal and Director staff at \$300.00 and Senior Engineer at \$250.00

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Delta G Consulting Engineering, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Principal	\$149.92	x	2.31	=	\$325.00*
Project Manager	\$64.87	x	2.31	=	\$149.85
Sr. Designer - Mechanical	\$36.22	x	2.31	=	\$83.67
Sr. Engineer – Electrical	\$72.45	x	2.31	=	\$167.36
Sr. Designer – Plumbing	\$41.80	x	2.31	=	\$96.56
Sr. Engineer – Fire Protection	\$86.38	x	2.31	=	\$199.54
Revit/CAD Specialist	\$52.94	x	2.31	=	\$122.29

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

*Rate capped for staff at \$325.00

Notes:

Delta G – Consulting Engineers, Inc. has elected to use “Safe Harbor” combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**Exhibit B
Maximum Billing Rates**

Agreement No.: PNC2130373P1
 Agreement Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Justin Architects, P.A.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Principal Architect	\$75.23		2.61		\$196.35
Senior Architect	\$86.94		2.61		\$226.91
Project Architect	\$64.08		2.61		\$167.25
Project Manager	\$54.62		2.61		\$142.56
Architect Intern	\$44.58		2.61		\$116.35
CADD/Computer Technician	\$49.03		2.61		\$127.97
Secretary Clerical	\$44.58		2.61		\$116.35

Multiplier of 2.61 is calculated as follows:

OVERHEAD = HOURLY RATE x OVERHEAD (90.66%)

FRINGE = HOURLY RATE x FRINGE (46.99%)

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

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

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Longitude Surveyors, LLC

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
SUR Senior Surveyor 2	\$104.33		2.68		\$279.60
SUR Surveyor	\$83.59		2.68		\$224.02
Engineer 1	\$44.58		2.68		\$119.47
SUR Survey / GIS / SUE Analyst 3	\$71.24		2.68		\$190.92
SUR Survey / GIS / SUE Analyst 2	\$33.61		2.68		\$90.07
SUR Survey Project Manager 1	\$45.21		2.68		\$121.16
SUR UAS Operator	\$37.09		2.68		\$99.40
SUR Field Crew Supervisor	\$57.96		2.68		\$155.33
SUR SUE Technician 3	\$48.69		2.68		\$130.49
SUR SUE Technician 2	\$28.98		2.68		\$77.67
SUR SUE Technician 1	\$26.66		2.68		\$71.45
SUR Survey Crew Chief	\$33.61		2.68		\$90.07
SUR Survey Instrument Operator	\$24.34		2.68		\$65.23
SUR Survey Rod Person	\$22.03		2.68		\$59.04

Multiplier of 2.68 is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (103.37%)

FRINGE = HOURLY RATE X FRINGE (40.41%)

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

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

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: ML Engineering & Inspection Services LLC

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE
					(\$/HR)
Principal	\$54.34	X	2.31		\$125.53
SR Electrical Engineer	\$54.34	X	2.31		\$125.53
Electrical Engineer	\$39.85	X	2.31		\$92.05
Mechanical Engineer	\$39.85	X	2.31		\$92.05
Director of Operations	\$54.34	X	2.31		\$125.53
Project Manager	\$40.45	X	2.31		\$93.44
Executive Administrative Assistant	\$16.22	X	2.31		\$37.47

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

Notes:

ML Engineering & Inspection Services LLC has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Moffatt & Nichol

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	**MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Principal	\$163.06		3.00		\$325.00*
Supervisory Engineer	\$150.49		3.00		\$250.00*
Senior Planner	\$172.08		3.00		\$250.00*
Senior Engineer/Scientist	\$131.16		3.00		\$250.00*
Engineer/Scientist III	\$100.88		3.00		\$250.00*
Engineer/Scientist II	\$77.41		3.00		\$232.23
Engineer/Scientist I	\$49.03		3.00		\$147.09
Staff Engineer/Scientist	\$50.13		3.00		\$150.39
CADD II	\$64.95		3.00		\$194.85
CADD I	\$36.80		3.00		\$110.40
General Clerical	\$38.71		3.00		\$116.13

**Calculated Multiplier of **3.06 was capped at 3.00

OVERHEAD = HOURLY RATE x OVERHEAD (118.57%)

FRINGE = HOURLY RATE x FRINGE (59.75%)

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) x OPERATING MARGIN (110.00%)

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

* Rate capped for Principals at \$325.00 and for staff at \$300.00

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: MUEngineers Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Principal	\$111.46	x	2.31	=	\$ 257.47
Vice President	\$78.03	x	2.31	=	\$180.25
Engineering Manager	\$78.03	x	2.31	=	\$ 180.25
Project Manager	\$78.03	x	2.31	=	\$180.25
Project Engineer	\$78.03	x	2.31	=	\$180.25
Structural Designer	\$41.24	x	2.31	=	\$95.67
Structural Inspector	\$45.97	x	2.31	=	\$106.19
BIM Technician	\$44.58	x	2.31	=	\$102.98
Administrative	\$48.22	x	2.31	=	\$111.39

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

Notes:

MUEngineers Inc. has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Pan Geo Consultants, LLC

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE
			2.31		(\$/HR)
Principal	\$76.51		2.31		\$176.74
Senior Engineer	\$76.51		2.31		\$176.74
Project Engineer	\$76.51		2.31		\$176.74

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

Notes:

Pan Geo Consultants, LLC has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**Exhibit B
Maximum Billing Rates**

Project No: PNC2130373P1
 Project Title: Architectural and Engineering Consulting Services for Port Everglades
 Consultant/ Chen Moore and Associates, Inc./
 Subconsultant: Reina Engineering Services, LLC

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	**MULTIPLIER	=	MAXIMUM BILLING RATE
					(\$/HR)
Senior Engineer	\$86.94		3.00		\$250.00*
Administrative Assistant	\$27.85		3.00		\$83.55
Office Manager	\$41.54		3.00		\$124.62
Engineer Technician	\$33.43		3.00		\$100.29

**Calculated Multiplier of 3.60 was reduced to 3.0:

OVERHEAD = HOURLY RATE x OVERHEAD (163.41%)

FRINGE = HOURLY RATE x FRINGE (63.60%)

OPERATING MARGIN = (HOURLY RATE + OVERHEAD + FRINGE) x OPERATING MARGIN (10.0%)

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

*Rate capped for staff at \$250.00

**Exhibit B-1
Reimbursables for Direct Non-Salary Expenses**

Reimbursable	Maximum Reimbursable
ADCP Unit (<14 days)	\$500.00/day
ADCP Unit (>14 days)	\$350.00/day
Auto Level/ Rod	\$75.00/day
Handheld GPS	\$30.00/day
Handheld Trimble GPS	\$100.00/day
RTK GPS System	\$500.00/day
Hydrographic Survey System (DGPS, Echosounder, Hypack)	\$450.00/day
Portable Flow Meter	\$125.00/day
Turbidity Meter	\$75.00/day
Tide Gauge (day)	\$20.00/day
Tide Gauge (week)	\$100.00/week
Jet Probe System	\$350.00/day
Underwater/Upland Camera	\$20.00/day
Snorkel Gear (one set)	\$15.00/day
Dive Gear (one set)	\$50.00/day
SCUBA Air Tanks	\$20.00/day
30cf Emergency Bailout Tanks (w/ separate reg)	\$25.00/day
3cf Spare Air Tanks	\$10.00/day
DAN O2 Kit	\$50.00/day
Kayak/Paddleboard	\$50.00/day
Boat (inshore)	\$500.00/day
Boat (inshore) + captain	\$1,000.00/day
Boat (offshore) + captain	\$1,500.00/day
Truck/Rental	\$150.00/day
Generator	\$25.00/day
Underwater drill	\$25.00/day
Cygnus UW Thickness Gauge	\$100.00/day
YSI Unit	\$200.00/day
Travel Mileage (outside tri-county area)	Per Florida Statute 112.061
Meals (outside tri-county area)	Per Florida Statute 112.061
Hotel/Airbnb	Per Florida Statute 112.061
Full face masks (2) with Communication receiver	\$500.00/day
QYSEA FIFISH E-GO u/w drone (East Coast)	\$900.00/day
DJI Mavic 2 Pro aerial drone (East Coast)	\$200.00/day
DJI Air 2S aerial drone (West Coast)	\$100.00/day
Air Compressor	\$200.00/day
MOT Plans (Survey)	\$200.00/each
Attenuator Truck	\$500.00/day

Arrow board	\$18.00/each daily
Cones	\$0.40/each daily
Large Portable Signs	\$0.50/each daily
Type III w/o light	\$0.65/each daily
Pedestrian LCD - ED	\$0.65/each daily
Soft Digs / Test Holes	\$600.00 each
Truck Mounted Test Borings	\$16.00/linear foot
Setting Casing	\$5.50/linear foot
2 Person Crew and Equipment Mobilization	\$400.00/mobilization
SFWMD Exfiltration Tests (to 15 ft)	\$500.00/test
Double Ring Infiltration Tests	\$700.00/test
Field Density Tests (Nuclear, minimum of 4 tests)	\$35.00/test
Asphalt Coring and Patching	\$75.00/test
MOT Plan (Geotechnical)	\$275.00/per
MOT Basic Equipment and Setup	\$1,300.00/per day
MOT Advanced Equipment and Setup	\$2,600.00/per day
LABORATORY TESTING	
Modified Proctor (ASTM D 1557)	\$175.00/test
Standard Proctor (ASTM D 698)	\$125.00/each
Atterberg Limits Determination (LL, PL)	\$65.00/test
Sieve Analysis (Washed over #200 sieve)	\$85.00/test
Organic Content (by heating)	\$55.00/test
Moisture Content Determination	\$25.00/test
Visual Engineering Classification	\$65.00/hour
Compressive Strength of 4" x 8" Cylinder (ASTM C39)	\$17.00/each cylinder, generally 4-5 per set
Special capping for irregular surface (If required)	\$20.00/each
Trimming for capping (if required)	\$20.00/each
Concrete core, measurement and strength	\$50.00/each
Compressive Strength of 3x6 inch Grout Prism	\$30.00/each
Compressive Strength of 2 inch Mortar Cube or 3 inch cylinder	\$17.00/each

EXHIBIT C
INSURANCE REQUIREMENTS

Project: CONSULTING SERVICES FOR PORT EVERGLADES
Agency: PORT EVERGLADES – SEAPORT ENGINEERING AND CONSTRUCTION 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	\$1,000,000	\$2,000,000
			Personal Injury		
			Products & Completed Operations		
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>			Bodily Injury (each person)		
			Bodily Injury (each accident)		
			Property Damage		
			Combined Bodily Injury and Property Damage	\$500,000	
<input type="checkbox"/> EXCESS LIABILITY / UMBRELLA Per Occurrence or Claims-Made: <input checked="" 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"/> WORKER'S COMPENSATION	N/A	<input checked="" type="checkbox"/>	Each Accident	STATUTORY LIMITS	
<input checked="" type="checkbox"/> EMPLOYER'S LIABILITY			Each Accident	\$500,000	
<input type="checkbox"/> CYBER LIABILITY	N/A		Each Claim:		
			*Maximum Deductible:		
<input checked="" type="checkbox"/> PROFESSIONAL LIABILITY (ERRORS & OMISSIONS)	N/A		Each Claim:	\$1,000,000	
			*Maximum Deductible:	\$100,000	
<input type="checkbox"/> CRIME / EMPLOYEE DISHONESTY			Each Claim:		

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. Contractors insurance shall provide primary coverage and shall not require contribution from the County, self-insurance or otherwise. Any self-insured retention (SIR) higher than the amount permitted in this Agreement must be declared to and approved by County and may require proof of financial ability to meet losses. Contractor is responsible for all coverage deductibles unless otherwise specified in the agreement. For Claims-Made policies insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

CERTIFICATE HOLDER:

Broward County
1850 Eller Drive
Ft. Lauderdale, FL 33316

Attention: Kile Alford



Digitally signed by
Norma Dmytriw
Date: 2025.02.23
12:53:08 -05'00'

Exhibit D
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 [], dated [] (as amended, the "Agreement").

2. This Work Authorization directs Consultant to provide the services described in Exhibit A, attached hereto and incorporated into this Work Authorization and is issued pursuant to Article 3 of the Agreement.

3. Compensation and Method of Payment.

3.1 Payment for the Services authorized by this Work Authorization shall be in accordance with Article 5 of the Agreement and the agreed method of compensation is as follows (check those boxes that apply):

3.1.1 Maximum Amount Not-To-Exceed Compensation. County shall pay Consultant for the performance of all Services identified in Exhibit A to this Work Authorization as payable on a "Maximum Amount Not-To-Exceed" basis based upon the Salary Costs as described in Section 5.2 of the Agreement and Exhibit B of this Work Authorization, up to a maximum not-to-exceed amount of \$[].

3.1.2 Lump Sum Compensation. County shall pay Consultant for the performance of all Services identified in Exhibit A to this Work Authorization as payable on a "Lump Sum" basis and as set forth in Exhibit B of this Work Authorization, in a total lump sum amount of \$[].

3.1.3 Reimbursable Expenses. County has established a maximum not-to-exceed amount of \$[] for potential Reimbursable Expenses for work under this Work Authorization, which may be utilized consistent with Section 5.3 of the Agreement. County will retain any unused amounts of those reimbursable expenses.

4. Consultant shall perform the Services described in Exhibit A within:

[] calendar days ("Time for Performance"); or

the time periods specified in Exhibit A. The Time for Performance shall commence on the date of the Notice to Proceed for such services.

4.1 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:

Services

Amount

\$ []

These amounts are not penalties but are liquidated damages to County for Consultant's inability to prosecute and complete the Services in a timely manner pursuant to the agreed upon Project Schedule. 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 the Agreement at Section 11.8, Indemnification of County.

5. **CBE Commitment.**

5.1 In an effort to assist County in achieving its overall goal as set forth in the Agreement, Consultant agrees to meet the CBE participation goal of []% by utilizing CBE firms for the Services provided under this Work Authorization and the dollar values described in Section 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 Exhibit C.

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.

7. This Work Authorization is effective upon complete execution by County and Consultant. This Work Authorization may be executed in multiple originals or in counterparts, whether signed physically or electronically, each of which shall be deemed to be an original, and all of which, taken together, shall constitute one and the same agreement.

List of Exhibits:

Exhibit A – Scope of Services

Exhibit B – Negotiated Fee

Exhibit C – CBE Schedule

[The 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 [_____], as authorized pursuant to the Agreement, and Consultant, signing by and through its duly authorized representative.

COUNTY

Broward County

By _____

Its _____

(Print Name and Title)

____ day of _____, 20____.

Approved as to form by
Andrew J. Meyers
Broward County Attorney
115 South Andrews Avenue, Suite 423
Fort Lauderdale, Florida, 33301
Telephone: (954) 357-7600

By _____

Name _____ Date _____

Senior/Assistant County Attorney

By _____

Name _____ Date _____

Senior/Assistant County Attorney

CONSULTANT

[Insert Consultant Name]

By _____

Authorized Signer

Its _____

(Print name and title)

____ day of _____, 20____.

Exhibit E
Schedule of Subconsultants

Project No: PNC2130373P1
Project Title: Architectural and Engineering Consulting Services for Port Everglades
Facility Name: Port Everglades

No.	Firm Name	Discipline
1.	Moffatt & Nichol, Inc.	Maritime Engineering
2.	Cummins Cederberg, Inc.	Coastal & Marine Engineering
3.	MUEngineers, Inc.	Structural Engineering
4.	Justin Architects, P.A.	Architecture
5.	Longitude Surveyors, LLC	Surveying & Utility Locating
6.	Pan Geo Consultants, LLC	Geotechnical Engineering
7.	Reina Engineering, LLC	Civil Engineering
8.	ML Engineering & Inspection Services, LLC	Electrical Engineering
9.	Delta G Consulting Engineers, Inc.	Mechanical, Electrical, Plumbing & Fire Protection

B. Responsibility Criteria

CBE SUBCONSULTANTS AND LETTERS OF INTENT

Office of Economic and Small Business Development Program/Letter of Intent Form



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: Delta G Consulting Engineers, Inc.

Address: 1800 Eller Drive, Suite 570 City: Fort Lauderdale State: FL Zip: 33316

Authorized Representative: George San Juan, PE, LEED AP, President Phone: 954-527-1112

- 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
MEP Engineering	541330		6.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature: [Signature] Title: President Date: 08/04/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, FACEC Title: President Date: 8/07/2025

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



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: Justin Architects, P.A.

Address: 2400 E. Commercial Blvd. Suite 201 City: Fort Lauderdale State: FL Zip: 33308

Authorized Representative: Juan Justiniano, President Phone: 954-771-2724

- 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
Architectural Services	541310		8.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature: Title: President Date: 08/04/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, FACEC Title: President Date: 8/07/2025

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



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: Longitude Surveyors, LLC

Address: 800 NW 62nd Street, Suite 340 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Eduardo Suarez, President Phone: 754-320-4182

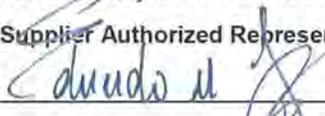
- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE 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 & SUE Services	541370		3.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature:  Title: President Date: 08/05/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, FACEC Title: President Date: 8/07/2025

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



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: ML Engineering & Inspection Services, LLC

Address: 8400 N. University Drive, Suite 320 City: Tamarac State: FL Zip: 33321

Authorized Representative: Maurice Lord, P.E., Managing Principal Phone: 954-233-2665

- 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
Electrical Engineering Services	541330		2.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature: Title: President Date: 08/04/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, FACEC Title: President Date: 8/07/2025

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



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: Pan Geo Consultants LLC

Address: 8258 W State Road 84 City: Davie State: FL Zip: 33324

Authorized Representative: Angelina Lopez Catledge, BLA, M.S., Principal 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 Services	541330, 541320		2.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature: _____ Title: Mgr. Date: 08/05/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, Title: President Date: 8/07/2025
FACEC

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



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.: PNC2130373P1

Project Title: Architectural and Engineering Consulting Services for Port Everglades

Bidder/Offeror Name: Chen Moore and Associates, Inc.

Address: 500 West Cypress Creek Road, Suite 600 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Peter Moore, P.E., F.ASCE, FACEC, F.FES, President Phone: 954-730-0707

CBE Firm/Supplier Name: Reina Engineering LLC

Address: 6750 N. Andrews Avenue, Suite 200 City: Fort Lauderdale State: FL Zip: 33309

Authorized Representative: Francisco Reina, PE, President Phone: 954-496-3027

- 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
Engineering Services	541330		4.00 %
			%
			%

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

CBE Firm/Supplier Authorized Representative

Signature: Francisco Reina, P.E. Digitally signed by Francisco Reina, P.E. Date: 2025.08.04 11:47:37 -0400 Title: President Date: 08/04/2025

Bidder/Offeror Authorized Representative

Signature: Peter Moore, P.E., F.ASCE, FACEC Title: President Date: 8/07/2025

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

Exhibit G
Port Everglades Security Requirements

- A. The Port Everglades Department requires persons to present, at port entry, a valid driver 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, and agents 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>.