

Memorandum



Date: November 2, 2021

Agenda Item No. 8(F)(5)

To: Honorable Chairman Jose “Pepe” Diaz
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor

Subject: Recommendation for Approval to Award: LED Smart Lighting and Smart County Systems

Recommendation

It is recommended that the Board of County Commissioners (Board) approve a competitive contract award, *Contract No. RFP-00499, LED Smart Lighting and Smart County Systems*, for the Department of Transportation and Public Works (DTPW) in the amount of \$48,076,396. This contract will provide the County with a fully integrated suite of streetlights, sensors, networks, and data analytics platforms. Through this contract, the County will leverage the existing roadway lighting infrastructure to provide for new and emerging Smart County technology to improve mobility, accessibility and safety. Additionally, there will be quarterly payments for operations and maintenance of approximately 27,000 light poles countywide, which are projected to cost \$163,591,770 for the 15-year term of the contract. This amount is consistent with payment terms for the maintenance of existing light poles.

Background

DTPW developed a plan to transform all Miami-Dade County (County) and local Florida Department of Transportation (FDOT) streetlights into a networked Smart LED energy saving system with connected devices and build an advanced “Smart County” network platform that enhances County services through connected technology, hereafter referred to as “the system”. In order to put the system in place, a business model must be prepared by the vendor to provide a turnkey solution that will integrate all facets of the system under one contract. The vendor must be able to finance the project, have the experience to upgrade the existing lighting system within the County and provide Smart County technology. The vendor must also guarantee performance and provide long-term operating, maintenance and recapitalization of the system.

On September 17, 2019, a competitive Request for Proposals was issued by the Internal Services Department on behalf of DTPW, to obtain proposals from qualified proposer teams to deliver the system. The County received three proposals on May 20, 2020, from AECOM Technical Services, Inc. (AECOM), Horsepower Electric, Inc. (Horsepower), and Miami Dade Smart Lighting Partners, LLC (MDLP), as well as three “No Bids.”

On August 24, 2020, the County Attorney’s Office issued a legal opinion that AECOM’s failure to include a proposal with an identifiable price was a material and fatal flaw to its proposal. Therefore, the proposal from AECOM was deemed non-responsive and ineligible for award. The Competitive Selection Committee (CSC) completed an evaluation of proposals, and the CSC advanced Horsepower and MDLP to oral presentations. Based on the scores, the CSC recommended MDLP, the highest ranked proposer, for negotiations.

MDLP will convert the County’s existing 27,000 High Pressure Sodium street lights (13,500 County owned and 13,500 Florida Department of Transportation owned) into energy efficient Smart LED street lights. MDLP will be responsible for maintaining the current street lights from the inception of the contract, as well as the newly installed LED lights as they are replaced for the term of the contract.

The LED and overall lighting solution will seek to conform with the current International Dark-Sky Association LED Practical Guide, reducing blue light levels, overall light pollution, as well as comply with IES Backlight, Uplight and Glare ratings, with an Uplight rating of zero. MDLP will furnish and install 500, 4k video cameras and 900 IoT Multi-Sensors that will integrate with the County Scalable Smart Mobility Software Platform for active arterial management and to monitor travel time and speed at a minimum of every half a mile along the priority corridors. MDLP will install 231 miles of Fiber Optic Communication Cable across the traffic congestion priority corridors countywide, and the Stephen P. Clark Center as well as the Rickenbacker Bridge will also receive new architectural lighting. The agreement also includes a revenue share program as a result of monetization of data to earn revenues from digital advertising platforms and wireless service.

Scope

The scope of this item is countywide in nature.

Fiscal Impact/Funding Source

The fiscal impact for the 15-year term is \$48,076,396 (Road Impact Fee funded). In addition to this amount, the County will provide fixed quarterly payments to MDLP based on the established rate for operations and maintenance for the term of the contract. The payment terms stipulate quarterly payments by the County that equal \$75.025 per pole, which will escalate at a rate of 3 percent per year. The total amount of quarterly payments is estimated to equal \$163,591,770 over the term of the contract, evenly split between the County (DTPW Operating and Secondary Gas Tax funded) and FDOT (Federal Highway Administration funded).

Department	Allocation	Funding Source	Project Manager
Transportation and Public Works	\$48,076,396	DTPW Operating/Road Impact Fees/ Secondary Gas Tax/ and Federal Highway Administration	Daniel Castilla, P.E.
	\$163,591,770	The total amount of quarterly payments is estimated to equal \$163,591,770 over the term of the contract, evenly split between the County (DTPW Operating and Secondary Gas Tax funded) and FDOT (Federal Highway Administration funded).	
Total:	\$211,668,166		

Track Record/Monitor

Vanessa Stroman of the Internal Services Department is the Procurement Contracting Manager. Frank Guyamier, P.E. Deputy Director, DTPW, is responsible for this project.

Delegated Authority

If this item is approved, the County Mayor or County Mayor’s designee will have the authority to exercise all provisions of the contract, including any cancellation or extension provisions, pursuant to Section 2-8.1 of the County Code and Implementing Order 3-38.

Vendor Recommended for Award

A Request for Proposals was issued under full and open competition. Six responses were received, including three proposals and three “No Bids.”

Pursuant to Resolution No. R-477-18, the selected proposer is recommended in accordance with the method of award per the solicitation and is a non-local vendor.

Vendor	Principal Address	Local Address*	Number of Employee Residents	Principal
			1) Miami-Dade 2) Percentage*	
Miami Dade Smart Lighting Partners, LLC	2598 E Sunrise Boulevard 210-A Ft. Lauderdale, FL	None	25	Oscar Bode
			95%	

*Provided pursuant to Resolution No. R-1011-15. Percentage of employee residents is the percentage of vendor's employees who reside in Miami-Dade County as compared to the vendor's total workforce.

Vendors Not Recommended for Award or Did not Bid

Vendor	Local Address	Reason for Not Recommending
Horsepower Electric, Inc.	Yes	Evaluation Scores/Ranking
AECOM Technical Services, Inc.	No	Deemed Non-Responsive (CAO Opinion attached)
Hotwire Communications		No Bid*
Transcontinental Sun Power		
W.W. Grainger Inc.		

*A "No Bid" means the vendor responded indicating that it will not be providing an offer.

Due Diligence

Pursuant to Resolution No. R-187-12, due diligence was conducted in accordance with the Internal Services Department's Procurement Guidelines to determine vendor responsibility, including verifying corporate status and that there are no performance and compliance issues through various vendor responsibility lists. The lists that were referenced included convicted vendors, debarred vendors, delinquent contractors, suspended vendors, and federal excluded parties. There were no adverse findings relating to vendor responsibility.

Applicable Ordinances and Contract Measures

- The two percent User Access Program provision does not apply due to the federal funding source.
- The Small Business Enterprise Selection Factor did not apply due to the federal funding source.
- Small Business Enterprise measures do not apply due to mix funding that does not allow for local measures.
- In accordance with the 49 CFR Part 23 & 26 and the Florida Department of Transportation's (FDOT) Disadvantaged Business Enterprise Program, this State funded purchase is subject to the aspirational 10.65% DBE Goal. An updated concurrence has been issued by the Office of Civil Rights, DTPW.
- The Local Preference does not apply.
- The Living Wage does not apply.
- Responsible Wage does not apply.

Attachment



Jimmy Morales
 Chief Operations Officer

To: Brian Webster, CPPO
Procurement Contracting Officer

From:  Bruce Libhaber, Assistant County Attorney
Miami-Dade County Attorney's Office

Date: August 24, 2020

Re: Responsiveness Review RFP 00499 "LED Smart Lighting and Smart County Systems"-AECOM Proposal

I am in receipt of your request for a legal opinion arising from RFP 00499 "LED Smart Lighting and Smart County Systems." Specifically, you have inquired as to the responsiveness of the proposal submitted by AECOM. In formulating this opinion, I have reviewed the relevant portions of the solicitation documents comprising RFP 00499, the relevant portions of AECOM's proposal, subsequent written correspondence from all three proposals addressing the relevant issues, and written and oral communications with procurement and technical staff from Internal Services Department and the Department of Transportation and Public Works.

RFP 00499, Section 4.2 requires the proposers to "[p]rovide a competitive fixed cost inclusive of all proposed services and technical solutions contained in the proposer's proposal by completing Attachment D." In your correspondence, you correctly note "AECOM did not use the Proposal Price Schedule to record the fiber optics service costs." If AECOM merely used the wrong form, but its price proposal could be readily ascertained by the information contained within its proposal, the mere fact that AECOM did not use the right form would likely constitute a waivable irregularity. In this instance, of greater concern is not merely that AECOM did not complete the form in the manner spelled out in the RFP documents, but it is not discernible as to what the price proposal is. AECOM indicated on its proposal that the fiber service fees "are \$485/month at each live connected 'lit' service." AECOM Proposal pages 314 and 315 of 1553. The RFP does not use the term 'lit service' or 'live connected service.' AECOM's proposal does not define the term 'lit service' or 'live connected service.' If the RFP or AECOM had defined 'lit service' or 'live connected service' then the County may be able to determine the actual price proposal being offered. As it stands, 'live connected lit service' could mean the 432 intersections. 'Lit service' could just as easily include the video cameras and/or IoT sensors required to be installed. In other words, the price being offered by AECOM is, at best, indefinite. To allow a proposer to disclose its price after the proposals of its competitors have been received, opened, and made available to the public is the textbook definition of an unfair competitive advantage. Accordingly, a proposer may not submit a non-responsive proposal and cure the infirmities after the fact. See *Harry Pepper & Assocs., Inc. v. City of Cape Coral*, 352 So. 2d 1190 (Fla. 2d DCA 1977).



MEMORANDUM
(Revised)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: November 2, 2021

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 8(F)(5)

Please note any items checked.

- "3-Day Rule" for committees applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Statement of social equity required
- Ordinance creating a new board requires detailed County Mayor's report for public hearing
- No committee review
- Applicable legislation requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) ____, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) ____, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) ____) to approve
- Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(F)(5)
11-2-21

RESOLUTION NO. _____

RESOLUTION APPROVING AWARD OF CONTRACT NO. RFP-00499 TO MIAMI DADE SMART LIGHTING PARTNERS, LLC FOR THE PURCHASE OF LED SMART LIGHTING AND SMART COUNTY SYSTEMS FOR THE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS IN A TOTAL AMOUNT OF \$48,076,396.00 PLUS QUARTERLY PAYMENT FOR OPERATIONS AND MAINTENANCE AT THE RATE OF \$75.025 PER POLE FOR A TOTAL ESTIMATED CONTRACT VALUE OF \$211,668,166.00 FOR A 15-YEAR TERM; AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXECUTE SAME FOR AND ON BEHALF OF MIAMI-DADE COUNTY AND TO EXERCISE ALL PROVISIONS OF THE CONTRACT, INCLUDING ANY CANCELLATION OR EXTENSION PROVISIONS, PURSUANT TO SECTION 2-8.1 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA AND IMPLEMENTING ORDER 3-38

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board approves award of Contract No. RFP-00499, in substantially the form attached and made a part hereof, to Miami Dade Smart Lighting Partners, LLC for the purchase of LED Smart Lighting and Smart County Systems for the Department of Transportation and Public Works in a total amount of \$48,076,396.00 plus quarterly payment for operations and maintenance at the rate of \$75.025 per pole for a total estimated contract value of \$211,668,166.00 for a 15-year term; and authorizes the County Mayor or County Mayor's designee to execute same for and on behalf of Miami-Dade County and to exercise all provisions of the contract, including any cancellation or extension provisions, pursuant to 2-8.1 of the Code of Miami-Dade County and Implementing Order 3-38.

The foregoing resolution was offered by Commissioner ,
who moved its adoption. The motion was seconded by Commissioner
and upon being put to a vote, the vote was as follows:

Jose "Pepe" Diaz, Chairman	
Oliver G. Gilbert, III, Vice-Chairman	
Sen. René García	Keon Hardemon
Sally A. Heyman	Danielle Cohen Higgins
Eileen Higgins	Joe A. Martinez
Kionne L. McGhee	Jean Monestime
Raquel A. Regalado	Rebeca Sosa
Sen. Javier D. Souto	


The Chairperson thereupon declared the resolution duly passed and adopted this 2nd day of November, 2021. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney
as to form and legal sufficiency.



Bruce Libhaber

LED Smart Lighting and SMART County Systems
Contract No. RFP-00499

THIS AGREEMENT made and entered into as of this _____ day of _____, 2021 by and between Miami Dade Smart Lighting Partners, LLC , a corporation organized and existing under the laws of the State of Florida, having its principal office at 80 SW 8th Street, Suite 2000, Miami, FL 33130 (hereinafter referred to as the "Contractor"), and Miami-Dade County, a political subdivision of the State of Florida, having its principal office at 111 N.W. 1st Street, Miami, Florida 33128 (hereinafter referred to as the "County"),

WITNESSETH:

WHEREAS, the Contractor has offered to transform County and Florida Department of Transportation (FDOT) owned and operated streetlights into a networked Smart LED energy saving system with connected devices and build an advanced "Smart County" network platform, on a non-exclusive basis, that shall conform to the Scope of Work (Attachment A); Miami-Dade County's Request for Proposals (RFP) No. 00499 and all associated addenda and attachments, incorporated herein by reference; and the requirements of this Agreement; and,

WHEREAS, the Contractor has submitted a written proposal dated May 1, 2020, hereinafter referred to as the "Contractor's Proposal" which is incorporated herein by reference; and,

WHEREAS, the County desires to procure from the Contractor such LED conversion and Smart County Systems for the County, in accordance with the terms and conditions of this Agreement;

Work

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NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties hereto agree as follows:

ARTICLE 1 DEFINITIONS

The following words and expressions used in this Agreement shall be construed as follows, except when it is clear from the context that another meaning is intended:

- a) The words "Contract" or "Agreement" to mean collectively these terms and conditions, the Scope of Work (Attachment A), all other appendices and attachments hereto, all amendments issued hereto, RFP No. 00499 and all associated addenda, and the Contractor's Proposal.
- b) The words "Contract Date" to mean the date on which this Agreement is effective.
- c) The words "Contract Manager" to mean Miami-Dade County's Director, Internal Services Department, or the duly authorized representative designated to manage the Contract.
- d) The word "Contractor" to mean Miami Dade Smart Lighting Partners, LLC and its permitted successors.
- e) The word "Days" to mean Calendar Days.
- f) The word "Deliverables" to mean all documentation and any items of any nature submitted by the Contractor to the County's Project Manager for review and approval pursuant to the terms of this Agreement.
- g) The words "directed", "required", "permitted", "ordered", "designated", "selected", "prescribed" or words of like import to mean respectively, the direction, requirement, permission, order, designation, selection or prescription of the County's Project Manager; and similarly the words "approved", "acceptable", "satisfactory", "equal", "necessary", or words of like import to mean respectively, approved by, or acceptable or satisfactory to, equal or necessary in the opinion of the County's Project Manager.
- h) The words "Extra Work" or "Additional Work" to mean additions or deletions or modifications to the amount, type or value of the Work and Services as required in this Contract, as directed and/or approved by the County.
- i) The words "Project Manager" to mean the County Mayor or the duly authorized representative designated to manage the Project.
- j) The words "Scope of Work" to mean the document appended hereto as Attachment A, which details the work to be performed by the Contractor.
- k) The word "subcontractor" or "subconsultant" to mean any person, entity, firm or corporation, other than the employees of the Contractor, who furnishes labor and/or materials, in connection with the Work, whether directly or indirectly, on behalf and/or under the direction of the Contractor and whether or not in privity of Contract with the Contractor.
- l) The words "Work", "Services" "Program", or "Project" to mean all matters and things required to be done by the Contractor in accordance with the provisions of this Contract.
- m) "Lenders' Remedies Agreement" means the agreement between the County, the Senior Lenders and the Developer in the form set forth in Transaction Form A (Lenders' Remedies Agreement).

ARTICLE 2 ORDER OF PRECEDENCE

If there is a conflict between or among the provisions of the Contract, the order of precedence is as follows: 1) the Form of Agreement; 2) agreed upon Scope of Work (as may be negotiated); 3) addenda to the RFP; 4) attachments and exhibits to the Request for Proposal; 4) the Request for Proposal; and 5) the Contractor's Proposal.

ARTICLE 3 RULES OF INTERPRETATION

- a) References to a specified Article, section or schedule shall be construed as reference to that specified Article, or section of, or schedule to this Agreement unless otherwise indicated.
- b) Reference to any agreement or other instrument shall be deemed to include such agreement or other instrument as such agreement or other instrument may, from time to time, be modified, amended, supplemented, or restated in accordance with its terms.
- c) The terms "hereof", "herein", "hereinafter", "hereby", "herewith", "hereto", and "hereunder" shall be deemed to refer to this Agreement.
- d) The titles, headings, captions and arrangements used in these Terms and Conditions are for convenience only and shall not be deemed to limit, amplify or modify the terms of this Contract, nor affect the meaning thereof.

ARTICLE 4 ERRORS, OMISSIONS, INTERPRETATIONS

Contractor shall carefully and continuously study and compare all Contract Documents; and verify all stated requirements in the Contract Documents before commencing Work.

Request for Information, Notification, and Contractor Performance:

- A. Should it appear that the Work to be done, or any of the matters relative thereto, is not sufficiently detailed or explained in any the County-furnished Contract Documents, Contractor shall submit a Request for Information (RFI), in writing to the County's Project Manager, asking for such further written explanations as may be necessary. Contractor shall conform to the explanation provided.
- B. Contractor shall promptly notify the County of all deficiencies (including inaccuracies and inconsistencies) it may discover in the County-furnished Contract Documents, and obtain specific instructions in writing regarding any such Deficiency, before proceeding with the Work affected thereby.
- C. Omission of any technical provisions in the Contract Documents, or the misdescription of details of Work which are necessary to carry out the intent of the County-furnished Contract Documents, or which are customarily performed, shall not relieve Contractor from performing such omitted Work (no matter how extensive) or misdescribed details of the Work. Any such omitted or misdescribed Work shall be performed as if fully and correctly set forth and described in the technical provisions of the Contract Documents, without entitlement to a Contract Modification hereunder.

ARTICLE 5 NATURE OF THE AGREEMENT

- A. This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained in this Agreement. The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this Agreement, and that this Agreement contains the entire agreement between the parties as to all matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral

representations or modifications concerning this Agreement shall be of no force or effect, and that this Agreement may be modified, altered or amended only by a written amendment duly executed by both parties hereto or their authorized representatives.

- B. The Contractor shall provide the services set forth in the Scope of Work, and render full and prompt cooperation with the County in all aspects of the Services performed hereunder.
- C. The Contractor acknowledges that this Agreement requires the performance of all things necessary for or incidental to the effective and complete performance of all Work and Services under this Contract. All things not expressly mentioned in this Agreement but necessary to carrying out its intent are required by this Agreement, and the Contractor shall perform the same as though they were specifically mentioned, described and delineated.
- D. The Contractor shall furnish all labor, materials, tools, supplies, and other items required to perform the Work and Services that are necessary for the completion of this Contract. All Work and Services shall be accomplished at the direction of and to the satisfaction of the County's Project Manager.
- E. The Contractor acknowledges that the County shall be responsible for making all policy decisions regarding the Scope of Work. The Contractor agrees to provide input on policy issues in the form of recommendations. The Contractor agrees to implement any and all changes in providing Services hereunder as a result of a policy change implemented by the County. The Contractor agrees to act in an expeditious and fiscally sound manner in providing the County with input regarding the time and cost to implement said changes and in executing the activities required to implement said changes.

ARTICLE 6 CONTRACT TERM

- A. This contract shall commence on the date the written Notice to Proceed (NTP) issued by the Miami-Dade County Department of Transportation and Public Works (DTPW), which will follow the date of approval of the contract by the Board of County Commissioners, or designee. The contract shall expire on the last day of the fifteenth (pth) year.
- B. The County reserves the right to exercise its option to extend this Contract for up to one hundred-eighty (180) calendar days beyond the current Contract period and will notify the Contractor in writing of the extension. This Contract may be extended beyond the initial one hundred-eighty (180) calendar day extension period by mutual agreement between the County and the Contractor, upon approval by the Board of County Commissioners.

ARTICLE 7 NOTICE REQUIREMENTS

All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if delivered by Registered or Certified Mail, with return receipt requested; or delivered personally; or delivered via e-mail (if provided below) and followed with delivery of hard copy; and in any case addressed as follows:

(1) to the County

a) to the Project Manager:

Miami-Dade County
 Attention: Daniel Castilla, P. E.
 Phone: (305) 679-0084
 E-mail: Daniel.Castilla@miamidade.gov

and,

b) to the Contract Manager:

Miami-Dade County
 Internal Services Department, Strategic Procurement Division
 Attention: Chief Procurement Officer
 111 N.W. 1st Street, Suite 1375
 Miami, FL 33128-1974
 Phone: (305) 375-4900
 E-mail: Namita.Uppal@miamidade.gov

(2) To the Contractor

Miami Dade Smart Lighting Partners, LLC
 Attention: Oscar Bode
 Phone: 954-647-4223
 E-mail: obode@miamidadessmartlightingpartners.com

Either party may at any time designate a different address and/or contact person by giving notice as provided above to the other party. Such notices shall be deemed given upon receipt by the addressee.

ARTICLE 8 PAYMENT FOR SERVICES/AMOUNT OBLIGATED

- A. The Contractor warrants that it has reviewed the County's requirements and has asked such questions and conducted such other inquiries as the Contractor deemed necessary in order to determine the price the Contractor will charge to provide the Work and Services to be performed under this Contract. The compensation for all Work and Services performed under this Contract, including all costs associated with such Work and Services, shall be in the not-to-exceed amount of Forty Eight Million Seventy Six Thousand Three Hundred Ninety Five Dollars and Eighty Eight Cents (48,076,395.88). The County shall have no obligation to pay the Contractor any additional sum in excess of this amount, except for a change and/or modification to the Contract, which is approved and executed in writing by the County and the Contractor.
- B. All Services undertaken by the Contractor before County's approval of this Contract shall be at the Contractor's risk and expense.
- C. With respect to travel costs and travel-related expenses, the Contractor agrees to adhere to Section 112.061 of the Florida Statutes as they pertain to out-of-pocket expenses, including employee lodging, transportation, per diem, and all miscellaneous cost and fees. The County shall not be liable for any such expenses that have not been approved in advance, in writing, by the County.

ARTICLE 9 METHOD AND TIMES OF PAYMENT

Prices shall remain firm and fixed for the term of the Contract, including any extension period(s); however, the Contractor may offer incentive discounts to the County at any time during the Contract term or extension thereof.

The Contractor shall receive three (3) payment types from the County, in accordance with Paragraphs A, B, and C below:

A. Payment for Power, Operations, and Maintenance

1. The County will provide fixed quarterly payments to Contractor for performing the Work, for the term of the contract. The County will pay to the Contractor, the quarterly amount of \$75.02 per pole for an estimated 27,000 roadway lights; the County owns approximately 13,500 lights and the Florida Department of Transportation (FDOT) owns approximately 13,500 lights. As consideration for the County providing such compensation, the Contractor shall assume responsibility for paying the utility cost for all managed assets, in

accordance with the scope of the contract. As additional consideration of County payments, the Contractor shall pay all cost for performing Work not identified on the Proposal Price Schedule (Attachment D), of the RFP.

2. Quarters commence on January, April, July, and October of each year. The first payment to the Contractor shall be prorated, due on the first quarter following the contract award date. The quarterly payment amount the County will pay will escalate at the rate of 3% per year, commencing on July 1st and continuing for the full term of the contract, as it may be extended. Annual increases will be in effect for the October payment. To the extent set forth in this article, Contractor agrees that Contractor shall be solely responsible and liable for any and all costs incurred by Contractor. The County shall have no liability or responsibility for any of Proposer's costs or expenses in excess of the payment provisions contained herein.
3. Compensation, referenced in A.1 above, is for all work described within the Scope of Work and required by the Contract Documents, inclusive of all Engineering, Design, Permitting, Construction, etc. Any work, services, materials, or equipment needed to complete the work of the Contract Documents not explicitly stated therein are considered incidental with no further compensation will be provided.

B. Payment for Additional Lighting

1. The street lighting growth is anticipated at an average 1.5% per year and an average knockdown rate of 1.5% per year. The growth rate for the street lighting is averaged and may fluctuate, which in turn will affect the quarterly payment.
2. Upon the written notice by the County, the Contractor shall be required to assume management of newly expanded lighting assets, in accordance with the contract Scope of Work. As consideration for servicing an expanded inventory of assets, the Contractor shall be compensated at the established quarterly rate, as it may be prorated to the next quarterly payment, in the amount applicable at the time the notice is issued.

C. Unit Price Basis for Payment

The prices set forth by Table 9.1, Price Schedule, shall be the basis for payment of unit prices in the amounts set forth therein. Payment of each unit price will be based on actual measured quantities of the Work. The quantities identified by Table 9.1 are estimated.

Table 9.1 Price Schedule

Item No.	Minimum Quantity	Unit	Description	Unit Price	Total
1	500	Each	Furnish and install Video Cameras - 4k Video with configurable framerate cameras to count Vehicles, Bicycle and arterial Traffic Management (includes labor, material, equipment, installation, etc.)	\$8,287.10	\$4,143,550.00
2	900	Each	Furnish and install Comprehensive IoT Multi-Sensor such as a combined Bluetooth and Co2 Sensor (includes labor, material, equipment, installation, etc.)	\$1,081.08	\$972,972.00
3	231	Per Mile	Fiber Optic Communication	\$185,973.48	\$42,959,873.88
Total:					\$48,076,395.88

D. Variable Quantities Clause

During the term of the Contract, the County may request the Contractor to provide unit quantities less than or in excess of the quantities estimated. With respect to any unit price item as to which an estimated quantity is set forth in accordance with this article, such unit price shall apply regardless of the actual quantity of such item ultimately utilized in, or required by the Work.

E. Contractor Payments to the County

In accordance with Section 6(D) of the Scope of Work (Attachment A), the County shall receive a portion of revenue generated from the Contractor's monetization of data. The County reserves the right to direct the Contractor to apply payment(s) due to the County, as payment to the Contractor for Extra Work performed, in accordance with the Article titled "Extra Work".

F. Invoice Requirements for Payment

1. All invoices shall be taken from the books of account kept by the Contractor, shall be supported by copies of documents reasonably required by the County, shall show the County's contract number, and shall have a unique invoice number assigned by the Contractor. It is the policy of Miami-Dade County that payment for all purchases by County agencies and the Public Health Trust shall be made in a timely manner and that interest payments be made on late payments. All firms, including Small Business Enterprises, providing goods and services to the County, shall receive payment to maintain sufficient cash flow. In accordance with Section 218.74 of the Florida Statutes, and Section 2-8.1.4 of the Code of Miami-Dade County, the time at which payment shall be due from the County or the Public Health Trust shall be forty-five (45) days from receipt of a proper invoice. Billings from prime Contractors under services and goods contracts with the County or Public Health Trust, that are Small Business Enterprise contract set-aside, bid preference or contain a subcontractor goal, shall be promptly reviewed and payment made by the County or Trust on those amounts not under dispute within fourteen (14) calendar days of receipt of such billing by the County or the Trust pursuant to Sections 2-8.1.1.1.1 and 2-8.1.1.1.2 of the Code of Miami-Dade. All payments due from the County or the Public Health Trust, and not made within the time specified by this section shall bear interest from thirty (30) days after the due date at the rate of one percent (1%) per month on the unpaid balance. Further, proceedings to resolve disputes for payment of obligations shall be concluded by final written decision of the County Mayor, or his or her designee(s), not later than sixty (60) days after the date on which the proper invoice was received by the County or the Public Health Trust.
2. In accordance with Miami-Dade County Implementing Order 3-9, Accounts Receivable Adjustments, if money is owed by the Contractor to the County, whether under this Contract or for any other purpose, the County reserves the right to retain such amount from payment due by County to the Contractor under this Contract. Such retained amount shall be applied to the amount owed by the Contractor to the County. The Contractor shall have no further claim to such retained amounts which shall be deemed full accord and satisfaction of the amount due by the County to the Contractor for the applicable payment due herein.

Invoices and associated back-up documentation shall be submitted in duplicate by the Contractor to the County as directed by the County Project Manager.

The County may at any time designate a different address and/or contact person by giving written notice to the other party.

ARTICLE 10 INDEMNIFICATION AND INSURANCE

The Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all third party liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions

or proceedings of any kind or nature resulting from the negligence of Contractor or its employees, agents, servants, partners principals or subcontractors. The Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. The Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided. The foregoing notwithstanding, the Contractor or its subcontractors liability under Article 10 is limited to the total amount of its fees that it will receive over the term of the Contract irrespective of any insurance coverage limits it has.

Upon County's notification, the Contractor shall furnish to the Internal Services Department, Strategic Procurement Division, Certificates of Insurance that indicate that insurance coverage has been obtained, which meets the requirements as outlined below:

- A. Worker's Compensation Insurance for all employees of the Proposer as required by Florida Statute 440.
- B. Commercial General Liability Insurance in an amount not less than \$1,000,000 per occurrence. Miami-Dade County must be shown as an additional insured with respect to this coverage.
- C. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage.
- D. Professional Liability Insurance in an amount not less than \$1,000,000.
- E. Cyber Liability Insurance to include Privacy and Network Security in an amount not less than \$1,000,000 per claim.

The insurance coverage required shall include those classifications, as listed in standard liability insurance manuals, which most nearly reflect the operations of the Proposer.

The company must be rated no less than "A-" as to management, and no less than "Class VII" as to financial strength by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.

OR

The company must hold a valid Florida Certificate of Authority as shown in the latest "List of All Insurance Companies Authorized or Approved to Do Business in Florida", issued by the State of Florida Department of Financial Services and are members of the Florida Guaranty Fund.

The mailing address of Miami-Dade County as the certificate holder must appear on the certificate of insurance as follows:

Miami-Dade County
111 N.W. 1st Street
Suite 1300
Miami, Florida 33128-1974

Compliance with the foregoing requirements shall not relieve the Contractor of this liability and obligation under this article or under any other article in this Agreement.

Award of this Contract is contingent upon the receipt of the insurance documents, as required, within ten (10) business

days. If the insurance certificate is received within the specified timeframe but not in the manner prescribed in this Agreement, the Contractor shall have an additional five (5) business days to submit a corrected certificate to the County. If the Contractor fails to submit the required insurance documents in the manner prescribed in this Agreement within fifteen (15) business days, the Contractor shall be in default of the contractual terms and conditions and award of the Contract may be rescinded, unless such timeframe for submission has been extended by the County.

The Contractor shall assure that the Certificates of Insurance required in conjunction with this article remain in full force for the term of the Contract, including any renewal or extension periods that may be exercised by the County. If the Certificate(s) of Insurance is scheduled to expire during the term of the Contract, the Contractor shall submit new or renewed Certificate(s) of Insurance to the County a minimum of ten (10) calendar days before such expiration. In the event that expired Certificates of Insurance are not replaced or renewed to cover the Contract period, the County may suspend the Contract until the new or renewed certificates are received by the County in the manner prescribed herein. If such suspension exceeds thirty (30) calendar days, the County may, at its sole discretion, terminate the Contract for cause and the Contractor shall be responsible for all direct and indirect costs associated with such termination.

ARTICLE 11 PERFORMANCE AND PAYMENT BOND

A minimum of ten (10) days' before Contractor commences any construction work or any materials are purchased from a supplier, Contractor shall execute, deliver to the County and record in the public records of the County, a payment and performance bond equal to the total cost of construction to take place on County-owned property. Each payment and performance bond shall be in compliance with all applicable laws including the terms and requirements of Florida Statutes, Section 255.05, including Sections 255.05(1)(a) and (c), 255.05(3), and 255.05(6), and shall name the County and the Contractor beneficiaries thereof, as joint obligees.

Alternatively to the payment and performance bond described above, the Contractor may provide County with an alternate form of security ("Alternative Security") which fully complies with Section 255.05 of the Florida State Statutes and meets the following specifications:

- A. The Contractor shall provide to County either a certified check that the County may deposit in a County-controlled bank account or an Irrevocable Letter of Credit, in accordance with Article 12, Irrevocable Letter of Credit, either of which shall be in a form and for an amount that is acceptable to the County and which shall remain in place until evidence reasonably satisfactory to the County is submitted to demonstrate that all contractors performing work and/or making improvements on County-owned property and all suppliers of materials have been paid and the Contractor has obtained Completion of Construction; and
- B. Require that each prime contractor hired by the Contractor to perform work and/or make improvements on County-owned property shall provide a Performance Bond with a surety insurer authorized to do business in the State of Florida as a surety in an amount not less than 100% of his/her/its respective contract in a form acceptable to the County to insure that his/her construction work shall be completed by the contractor or, on its default his/her surety, and shall name the County as an additional obligee; and
- C. Require that each prime contractor hired by the Contractor to perform work and/or make improvements on County-owned property shall provide a Payment Bond with a surety insurer authorized to do business in the State of Florida as a surety in an amount not less than 100% of his/her/its respective contract in a form acceptable to the County to secure the completion of the development free from all liens and claims of sub-contractors, mechanics, laborers and material men and shall name the County as an additional obligee and payee.

If the Contractor provides the Alternative Security, the Contractor shall also comply with the following obligations:

- A. The Contractor shall obtain a Conditional Release of Lien from each of its prime contractor(s) at the time each progress payment is made; and

- B. The Contractor shall obtain an Unconditional Release of Lien from each of its prime contractor(s) within five (5) business days after payment is made.

In the event the Contractor's contractor(s) claim non-payment(s), and/or, fail to timely provide Unconditional Releases of Lien within the timeframe stipulated under these terms, the Contractor reserves the right but not the obligation to:

- A. Reduce the amount(s) in question from the cash deposit(s) or security posted until the claim(s) is/are liquidated;
or;
- B. Appropriate funds for such payment(s) from any cash deposit(s) or security posted and make payment(s) directly to the claimant(s).

In either case, the Contractor shall within ten (10) business days of the County's notification deposit an amount equal to the reduced/disbursed amount in the County's escrow account or increase the irrevocable letter of credit so as to replenish the original amount of the cash deposit(s) or security posted.

All bonds provided by the Contractor or its prime contractor(s) must meet the following requirements:

- A. Be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of a company listed in this circular is mandatory. Free copies of the circular may be obtained by writing directly to: U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, SW, 2nd Floor, West Wing, Washington, D.C. 20226.
- B. Clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond(s) shall be prior to the issuance of the NTP. The County may negotiate the amount of the bond(s) depending on the phase of the Project.

Failure by the Contractor to provide the required performance and payment bond(s) or Alternative Security in the manner and within the time specified, or within such extended period as the County may grant based upon reasons determined adequate by the County, shall render the Proposer ineligible for award and the County may retain the ineligible Proposer's bid security.

ARTICLE 12 IRREVOCABLE LETTER OF CREDIT

- A. An Irrevocable Letter of Credit (LOC) will be accepted as a substitution of security for the performance of work, in lieu of providing Payment and Performance Bonds. The Contractor shall, within ten (10) business days after contract award and before the County issues the Notice to Proceed, provide to the County a LOC in the amount of 100% of the estimated value of construction. The LOC shall be accessible such that the County may, at its convenience, withdraw funds from the LOC in the event the Contractor fails to execute its payment and performance obligations in a timely manner. The LOC shall be refreshed within five (5) days if drawdowns are made by the County, such that the amount of the LOC is continual at the amount equal to 100% of the cost of construction. The LOC shall remain in full force for the contract term that terminates upon Final Completion of construction, as the term may be extended by the County. On the first anniversary of the effective date and each anniversary date thereafter contained in the Notice to Proceed, the Contractor may cause the amount of the LOC to decrease to reflect 100% of the outstanding amount for construction.

- B. The LOC shall be in an acceptable form to the County, and shall be issued by a major U.S. commercial bank or a U.S. branch office of a foreign bank, in either case, with a Credit Rating of at least (a) "A-" by S&P and "A3" by Moody's, if such entity is rated by both S&P and Moody's or (b) "A-" by S&P or "A3" by Moody's, if such entity is rated by either S&P or Moody's, but not both. Provisions of the LOC shall not limit, in any way, any liability of the Contractor to the County. The LOC shall be drawn on a financial institution which is federally insured and authorized to do business and with offices in the State of Florida.

ARTICLE 13 MANNER OF PERFORMANCE

- A. The Contractor shall provide the Services described herein in a competent and professional manner satisfactory to the County in accordance with the terms and conditions of this Agreement. The County shall be entitled to a satisfactory performance of all Services described herein and to full and prompt cooperation by the Contractor in all aspects of the Services. At the request of the County, the Contractor shall promptly remove from the project any Contractor's employee, subcontractor, or any other person performing Services hereunder. The Contractor agrees that such removal of any of its employees does not require the termination or demotion of any employee by the Contractor.
- B. The Contractor agrees to defend, hold harmless and indemnify the County and shall be liable and responsible for any and all claims, suits, actions, damages and costs (including attorney's fees and court costs) made against the County, occurring on account of, arising from or in connection with the removal and replacement of any Contractor's personnel performing services hereunder at the behest of the County. Removal and replacement of any Contractor's personnel as used in this article shall not require the termination and or demotion of such Contractor's personnel.
- C. The Contractor agrees that at all times it will employ, maintain and assign to the performance of the Services a sufficient number of competent and qualified professionals and other personnel to meet the requirements to which reference is hereinafter made. The Contractor agrees to adjust its personnel staffing levels or to replace any its personnel if so directed upon reasonable request from the County, should the County make a determination, in its sole discretion, which said personnel staffing is inappropriate or that any individual is not performing in a manner consistent with the requirements for such a position.
- D. The Contractor warrants and represents that its personnel have the proper skill, training, background, knowledge, experience, rights, authorizations, integrity, character and licenses as necessary to perform the Services described herein, in a competent and professional manner.
- E. The Contractor shall at all times cooperate with the County and coordinate its respective work efforts to most effectively and efficiently maintain the progress in performing the Services.
- F. The Contractor shall comply with all provisions of all federal, state and local laws, statutes, ordinances, and regulations that are applicable to the performance of this Agreement.

ARTICLE 14 PROJECT SCHEDULE

The Contractor shall submit an updated Critical Path Gantt Chart project schedule to DTPW for review and acceptance within fifteen (15) working days after issuance of the NTP. The project schedule shall include all work specified in the Scope of Work (Attachment A) including, but not limited to, mobilization, lead times, fabrication, inspections, installation, testing, system cutover, training, turnover of required documentation, and all expected activities of subcontractors, Contractors, suppliers and all other parties associated with the project. See Paragraph 5 of the Scope of Work (Attachment A) for specific requirements.

ARTICLE 15 DAMAGES FOR DELAY

- A. The Contractor is firmly obligated to meet the stipulated completion date(s), except as any such date(s) may be extended. Inasmuch as the damage and loss to the County which will result from the failure of the Contractor to meet such date(s), as extended, will include items of loss or damage which are not susceptible to accurate estimation. The damages for delay in the case of such failure on the part of the Contractor shall be liquidated in the amounts identified below, for each calendar day of unexcused delay in meeting the completion date(s), for each individual item as herein identified. The amount of Liquidated Damages set forth represents a good faith estimate as to the actual potential damages the County would incur as a result of the delay in completion of the work or elements thereof.

The applicable liquidated damage for each calendar day after the scheduled Substantial Completion date shall equal \$1,175.00. The total amount of liquidated damages recoverable hereunder shall not exceed 100% of the Contract Price that is being funded by the County.

- B. Upon Substantial Completion of the Work as determined by the County Project Manager, the Contractor shall be issued a Certificate of Substantial Completion and Liquidated Damages shall cease to accrue. After Substantial Completion the Contractor shall be liable for any and all actual damages incurred by the County as a result of the Contractor's failure to complete all Work (including Punchlist Work), by the Contract completion date including any extensions of time. Actual damages shall include, but shall not be limited to, engineering and consulting fees incurred as a result of the Contractor's failure to complete all Work by the Contract completion date.
- C. The County shall have the right to deduct such Liquidated and Actual Damages from any monies due or which may thereafter become due to the Contractor under this Contract or any other sums due or which become due to the Contractor under other contracts with the County. If the amount which may become due hereunder shall be less than the amount of Liquidated Damages due to the County, the Contractor shall pay the difference immediately upon demand by the County.
- D. Additional Provisions
1. County Project Manager will count default days in calendar days.
 2. County has the right to apply, as payment on such liquidated damages, any money the County owes Contractor.
 3. County does not waive its right to liquidated damages due under the Contract by allowing Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract, including granted time extensions.
 4. The requirements of this article may not be waived, compromised or settled without the express written consent of the Board of County Commissioners.
 5. Liquidated damages are the only form of monetary consequential damages that may be incurred under the Contract. Notwithstanding any other provision contained herein to the contrary, the parties otherwise waive and release each other from all consequential damages.

ARTICLE 16 EXCUSABLE DELAY

- A. Upon providing the County notice and reasonably full particulars of an event of force majeure (as described below) in writing, within a reasonable time after the occurrence of such event of force majeure, the Contractor shall not be liable for any delay or failure to perform to the extent caused by fire, flood, severe weather conditions, explosion, labor disputes, strike, shortage of utilities, compliance with any laws, regulations, orders, acts or requirements from the government, civil authorities, government-mandated facility shutdowns or limitations, acts of God or the

public enemy, pandemics or any other act or event of any nature reasonably beyond the Contractor's control. In such circumstances, the County may, at its option, elect to cancel or reschedule the portion of any order subject to such delay by providing to the Contractor prompt written notice of its election, provided that, such cancellation or rescheduling shall apply only to that portion of the order affected by the foregoing circumstances and the balance of the order shall continue in full force and effect.

- B. The Contractor is expected to request its permits with the permitting agency within a timeframe that will allow the permitting agency its normal processing time to review a permit request. A schedule delay due to the processing time of a permitting agency would only be deemed excusable if the Contractor demonstrated to the satisfaction of the County, through documented evidence, the permitting agency exceeded its standard time to review such permit.

ARTICLE 17 EXTRA WORK

- A. The County reserves the right to order changes that may result in additions to or reductions from the amount, type or value of the Work shown in the Contract and which are within the general scope of the Contract in accordance with this article. Any such changes which result in additions to the Work will be known as "Extra Work." The Parties further agree that any changes requested by the County, for the exclusive benefit of the County, shall be also handled in accordance with this article.
- B. No Extra Work shall be performed except pursuant to a written Change Order (Contract Modification) issued by the County expressly authorizing the performance of such Work and explicitly declaring the intention of the County to treat the Work described therein as Extra Work. In the absence of such a Change Order, if the County Project Manager shall direct, order or require any work, whether orally or in writing, which the Contractor deems to be Extra Work, the Contractor shall nevertheless comply therewith, but shall within five (5) days of the County Project Manager's order or directive give written notice to the County Project Manager stating why the Contractor deems it to be Extra Work. Such notice is required to afford an opportunity to the County to (1) cancel promptly such order, direction or requirement; (2) keep an accurate record of the materials, labor and other items involved; and (3) take such action as may be deemed advisable in light of the Contractor's claim. The failure of the Contractor to give written notice within the time limit stated therefor shall be deemed a conclusive and binding acceptance on the Contractor's part that the direction, order or requirement of the County Project Manager does not involve the performance of Extra Work.
- C. Within thirty (30) days of the Contractor's submission of written notice that an order, direction or requirement of the County Project Manager is deemed by the Contractor to involve Extra Work, the Contractor and each Subcontractor shall submit in a form satisfactory to the County a detailed proposal ("Change Order Proposal")(including the elements of cost identified in Article 18, Change Order Basis For Payment, Paragraphs A and B) which shall include adjustments to the Contract price, to the extent permitted under Article 18 to the delivery schedule, or to any other provisions of the Contract necessary to accomplish the Extra Work. Upon written request of the Contractor, within the thirty (30) day period set forth above, for good cause shown, the County Project Manager may grant the Contractor additional time in which to submit a Change Order Proposal. The failure of the Contractor to submit a detailed proposal within the time limit stated therefor, or within such additional time as is granted by the County Project Manager at its sole discretion, shall be deemed a waiver of any claim for compensation that the Contractor may have with respect to the claimed Extra Work.
- D. The provisions of the Contract relating to the Work and its performance shall apply without exception to Extra Work and the performance thereof, except as otherwise provided in a written Change Order between the Contractor and the County.
- E. The Contractor must utilize the most recent updated schedule as required by the Contract to establish the price and schedule modifications. Contractor's Change Order Proposal must include a schedule subnet and an

explanation of the cost, if applicable, and schedule impact of the claimed Extra Work on the Contract. The Contractor must demonstrate clearly how it proposes to incorporate the Extra Work into the schedule. If Contractor fails to notify the County Project Manager of the schedule changes associated with a Change Order Proposal by submitting a revised schedule, it will be deemed to be an acknowledgment by Contractor that the proposed Extra Work will not have any scheduling consequences.

ARTICLE 18 CHANGE ORDER BASIS FOR PAYMENT

- A. If Extra Work requires the provision of items of Work or material of the same type as those for which unit prices are identified by the Article titled "Method and Times of Payment", compensation for such Extra Work shall be computed on the basis of the unit price in that article for such items.
- B. If Extra Work requires the provision of items of Work or material for which compensation cannot be computed on the basis of unit prices, in accordance with the Article titled "Method and Times of Payment", and the scope and extent of the Extra Work can be determined before the Extra Work is performed, the County will perform a cost analysis of the Contractor's proposal and negotiate a lump sum amount with the Contractor as compensation for such Work. The County Project Manager may in such case request the Contractor to proceed with the Extra Work pending performance of the cost analysis and negotiation of the amount of compensation for such Extra Work. The Contractor shall honor such request so long as it deems the financial risk of doing so to be viable.

ARTICLE 19 WORK DAY

- A. Unless explicitly specified otherwise herein, a Standard Work Day is defined as Monday through Friday, 7:00 AM to 5:00 PM, excluding holidays.
- B. Any provisions applicable to a Standard Work Day, set forth in the Contract Documents, will apply to this article and is hereby incorporated by reference.

County Holidays are:

New Year's Day
Martin Luther King, Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veterans Day
Thanksgiving
Day after Thanksgiving
Christmas Day

ARTICLE 20 EMPLOYEES OF THE CONTRACTOR

All employees of the Contractor shall be considered to be, at all times, employees of the Contractor under its sole direction and not employees or agents of the County. The Contractor shall supply competent employees. Miami-Dade County may require the Contractor to remove an employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose continued employment on County property is not in the best interest of the County. Each employee shall have and wear proper identification.

ARTICLE 21 LIVING WAGE

The Contractor is advised that the provisions of Section 2-8.9 of the Code of Miami-Dade County, (Code) as amended by Ordinance [Governing Legislation], does not apply to this contract.

ARTICLE 22 INDEPENDENT CONTRACTOR RELATIONSHIP

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

The Contractor does not have the power or authority to bind the County in any promise, agreement or representation other than specifically provided for in this Agreement.

ARTICLE 23 OVERVIEW OF CONTRACTOR RESPONSIBILITIES

- A. Contractor shall complete the Project as specified in a timely manner, in accordance with all industry practices generally accepted as standards of the industry in the State of Florida, in a good and workmanlike manner, free from defects, and in accordance with the Scope of Work (Attachment A).
- B. The Contractor shall coordinate the Work performed by its Subcontractors and Suppliers and be fully responsible to the County for all acts and omissions of Subcontractors, Suppliers and their employees. Any provision of the Contract referring to the acts or omissions of the Contractor shall also refer to and include the acts and omissions of all Subcontractors and Suppliers.
- C. If any portion of the subcontracted Work is not performed in accordance with the Contract, or if a Subcontractor or Supplier commits or omits any act that would constitute a breach of the Contract, the Contractor shall cure the breach, and at the direction of the Project Manager, shall replace the Subcontractor or Supplier. The Subcontractor or Supplier shall not be employed again on the Work.
- D. Compliance with Requirements – The Contractor shall provide all materials and undertake all efforts necessary or appropriate (excluding only those materials, services and efforts that the Contract Documents specify will be furnished by the County or other persons) to complete the Project in accordance with the requirements of the Contract Documents, the Schedule, all applicable Laws, all Governmental Approvals, the County-Approved Quality Assurance & Quality Control Plans, Contractor's approved Safety Program (if applicable), and all other applicable safety, environmental and other requirements, taking into account Right-of-Way constraints, if applicable, and other physical limits resulting from constraints affecting the Project, so as to achieve Substantial Completion and Final Completion and to perform all required tests by the deadlines specified herein, and otherwise to do everything required by and in accordance with the Contract Documents.
- E. Professional Qualifications – Contractor shall perform the Work under the supervision of persons licensed to practice the applicable function/profession in the State of Florida (if applicable), by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the Work in accordance with the Contract, and who shall assume professional responsibility for the accuracy and completeness of the Work prepared or checked by them.
- F. Governing Dimensions – Before commencing any contracted work, Contractor shall verify all governing dimensions at the Worksite, examine all adjoining work and activities that may have an impact on Work, and ensure that the Contract Documents (and any other documents related to the Work) accurately depict all governing and adjoining dimensions.

- G. Means and Methods – Contractor shall be solely responsible for the performance of its Work in accordance with its own means, methods, sequences, and procedures, and for coordination of all portions of its Work in compliance with the Contract.
- H. Performance During Disputes – At all times during the term hereof, including during any Dispute, Contractor shall perform as directed by the County, and shall comply with all provisions of the Contract.
- I. Subcontractors & Suppliers – Contractor shall be responsible for the acts and omissions of its Subcontractors and Suppliers.
- J. Assistance to the County – Contractor shall provide such assistance as is reasonably requested by the County in prosecuting and defending Environmental lawsuits in any and all matters relating to the Work, which is caused by the Contractor's negligent acts/omissions. Such assistance may include providing information and reports regarding the Work, as well as executing declarations and attending meetings and hearings. In no event shall the Contractor be required to provide legal services.
- K. Cooperation – Cooperate with the County and its Authorized Representatives, in their review(s) and/or inspection(s) of any portion or phase of the Work, and other matters relating to the Work.
- L. Mitigation – Mitigate Delay in all circumstances, to the extent reasonably possible, including the re-sequencing, reallocating or redeploying of its forces to other work, as appropriate.

ARTICLE 24 AUTHORITY OF THE COUNTY'S PROJECT MANAGER

- A. The Contractor hereby acknowledges that the County's Project Manager will determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including without limitations: questions as to the value, acceptability and fitness of the Services; questions as to either party's fulfillment of its obligations under the Contract; negligence, fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal; questions as to the interpretation of the Scope of Work; and claims for damages, compensation and losses.
- B. The Contractor shall be bound by all determinations or orders and shall promptly comply with every order of the Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the Project Manager's determination or order. Where orders are given orally, they will be issued in writing by the Project Manager as soon thereafter as is practicable.
- C. The Contractor must, in the final instance, seek to resolve every difference concerning the Agreement with the Project Manager. In the event that the Contractor and the Project Manager are unable to resolve their difference, the Contractor may initiate a dispute in accordance with the procedures set forth in this article. Exhaustion of these procedures shall be a condition precedent to any lawsuit permitted hereunder.
- D. In the event of such dispute, the parties to this Agreement authorize the County Mayor or designee, who may not be the Project Manager or anyone associated with this Project, acting personally, to decide all questions arising out of, under, or in connection with, or in any way related to or on account of the Agreement (including but not limited to claims in the nature of breach of contract, fraud or misrepresentation arising either before or subsequent to execution hereof) and the decision of each with respect to matters within the County Mayor's purview as set forth above shall be conclusive, final and binding on parties. Any such dispute shall be brought, if at all, before the County Mayor within 10 days of the occurrence, event or act out of which the dispute arises.
- E. The County Mayor may base this decision on such assistance as may be desirable, including advice of experts, but in any event shall base the decision on an independent and objective determination of whether Contractor's

performance or any Deliverable meets the requirements of this Agreement and any specifications with respect thereto set forth herein. The effect of any decision shall not be impaired or waived by any negotiations or settlements or offers made in connection with the dispute, whether or not the County Mayor participated therein, or by any prior decision of others, which prior decision shall be deemed subject to review, or by any termination or cancellation of the Agreement. All such disputes shall be submitted in writing by the Contractor to the County Mayor for a decision, together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. Whenever the County Mayor is entitled to exercise discretion or judgement or to make a determination or form an opinion pursuant to the provisions of this article, such action shall be fair and impartial when exercised or taken. The County Mayor, as appropriate, shall render a decision in writing and deliver a copy of the same to the Contractor. Except as such remedies may be limited or waived elsewhere in the Agreement, Contractor reserves the right to pursue any remedies available under law after exhausting the provisions of this article.

ARTICLE 25 CONTRACTOR'S REPRESENTATIVE

Contractor shall have a Representative (or Project Manager) with full authority to represent and act for the Contractor. Prior to the County's issuance of a Notice to Proceed (NTP), Contractor shall submit (for the County's review and acceptance) the name, qualifications and experience of its proposed Contractor's Representative.

Contractor's Representative shall act for the Contractor in all matters concerning the Work, and, subject to all requirements of this Contract, shall have the following authority and obligations:

- A. Ability to so organize the Work, and the Work of its Subcontractors, to complete the Work in accordance with the Contract and the Contractor's bar chart, as accepted by DTPW.
- B. Ability to delegate defined authority to other Contractor personnel (who thus also become Contractor's Representatives, as provided in this Contract, to the extent specified), subject to written notice to, and approval by, the Project Manager.
- C. During performance of the Work, Contractor's Representative shall be present at the Worksite(s), or have its fully-empowered delegate present at the Worksite, at all times that any Work is in progress or at any time any employee or Subcontractor of the Contractor is present at the Worksite.

ARTICLE 26 ACCESS TO THE WORKSITE

- A. The County will, at all times during the term of the contract, have access to the Work at all Worksites, and all documents on which the Work is based.
- B. At any time during the term of the contract, upon reasonable notice, the County may review the documents on which the Work is based, inspect the Worksite, and review, inspect and test all Work, equipment, software, and all other materials wherever located (collectively "Inspect" or "Inspection").

ARTICLE 27 SEQUENCE OF OPERATIONS

The Contractor must propose a sequence of operations that best suits the proposed Project plan and Schedule. The proposed sequence of operations can be further enhanced if agreed by both the Contractor's Project Manager and the County Project Manager.

ARTICLE 28 ALTERNATIVE CODES AND STANDARDS

Codes and Standards not in accordance with those contained in the Contract shall not be used unless accepted by the County's Project Manager in writing. If the Contractor wishes to utilize codes or standards not specified in the Contract,

Contractor shall submit for acceptance, sufficient information for the County's Project Manager to determine Equivalency. Information shall include, but not be limited to, detailed comparison of the substitute standard/code, the rationale for Substitution, and whether it meets or exceeds the existing standard/code specified in the Contract.

ARTICLE 29 CONTRACTOR NOTICES TO THE COUNTY

All Notices to the County under this Contract shall be in writing to the County's Project Manager for the subject matter of the Notice, with a copy to the Contracting Officer. No notice shall be effective unless it was delivered to the Project Manager and to the Contracting Officer as provided in this Contract.

ARTICLE 30 CONTRACTOR'S REPRESENTATIONS, WARRANTIES AND COVENANTS

Contractor represents, warrants and covenants for the benefit of the County that:

- A. Status – If it is a corporation, limited partnership, general partnership, and/or joint venture, it is duly organized, validly existing and in good standing under the Laws of its jurisdiction of formation and has full power and authority to own and operate its business and properties and perform the Work within the State of Florida.
- B. Review of Information and Inspection of the Worksite(s) – It has, in accordance with prudent and generally accepted engineering and industry practices:
 1. Reviewed all of the information provided in the Contract (including reports provided by the County);
 2. Inspected and evaluated the Worksite(s) and surrounding locations to the extent the Contractor deems necessary or advisable for performing all portions/phases of the Work under the Contract. These inspections and evaluations include without limitation:
 - a. The character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the Worksite(s), including review of the Contract Documents provided by the County.
 - b. Conditions bearing upon transportation, disposal, handling, and storage of materials, goods, and equipment.
 - c. The availability of labor, water, electric power, and roads.
 - d. Uncertainties of weather, or physical conditions at the site.
 - e. The conformation and conditions of the ground.
 - f. The character of equipment and facilities needed preliminary to and during Work performance; and
 - g. Conditions bearing upon security and protection of material, Goods, Equipment, and Work in progress.
- C. Physical Requirements – As a result of its inspection and examination of the Worksite(s), and other related and surrounding sites and conditions, it is familiar with and accepts the physical requirements of the Work.
- D. Feasibility – As a result of its review of all the information and its inspection and examination of the Worksite(s), it has evaluated the feasibility of performing the Contract within the Contract Time and for the Total Contract Price and has reasonable grounds for believing and does believe that such performance, including achievement of Substantial Completion of the Project within the Contract Time, for the Total Contract Price is feasible and practicable.
- E. Permits and Governmental Approvals – Based upon its review of the Contract Documents, it shall be able to obtain and keep in effect throughout the Contract Time all permits and other Governmental Approvals the Contractor is obligated to obtain in accordance with the Contract.

- F. Difficulty and Cost of Work – It has estimated the difficulty and cost of successfully performing the Work, and based upon that estimate has concluded that it can successfully perform the Work at the Total Contract Price.

ARTICLE 31 STORM OR DISASTER SERVICES

- A. Contractor, by accepting the award of this Contract, recognizes and agrees that should a storm or other severe and catastrophic natural disaster affect the Miami-Dade-County area during the performance of the work, Contractor shall provide services contracted for during the contract period, at the Contract unit prices and at the same or different locations from those covered by this Contract.
- B. For emergency services and conditions not addressed by this Contract, Contractor agrees to negotiate reasonable prices and terms with the County for any disaster-relief work required by the County. In all instances, Contractor agrees to negotiate reasonable time extensions for performance of disaster-relief work.

ARTICLE 32 EMERGENCIES

In case of an Emergency or hazard to health or safety requiring immediate curative action, the County will notify Contractor, and Contractor shall immediately take such action(s) as it deems necessary, notifying the Project Manager of the action(s) taken as soon as possible but no later than one (1) working day thereafter. If Contractor does not undertake immediate curative action, the County may without prior notice undertake such action as is necessary to correct the hazard or deal with the Emergency, and the cost thereof shall be borne by the Contractor.

Cooperation and Coordination with Other Contractors and/or County Operations:

- A. The County reserves the right and may undertake or award other contracts for additional Work on or near the Worksite(s). Contractor warrants that it has carefully reviewed the Contract Documents and all other pertinent information made available by the County that relate to the nature and scheduling of other contracts that may be awarded, and to constraints related to the County operations, and in submitting its proposed/proposal and executing this Contract, has taken into account the need to coordinate its Work with that of other Contractors and/or the County Operations. It is the express obligation and duty of the Contractor under the Contract to coordinate its Work with the work of others.
- B. The following shall apply:
1. Contractor shall not have exclusive access to or use of Work areas or the Worksite(s). The County may require that Contractor use certain facilities and areas concurrently with others.
 2. The County will endeavor to advise the Contractor of the other known parties, including the County Operations.
 3. Contractor shall cooperate and communicate with any other Contractor performing Work that may connect, complement, and/or interfere with the Contractor's Work, and resolve any disputes or coordination problems with such Contractor.

ARTICLE 33 COORDINATION MEETINGS

Contractor's Project Manager or designated representative shall attend such meetings and conferences, including a pre-work meeting, arranged by the County for the purpose of coordinating the Work. Attendance to such meetings and conferences by Contractor's Project Manager or designated representative is considered a basic part of the Work, and thus Contractor shall not be entitled to any additional compensation from the County for such attendance.

ARTICLE 34 CLEAN UP

- A. Throughout all phases of contracted work, and until Final Completion of the Work, Contractor shall keep the Worksite, including storage and public areas used by Contractor, clean and free from rubbish and debris.
- B. Before completing the Work, Contractor shall remove from the Worksite any rubbish, tools, and equipment that are not the property of the County.

ARTICLE 35 DISPOSAL OF WASTE

- A. Unless otherwise specified in the Contract, Contractor shall make its own arrangements for disposing of waste and excess substances generated from Contractor’s performance of the Work at a legal disposal site outside the Worksite(s), and shall pay all associated costs and obtain necessary permits, if any.
- B. Contractor agrees to indemnify and hold harmless the County from any dumping duty, loss or expense, including, but not limited to, reasonable attorney fees which the County may incur arising from any claim or demand alleging that the sale of the apparatus covered by this contract at the price therefor stated herein violates the U.S. Antidumping Act, Title 19 U.S. Code Annotated, Section 160 et. seq.

ARTICLE 36 LAWS AND PERMITS

- A. The Contractor shall comply with all provisions of federal, state, and local laws, ordinances, rules, regulations and orders which would affect the Work as if it were being performed for a private corporation, except where different requirements are specifically set forth in the Contract.
- B. If the Work requires the Contractor to open, alter, remove, damage or otherwise affect property owned by a federal, state, or local government, the Contractor shall obtain in its own name any permit or license required to allow such property to be so affected. However, the Contractor shall not apply for any permit or license in the name of, or on behalf of, the County or take any other actions which would subject the County to any laws, ordinances, rules, regulations and orders from which it is exempt.

ARTICLE 37 NOTICE OF DISCOVERY OF DIFFERING SITE CONDITIONS

Contractor shall, before any of the existing conditions are disturbed, provide immediate oral and/or electronic mail notice of the discovery of such conditions to the County’s Authorized Representative, followed by written notice to the County’s Project Manager of the discovery within forty-eight (48) hours thereafter, of any of the following subsurface conditions:

- A. Type 1 Condition: Subsurface or latent physical conditions at the Worksite differing materially from those indicated in the Contract;
- B. Type 2 Condition: Unknown physical conditions at the Worksite of any unusual nature that differ materially from those ordinarily encountered in and generally recognized as inherent in Work of the character provided for in the Contract.
- C. Type 3 Condition: Substances that Contractor believes may be Hazardous Substances that are required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of Law.

If Contractor encounters substances or conditions during performance of the Work that it reasonably believes to be a Type 1 Condition or Type 2 Condition, Contractor shall not disturb the condition or interfere with the County’s right or ability to investigate, but may continue Work in the area. The Contractor shall document and submit such conditions in

a written field report (including photographs) within five (5) Days of the initial notice to the County, and include a recommendation how to safely proceed with Work at the area.

If Contractor encounters substances during performance of the Work that it reasonably believes to be a Hazardous Substance, a Type 3 Condition, Contractor shall not disturb the condition and shall suspend Work in the immediate area of the suspected Hazardous Substances until the County authorizes it to resume. The Contractor shall document and submit such conditions in a written field report (including photographs) within five (5) Days of the initial notice to the County, and include a recommendation how to safely proceed Work at the area.

The County will promptly investigate the conditions, and if it finds the conditions do materially differ, or do involve previously unknown Hazardous Substances. The County may make an adjustment in Contract Time and/or Total Contract Price as agreed upon.

ARTICLE 38 CLAIMS REGARDING DIFFERING SITE CONDITIONS

Contractor shall not be entitled to any remedy for an asserted Differing Site Condition if it does not give the County both:

1. Timely notice of the asserted Differing Site Condition, as required in accordance with Article 37 above; and
2. Submit a written field report (including photographs) within five (5) Days of the initial notice to the County as required in Article 37 of this document; and
3. An opportunity to investigate prior to the asserted Differing Site Condition being disturbed.

ARTICLE 39 PROCEED WITH WORK

If a Dispute arises related to a claim of a Differing Site Condition, Contractor shall proceed with all Work to be performed under the Contract and shall not be excused from any provision of the Contract, including without limitation, the Scheduled Completion Date.

ARTICLE 40 EXTRA WORK

- A. The County reserves the right to order changes which may result in additions to or reductions from the amount, type or value of the Work shown in the Contract and which are within the general scope of the Contract in accordance with this article. Any such changes which result in additions to the Work will be known as "Extra Work."
- B. No Extra Work shall be performed except pursuant to a written Change Order issued by the Contract Manager expressly authorizing the performance of such Work and explicitly declaring the intention of the County to treat the Work described therein as Extra Work. In the absence of such a Change Order, if the County Project Manager shall direct, order or require any work, whether orally or in writing, which the Contractor deems to be Extra Work, the Contractor shall nevertheless comply therewith, but shall within five (5) days of the County Project Manager's order or directive give written notice to the County Project Manager stating why the Contractor deems it to be Extra Work. Such notice is required to afford an opportunity to the County to (1) cancel promptly such order, direction or requirement; (2) keep an accurate record of the materials, labor and other items involved; and (3) take such action as may be deemed advisable in light of the Contractor's claim. The failure of the Contractor to give written notice within the time limit stated therefor shall be deemed a conclusive and binding acceptance on the Contractor's part that the direction, order or requirement of the County Project Manager does not involve the performance of Extra Work.
- C. Within thirty (30) days of the Contractor's submission of written notice that an order, direction or requirement of the County Project Manager is deemed by the Contractor to involve Extra Work, the Contractor and each

Subcontractor shall submit in a form satisfactory to the County a detailed proposal ("Change Order Proposal")(including the elements of cost identified in Article 41, Change Order Basis For Payment, Paragraphs A. and B) of the Agreement, which shall include adjustments to the Contract price, to the extent permitted under Article 41 to the delivery schedule, or to any other provisions of the Contract necessary to accomplish the Extra Work. Upon written request of the Contractor, within the thirty (30) day period set forth above, for good cause shown, the Contract Manager may grant the Contractor additional time in which to submit a Change Order Proposal. The failure of the Contractor to submit a detailed proposal within the time limit stated therefor, or within such additional time as is granted by the Contract Manager at its sole discretion, shall be deemed a waiver of any claim for compensation that the Contractor may have with respect to the claimed Extra Work.

- D. The provisions of the Contract relating to the Work and its performance shall apply without exception to Extra Work and the performance thereof, except as otherwise provided in a written Change Order between the Contractor and the County.
- E. The Contractor must utilize the most recent schedule required by the Contract to establish the price and schedule modifications. Contractor's Change Order Proposal must include a schedule subnet and an explanation of the cost and schedule impact of the claimed Extra Work on the Contract. The Contractor must demonstrate clearly how it proposes to incorporate the Extra Work into the schedule. If Contractor fails to notify the County Project Manager of the schedule changes associated with a Change Order Proposal by submitting a revised schedule, it will be deemed to be an acknowledgment by Contractor that the proposed Extra Work will not have any scheduling consequences.

ARTICLE 41 CHANGE ORDER BASIS FOR PAYMENT

- A. If Extra Work requires the provision of items of Work or material of the same type as those for which unit prices identified in the article titled "Method and Times of Payment", compensation for such Extra Work shall be computed on the basis of the unit price in that article for such items.
- B. If Extra Work requires the provision of items of Work or material for which compensation cannot be computed on the basis of unit prices identified in the article titled "Method and Times of Payment" and the scope and extent of the Extra Work can be determined before the Extra Work is performed, the County will perform a cost analysis of the Contractor's proposal and negotiate a lump sum amount with the Contractor as compensation for such Work. The County Project Manager may in such case request the Contractor to proceed with the Extra Work pending performance of the cost analysis and negotiation of the amount of compensation for such Extra Work. The Contractor shall honor such request so long as it deems the financial risk of doing so to be viable.

ARTICLE 42 WORK PERFORMED WITHOUT INSPECTION

- A. At all times before Final Acceptance at each intersection, Contractor shall remove or uncover such portions of the finished contracted Work as directed by the County. After examination by the County, Contractor shall restore the Work to the standard required by the Contract Documents. If the Work exposed or examined is not in conformance with the requirements of the Contract Documents, then uncovering, removing and restoring the Work, and recovery of any delay to any Critical Path occasioned thereby, shall be at Contractor's cost, and Contractor shall not be entitled to any time extension.
- B. Any Work done or materials used without adequate notice to and opportunity for prior inspection by the County, may be ordered uncovered, removed or restored at Contractor's cost and without a time extension, even if the Work proves acceptable after uncovering.
- C. If Work exposed or examined under this article is in conformance with the requirements of the Contract Documents, then any delay in any Critical Path from uncovering, removing and restoring Work shall be considered a delay

caused by the County, and Contractor shall be entitled to a Change Order for the cost of such efforts and recovery of any delay to the schedule occasioned thereby.

ARTICLE 43 SUBSTANTIAL COMPLETION

- A. The Work shall be deemed Substantially Complete when, in the opinion of the County Project Manager, there are no material and substantial variations from the Contract and the Work is fit for its intended purpose. Upon Substantial Completion the County Project Manager shall issue a Letter/Certificate of Substantial Completion. The issuance of this Letter/Certificate shall not relieve the Contractor from its obligation hereunder to complete the Work. Substantial Completion must be achieved sixty (60) days prior to Final Completion.
- B. When the Contractor is of the opinion that the Work is Substantially Complete, Contractor may submit to the County Project Manager a written request that the County Project Manager inspect the Work so as to determine whether Substantial Completion has been achieved. Upon such request, the County must respond within twenty-five (25) days of its receipt with either (i) a Letter/Certificate of Substantial Completion or (ii) an explanation of the reasons why the Work is not Substantially Complete, including a list of open items necessary to achieve Substantial Completion. Nothing in this article precludes the County Project Manager from making a determination of Substantial Completion in the absence of a request therefor by the Contractor.
- C. If the County, having substantiated cause, elects not to take possession of the Work upon Substantial Completion, the Risk of Loss remains on the Contractor until the County takes possession of the Work.
- D. The Work remaining after Substantial Completion shall be known as "Punchlist Work." The Punchlist Work shall be limited to minor omissions and defects except the County Project Manager may in his sole discretion, include Work which cannot be done until the County or third persons perform other work which is not the Contractor's responsibility under the Contract. The County Project Manager shall issue a Punchlist with the Letter/Certificate of Substantial Completion.
- E. Upon Substantial Completion, the Contractor shall remove its tools, materials and equipment from the Work Site, except for the tools, materials and equipment needed to complete the Punchlist Work, or unless otherwise authorized in writing by the County Project Manager.

ARTICLE 44 FINAL COMPLETION

- A. Within ten (10) Days after the Contractor determines that all Work as required in the Contract, is fully completed, and all required submissions and deliveries to the County specified in the Contract have been made, Contractor shall give the County Project Manager a written Request for Final Completion specifying that the Work is completed, the date on which it was completed and stating:
 - 1. All of the Contractor's and Subcontractors' personnel, supplies, equipment, waste materials, rubbish and temporary facilities have been removed from the Worksite;
 - 2. Contractor has complied with all requirements associated with closeout of the Contract; and
 - 3. Contractor has delivered to the County Project Manager a Notice of Completion for the Work in recordable form.
- B. The County Project Manager shall advise the Contractor of the time reasonably required to complete all the Punchlist Work. The time set by the County Project Manager to complete Punchlist Work shall be no more than sixty (60) days from the issuance of the Letter/Certificate of Substantial Completion. When in the opinion of the County Project Manager the Punchlist Work is properly completed, the County Project Manager shall issue a Letter/Certificate of Final Completion.

- C. In the event of an emergency or if the Contractor fails to diligently perform the Punchlist Work, the County may complete the Punchlist Work, either by its own forces or by other Contractors. The County's costs thereof will be deducted from the payment due to the Contractor, except that if the County completes the Punchlist Work because of an emergency, then the amount deducted from the payment shall be based on the Contractor's costs for completing the Punchlist Work. If such costs exceed the amount due the Contractor, the Contractor shall immediately upon demand pay such excess to the County.
- D. Acceptance of all Work by the County shall occur when in the opinion of the County Project Manager, the Work is complete in all respects including any outstanding items contained in the Punchlist provided with the Letter/Certificate of Substantial Completion. Upon Acceptance the Contractor shall be given a Letter/Certificate of Final Completion.

ARTICLE 45 INCENTIVE FOR EARLY COMPLETION

- A. The County will pay the Contractor a "No Excuse Bonus" in the amount of \$300,000.00, if Architectural LED Lighting at the Stephen P. Clark Center (SPCC Work) is accepted as complete, in accordance with Paragraph 14 of the Scope of Work (Attachment A), as determined by the County Project Manager, on or before August 1, 2022 ("No Excuse Bonus" Completion Date) and subject to the conditions precedent set forth below. For purposes of the calculation and the determination of entitlement to the "No Excuse Bonus" stated above, the "No Excuse Bonus" Completion Date will not be adjusted for any reason, cause or circumstance whatsoever, regardless of fault, save and except in the instance of a catastrophic event (i.e., hurricane or a declared state of emergency).
- B. The parties anticipate that delays may be caused by or arise from any number of events during the course of the Contract and the SPCC Work, including, but not limited to, work performed, work deleted, change orders, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right of way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, suspensions of Contractor's operations, or other such events, forces or factors sometimes experienced in execution of the Work. Such delays or events and their potential impacts on performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not extend the "No Excuse Bonus" Completion Date set forth above. Further, any and all costs or impacts whatsoever incurred by the Contractor in accelerating the Contractor's work to overcome or absorb such delays or events in an effort to complete the SPCC Work by the "No Excuse Bonus" Completion Date, regardless of whether the Contractor successfully does so or not, shall be the sole responsibility of the Contractor in every instance.
- C. In the event of a catastrophic event (i.e., hurricane or a declared state of emergency) directly and substantially affecting the Contractor's operations on the SPCC Work, the Contractor and the County shall agree as to the number of calendar days to extend the "No Excuse Bonus" Completion Date. In the event the Contractor and the County are unable to agree to the number of calendar days to extend the "No Excuse Bonus" Completion Date, the County shall unilaterally determine the number of calendar days to extend the "No Excuse Bonus" Completion Date reasonably necessary and due solely to such catastrophic event and the Contractor shall have no right whatsoever to contest such determination, save and except that the Contractor establishes that the number of calendar days determined by the County were arbitrary or without any reasonable basis. The Contractor shall have no rights under the Contract to make any claim arising out of this "No Excuse Bonus" provision except as is expressly set forth in this contract provision.

- D. As conditions precedent to the Contractor's entitlement to any "No Excuse Bonus" the Contractor must:
1. Actually complete the SPCC Work and obtain final acceptance by the County, as determined by the County Project Manager.
 2. The Contractor shall notify the County in writing, within 30 days of the final acceptance of the SPCC Work by the County, that the Contractor elects to be paid the "No Excuse Bonus", which the Contractor is eligible to be paid based on the actual final acceptance date, and such written notice shall constitute a full and complete waiver, release and acknowledgment of satisfaction by the Contractor of any and all claims, causes of action, issues, demands, disputes, matters or controversies, of any nature or kind whatsoever, known or unknown, against the County, its employees, officers, agents, representatives, consultants, and their respective employees, officers and representatives, the Contractor has or may have as to work performed, work deleted, change orders, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right of way issues, permitting issues, actions of suppliers or subcontractors or other Contractors, actions by third parties, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, suspensions of Contractor's operations, extended or unabsorbed home office or job site overhead, lump sum maintenance of traffic adjustments, lost profits, prime mark-up on subcontractor work, acceleration costs, any and all direct and indirect costs, any other adverse impacts, events, conditions, circumstances or potential damages, on or pertaining to, or as to or arising out of the Contract. This waiver, release and acknowledgment of satisfaction shall be all-inclusive and absolute, save and except any routine Department final estimating quantity adjustments.
- E. Should the Contractor fail to actually complete the SPCC Work and obtain final acceptance by the County as determined by the County Project Manager, on or before the "No Excuse Bonus" Completion Date, or should the Contractor, having done so, fail to timely request the "No Excuse Bonus" for any reason, and including but not limited to the Contractor choosing not to fully waive, release and acknowledge satisfaction as set forth in (2) above, the Contractor shall have no right to any payment whatsoever under this contract provision.
- F. In the event the Contractor elects to exercise the "No Excuse Bonus Payment" provision, should this provision conflict with any other provision of the Contract, the Contract shall be interpreted, in accordance with this provision.

ARTICLE 46 RESPONSIBILITY FOR MAINTENANCE, LOSS AND DAMAGE

- A. Upon the County's Final Acceptance of each intersection, consisting of the controller and applicable vehicle detections systems, the County will be responsible for the operation and maintenance of installed equipment. It is the Contractor's responsibility to maintain each intersection prior to the Final Acceptance. The County is responsible for the operation and maintenance of intersections after Final Acceptance, based on the installation plan.
- B. Upon the County Project Manager's issuance of a Letter/Certificate of Final Completion, the County, shall be responsible for the maintenance, loss, or damage to the Work or any element thereof, except as follows:
1. The County Project Manager's issuance of a Letter/Certificate of Final Completion will not relieve the Contractor of its obligations to complete the Work or any element thereof, the non-completion of which was not disclosed to the County (regardless of whether such nondisclosures were fraudulent, negligent, or otherwise); or
 2. The Contractor's action, negligence or breach of the Contract or the warranty causes loss or damage to the Work or any element thereof.

ARTICLE 47 RESPONSIBILITY TO COMPLETE THE WORK

Notwithstanding any other provision of this Contract that could be interpreted to the contrary (including in Contract Documents of higher precedence), it shall be the Contractor's continuing responsibility to complete and deliver every element, and the integrated whole, of the Work in accordance with all of the requirements of the Contract. The issuance of a Letter/Certificate of Substantial Completion by the County Project Manager for any element, or for the whole of the Work, shall not be construed to relieve the Contractor of this responsibility, or any part thereof. If, after the issuance of a Letter/Certificate of Substantial Completion, the County discovers any Deficiency, or item not completed or otherwise requiring correction or remedial action, whether or not the item appears on any Punch List or other list of clean up items, the Contractor shall correct the Deficiency, complete the item or otherwise remedy the condition to bring it in to full compliance with the Contract.

ARTICLE 48 WARRANTY

- A. Contractor warrants that the Work shall be free of defects in design, material, and workmanship, and shall be fit for use for the intended function, remain in good working order, and shall meet all of the requirements of the Contract.
- B. Without in any way limiting Contractor's Warranties with respect to the Work, Contractor shall obtain from all Subcontractors, manufacturers and Suppliers, and assign and deliver to the County all Warranties, including extended Warranties, if applicable, provided by such Subcontractors, manufacturers and Suppliers and from all other persons extending Warranties.
- C. All such Warranties shall: a) Survive Substantial Completion, and all the County and Contractor inspections, tests and acceptances, and b) Shall run directly to and be enforceable by the Contractor and the County.
- D. Upon receipt from the County of notice of a failure of any of the Work to satisfy any Subcontractor or Supplier Warranty or other obligation, Contractor shall enforce or perform any such Warranty or other obligation as a part of Contractor's other Warranty obligations hereunder. The County's rights under this article shall continue until the expiration of the later of the Contractor's Warranty (including extensions for rework) or Subcontractor's or Supplier's Warranty or extended warranty. Until such expiration, the cost of any Work (including re-engineering, if applicable) or Equipment (including taxes and shipping) shall be at the sole cost and expense of the Contractor.
- E. The Contractor's overall product solution will be covered by a warranty or maintenance agreement during the fifteen (15) year contract term.

ARTICLE 49 COMMENCEMENT AND DURATION

Warranties shall commence upon the County Project Manager's issuance of a Letter/Certificate of Final Completion ("Warranty Commencement Date") and shall remain in effect until one (1) year after the Warranty Commencement Date or such longer period as may be specified in the Contract ("Warranty Period"). Subcontractor's, manufacturers or Supplier's Warranty Periods shall be for the longer of the above stated Warranty Period or the Warranty Period specified in the particular Warranty.

ARTICLE 50 WARRANTY CLAIMS

If the County determines that any of the Work contains a defect any time within the Warranty Period, the County will claim and Contractor shall correct, repair or replace such Work at its sole expense. Contractor shall respond to the County's Warranty claim within one (1) working day and shall repair the Deficiency within five (5) Days thereafter. If the Deficiency cannot be repaired within said five (5) Days, Contractor, within that five (5) Days, shall submit a schedule for completion of repairs, subject to the acceptance of the County Project Manager, and shall diligently proceed to

complete the repairs within the approved schedule. If any defect affects operation of the Work, or any essential element thereof, the County may, in its sole discretion, require Contractor to complete repairs in less than five (5) Days.

ARTICLE 51 WARRANTY ON CORRECTED DEFICIENCIES

Contractor's Warranty shall continue, as to each corrected Deficiency, until the later of:

- A. The remainder of the Warranty Period; or
- B. One (1) year after Acceptance by the County of any corrected Work.

ARTICLE 52 THE COUNTY RIGHT TO CORRECT DEFICIENCIES

If Contractor fails to remedy Deficiencies or otherwise comply with this Warranty or any other Warranty in this Contract, or fails to propose a timely and adequate remedy, the County, after notice to Contractor, may perform or have performed by Third Parties the necessary remedy, and the costs thereof shall be borne by Contractor.

ARTICLE 53 ACCEPTANCE OF NON-CONFORMING WORK

If the County Project Manager accepts any nonconforming Work without requiring it to be fully corrected, Contractor shall reimburse the County a portion of the Total Contract Price in an amount equal to the greater of:

- A. The difference in the value of the Work, plus the present value of additional operating costs, if any, caused by such nonconforming Work; or
- B. Contractor's cost savings in not correcting the Work. In either case above, Contractor shall, in addition, reimburse the County's costs to make the determination, including but not limited to staff costs, experts, tests and other actions necessary to make a determination. Such reimbursements shall be payable to the County within ten (10) Days after the Contractor's receipt of the County's demand for payment.

ARTICLE 54 OTHER REMEDIES

The Warranties herein are in addition to all rights and remedies available under the Contract or applicable Law, and shall not limit Contractor's liability or responsibility imposed by the Contract or applicable Law with respect to the Work, including liability for design defects, latent defects, strict liability, negligence or fraud. To the extent that any Warranty from any person other than the Contractor would be voided in whole or part by reason of any act or omission of the Contractor, Contractor shall be fully liable to the extent of said Warranty.

ARTICLE 55 SPARE PARTS

The County's spare parts, if ordered, shall not be used to repair warrantable failures and defects. The security, control, shipping, and disposition of Contractor owned parts shall be the responsibility of Contractor. Damage to the County's property caused by the Contractor shall be the sole responsibility of the Contractor and shall be corrected at Contractor's expense.

ARTICLE 56 REPAIR AND REPLACEMENT

Unless otherwise provided, Contractor shall repair or replace all Existing Improvements damaged or removed by Contractor. Repairs and replacements shall be at least equal to Existing Improvements and shall match them in finish and dimension.

ARTICLE 57 MANUALS

- A. The Contractor shall prepare manuals for all equipment, systems, materials and finishes furnished as part of the Work. Operating and maintenance instruction manuals, and renewal parts list manuals, including all manufacturer's data, bound in fiberboard covers, shall be prepared for Contractor-supplied apparatus and forwarded as soon as possible, but in no event delivered later than ninety (90) days before project completion. A draft copy of the entire manual shall be sent to the County Project Manager for review and approval at least thirty (30) calendar days prior to delivery.
- B. Failure to submit such manuals within the time prescribed may result in the delay of progress payment for such equipment, system, material or finish. The instruction manuals shall provide an overall description of the item or system being furnished (complete with reduced size drawings), including its operating theory or principals, a detailed description of each sub-item or subsystem any required assembly instructions, detailed start up, operating, trouble shooting, and maintenance procedures. The renewal parts list manuals shall fully identify all parts of the apparatus furnished by the Contractor, whether manufactured or purchased by him. The renewal parts shall be identified not only with part numbers assigned by the Contractor but also with the identification or part number assigned by the original equipment manufacturer of each purchased part.
- C. All manuals furnished shall be non-proprietary or shall be licensed for the County use by copyright owners. When copyrighted material is used, source credit shall be provided by footnote.

ARTICLE 58 MUTUAL OBLIGATIONS

- A. This Agreement, including attachments and appendices to the Agreement, shall constitute the entire Agreement between the parties with respect hereto and supersedes all previous communications and representations or agreements, whether written or oral, with respect to the subject matter hereto unless acknowledged in writing by the duly authorized representatives of both parties.
- B. Nothing in this Agreement shall be construed for the benefit, intended or otherwise, of any third party that is not a parent or subsidiary of a party or otherwise related (by virtue of ownership control or statutory control) to a party.
- C. In those situations where this Agreement imposes an indemnity obligation on the Contractor, the County may, at its expense, elect to participate in the defense if the County should so choose. Furthermore, the County may at its own expense defend or settle any such claims if the Contractor fails to diligently defend such claims, and thereafter seek indemnity for costs from the Contractor.

ARTICLE 59 QUALITY ASSURANCE/QUALITY ASSURANCE RECORD KEEPING

The Contractor shall maintain, and shall require that its subcontractors and suppliers maintain, complete and accurate records to substantiate compliance with the requirements set forth in the Scope of Work. The Contractor and its subcontractors and suppliers shall retain such records, and all other documents relevant to the Services furnished under this Agreement for a period of three (3) years from the expiration date of this Agreement and any extension thereof.

ARTICLE 60 AUDITS

- A. The County, or its duly authorized representatives and governmental agencies, shall until the expiration of three (3) years after the expiration of this Agreement and any extension thereof, have access to and the right to examine and reproduce any of the Contractor's books, documents, papers and records and of its subcontractors and suppliers which apply to all matters of the County. Such records shall subsequently conform to Generally Accepted Accounting Principles requirements, as applicable, and shall only address those transactions related to this Agreement.

- B. Pursuant to Section 2-481 of the Code of Miami-Dade County, the Contractor will grant access to the Commission Auditor to all financial and performance related records, property, and equipment purchased in whole or in part with government funds. The Contractor agrees to maintain an accounting system that provides accounting records that are supported with adequate documentation, and adequate procedures for determining the allowability and allocability of costs.

ARTICLE 61 SUBSTITUTION OF PERSONNEL

In the event the Contractor wishes to substitute personnel for the key personnel identified by the Contractor's Proposal, the Contractor must notify the County in writing and request written approval for the substitution at least ten (10) business days prior to effecting such substitution.

ARTICLE 62 CONSENT OF THE COUNTY REQUIRED FOR ASSIGNMENT

The Contractor shall not assign, transfer, convey or otherwise dispose of this Agreement, including its rights, title or interest in or to the same or any part thereof without the prior written consent of the County.

ARTICLE 63 SUBCONTRACTUAL RELATIONS

- A. If the Contractor will cause any part of this Agreement to be performed by a Subcontractor, the provisions of this Contract will apply to such Subcontractor and its officers, agents and employees in all respects as if it and they were employees of the Contractor; and the Contractor will not be in any manner thereby discharged from its obligations and liabilities hereunder, but will be liable hereunder for all acts and negligence of the Subcontractor, its officers, agents, and employees, as if they were employees of the Contractor. The services performed by the Subcontractor will be subject to the provisions hereof as if performed directly by the Contractor.
- B. The Contractor, before making any subcontract for any portion of the services, will state in writing to the County the name of the proposed Subcontractor, the portion of the Services which the Subcontractor is to do, the place of business of such Subcontractor, and such other information as the County may require. The County will have the right to require the Contractor not to award any subcontract to a person, firm or corporation disapproved by the County.
- C. Before entering into any subcontract hereunder, the Contractor will inform the Subcontractor fully and completely of all provisions and requirements of this Agreement relating either directly or indirectly to the Services to be performed. Such Services performed by such Subcontractor will strictly comply with the requirements of this Contract.
- D. In order to qualify as a Subcontractor satisfactory to the County, in addition to the other requirements herein provided, the Subcontractor must be prepared to prove to the satisfaction of the County that it has the necessary facilities, skill and experience, and ample financial resources to perform the Services in a satisfactory manner. To be considered skilled and experienced, the Subcontractor must show to the satisfaction of the County that it has satisfactorily performed services of the same general type which is required to be performed under this Agreement.
- E. The County shall have the right to withdraw its consent to a subcontract if it appears to the County that the subcontract will delay, prevent, or otherwise impair the performance of the Contractor's obligations under this Agreement. All Subcontractors are required to protect the confidentiality of the County's and County's proprietary and confidential information. Contractor shall furnish to the County copies of all subcontracts between Contractor and Subcontractors and suppliers hereunder. Within each such subcontract, there shall be a clause for the benefit of the County in the event the County finds the Contractor in breach of this Contract, permitting the County to request completion by the Subcontractor of its performance obligations under the subcontract. The clause shall include an option for the County to pay the Subcontractor directly for the performance by such Subcontractor. Notwithstanding, the foregoing shall neither convey nor imply any obligation or liability on the part of the County to any subcontractor hereunder as more fully described herein.

ARTICLE 64 ASSUMPTION, PARAMETERS, PROJECTIONS, ESTIMATES AND EXPLANATIONS

The Contractor understands and agrees that any assumptions, parameters, projections, estimates and explanations presented by the County were provided to the Contractor for evaluation purposes only. However, since these assumptions, parameters, projections, estimates and explanations represent predictions of future events the County makes no representations or guarantees; and the County shall not be responsible for the accuracy of the assumptions presented; and the County shall not be responsible for conclusions to be drawn therefrom; and any assumptions, parameters, projections, estimates and explanations shall not form the basis of any claim by the Contractor. The Contractor accepts all risk associated with using this information.

ARTICLE 65 SEVERABILITY

If this Agreement contains any provision found to be unlawful, the same shall be deemed to be of no effect and shall be deemed stricken from this Agreement without affecting the binding force of this Agreement as it shall remain after omitting such provision.

ARTICLE 66 TERMINATION AND SUSPENSION OF WORK

- A. The County may terminate this Agreement if an individual or corporation or other entity attempts to meet its contractual obligation with the County through fraud, misrepresentation or material misstatement.
- B. The County may, as a further sanction, terminate or cancel any other contract(s) that such individual or corporation or other entity has with the County and that such individual, corporation or other entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees.
- C. The foregoing notwithstanding, any individual, corporation or other entity which attempts to meet its contractual obligations with the County through fraud, misrepresentation or material misstatement may be debarred from County contracting for up to five (5) years in accordance with the County debarment procedures. The Contractor may be subject to debarment for failure to perform and all other reasons set forth in Section 10-38 of the Code of Miami-Dade County.
- D. In addition to cancellation or termination as otherwise provided in this Agreement, the County may at any time, in its sole discretion, with or without cause, terminate this Agreement by written notice to the Contractor.
- E. In the event that the County exercises its right to terminate this Agreement, the Contractor shall, upon receipt of such notice, unless otherwise directed by the County:
 1. stop work on the date specified in the notice ("the Effective Termination Date");
 2. take such action as may be necessary for the protection and preservation of the County's materials and property;
 3. cancel orders;
 4. assign to the County and deliver to any location designated by the County any non-cancelable orders for Deliverables that are not capable of use except in the performance of this Agreement and has been specifically developed for the sole purpose of this Agreement and not incorporated in the Services;
 5. take no action which will increase the amounts payable by the County under this Agreement; and
- F. In the event that the County exercises its right to terminate this Agreement, the Contractor will be compensated as stated in the payment articles herein for the:

1. portion of the Services completed in accordance with the Agreement up to the Effective Termination Date; and
 2. non-cancelable Deliverables that are not capable of use except in the performance of this Agreement and has been specifically developed for the sole purpose of this Agreement, but not incorporated in the Services.
- G. All compensation pursuant to this article are subject to audit.

ARTICLE 67 EVENT OF DEFAULT

- A. An Event of Default shall mean a breach of this Agreement by the Contractor. Without limiting the generality of the foregoing, and in addition to those instances referred to herein as a breach, an Event of Default shall include the following:
1. the Contractor has not delivered Deliverables on a timely basis;
 2. the Contractor has refused or failed to supply enough properly skilled staff personnel;
 3. the Contractor has failed to make prompt payment to subcontractors or suppliers for any Services;
 4. the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received for the benefit of the Contractor's creditors, or the Contractor has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's affairs have been put in the hands of a receiver;
 5. the Contractor has failed to obtain the approval of the County where required by this Agreement;
 6. the Contractor has failed to provide "adequate assurances" as required under subsection b below;
 7. the Contractor has failed in the representation of any warranties stated herein.
- B. When, in the opinion of the County, reasonable grounds for uncertainty exist with respect to the Contractor's ability to perform the Services or any portion thereof, the County may request that the Contractor, within the timeframe set forth in the County's request, provide adequate assurances to the County, in writing, of the Contractor's ability to perform in accordance with the terms of this Agreement. Until the County receives such assurances, the County may request an adjustment to the compensation received by the Contractor for portions of the Services which the Contractor has not performed. In the event that the Contractor fails to provide to the County the requested assurances within the prescribed timeframe, the County may:
1. treat such failure as a repudiation of this Agreement; and
 2. resort to any remedy for breach provided herein or at law, including but not limited to, taking over the performance of the Services or any part thereof either by itself or through others.
- C. In the event the County shall terminate this Agreement for default, the County or its designated representatives may immediately take possession of all applicable equipment, materials, products, documentation, reports and data.

ARTICLE 68 NOTICE OF DEFAULT - OPPORTUNITY TO CURE

If an Event of Default occurs in the determination of the County, the County may so notify the Contractor ("Default Notice"), specifying the basis for such default, and advising the Contractor that such default must be cured immediately, or this Agreement with the County may be terminated. Notwithstanding, the County may, in its sole discretion, allow the Contractor to rectify the default to the County's reasonable satisfaction within a thirty (30) day period. The County

may grant an additional period of such duration as the County shall deem appropriate without waiver of any of the County's rights hereunder, so long as the Contractor has commenced curing such default and is effectuating a cure with diligence and continuity during such thirty (30) day period or any other period which the County prescribes. The default notice shall specify the date the Contractor shall discontinue the Services upon the Termination Date.

A. Contractor Transfer Notice

Upon the occurrence of a Contractor Event of Default, the County shall notify the Contractor as to whether any person to whom the Contractor proposes to transfer the Contractor's rights and liabilities under the Project Agreement is a suitable substitute contractor, not less than 45 Days after the date of receipt from the Contractor of all information reasonably required by the County to decide whether the proposed transferee is a suitable substitute contractor. In the event the County does not approve such person, such notice shall set forth in reasonable detail the reasons for withholding approval.

B. Withholding of Consent

The County shall not unreasonably withhold, condition, or delay its decision on whether the proposed transferee is a suitable substitute contractor, and it shall, without limitation, be reasonable for the County to withhold its consent if there are unremedied breaches under the Project Agreement and there is no remedial program reasonably acceptable to the County in respect of the breaches.

ARTICLE 69 REMEDIES IN THE EVENT OF DEFAULT

If an Event of Default occurs, the Contractor shall be liable for all damages resulting from the default, including but not limited to:

1. lost revenue from associated County's applicable share revenue
2. the difference between the cost associated with procuring Services hereunder and the amount actually expended by the County for re-procurement of Services, including procurement and administrative costs; and
3. such other direct damages.

The Contractor shall also remain liable for any liabilities and claims related to the Contractor's default. The County may also bring any suit or proceeding for specific performance or for an injunction.

ARTICLE 70 PATENT AND COPYRIGHT INDEMNIFICATION

- A. The Contractor shall not infringe on any copyrights, trademarks, service marks, trade secrets, patent rights, other intellectual property rights or any other third-party proprietary rights in the performance of the Work.
- B. The Contractor warrants that all Deliverables furnished hereunder, including but not limited to: equipment, programs, documentation, software, analyses, applications, methods, ways, processes, and the like, do not infringe upon or violate any copyrights, trademarks, service marks, trade secrets, patent rights, other intellectual property rights or any other third party proprietary rights.
- C. The Contractor shall be liable and responsible for any and all claims made against the County for infringement of patents, copyrights, service marks, trade secrets or any other third party proprietary rights, by the use or supplying of any programs, documentation, software, analyses, applications, methods, ways, processes, and the like, in the course of performance or completion of, or in any way connected with, the Work, or the County's continued use of the Deliverables furnished hereunder. Accordingly, the Contractor at its own expense, including the payment of attorney's fees, shall indemnify, and hold harmless the County and defend any action brought against the County with respect to any claim, demand, cause of action, debt, or liability.
- D. In the event any Deliverable or anything provided to the County hereunder, or portion thereof is held to constitute

an infringement and its use is or may be enjoined, the Contractor shall have the obligation to, at the County's option to (i) modify, or require that the applicable subcontractor or supplier modify, the alleged infringing item(s) at its own expense, without impairing in any respect the functionality or performance of the item(s), or (ii) procure for the County, at the Contractor's expense, the rights provided under this Agreement to use the item(s).

- E. The Contractor shall be solely responsible for determining and informing the County whether a prospective supplier or subcontractor is a party to any litigation involving patent or copyright infringement, service mark, trademark, violation, or proprietary rights claims or is subject to any injunction which may prohibit it from providing any Deliverable hereunder. The Contractor shall enter into agreements with all suppliers and subcontractors at the Contractor's own risk. The County may reject any Deliverable that it believes to be the subject of any such litigation or injunction, or if, in the County's judgment, use thereof would delay the Work or be unlawful.

ARTICLE 71 CONFIDENTIALITY

- A. All Developed Works and other materials, data, transactions of all forms, financial information, documentation, inventions, designs and methods obtained from the County in connection with the Services performed under this Agreement, made or developed by the Contractor or its subcontractors in the course of the performance of such Services, or the results of such Services, or which the County holds the proprietary rights, constitute Confidential Information and may not, without the prior written consent of the County, be used by the Contractor or its employees, agents, subcontractors or suppliers for any purpose other than for the benefit of the County, unless required by law. In addition to the foregoing, all County employee information and County financial information shall be considered Confidential Information and shall be subject to all the requirements stated herein. Neither the Contractor nor its employees, agents, subcontractors or suppliers may sell, transfer, publish, disclose, display, license or otherwise make available to others any part of such Confidential Information without the prior written consent of the County. Additionally, the Contractor expressly agrees to be bound by and to defend, indemnify and hold harmless the County, and their officers and employees from the breach of any federal, state or local law in regard to the privacy of individuals.
- B. The Contractor shall advise each of its employees, agents, subcontractors and suppliers who may be exposed to such Confidential Information of their obligation to keep such information confidential and shall promptly advise the County in writing if it learns of any unauthorized use or disclosure of the Confidential Information by any of its employees or agents, or subcontractor's or supplier's employees, present or former. In addition, the Contractor agrees to cooperate fully and provide any assistance necessary to ensure the confidentiality of the Confidential Information.
- C. It is understood and agreed that in the event of a breach of this article damages may not be an adequate remedy and the County shall be entitled to injunctive relief to restrain any such breach or threatened breach. Unless otherwise requested by the County, upon the completion of the Services performed hereunder, the Contractor shall immediately turn over to the County all such Confidential Information existing in tangible form, and no copies thereof shall be retained by the Contractor or its employees, agents, subcontractors or suppliers without the prior written consent of the County. A certificate evidencing compliance with this provision and signed by an officer of the Contractor shall accompany such materials.

ARTICLE 72 PROPRIETARY INFORMATION

- A. As a political subdivision of the State of Florida, Miami-Dade County is subject to the stipulations of Florida's Public Records Law.
- B. The Contractor acknowledges that all computer software in the County's possession may constitute or contain information or materials which the County has agreed to protect as proprietary information from disclosure or unauthorized use and may also constitute or contain information or materials which the County has developed at its own expense, the disclosure of which could harm the County's proprietary interest therein.

- C. During the term of the contract, the Contractor will not use directly or indirectly for itself or for others, or publish or disclose to any third party, or remove from the County's property, any computer programs, data compilations, or other software which the County has developed, has used or is using, is holding for use, or which are otherwise in the possession of the County (hereinafter "Computer Software"). All third-party license agreements must also be honored by the contractors and their employees, except as authorized by the County and, if the Computer Software has been leased or purchased by the County, all hired party license agreements must also be honored by the contractors' employees with the approval of the lessor or Contractors thereof. This includes mainframe, minis, telecommunications, personal computers and any and all information technology software.
- D. The Contractor will report to the County any information discovered or which is disclosed to the Contractor which may relate to the improper use, publication, disclosure or removal from the County's property of any information technology software and hardware and will take such steps as are within the Contractor's authority to prevent improper use, disclosure or removal.

ARTICLE 73 PROPRIETARY RIGHTS

- A. The Contractor hereby acknowledges and agrees that the County retains all rights, title and interests in and to all materials, data, documentation and copies thereof furnished by the County to the Contractor hereunder or furnished by the Contractor to the County and/or created by the Contractor for delivery to the County, even if unfinished or in process, as a result of the Services the Contractor performs in connection with this Agreement, including all copyright and other proprietary rights therein, which the Contractor as well as its employees, agents, subcontractors and suppliers may use only in connection with the performance of Services under this Agreement. The Contractor shall not, without the prior written consent of the County, use such documentation on any other project in which the Contractor or its employees, agents, subcontractors or suppliers are or may become engaged. Submission or distribution by the Contractor to meet official regulatory requirements or for other purposes in connection with the performance of Services under this Agreement shall not be construed as publication in derogation of the County's copyrights or other proprietary rights.
- B. All rights, title and interest in and to certain inventions, ideas, designs and methods, specifications and other documentation related thereto developed by the Contractor and its subcontractors specifically for the County, hereinafter referred to as "Developed Works" shall become the property of the County.
- C. Accordingly, neither the Contractor nor its employees, agents, subcontractors or suppliers shall have any proprietary interest in such Developed Works. The Developed Works may not be utilized, reproduced or distributed by or on behalf of the Contractor, or any employee, agent, subcontractor or supplier thereof, without the prior written consent of the County, except as required for the Contractor's performance hereunder.
- D. Except as otherwise provided in subsections a, b, and c above, or elsewhere herein, the Contractor and its subcontractors and suppliers hereunder shall retain all proprietary rights in and to all Licensed Software provided hereunder, that have not been customized to satisfy the performance criteria set forth in the Scope of Work. Notwithstanding the foregoing, the Contractor hereby grants, and shall require that its subcontractors and suppliers grant, if the County so desires, a perpetual, irrevocable and unrestricted right and license to use, duplicate, disclose and/or permit any other person(s) or entity(ies) to use all such Licensed Software and the associated specifications, technical data and other Documentation for the operations of the County or entities controlling, controlled by, under common control with, or affiliated with the County, or organizations which may hereafter be formed by or become affiliated with the County. Such license specifically includes, but is not limited to, the right of the County to use and/or disclose, in whole or in part, the technical documentation and Licensed Software, including source code provided hereunder, to any person or entity outside the County for such person's or entity's use in furnishing any and/or all of the Deliverables provided hereunder exclusively for the County or entities controlling, controlled by, under common control with, or affiliated with the County, or organizations which may hereafter be formed by or become affiliated with the County. No such License Software, specifications, data,

documentation or related information shall be deemed to have been given in confidence and any statement or legend to the contrary shall be void and of no effect.

ARTICLE 74 VENDOR REGISTRATION/CONFLICT OF INTEREST

A. Vendor Registration

The Contractor shall be a registered vendor with the County – Internal Services Department, Strategic Procurement Division, for the duration of this Agreement. In becoming a registered vendor with Miami-Dade County, the Contractor confirms its knowledge of and commitment to comply with the following:

1. Miami-Dade County Ownership Disclosure Affidavit (Section 2-8.1 of the Code of Miami-Dade County)
2. Miami-Dade County Employment Disclosure Affidavit (Section 2.8.1(d)(2) of the Code of Miami-Dade County)
3. Miami-Dade County Employment Drug-free Workplace Certification (Section 2-8.1.2(b) of the Code of Miami-Dade County)
4. Miami-Dade County Disability and Nondiscrimination Affidavit (Section 2-8.1.5 of the Code of Miami-Dade County)
5. Miami-Dade County Debarment Disclosure Affidavit (Section 10.38 of the Code of Miami-Dade County)
6. Miami-Dade County Vendor Obligation to County Affidavit (Section 2-8.1 of the Code of Miami-Dade County)
7. Miami-Dade County Code of Business Ethics Affidavit (Sections 2-8.1(i), 2-11.1(b)(1) through (6) and (9), and 2-11.1(c) of the Code of Miami-Dade County)
8. Miami-Dade County Family Leave Affidavit (Article V of Chapter 11 of the Code of Miami-Dade County)
9. Miami-Dade County Living Wage Affidavit (Section 2-8.9 of the Code of Miami-Dade County)
10. Miami-Dade County Domestic Leave and Reporting Affidavit (Article VIII, Section 11A-60 - 11A-67 of the Code of Miami-Dade County)
11. Miami-Dade County E-Verify Affidavit (Executive Order 11-116)
12. Miami-Dade County Pay Parity Affidavit (Resolution R-1072-17)
13. Miami-Dade County Suspected Workers' Compensation Fraud Affidavit (Resolution R-919-18)
14. Subcontracting Practices (Section 2-8.8 of the Code of Miami-Dade County)
15. Subcontractor/Supplier Listing (Section 2-8.1 of the Code of Miami-Dade County)
16. Form W-9 and 147c Letter (as required by the Internal Revenue Service)
17. FEIN Number or Social Security Number
In order to establish a file, the Contractor's Federal Employer Identification Number (FEIN) must be provided. If no FEIN exists, the Social Security Number of the owner or individual must be provided. This number becomes Contractor's "County Vendor Number". To comply with Section 119.071(5) of the Florida Statutes relating to the collection of an individual's Social Security Number, be aware that the County requests the Social Security Number for the following purposes:
 - Identification of individual account records
 - To make payments to individual/Contractor for goods and services provided to Miami-Dade County
 - Tax reporting purposes

- To provide a unique identifier in the vendor database that may be used for searching and sorting departmental records
- Sections 2-8.1.1.1.1, 2-8.1.1.1.2 and 2-8.2.2 of the Code of Miami-Dade County and Title 49 of the Code of Federal Regulations.
18. Office of the Inspector General
(Section 2-1076 of the Code of Miami-Dade County)
19. Small Business Enterprises
The County endeavors to obtain the participation of all small business enterprises pursuant to
20. Antitrust Laws
By acceptance of any contract, the Contractor agrees to comply with all antitrust laws of the United States and the State of Florida.
- B. Conflict of Interest and Code of Ethics

Section 2-11.1(d) of the Code of Miami-Dade County requires that any County employee or any member of the employee's immediate family who has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County, competing or applying for a contract, must first request a conflict of interest opinion from the County's Ethics Commission prior to their or their immediate family member's entering into any contract or transacting any business through a firm, corporation, partnership or business entity in which the employee or any member of the employee's immediate family has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County. Any such contract or business engagement entered in violation of this subsection, as amended, shall be rendered voidable. All autonomous personnel, quasi-judicial personnel, advisory personnel, and employees wishing to do business with the County are hereby advised they must comply with the applicable provisions of Section 2-11.1 of the Code of Miami-Dade County relating to Conflict of Interest and Code of Ethics. In accordance with Section 2-11.1 (y), the Miami-Dade County Commission on Ethics and Public Trust (Ethics Commission) shall be empowered to review, interpret, render advisory opinions and letters of instruction and enforce the Conflict of Interest and Code of Ethics Ordinance.

ARTICLE 75 LOCAL, STATE, AND FEDERAL COMPLIANCE REQUIREMENTS

Contractor agrees to comply, subject to applicable professional standards, with the provisions of any and all applicable Federal, State and the County orders, statutes, ordinances, rules and regulations which may pertain to the Services required under this Agreement, including, but not limited to:

1. Equal Employment Opportunity (EEO), in compliance with Executive Order 11246 as amended and applicable to this Contract.
2. Miami-Dade County Small Business Enterprises Development Participation Provisions, as applicable to this Contract.
3. Environmental Protection Agency (EPA), as applicable to this Contract.
4. Section 2-11.1 of the Code of Miami-Dade County, "Conflict of Interest and Code of Ethics."
5. Section 10-38 of the Code of Miami-Dade County, "Debarment of Contractors from County Work."
6. Section 11A-60 - 11A-67 of the Code of Miami-Dade County, "Domestic Leave."
7. Section 21-255 of the Code of Miami-Dade County, prohibiting the presentation, maintenance, or prosecution of false or fraudulent claims against Miami-Dade County.
8. The Equal Pay Act of 1963, as amended (29 U.S.C. 206(d)).

9. Section 448.07 of the Florida Statutes "Wage Rate Discrimination Based on Sex Prohibited."
10. Chapter 11A of the Code of Miami-Dade County (§ 11A-1 et seq.) "Discrimination."
11. Chapter 22 of the Code of Miami-Dade County (§ 22-1 et seq.) "Wage Theft."
12. Chapter 8A, Article XIX, of the Code of Miami-Dade County (§ 8A-400 et seq.) "Business Regulations."
13. Any other laws prohibiting wage rate discrimination based on sex.

Pursuant to Resolution R-1072-17, by entering into this Contract, the Contractor is certifying that the Contractor is in compliance with, and will continue to comply with, the provisions of items "h" through "m" above.

The Contractor shall hold all licenses and/or certifications, obtain and pay for all permits and/or inspections, and comply with all laws, ordinances, regulations and building code requirements applicable to the work required herein. Damages, penalties, and/or fines imposed on the County or Contractor for failure to obtain and maintain required licenses, certifications, permits and/or inspections shall be borne by the Contractor. The Project Manager shall verify the certification(s), license(s), permit(s), etc. for the Contractor prior to authorizing work and as needed.

Notwithstanding any other provision of this Agreement, Contractor shall not be required pursuant to this Agreement to take any action or abstain from taking any action if such action or abstention would, in the good faith determination of the Contractor, constitute a violation of any law or regulation to which Contractor is subject, including but not limited to laws and regulations requiring that Contractor conduct its operations in a safe and sound manner.

ARTICLE 76 NONDISCRIMINATION

- A. During the performance of this Contract, Contractor agrees to not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, sex, pregnancy, age, disability, marital status, familial status, sexual orientation, gender identity or gender expression, status as victim of domestic violence, dating violence or stalking, or veteran status, and on housing related contracts the source of income, and will take affirmative action to ensure that employees and applicants are afforded equal employment opportunities without discrimination. Such action shall be taken with reference to, but not limited to: recruitment, employment, termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on the job training.
- B. By entering into this Contract, the Contractor attests that it is not in violation of the Americans with Disabilities Act of 1990 (and related Acts) or Miami-Dade County Resolution No. R-385-95. If the Contractor or any owner, subsidiary or other firm affiliated with or related to the Contractor is found by the responsible enforcement agency or the County to be in violation of the Act or the Resolution, such violation shall render this Contract void. This Contract shall be void if the Contractor submits a false affidavit pursuant to this Resolution or the Contractor violates the Act or the Resolution during the term of this Contract, even if the Contractor was not in violation at the time it submitted its affidavit.

ARTICLE 77 CONFLICT OF INTEREST

The Contractor represents that:

1. No officer, director, employee, agent, or other consultant of the County or a member of the immediate family or household of the aforesaid has directly or indirectly received or been promised any form of benefit, payment or compensation, whether tangible or intangible, in connection with the award of this Agreement.
2. There are no undisclosed persons or entities interested with the Contractor in this Agreement. This Agreement is entered into by the Contractor without any connection with any other entity or person making a proposal for the same purpose, and without collusion, fraud or conflict of interest. No elected or appointed

officer or official, director, employee, agent or other consultant of the County, or of the State of Florida (including elected and appointed members of the legislative and executive branches of government), or a member of the immediate family or household of any of the aforesaid:

- a. is interested on behalf of or through the Contractor directly or indirectly in any manner whatsoever in the execution or the performance of this Agreement, or in the services, supplies or work, to which this Agreement relates or in any portion of the revenues; or
 - b. is an employee, agent, advisor, or consultant to the Contractor or to the best of the Contractor's knowledge any subcontractor or supplier to the Contractor.
3. Neither the Contractor nor any officer, director, employee, agency, parent, subsidiary, or affiliate of the Contractor shall have an interest which is in conflict with the Contractor's faithful performance of its obligation under this Agreement; provided that the County, in its sole discretion, may consent in writing to such a relationship, provided the Contractor provides the County with a written notice, in advance, which identifies all the individuals and entities involved and sets forth in detail the nature of the relationship and why it is in the County's best interest to consent to such relationship.
 4. The provisions of this article are supplemental to, not in lieu of, all applicable laws with respect to conflict of interest. In the event there is a difference between the standards applicable under this Agreement and those provided by statute, the stricter standard shall apply.
 5. In the event Contractor has no prior knowledge of a conflict of interest as set forth above and acquires information which may indicate that there may be an actual or apparent violation of any of the above, Contractor shall promptly bring such information to the attention of the County's Project Manager. Contractor shall thereafter cooperate with the County's review and investigation of such information, and comply with the instructions Contractor receives from the Project Manager in regard to remedying the situation.

ARTICLE 78 PRESS RELEASE OR OTHER PUBLIC COMMUNICATION

Under no circumstances shall the Contractor without the express written consent of the County:

- A. Issue or permit to be issued any press release, advertisement or literature of any kind which refers to the County, or the Work being performed hereunder, unless the Contractor first obtains the written approval of the County. Such approval may be withheld if for any reason the County believes that the publication of such information would be harmful to the public interest or is in any way undesirable; and
- B. Communicate in any way with any contractor, department, board, agency, commission or other organization or any person whether governmental or private in connection with the Services to be performed hereunder except upon prior written approval and instruction of the County; and
- C. Except as may be required by law, the Contractor and its employees, agents, subcontractors and suppliers will not represent, directly or indirectly, that any product or service provided by the Contractor or such parties has been approved or endorsed by the County.

ARTICLE 79 BANKRUPTCY

The County reserves the right to terminate this contract, if, during the term of any contract the Contractor has with the County, the Contractor becomes involved as a debtor in a bankruptcy proceeding, or becomes involved in a reorganization, dissolution, or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of the Contractor under federal bankruptcy law or any state insolvency law.

ARTICLE 80 GOVERNING LAW

This Contract, including appendices, and all matters relating to this Contract (whether in contract, statute, tort (such as negligence), or otherwise) shall be governed by, and construed in accordance with, the laws of the State of Florida. Venue shall be Miami-Dade County.

ARTICLE 81 INSPECTOR GENERAL REVIEWS

A. Independent Private Sector Inspector General Reviews

Pursuant to Miami-Dade County Administrative Order 3-20, the County has the right to retain the services of an Independent Private Sector Inspector General (hereinafter "IPSIG"), whenever the County deems it appropriate to do so. Upon written notice from the County, the Contractor shall make available to the IPSIG retained by the County, all requested records and documentation pertaining to this Agreement for inspection and reproduction. The County shall be responsible for the payment of these IPSIG services, and under no circumstance shall the Contractor's prices and any changes thereto approved by the County, be inclusive of any charges relating to these IPSIG services. The terms of this provision apply to the Contractor, its officers, agents, employees, subcontractors and assignees. Nothing contained in this provision shall impair any independent right of the County to conduct an audit or investigate the operations, activities and performance of the Contractor in connection with this Agreement. The terms of this article shall not impose any liability on the County by the Contractor or any third party.

B. Miami-Dade County Inspector General Review

1. According to Section 2-1076 of the Code of Miami-Dade County, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts. The cost of the audit for this Contract shall be one quarter (1/4) of one (1) percent of the total contract amount which cost shall be included in the total contract amount. The audit cost will be deducted by the County from progress payments to the Contractor. The audit cost shall also be included in all change orders and all contract renewals and extensions.
2. Exception: The above application of one quarter (1/4) of one percent fee assessment shall not apply to the following contracts: (a) IPSIG contracts; (b) contracts for legal services; (c) contracts for financial advisory services; (d) auditing contracts; (e) facility rentals and lease agreements; (f) concessions and other rental agreements; (g) insurance contracts; (h) revenue-generating contracts; (i) contracts where an IPSIG is assigned at the time the contract is approved by the Commission; (j) professional service agreements under \$1,000; (k) management agreements; (l) small purchase orders as defined in Miami-Dade County Implementing Order 3-38; (m) federal, state and local government-funded grants; and (n) interlocal agreements. Notwithstanding the foregoing, the Miami-Dade County Board of County Commissioners may authorize the inclusion of the fee assessment of one quarter (1/4) of one percent in any exempted contract at the time of award.
3. Nothing contained above shall in any way limit the powers of the Inspector General to perform audits on all County contracts including, but not limited to, those contracts specifically exempted above. The Miami-Dade County Inspector General is authorized and empowered to review past, present and proposed County and Public Health Trust contracts, transactions, accounts, records and programs. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of records and monitor existing projects and programs. Monitoring of an existing project or program may include a report concerning whether the project is on time, within budget and in conformance with plans, specifications and applicable law. The Inspector General is empowered to analyze the necessity of and reasonableness of proposed change orders to the Contract. The Inspector General shall have the power to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process, including but not limited to project design, specifications, proposal submittals, activities of the Contractor, its officers, agents and employees, lobbyists, County staff and elected officials to ensure compliance with contract specifications and to detect fraud and corruption.

4. Upon written notice to the Contractor from the Inspector General or IPSIG retained by the Inspector General, the Contractor shall make all requested records and documents available to the Inspector General or IPSIG for inspection and copying. The Inspector General and IPSIG shall have the right to inspect and copy all documents and records in the Contractor's possession, custody or control which, in the Inspector General's or IPSIG's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements form and which successful and unsuccessful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, proposal and contract documents, back-charge documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records, and supporting documentation for the aforesaid documents and records.

This fee shall solely apply to the line items stated in Article 9(C), Table 9.1 "Price Schedule".

ARTICLE 82 ARTICLE 40. INTEREST OF MEMBERS, OFFICERS OR EMPLOYEES AND FORMER MEMBERS, OFFICERS OR EMPLOYEES

No member, officer, or employee of the County, no member of the governing body of the locality in which the Project is situated, no member of the governing body in which the County was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this Contract or the proceeds thereof.

ARTICLE 83 ARTICLE 41. LIENS

The Contractor is prohibited from placing a lien on County property. This prohibition shall apply to all Subcontractors.

ARTICLE 84 COUNTY USER ACCESS PROGRAM (UAP)

A. User Access Fee

Pursuant to Section 2-8.10 of the Code of Miami-Dade County, this Contract is subject to a user access fee under the County User Access Program (UAP) in the amount of two percent (2%). All sales resulting from this Contract, or any contract resulting from the solicitation referenced on the first page of this Contract, and the utilization of the County Contract price and the terms and conditions identified herein, are subject to the two percent (2%) UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity.

The Contractor providing goods or services under this Contract shall invoice the Contract price and shall accept as payment thereof the Contract price less the 2% UAP as full and complete payment for the goods and/or services specified on the invoice. The County shall retain the 2% UAP for use by the County to help defray the cost of the procurement program. Contractor participation in this invoice reduction portion of the UAP is mandatory.

This fee shall solely apply to the line items stated in Article 9(C), Table 9.1 "Price Schedule".

B. Contractor Compliance

If a Contractor fails to comply with this article, that Contractor may be considered in default by the County in accordance with Article 67 of the Contract.

ARTICLE 85 FIRST SOURCE HIRING REFERRAL PROGRAM

Pursuant to Section 2-2113 of the Code of Miami-Dade County, for all contracts for goods and services, the Contractor, prior to hiring to fill each vacancy arising under a County contract shall (1) first notify the South Florida Workforce

Investment Board (“SFWIB”), the designated Referral Agency, of the vacancy and list the vacancy with SFWIB according to the Code, and (2) make good faith efforts as determined by the County to fill a minimum of fifty percent (50%) of its employment needs under the County contract through the SFWIB. If no suitable candidates can be employed after a Referral Period of three to five days, the Contractor is free to fill its vacancies from other sources. Contractor will be required to provide quarterly reports to the SFWIB indicating the name and number of employees hired in the previous quarter, or why referred candidates were rejected. Sanctions for non-compliance shall include, but not be limited to: (i) suspension of contract until Contractor performs obligations, if appropriate; (ii) default and/or termination; and (iii) payment of \$1,500/employee, or the value of the wages that would have been earned given the noncompliance, whichever is less. Registration procedures and additional information regarding the FSHRP are available at <https://iapps.careersourcesfl.com/firstsource/>.

ARTICLE 86 PUBLIC RECORDS AND CONTRACTS FOR SERVICES PERFORMED ON BEHALF OF MIAMI-DADE COUNTY

The Contractor shall comply with the Public Records Laws of the State of Florida, including by not limited to, (1) keeping and maintaining all public records that ordinarily and necessarily would be required by the County in order to perform the service; (2) providing the public with access to public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law; (3) ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (4) meeting all requirements for retaining public records and transferring, at no cost, to the County all public records in possession of the Contractor upon termination of the contract and destroying any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements upon such transfer. In addition, all records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the County. Failure to meet any of these provisions or to comply with Florida’s Public Records Laws as applicable shall be a material breach of this Agreement and shall be enforced in accordance with the terms and conditions of the Agreement.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR’S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (305) 375-5773, ISD-VSS@MIAMIDADE.GOV, 111 NW 1ST STREET, SUITE 1300, MIAMI, FLORIDA 33128

ARTICLE 87 VERIFICATION OF EMPLOYMENT ELIGIBILITY (E-VERIFY)

By entering into this Contract, the Contractor becomes obligated to comply with the provisions of Section 448.095 of the Florida Statutes, titled “Verification of Employment Eligibility”. This includes but is not limited to utilization of the U.S. Department of Homeland Security’s E-Verify System to verify the employment eligibility of all newly hired employees by the Contractor effective January 1, 2021 and requiring all Subcontractors to provide an affidavit attesting that the Subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply may lead to termination of this Contract, or if a Subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination and the Contractor may be liable for any additional costs incurred by the County resulting from the termination of the Contract. If this Contract is terminated for a violation of the statute by the Contractor, the Contractor may not be awarded a public contract for a period of one year after the date of termination. Public and private employers must enroll in the E-Verify System (<http://www.uscis.gov/e-verify>) and retain the I-9 Forms for inspection.

ARTICLE 88 SURVIVAL

The parties acknowledge that any of the obligations in this Agreement will survive the term, termination and cancellation hereof. Accordingly, the respective obligations of the Contractor and the County under this Agreement, which by nature would continue beyond the termination, cancellation or expiration thereof, shall survive termination, cancellation or expiration hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the contract date herein above set forth.

Miami Dade Smart Lighting Partners, LLC

Miami-Dade County

By: Oscar Bode

By: _____

Name: Oscar Bode

Name: Daniella Levine Cava

Title: CEO

Title: Mayor

Date: 5-14-2021

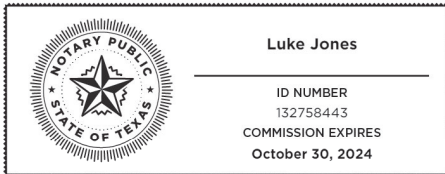
Date: _____

Attest: [Signature]
Corporate Secretary/Notary Public

Attest: _____
Clerk of the Board

Corporate Seal/Notary Seal

Approved as to form
and legal sufficiency



Assistant County Attorney

Notarized online using audio-video communication

- Attachments:
A. Scope of Work



RFP-00499

SMART LED LIGHTING AND SMART COUNTY SYSTEMS

SCOPE OF WORK

ISSUED BY MIAMI-DADE COUNTY:
The Department of Transportation and Public Works
Traffic Signals and Signs

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1. Project Objectives

- A. Miami-Dade County, herein after referred to as “MDC”, “County” or “the County”, seeks to convert the existing street lights to Smart Light Emitting Diode (LED) Lights and expand current “Smart City” successes, and add new capabilities, to become the Smartest County in North America within three years and remain among the leaders for “Smart County” efforts around the world. The County's high-level Smart County objectives are improving mobility, accessibility, safety, and the quality of life for our residents and visitors.
- B. Key objectives of this project are as follows:
1. Conversion and Operation/Asset Management of approximately 27,000 (13,500 County owned and operated / 13,500 Florida Department of Transportation (FDOT) owned but managed by the Miami-Dade Department of Transportation and Public Works (DTPW) existing High Pressure Sodium (HPS) streetlight luminaires to energy efficient Smart LED's throughout the County. The new Smart LED's will have a color temperature in accordance with FDOT requirements, and are to improve the consistency of aesthetics and lighting for both vehicular and pedestrian safety.
 2. Address any areas that are over or under-lit by providing uniform lighting throughout, in accordance with Appendix F, MDC Roadway Lighting Manual (County Roads) and FDOT, Design Manual, Standard/Design Plans, etc.
 3. Maintain and improve the safety of the electrical infrastructure.
 4. Provide a minimum 500 traffic monitoring cameras, 900 IoT Sensors, and fiber connectivity throughout the priority corridors as indicated in Appendix C.
 5. Provide Architectural LED Lighting at the Stephen P. Clark Building and the Rickenbacker Bridge.
 6. Access to the latest available smart and connected technology and infrastructure with room for modification or growth, driving sustainability, inclusive economic development and enhanced quality of life for all.
 7. Maintain security and privacy for the residents of the County. The County is committed to ensuring transparency and clarity of the practices on how data is being both protected and utilized by the Contractor and its vendors
 8. Improve County operational and policy decision-making through data and analytics, through a data analytics platform. Leverage big data analytics for compliant budget creation and savings over the term of the concession
 9. Upgrade and expand the County's connectivity infrastructure that will support the improvement and expansion of the initiatives described in this Scope of Work, such as the priority corridors identified in Appendix A Transit Development Plan, Appendix B Smart Plan, Appendix C Traffic Signals and Signs Congestion Management Plan Priority Corridors, and lighting upgrades that will improve mobility, Additionally, enable comprehensive and inclusive municipal broadband connectivity across the County, utilizing the excess capacity or additional Contractor funded fiber, wifi, small cell buildout, beyond the amounts in Appendix G, to be provided at no cost to the County, resulting in the reducing or elimination of the digital divide, driving sustainability, inclusive economic development and enhanced quality of life for all
 10. The Contractor shall utilize neutral host carrier technologies and hardware for both the fiber and cellular components.
 11. Access to latest available technology (hardware and software).
 12. Conversion of all existing street lights to Smart LED Lights and technology within 3 years of the Notice to Proceed (NTP).
 13. Deployment of items in Appendix E: (Video Cameras, IoT Sensors and Fiber Communications) within 5 years of the Notice to Proceed

2. Background Information

- A. Miami-Dade County is a county located in the southeastern part of the United States of America in the State of Florida. According to the United States Census Bureau, the County's population is estimated at 2,751,796 people (US Census July, 2017 Estimates) making it the most populous in the state and is the largest in size with a total of 1,898 square miles (www.usa.com).

- B. Miami-Dade County consists of areas that are Unincorporated and 35 Incorporated Municipalities. The northern, central and eastern portions of the county are heavily urbanized with many high rises along the coastline including the County's central business district, Downtown Miami. Southern Miami-Dade County includes the Redlands, Homestead, and Florida City; which make up the agricultural economy of the County. The western portion of the county extends into the Everglades National Park and is populated only by the Miccosukee Tribal Village. East of the mainland in Biscayne Bay, Biscayne National Park and the Biscayne Bay Aquatic Preserves can be found.
- C. The Miami-Dade County Department of Transportation and Public Works (DTPW) operates and maintains an estimated 27,000 roadway lights on over 950 circuits throughout the County (Appendix E and K). Of these 27,000 roadway lights; the County owns 13,500 lights and the Florida Department of Transportation (FDOT) owns 13,500 lights, which are operated and maintained under the FDOT Lighting Agreement APF89. The lighting systems installed range from recently built or upgraded roads to areas where the existing systems (lighting assemblies) have become obsolete.
- D. Intended benefits of this contract is to upgrade, and consolidate the technologies and fixtures used across the enterprise along with an asset management plan to maintain the smart lighting infrastructure.
- E. Additional Smart County solution benefit of this contract is to enable inclusive economic development and improved resiliency quality of life for all residents, via inclusive municipal broadband and/or cellular wireless connectivity, Internet of Things (IOT) solutions and applications that support sustainability, energy and overall savings share, safety and security including, remote health, learning and work, water quality and savings, mobility, vision zero, reduced carbon emissions, smart infrastructure, new industries and job creations via smart manufacturing, smart venues, smart ports and agriculture, across the County.

3. Transit Development Plan and Priority Corridors

- A. In accordance with Florida Administrative Code (FAC) Rule 14-73.001 the Miami-Dade County Department of Transportation and Public Works (DTPW) has developed a Transit Development Plan (TDP) commonly referred to as "MDT10Ahead" pursuant to Section 341.052 as a strategic planning and guidance tool. MDT10Ahead presents both funded and unfunded transit needs in order to create a framework for transit improvements that can be implemented within a 10-year planning horizon.
- B. The plan serves as the agency's strategic guide for public transportation in the County over the course of the next ten years. The 2014 Major Update, MDT10Ahead, was adopted by the Board of County Commissioners, pursuant to resolution R-1036-14. The last annual update, the 2017 Annual Update, was approved by FDOT District Six on September 20, 2017.
- C. MDT10Ahead includes a summary of DTPW's facilities and services in Chapter 2; describes the past year's civic engagement efforts in Chapter 3; assesses the agency's performance in 2017 in Chapter 4; identifies DTPW's 2018 implementation plan in Chapter 5; explores short-term plans (2019-2028) in Chapter 6 and longer-term plans (2029 and Beyond) in Chapter 7; and Chapter 8 explores the Transit agency's finances.
- D. Overall, MDT10Ahead presents the operational and capital improvements needed to ensure DTPW is able to provide quality transit services to the County's residents and visitors for years to come. The Contractor shall install perform installations in accordance with the priorities listed in the Appendix B and C.
- E. The SMART Plan will expand transit options in Miami-Dade County along six (6) critical corridors that are linked to regional, state, national, and global economic markets, as highlighted below. Another critical component of the SMART Plan is a network of Express Buses, known as Bus Express Rapid Transit (BERT), which will connect the SMART rapid transit corridors on limited access facilities, promoting the active expansion of South Florida's Express Lanes network. This innovative approach effectively expands the reach of transit in Miami-Dade County and beyond.

- F. The County reserves the right to change, update, prioritize or modify the Priority Corridors listed in Appendices A, B and C.

4. Hours and Location of Work

- A. The Contractor is expected to successfully complete the work in a timely fashion. The Contractor will be expected to attend meetings with various County entities and stakeholder groups on an as-needed basis and regularly be available to meet/connect with the designated County Project Manager(s) via phone, e-mail, or in person.
- B. The Contractor shall provide a minimum of two (2) local representatives onsite for the duration of the contract. The support personnel shall work onsite at County facilities as requested by the County. The County reserves the rights to request for a replacement of onsite support personnel at no additional cost to the County. In addition, the Contractor's Project Manager shall work onsite full-time as requested at County facilities starting from 30 days after the date of the NTP through the duration of the contract.
- C. Traffic in the County is a key factor with roadwork, and this type of work will require major coordination with officials from the FDOT, County, and other municipalities affected within the County Limits. The work is to be performed at specific times where traffic is least affected (preferably evenings), and will require Maintenance of Traffic (MOT) per the latest version of the FDOT Design Standards and the Miami-Dade County Public Works Manual for both rolling and fixed MOT's. As part of the MOT, the Contractor will need to coordinate with State, County, and/or Municipal Police Forces for their presence in work zones.
- D. The Contractor and its team shall update a County ESRI GIS layer that can be easily accessed by residents in the County website for the tracking of the projects progress as well as areas to be affected in the following phases of construction.

5. Project Schedule

A. CPM Bar Chart

The Contractor shall provide a project schedule identifying key tasks and deliverables to be performed, durations for each task, and overall time of completion. The Contractor shall submit an updated Critical Path Gantt Chart project schedule to DTPW for review and acceptance within fifteen (15) working days after issuance of the NTP, as its baseline schedule. Upon approval of the baseline schedule, the Contractor shall provide a monthly update to the project schedule.

The project schedule shall include all work specified in the Scope of Work (Attachment B) including, but not limited to:

- a) mobilization, lead times, delivery, inspections, installation, testing, system acceptance/cutover, training, turnover of required documentation, and all expected activities of subcontractors, vendors, suppliers and all other parties associated with the project.
- b) a schedule for the phased-in approach, including required tasks and activities.

B. 4 Week Look Ahead Schedule

The Successful Proposal shall provide with the monthly schedule update, or more frequently if required by the County, a 4 Week Look Ahead Schedule to be used for coordination of the Contractor's work with roadway operations, other work groups and at regular Progress Review Meetings. This 4 Week Look Ahead Schedule shall contain early start and early finish dates for all activities scheduled or planned for start and/or completion in the upcoming 4 week period. It shall include design, submittal, procurement and construction activities, as applicable.

6. Data Ownership, Use and Management

- A. **Data Ownership:** The County owns all data collected via the systems proposed to be built, installed, modified or created under this contract and awarded under any subsequently contract. Upon system/network initiation, the County will grant to the Contractor a license data collected from any and all sensors; and infrastructure including but not limited to items found in Appendix G: light poles, vehicles, mobile devices, fiber, cellular, sensor, data sources not yet created or conceived of, and other sources of data collected, generated, identified, or transmitted that traverses the network. The County will grant to the Contractor a license for the use of the data collected from any and all sensors, light poles, vehicles, mobile devices, fiber, cellular databases, data sources not yet created or conceived of, and other sources of data collected, generated, identified, or transmitted that traverses the network. The County will bear no liability or responsibility for the Contractor's willful or non-willful security breach of such data, regardless of the circumstances of such breach.

The rights to data granted the Contractor are limited, and are only granted to the Contractor at the time of the contract award. Those rights will extend only for the term of the contract, unless both parties revisit and agree on an extension or modified basis for licensing consideration. Further use or dissemination of the data to other users by the Contractor not previously defined or identified at the time of the contract award, must be approved by the County prior to that action taking place as must any subsequent changes that occur in the ownership of any lower-tier supplier previously granted such usage rights. Process and timing of said additional approval for dissemination of the data to other uses will be defined as part of the contract award and will not be unreasonably withheld.

- B. **Granting of Contract and Right to Execute Project:** Subject to and in accordance with the terms and conditions set forth in this Agreement, the County hereby grants and authorizes the Contractor, agrees to accomplish, the exclusive right and following mandates:
- a) The County will not contract with any other entity during the term of this Agreement for the matters set out in this Agreement and provided by the Project.
 - b) **Exclusivity:** The Concession granted herein shall be exclusive. The Indefeasible Right of Use granted herein shall be exclusive if, and to the extent, designated "exclusive".
- C. **Big Data Rights:** The County shall retain ownership of all data. The Contractor shall receive an exclusive license / use, for the duration of the agreement, for the monetization of the data, specifically, to earn revenue from digital advertising platforms, enterprise data and advertising, out-of-home data or advertising, municipal broadband and wireless infrastructure, Contractor Advisory Board-approved data capture, analysis, commercialization, monetization etc., from solutions being supplied via the Contractor. The Contractor will have the exclusive right to use the data collected from said equipment or infrastructure. The County will have the right to use and possess any of the data for County needs that do not involve monetization of the data.
- a) The County will be provided a carve out for use of the overall solution, infrastructure, and data for its own internal use to support County operations, public safety, etc.
 - b) Use by any 3rd party (Non-County Entity) would require approval by Contractor via the Contractor Advisory Board process, of which the County will be a key member.
- D. **Monetization of Data and the Smart County Solutions:** The Contractor's monetization model shall be fully integrated as part of its holistic solution for the County, ensuring the final product is a true Build, Operate, Finance/monetize, Transfer project.

The overarching goal shall be to provide a structure that:

- Optimizes the various use cases that can be self-sustaining and self-funding
- Delivers a cost-neutral solution that requires little to no incremental capital budget outlay from the County for a number of Smart County use cases
- Covers both the served and underserved to ensure the digital divide is reduced or eliminated

The anticipated value creation and respective revenue sharing with the County shall be based on maximizing budget creation for the County over the life of the concession. This shall support generating budget creation over and above the Project Capital Expenditure and Operational Expenditure coverage via the step-up revenue/savings share levels.

Based on the Contractor's revenue share model, the gross revenue share percentage is 2% through year 5, 3% for years 6-10 and 5% for years 11-15. This value is estimated at \$34M at the base case, \$50M+ at the mid-level and over \$100M at the top end.

7. Training and Skills Transfer

- A. The Contractor shall provide a program to educate, train, and teach County personnel in all details of the equipment and the System that shall enable the personnel to monitor the System.

Training shall include:

- course development, supplying handouts, manuals, classroom aids, and all other items required to train the County staff. Hands-on classes shall be included in the training program.
- course material for 5 to 10 people

- B. Training curriculum shall be approved by the County and shall include but not limited to:

- sessions every 6 months for the first 3 years, annually for major software releases thereafter for the remainder of the contract term
- demonstrated access to lighting management system
- the ability to access and generate reporting
- integration and access to County's 3rd party applications
- address troubleshooting
- address the alert notification system
- how to implement/change the Scheduling features in management system.

8. Lane Closure Notification

- A. The County participates in the WAZE Connected Citizens Program (CCP) to notify the community of when services affect vehicular and pedestrian travel. The Contractor shall integrate with the County Application Programming Interface (API) to enable real-time notifications of lane closures while performing work required herein. The work is to be performed at specific times where traffic is least affected (preferably evenings), and will require Maintenance of Traffic (MOT) per the latest version of the FDOT Design Standards and the Miami-Dade County Public Works Manual for both rolling and fixed MOT's. As part of the MOT, the Contractor shall coordinate with State, County, and/or Municipal Police Forces for their presence in the work zones.
- B. The Contractor and its team shall update monthly, a County ESRI GIS layer that can be easily accessed by residents in the County website for the tracking of the projects progress as well as areas to be affected in the next phases of construction.

9. Smart Mobility Platform

- A. The Contractor shall furnish, configure, install, test, implement and maintain a County owned/licensed Smart Mobility Platform that shall enable County Management Centers to monitor traffic, transit, etc. The platform shall offer a consolidated and integrated view of all County operations. The integrated operations platform is expected to enable transformation of the County operations by enhancing situational awareness and providing the County data to make informed operational decisions.
- B. The platform must be able to integrate a multitude of Mobility services, devices and subsystems; at a minimum, the Transportation's Computer Aided Dispatching/Automated Vehicle Locating (CAD/AVL) System, Special Transportation Services (STS) Vehicle Locating System, various Advanced Traffic Management Systems, street lights and other IoT applications and devices.
- C. The platform must:
- Integrate devices using their API's in to this platform
 - Enable the County and its partners to define a standard data model for each operational service (such as but not limited to: Parking, lighting, etc.)
 - Multi-tenant County operations dashboards
 - Have the ability to customize dashboard as per the user and Departmental preferences
 - Have API Management capabilities like API Security or API Metering.
 - Be able to provide API access based on roles and access control policies defined for each user and the key issued to that user
 - Enable departments to take actions on configurable conditions, which are guided through workflows
 - Be able to configure, manage, and monitor any distributed IoT modules from any operation center
 - Allow for event handling and data handling
 - Provide ways to define policies that make applications or things respond to external environments
 - Have integrations with the network layer to proactively monitor any incidents on the network for active troubleshooting and triaging
 - Be able to alert any incidents in the network proactively on command and control
 - Allow users to invoke web conferencing sessions directly from the platform
 - Integrate with County ESRI GIS Layer and street network map services with ability to show status of resources
 - Provide Operators and Managers with a management dashboard that provides a real time status and is automatically updated when certain actions, incidents and resources have been assigned, pending, acknowledged, dispatched, implemented, and completed
 - Provide complete view of sensors, facilities, video streams and alarms in an easy-to-use and intuitive GIS-enabled graphical interface with configurable workflow and business logic
 - Integrate with existing ActiVu video wall installations
 - Have a visualization platform to view historic analytics and predictive models
 - Be able to perform analytics, predictions across all County operations
 - Have an easy to use interface with drag and drop facilities to build reports and analytics
 - Have ability to connect to multiple data sources, REST/SOAP API's in real-time
 - Be able to consume social media data streams for predictions

10. Open Data

- A. The County's web page must make data available to citizens and visitors in order to maintain transparency and foster continued public involvement in Smart County initiatives. In addition to depicting street congestion, the web site must illustrate real-time information for the Transportation Vehicles and identify open on-street parking so people can better

plan their journeys downtown regardless of their intent. The system shall be configurable and include an open data platform using Application Programming Interface technologies that enable bi-directional data sharing in order to update the County's web page in real-time.

- B. This functionality enhances the integration capabilities to leverage system data for other applications, and facilitate various integration with other systems.
- C. All application data shall be made accessible via the open API.
- D. The County will own all data collected via the systems proposed to be built, installed, modified or created under this contract, and awarded under any subsequent contract. Upon system/network initiation, the County will grant to the Contractor a license to use the data collected from any and all sensors, light poles, vehicles, mobile devices, databases, data sources not yet created or conceived of, and other sources of data collected, generated, identified, or transmitted that traverses the network.
- E. The Contractor is granted a license by the County for its use and operation.
- F. The County will bear no liability or responsibility for the Contractor's willful or non-willful security breach of such data, regardless of the circumstances of such breach.
- G. Contractor shall provide a plan outlining their understanding of the use of data collected, generated, identified, or transmitted in connection with the System. This includes data monetization, sale, and/or sharing. Data collected from sensors, once anonymized and aggregated at the block level, shall become intellectual property of the County. It may be stored in cloud entities identified and managed by the Contractor.
- H. The Contractor shall include detail infrastructure and data flow diagrams for all major use cases.

11. Street Lighting Inventory

- A. The Contractor shall maintain the inventory of all assets. The Contractor shall clearly identify the resources including the techniques and practices to perform this task. The Contractor shall maintain the existing ESRI GIS Layer Appendix E and K. For the GIS locations, the coordinates are to be in accordance with the Global Positioning System (GPS) Standard Positioning Service (SPS) Performance Standard Accuracy to be within the global average User Range Error (URE) of ≤ 0.715 m (2.3 ft.).

B. The Contractor shall ensure the inventory includes updates to the following attributes:

Field Name	Description
Object ID or Miami-Dade ID	
PointX Coordinate	
PointY Coordinate	
Owned by	FDOT or DPTW
System Description	
Condition	
Pole Type	
Pole Height	
Arm Length	
Bulb Type	
Circuit Number	
Circuit Type	
Voltage	
Service Point Information	
Electric Meter at the Service Point	
Compatibility of the existing luminaire arm with the proposed Smart LED Light	
Compatibility of recently installed LED Lights with a Smart LED Lighting System (by placement of node, sensor, or transmitter)	
Commentary (Condition of system, noted issues such as utility interference, etc.)	

C. The County may add additional fields for data collection of the existing street lights in order to create an information database for the future use by staff. The Contractor shall inventory currently stockpiled at DTPW Traffic Signals and Signs in order to account for the entire County inventory. (Appendix E and K).

D. The Contractor shall relocate the current inventory to their facility.

12. Fee for Failure to Perform

Safety is the highest priority for the County. As such, the Contractor will be assessed a penalty in the event the Contractor fails to complete repairs to streetlights as specified and within the time limits set forth below:

Deficiency Identification	Time Allowed/Criteria	Deduction
If more than 10 consecutive street lights are out not attributed to lightning strikes or theft	After 72 hours upon identification	\$150 per occurrence
If more than 5 consecutive street lights are out attributed to lightning strikes or theft	After 72 hours upon identification	\$150 per occurrence
Lights are discovered to be on anytime between dawn & dusk, without a valid reason.	Upon Identification	\$150 per occurrence
Failure to comply with MRP requirements	After 72 hours upon identification	\$150 per occurrence

13. Street Lighting

A. The Contractor shall provide engineering services for the duration of the contract for required photometric analysis, designs, calculations, permitting, shop drawings, construction administration, as-builts, certifying of work performed, etc. Engineering services shall consist of Professional Engineers with an approved State of Florida Professional Engineering Seal to address all items that are required to be signed/sealed, for example: plans, calculations, shop drawings, as-builts, etc.

B. The Lighting Master Plan shall include the following:

1. Lighting Analysis

Provide a detailed narrative that describes how a Lighting Analysis will be conducted and clearly identify the following:

- A baseline photometric analysis for each corridor and/or remaining areas
- A lighting enhancement analysis for public and traffic safety
- Analysis for addressing under and over-lit areas
- Update the County’s Street Light ESRI Map layer
- The existing light or luminaire styles placed throughout the County consist of the following: Tear Drop, GranVille II, Utility Postop, Cobra Head, Mongoose, Shoebox, and Wallpack. The proposed Smart LED Light or luminaire shall replace the existing light or luminaire style, and be compatible to the existing luminaire arm or post.
- Compatibility of recently installed LED Lights with a Smart LED Lighting System (by placement of node, sensor, or transmitter)

The Contractor will perform the lighting analysis with proposed lights on sample corridors and assume the typical spacing, working to determine those typical corridors and using the Contractor’s GIS data to determine the standard light pole spacing and corridor width. The Contractor and the County shall mutually agree on the sample size and location of corridors. The Contractor shall then run sample calculations for those areas to show compliance.

2. Maintenance Plan

The Contractor shall prepare and submit for County approval, a Maintenance Plan that demonstrates requirements that meets or exceeds the County's expectation of the following:

- The Maintenance Plan shall include coordination with other agencies and/or utility companies, for example: Florida Power and Light, Florida Department of Transportation, City of Miami, etc.
- The Maintenance Plan shall include repairs as required per the quarterly inspection reports provided by the Florida Department of Transportation for their Maintenance Rating Program (FDOT MRP). (See Appendix L for a portion of the FDOT MRP Handbook)
- In accordance with Florida Department of Transportation Maintenance Contract, in maintaining the managed assets, the Contractor shall perform all activities necessary to keep the managed assets fully operating, properly functioning, with a minimum of 95% of the lights burning for any lighting type (ex. high mast, standard, underdeck, sign) or roadway system at all times for their normal expected useful life in accordance with the original design thereof, whether necessitated by normal wear and tear, accidental or intentional damage, or acts of nature. Said maintenance shall include, but shall not be limited to, providing electrical power and paying all charges associated therewith, routine inspection and testing, preventative maintenance, emergency maintenance, replacement of any component parts of the managed assets (including the poles and any and all other component parts installed as part of the managed assets) and locating (both vertically and horizontally) the managed assets, as may be necessary.
- In the event of a declaration of an emergency the Contractor is not responsible for the restoration of lights on state roads, in accordance with the Florida Department of Transportation State Road Map. The Contractor shall request from the FDOT a list of all of the light poles affected by the declared emergency for the sole purpose to differentiate between the emergency and regular maintenance. The Contractor is responsible for restoration of lights on County owned roads, the County will reimburse the Contractor upon the Contractor furnishing to the County the complete and detailed damaged repair information as required by Federal Emergency Management Agency (FEMA) and successor Federal agency(s) for reimbursement.
- The resources, including equipment, facilities, materials and staffing requirements
- Procedures specific to the different tasks, including innovative techniques and practices
- Ability to meet or exceed all key performance indicators
- Description of the preventative maintenance tasks and schedule

3. Upgrade Plan

Provide a detailed narrative that describes the approach to address under-lit and over-lit areas, as well as, the approach to improve the County's lighting quality. The Contractor's Upgrade Plan must provide at a minimum:

- A plan to optimize energy conservation, meet photometric requirements, and address any areas that are over or under-lit by providing uniform lighting
- Engineering Plans and/or shop drawings of Smart LED light upgrades
- Engineering Specifications

- Engineering Calculations for the planned illumination system improvements that are indicated in this Scope of Work.
- Maintenance of Traffic (MOT) Plans and Permitting as required for the project and its work zones for all State, County, and Municipal Permits as required.
- The Contractor shall evaluate each existing streetlight as some may be obsolete due to their age, are unable to be retrofitted, and/or the possibility that portions of the existing light assembly are no longer manufactured. Proposed upgrades are not only for the Smart LED Lights, but could also consist of other necessary items for the functioning of the street lights: wiring, pull boxes, conduit, light post, etc. The Contractor will need to coordinate these issues with County staff.
- As part of the Upgrade Plan, placement of a Smart Node/Transmitter at each light will be required. Metering is a key component with the success of the upgrade, and placement of meters at each existing service point is required, unless FPL and other power suppliers in the area accept the Smart Nodes/Transmitter and Software Monitoring for monitoring and billing.
- For the Proposed Smart Nodes and IoT Sensors to work efficiently, the Upgrade Plan shall also include the conversion of continuous power on the street lighting circuit, which is currently 480 V and controlled by a central photocell sensor per circuit provided directly by the Power Company or an MDC or FDOT Load Center. Other power combinations existing within the lighting grid are for example: 240/480 V, 120/240 V, 240 V, 120/480 V, and 120 V.
- The Contractor recommended system upgrades/improvements indicated in this Scope of Work are required to meet all of the corresponding codes and regulations outlined in the latest versions of the following: the National Electric Code, Florida Department of Transportation Road and Bridge Construction Design Standards and Specifications (for example: Design Standards 17500, Specification 715 and 992), Florida Department of Transportation Design Manual (for example: Section 231 Lighting), Florida Department of Transportation Structures Manual, and the Miami-Dade County Public Works Manual and Roadway Lighting Manual/Specifications.

4. Street Lighting Construction Plan

The Contractor's Engineering Team shall provide for the Smart LED Light Replacement Project to the County for review, the following: detailed narrative, project schedules, charts, tables, photometric analysis, specifications, shop drawings, Construction Documents, MOT Plans, and permitting. The light "only" replacement portion of this project is similar to a maintenance or repair contract, and all replacements will need to be accounted for as the work is performed. LED Conversion kits will not be accepted for use on this project. The Contractor when choosing an LED Light replacement or new Light Assembly will need to limit the amount of light brands and/or models indicated in the Approved Product List (per FDOT and/or DTPW) to avoid inventory/stock pile issues in the future as well as the roads aesthetics.

Proposed system upgrades, light assembly replacements, complete assembly replacements including foundation, Smart Pole Installation, attachments to the pole, and/or any modifications outside of the light replacement scope of work will require the Contractor's Engineering Team to submit for review Roadway Street Lighting Construction Plans consisting of: detailed narrative, project schedules, charts, tables, photometric analysis, Engineering Plans and Calculations, specifications, shop drawings, permitting, and MOT Plans .

Items (sensors, cameras, etc.) to be attached to the existing or new street light poles will need to meet or exceed the latest version of the Florida Department of Transportation Structures Manual for the wind analysis. New light pole and Smart Pole assemblies will also need to meet or exceed the latest version of the Florida Department of Transportation Structures Manual for the wind analysis.

The Contractor's Engineering Team proposed system upgrades/improvements identified by this Scope of Work are required to meet all of the corresponding codes and regulations outlined in the latest versions of the following: the National Electric Code, Florida Department of Transportation Road and Bridge Construction Details/Specifications (for example, Specification 715 and 992), Florida Department of Transportation Design Manual (for example: Section 231 Lighting), Florida Department of Transportation Structures Manual, and the Miami-Dade County Public Works Manual and Roadway Lighting Manual/Specifications.

- The narrative to be provided shall include a description of the methods by which the Contractor's team will manage the street lighting system(s) including: implementation of strategies or techniques to employ in carrying out all of the required tasks for the replacement of the existing luminaires to Smart LED Lights, architectural lighting installation, civil work, LED and remote management system installation, Computer Maintenance Management/Monitoring Systems implementation, and systems analytics and network implementation
- The proposed Smart LED Lights should have a management and metering system by circuit. The information fed from the sensors to an approved software management system displaying information pertaining to the lights health, power consumption, GPS location, height, condition, status, etc. Also, the software should display information pertaining to the lights location, status, condition, and health. The software shall be accessible by the Smart Mobility Platform, web, desktop and mobile devices (phone, tablets, laptops, etc.)
- In addition to the Smart LED Light/Node, all service points are to be upgraded to include metering for billing by: Florida Power and Light, Homestead Public Services, or other utility company.
- The Contractor will need to take into account that both the Florida Department of Transportation and Miami-Dade County Department of Transportation and Public Works have an approved product list for materials to be used within the Right-of-Way (for example: Smart LED Lights, pull box, conduit, etc.). See Appendix I. for the FDOT's Approved Product List for Conventional LED Lights and Underdeck LED Lights. Though a list of approved items exists, DTPW request from the Contractor to select the Smart LED Light and Node/Transmitter from one manufacturer to maintain road aesthetics and avoid issues with future inventory and maintenance.
- The Contractor's Engineering Team will need to evaluate the existing lighting systems located in coastal areas where ordinances have been set in place by the Florida Fish and Wildlife Conservation Commission, County, and/or municipalities located within the County limits for the protection of marine turtles. Known municipalities with these ordinances are the following: Town of Golden Beach, City of Miami Beach, City of Sunny Isles Beach and the Village of Key Biscayne. The Contractor will need to verify that any new Smart LED Light upgrades will meet the requirements set forth by the Florida Fish and Wildlife Conservation Commission and/or municipality.

Telecommunications and Fiber Design, FDOT Process and Fees. The Contractor Shall follow all FDOT permitting processes and be responsible for the associated fees when working in the County right of way; we are well versed in these responsibilities.

Telecommunications and Fiber, LED Lightings, IoT Sensors, and Camera Construction. The Contractor shall expect the exact hand-hole placement to be spaced as per the requirements set forth by the authority having jurisdiction.

5. Closing Documents

- Field inspections are to occur by the Contractor's Engineering Team upon completion of the circuit or corridor for certification of the work. The certification of the circuit or corridor shall occur after a seven (7) day burn in period has occurred to insure full operation of the recently installed lamp and/or node and full communication with the monitoring software. The County's staff will inspect the field work as necessary.
- As work zones are completed and approved, the Contractor's Engineering Team shall provide as-built information of the work performed at the specific zone (completed replacement, light replacement, conduit placement, wiring, structural work, etc.) in signed sealed hard copy and digital format to be approved by the County.
- Provide warranty, service/maintenance, and repair manuals for all installed and modified systems, particularly the Smart LED Light Assemblies with internal electronics (sensors, cameras, Cell Signal Boosters, etc.).

14. Architectural LED Lighting

A. Contractor shall provide Architectural LED Lighting technology to the indicated site listed below. The LED fixtures for the sites are to be energy efficient, and able to be software managed and programmable. The County may elect to add additional sites. The following structures shall be included in the proposal and deployed in order of priority below:

- Stephen P. Clark Center
111 NW First Street
Miami, Florida 33128
Lighting system shall include dynamic configurable lighting to cover the entire SPCC building exterior surface with 3D Video Mapping/Image Projection.
After the installation and acceptance of the lighting system, the Contractor will assume responsibility of Operations and Maintenance.
- Rickenbacker Bridge
Lighting system shall include functionality for configurable lighting display.
After the installation and acceptance of the lighting system, the Contractor will assume responsibility of Operations and Maintenance.

B. The Contractor shall prepare and submit for County approval, a Maintenance Plan, Construction Plan, Closing Documents, etc. for the architectural lighting. The Contractor must take into consideration that the permitting process for the Architectural LED Lighting projects may differ from the Street Lighting Project, which may include processing of plans submittals to the Miami-Dade County Building Department, City of Miami Building Department, etc.

15. Establishing an Aesthetics Policy Objective via the Contractor's Advisory Board

The Contractor's Advisory Board will develop and implement, with the approval of the County, an effective policy that aligns with applicable regulatory requirements, as recently modified by court order, while protecting your interests, providing value, and achieving your desired objectives. On August 12, 2020, the United States Court of Appeals for the Ninth Circuit loosened the aesthetic restrictions of the FCC Small Cell Order, so counties and municipalities may now be able to establish more restrictive requirements regarding aesthetic standards for these facilities. For example, counties and municipalities can charge fees above the FCC Small Cell Order's safe harbor fees, as long as they can justify those fees.

16. Cyber Security

- A. Contractor shall prepare for County approval a technical solution that defines the security for all aspects of the streetlights, including but not limited to the following:
- Streetlight communications shall authenticate all inbound requests via a County approved encryption.
 - Streetlight communications shall be capable of providing configurable authentication on all outbound requests, for instance to recipient notification endpoints.
 - Streetlights will encrypt all communications across this network at AES256 or better.
 - Streetlight enclosures and fixtures will be physically secure and fortified, including access to any physical diagnostics connection port.
 - Streetlight physical diagnostic connection ports will use the same encryption and authentication protocols as remote network connections.
 - All proposed security configuration shall be approved by the County's Enterprise Security Office (ESO)
 - The plan shall include:
 - a) The Proposers cybersecurity approach.
 - b) Description on detail how data privacy is maintained, particularly individual citizen data.
 - c) Description of what protocols will be established for dealing with unauthorized access to or disclosure of confidential data.
 - d) Describe how the solution tracks changes to records and how the system audits edits.
 - e) Describe the extent to which the solution has been designed to comply with laws and regulations governing the storage and use of protected user data.

17. Control, Monitor and Sensing

The system shall at a minimum monitor, diagnose and control all of the following aspects of luminaire function, and any others pertinent to the operation of the luminaires in Appendix G:

- The monitoring system shall be installed and tested prior to street light conversions.
- Monitor individual luminaire operational status (e.g. incorrectly off, incorrectly dimmed) in real time.
- Check individual luminaires' operational status (e.g. off, dimmed, unresponsive).
- Check individual luminaires' operational history.
- Check individual luminaires' precise location.
- Check individual luminaires' energy usage.
- Monitor inventory of all assets listed in Appendix G.: luminaire, pole, small cell and any devices installed through the resultant contract.
- Control the state of individual luminaires between on, off, and dimmed.
- Control the state of individual luminaires as in previous item via onboard software not dependent upon communication with the control network.
- Control the state of individual luminaires as in previous item via onboard hardware.
- Facilitate configurable alerts by County defined roles.
- Monitor device warranty, system failures/outages, and response times.

18. DTPW Cellular Service Requirement

The business model shall incur the cost for all cellular service fees for unlimited data for DTPW network devices defined Attachment B, Presentation of Innovative Concepts.

19. Mobile Device Application

Provide a mobile friendly iOS and Android application that will enable County staff to remotely access the system to streamline the management, monitoring and maintenance of streetlights and communications infrastructure.

20. Technology Refresh

The solution shall include a technology refresh and upgrade for software and hardware to avoid obsolescence. Technology refresh shall occur no later than Contract years 6 and 11.

21. System Integration with ActiVu and SunGuide

- The Contractor shall prepare and submit for County approval, a software integration system which is expandable for future systems and able to operate with the current County's video management system.
- Currently the County utilizes GeneTech, SunGuide System, and ActiVu

22. Implementation and Transition Plan

The Contractor shall prepare and submit for County approval, an implementation plan shall include all aspects of the project from Notice to Proceed (NTP) through Final Completion. The plan shall be submitted the County for approval. The Contractor shall clearly demonstrate an efficient and effective implementation and transition plan that minimizes impact.

- The implementation and transition plan shall include all prioritized corridors listed in Appendix C.
- The plan shall include details of tasks by corridors and by technology subsystems. It shall provide, at a minimum, the following information for each phase:
 - a) Site preparation for System hardware and software, electrical, etc.
 - b) Descriptions and drawings of any intermediate or temporary configurations required, per phase, which differ from final configuration.
 - c) County support personnel required to support the project.
 - d) Transit operations impact or outages along with expected durations and contingency plans.
- The County reserves the right to reject any document, without review, that is not in English and that is not readily understandable due to lack of proper grammar, spelling, sentence structure, or punctuation. The County is under no obligation to expend extraordinary effort to interpret poorly written or translated documents.
- The Contractor shall submit in hardcopy format a bound original, complete package. Fifteen (15) printed copies of the complete package, and fifteen (15) universal serial bus (USB) flash drive (thumb drive) of the complete package, for a total of thirty (30) packages. All electronic copies of documents shall be in native AutoCAD, Word, Excel, or Visio formats and allow copy to clipboard permissions.

23. Small Cellular Co-location Management

The Contractor shall manage all colocation application and requests for small cell equipment installation or relocation onto any lighting assets contained in this Scope of Work. This includes the review of permit applications in accordance with local, state and national requirements. The Contractor shall submit a recommendation to the County for final permit issuance. The Contractor shall utilize the DTPW Permitting Module to review permits. The County utilizes BlueBeam Extreme Edition software for digital annotation, the Contractor is required to obtain the respective licensing. The Contractor shall perform the final inspection with a Professional Engineer licensed in the State of Florida and provide the County the final inspection approval.

24. Fiber Optic

The County is transforming to a Smart County with a focus on transportation and creating a system that offers multiple mobility options, leverages existing infrastructure, and integrates technology at the highest levels. The goal is to provide mobility solutions creating an intelligent and sensor-based infrastructure that is able to connect with vehicles and provide drivers at a minimum with far-reaching awareness of potential hazards and crash situations; create an exchange of data among vehicles traveling in the same vicinity offering opportunities for significant safety improvements; and for each vehicle on the roadways to eventually be able to communicate with other vehicles, and create an infrastructure, to improve safety and maximize efficiency of facilities. The comprehensive fiber optic solution in the Priority Corridors and additional areas provided by the Contractor and no cost to the County, will also provide inclusive connectivity across the County reducing the digital divide, enabling economic development and sustainability for all as well as serving as the foundation for a number of smart county solutions today and in the future. The fiber backbone shall also serve as a key budget creating / revenue generation source, supporting the overall project.

The Contractor shall develop a communications architecture and deploy a fiber connected infrastructure (to include Hardened State Approved Product List Switches) for the Priority Corridors identified in Appendix C: Traffic Signals and Signs Congestion Management Plan Priority Corridors. This fiber connected infrastructure shall facilitate a minimum 1 gig connectivity to the 432 Traffic Controller Cabinets and the 500 cameras listed in Appendix G. The excess fiber capacity as well as additional Smart County infrastructure provided by the Contractor shall be utilized for the deployment of inclusive municipal broadband across the Priority Corridors and the County, where said fiber infrastructure is provided. Contractor may also provide additional fiber connected Corridors and premises across the County, beyond the amounts in Appendix G or the Priority Corridors, at no cost to the County, supporting the reduction of the digital divide.

Underground utilities shall be in accordance with the FDOT Utility Accommodation Manual (UAM) Depth Requirements for Open Trench or Trenchless Methods for State Roads or Highways and/or the County's Draft Utility Accommodation & Appurtenance Specifications for Public Rights of Ways Second Edition which Supersedes UAM First Edition Recorded May 21st, 2009 for County Roads or Highways.

The infrastructure design provided by the Contractor must be approved by the County and must be a solution that provides at a minimum 24/7 high availability, fault-tolerance, security and ease of management. No single point failures can exist in the system. The failure of any single component, whether hardware or software, will not impact the system as a whole. The implemented infrastructure shall be maintained by the Contractor for the contract term. Any fiber infrastructure to be invoiced to the County under available pay items shall remain the property of Miami-Dade County.

Each Traffic Controller Cabinet shall be retrofitted to support the following:

Estimated Bandwidth Needed Per Traffic Intersection with Fiber Communications					
Item #	Item Description	Estimated Bandwidth	Minimum Number of Devices per Intersection	Frequency of Data Transmission Between Field and ATMS System	Total Bandwidth at Intersection per Device Type or Functionality in Mbps
1	2070LX Traffic Controller Running Adaptive		1		1
2	High-Resolution Data Turned On		1	Every 1/10 of a Second	1
3	Transit Signal Priority (TSP) Turned On		1		1
4	Emergency Vehicle Pre-emption Turned On		1		1
5	Video Stream per Video Detector Viewed in ATMS		8	On Demand (Not 24x7)	40
6	IoT Sensor - Traffic Monitoring Detection		1		1
7	Connected Vehicle Functionality Implemented Using DSRC (Vehicle to Infrastructure Communications)		1		1
8	Video Camera Stream (4K) for Traffic Monitoring Running 24x7		3		75
9	Estimated Bandwidth for Future Growth to Support Other Future ITS Devices and New Functionalities		1		1

TOTAL ESTIMATED BANDWIDTH PER TRAFFIC INTERSECTION = 125 Mbps

Appendix A: 2018 Transit Development Plan - draft
<https://www.miamidade.gov/transit/mdt-10-ahead.asp>

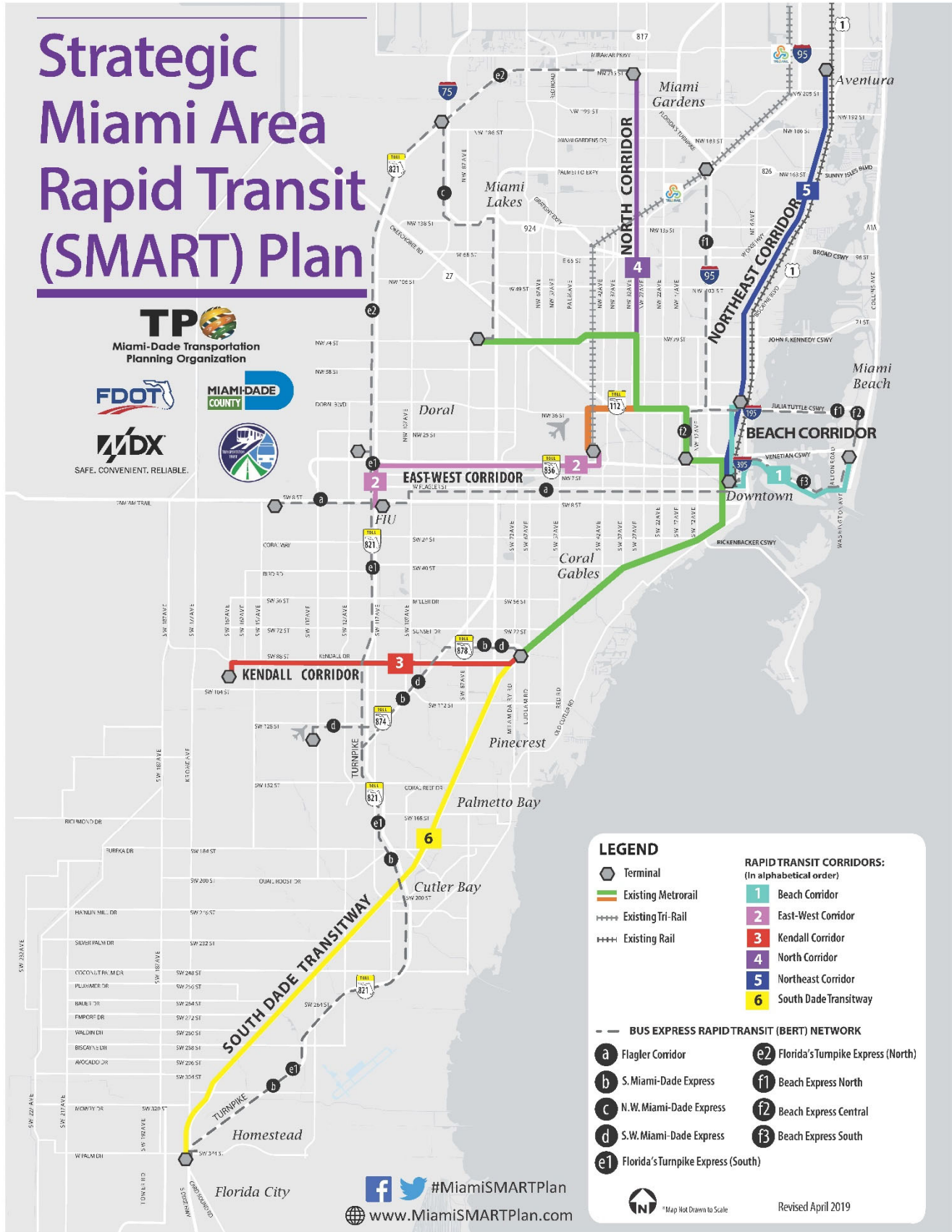
Appendix B: Smart Plan
<http://www.miamidadetpo.org/>

CORRIDORS LISTED IN ALPHABETICAL ORDER	FROM	TO
Beach Corridor	Midtown Miami	Miami Beach Convention Center
East-West Corridor	Miami Intermodal Center	Florida International University
Kendall Corridor	Dadeland area Metrorail Stations	Krome Avenue
North Corridor	Martin L. King, Jr. Metrorail Station	NW 215 th Street
Northeast Corridor	Downtown Miami	City of Aventura
South Dade Transit Way	Dadeland South Metrorail Station	SW 344th Street Transit Terminal (Florida City)

Strategic Miami Area Rapid Transit (SMART) Plan



SAFE. CONVENIENT. RELIABLE.



LEGEND

- Terminal
- Existing Metrorail
- Existing Tri-Rail
- Existing Rail

RAPID TRANSIT CORRIDORS: (In alphabetical order)

- 1 Beach Corridor
- 2 East-West Corridor
- 3 Kendall Corridor
- 4 North Corridor
- 5 Northeast Corridor
- 6 South Dade Transitway

BUS EXPRESS RAPID TRANSIT (BERT) NETWORK

- a Flagler Corridor
- b S. Miami-Dade Express
- c N.W. Miami-Dade Express
- d S.W. Miami-Dade Express
- e1 Florida's Turnpike Express (South)
- e2 Florida's Turnpike Express (North)
- f1 Beach Express North
- f2 Beach Express Central
- f3 Beach Express South

*Map Not Drawn to Scale

Revised April 2019

#MiamiSMARTPlan
www.MiamiSMARTPlan.com

BUS EXPRESS RAPID TRANSIT (BERT) REGIONAL NETWORK LISTED IN ALPHABETICAL ORDER	DESCRIPTION
Beach Express	<ul style="list-style-type: none"> • North – Miami Beach Convention Center to Golden Glades via I-95 • Central – Miami Beach Convention Center to Civic Center via Julia Tuttle Causeway • South – Miami Beach Convention Center to Downtown Miami via MacArthur Causeway
Flagler Corridor (PD&E)	Downtown Miami to West Dade via Flagler Street
Florida’s Turnpike Express	<ul style="list-style-type: none"> • North – Dolphin Station to North Miami-Dade via the HEFT • South – Dolphin Station to SW 344th Street via the HEFT
Northwest Miami-Dade Express	Palmetto Metrorail Station to Miami Gardens Drive Park-n-Ride via Palmetto Expressway and I-75
South Miami-Dade Express	Dadeland North Metrorail Station to southern Miami-Dade County via SR-878, SR-874, and Florida’s Turnpike
Southwest Miami-Dade Express	Dadeland North Metrorail Station to Miami Executive Airport via SR-878 and SR-874

Appendix C: Traffic Signals and Signs Congestion Management Plan Priority Corridors

County Congestion Management Plan Corridors Phase 1 Twelve (12) Corridors

Corridor	A Cross Street	Z Cross Street	Included Number of Traffic Controller Cabinet Terminations	Number of Customer Fibers	Total Route Miles	County Facility Tie-In
Miami Gardens Dr	SR-821(Florida Turnpike Ext)	W Dixie Highway	33	4	18.40	North Dade Justice Center – 15555 Biscayne Boulevard, N. Miami Beach, FL 33160

163 rd / 167 th Street	US-1	NW 2 Ave				North Dade Justice Center – 15555 Biscayne Boulevard, N. Miami Beach, FL 33160
			14	4	11.74	
Harding Ave/Abbott Ave/Indian Creek Dr	81 St	63 St				North Dade Justice Center – 15555 Biscayne Boulevard, N. Miami Beach, FL 33160
			12	4	5.46	
NW 36 th Street	Le Jeune Rd (NW 42 Ave)	SR-821 (Florida Turnpike Ext)				Miami-Dade County Traffic Signals & Signs Division – 7100 NW 36 Street, Miami, FL 33166
			26	4	20.28	
Flagler Street	W 27 Ave	W 118 Ave				Miami-Dade County Water & Sewer Department – 3071 SW 38th Ave, Miami, FL 33146
			29	4	15.78	
SW 8 th Street	Brickell Ave (US-1)	SW 177 th Ave (Krome Ave)				Stephen P. Clark Government Center – 111 NW 1 Street, Miami, FL 33128
			53	4	29.25	
Le Jeune Rd	US-1	Okeechobee Rd				Miami-Dade County Water & Sewer Department – 3071 SW 38th Ave, Miami, FL 33146
			23	4	13.52	
Unity Blvd	SR-821 (Florida Turnpike Ext)	US-1				Martin Luther King Office – 2525 NW 62nd Street, Miami, FL 33147
			53	4	46.48	

North Biscayne Blvd	NE 213 St	NE 3 rd St	70	4	19.45	North Dade Justice Center – 15555 Biscayne Boulevard, N. Miami Beach, FL 33160
US 1 North Sector	SE 5th St	SW 98th St	39	4	13.03	Miami-Dade County Water & Sewer Department – 3071 SW 38th Ave, Miami, FL 33146
US 1 South Sector	SW 104th St	SW 344th St (Palm Dr)	44	4	23.85	South Dade Government Center – 10710 SW 211th Street, Miami, FL 33189
SW 88 th (Kendall Drive)	US-1	Krome Ave	36	4	13.50	Miami-Dade County Information Technology Department – 5680 SW 87 Avenue, Miami, FL 33173
Total			432		230.74	

Appendix D: Smart County Internet of Things (IoT) Guidelines

The Contractor shall adhere to the Smart County IoT guidelines as described below:

The IoT guidelines can be found at: <https://iot.countyofnewyork.us/>

For reference, the Guidelines are as follows, covering five categories, Privacy and Transparency, Data Management, Infrastructure, Security, and Operations and Sustainability.

PRIVACY + TRANSPARENCY

County IoT deployments must protect and respect the privacy of residents and visitors. The County is committed to being open and transparent about the “who, what, where, when, why and how” of data collection, transmission, processing and use.

1.1: The County should make processes and policies related to IoT and IoT-related data publicly available in an up-to-date, clear and comprehensive manner. IoT principles, guidelines, operational policies and responsibilities should be transparent and made public via a County government website.

1.2: IoT data should only be collected, transmitted, processed and used for specified, explicit and legitimate purposes. The purpose of data collection (e.g., a use case such as monitoring air quality), what data is collected (e.g., particulates in the air) and how data is being collected (e.g., pollution sensor on a light pole) should be transparent and made public via a County government website or other public notice.

1.3: Data and information collected by IoT devices should be classified and treated accordingly, per the County of New York's Data Classification Policy, as Public, Sensitive, Private or Confidential. All personally identifiable information (PII) should be classified at a minimum as private. All data that is classified as being confidential, or personally identifiable, should be protected from unauthorized use and disclosure.

1.4: PII should by default be anonymized before being shared in any way that could make the information publicly searchable or discoverable. Any copies and reproductions must have the same or higher level of classification as the original.

1.5: PII data types should have a clearly associated retention policy and disposal procedure. Sensitive, private or confidential data should be kept for no longer than is operationally necessary or required for the specified, explicit and legitimate purposes.

1.6: Before any sensitive, private, or confidential data is shared outside the originating County agency, the agency should ensure that the need cannot be met by using anonymized or aggregated data and that the appropriate protections are in place to preserve the confidentiality of the data.

1.7: All public data sets are subject to relevant County policy and as such should be freely accessible via the County's Open Data portal found here: <https://data.kcmo.org/>

1.8: Establish a 4G wireless network along the County's SmartPlan Appendix B corridors and the TSS Congestion Management Corridors at no cost to the County. This network will be upgraded to 5G once the technology is further developed. The proposed network will be deployed using small cell technology installed on the County's existing light poles.

DATA MANAGEMENT

County IoT deployments must protect and respect the privacy of residents and visitors. The County is committed to being open and transparent about the "who, what, where, when, why and how" of data collection, transmission, processing and use.

2.1: IoT systems (e.g. how data is collected, analyzed and used) should be designed with the use case in mind (e.g. predicting demand for trash pick-up based on data on trash volume, weather and events) to maximize the benefits that can be derived data collection (e.g. routing garbage trucks more efficiently). Where useful, relevant business and historical data from the County or its partners should be made available and utilized by applications.

2.2: The desired measurement from any IoT system (e.g. pedestrian counts) should be collected and categorized as efficiently as possible, using as few steps and/or manipulations as necessary.

2.3: IoT data should be collected and stored according to open standards, contain relevant contextual metadata, be exposed through open, standards-based application program interfaces (API's), and be provided with software development kits (SDKs) where applicable so it can be easily shared or combined with other data sets.

2.4: IoT data should be archived in a federated way and made accessible throughout the County through a central portal (e.g. the County's open data portal) or a catalogue of documented open API's unless restricted by existing laws or regulations and/or doing so would compromise privacy or public safety. Data from other systems not operated by the County, such as from a private sector partner or from crowdsourcing, that could provide public benefit can also be provided in this form with the source documented accordingly.

2.5: The County recognizes the use of distinct and sometimes conflicting non-proprietary international, national, or industry standards for data and technology interfaces. In cases where standards conflict, the one that most closely aligns to the use case will be selected.

2.6: Each IoT device data set (e.g. temperature) should be validated and verified (e.g. through redundancy in data collection and/or historical data) and the resulting master copy clearly labeled before it is used, aggregated and/or released. Data should be versioned so that any updated data can be distinguished from the original and/or master copy. The retention and disposal policies for the master copy should be explicitly defined.

2.7: IoT data should be both audited and continuously monitored for accuracy and validity. This process should be automated where possible.

2.8: All data sets (e.g. 311 service requests) should be checked for geographic, social or system-driven bias (e.g. geographic differences in civic engagement) and other quality problems. Any biasing factors should be recorded and provided with the data set and corrected where possible.

INFRASTRUCTURE

IoT devices, fiber, Wifi and cellular networks and infrastructure shall be deployed, used, maintained and disposed of in an efficient, responsible and secure manner to maximize public benefit.

3.1: To support countywide coordination of IoT deployments, County agencies should maintain an inventory of IoT devices that they deploy using a standardized format. County agencies should also maintain an inventory of the public or private assets on which devices are installed and the networks used by these IoT devices including details on the network type (e.g. LTE), security protocol (e.g. WPA), location, service level agreements, and contact information for the network and system operator.

3.2: The County should accumulate and publish, via a County government website, public information on IoT systems including but not limited to examples of deployed IoT devices (e.g. air quality sensors) and the different types of public assets (e.g. light poles) on which they are deployed.

3.3: The County should make public, via a County government website, a standardized protocol, including points of contact, for requesting access to, and approving use of, County assets for IoT deployments. Where appropriate, the County will detail restrictions on particular types of public assets and/or siting restrictions (e.g. rules for landmark or historic districts).

3.4: IoT deployments shall, where possible, leverage or repurpose existing conduit and public assets, maximize energy efficiency, and adhere to sustainable device disposal procedures.

3.5: The County should leverage existing wireless and fixed networks where possible and appropriate. Networks for IoT deployments should be selected to best support the specific use case. This should include but is not limited to ensuring appropriate security protocols, bandwidth, pricing models, and service level agreements (SLAs).

3.6: All IoT devices and network equipment installed by the County, on the County's behalf, or on County property should have clear site license agreements and established terms of service governing who is responsible for ongoing operations, maintenance, and the secure disposal of equipment. IoT devices and network equipment should be labeled clearly with the name and contact information for the responsible party.

3.7: Public assets should be instrumented in an orderly manner that minimizes clutter and allows for ease of access for replacement, repair and addition of new equipment or devices. If new conduit is being installed using public assets (e.g. to access rooftop of public buildings) or using public right-of-way (e.g. in County streets), location details must be filed with the responsible agency and use of the conduit should not be restricted to one party.

3.8: IoT systems should be designed to maximize resiliency in the event of a natural disaster (e.g. severe flooding) or other emergencies (e.g. electrical outages). Critical systems should have established emergency response plans to ensure the appropriate continuity of service.

SECURITY

IoT systems should be designed and operated with security in mind to protect of the public, ensure the integrity of services, and be resilient to attacks.

4.1: IoT systems should be designed with an explicit focus on minimizing security risks (e.g. unauthorized operation or hacking, system faults, tampering, and environmental risks), limiting the potential impact from a security breach (e.g. the release of personally identifiable information), and ensuring that any compromises can be quickly detected and managed.

4.2: IoT systems should utilize established security frameworks, where possible, and ensure communication between components is tightly constrained.

4.3: Identity and access management controls should be in place to ensure that the right people have access to systems, networks, and data at the right time. Users with access to IoT systems should be identified and authenticated. Identification should be to the individual and not to the role.

4.4: All data should be protected in transit and at rest, and systems should be secured against unauthorized access or operation. Data storage mechanisms must not be easily removed from devices and systems must not have vulnerable external interfaces (e.g. unsecured USB ports).

4.5: All partners utilizing public assets and/or networks for IoT deployments should adhere to the principles and guidelines set by the County. The County has the right to restrict or revoke access to assets, devices, and public networks to protect the public interest and public safety.

4.6: The County and its partners should engage in both audit-based and continuous monitoring to ensure that systems are working and that devices have not been compromised.

4.7: Responsibilities related to security monitoring and the protection of IoT systems should be clearly defined. In the event of a breach, public and private sector entities will be required to comply with the County's breach disclosure and notification requirements.

OPERATIONS + SUSTAINABILITY

All IoT deployments should be structured to maximize public benefit and ensure financial, operational, and environmental sustainability.

5.1: Demonstrated need, business case, and public benefit (e.g. economic, social, and environmental outcomes) should be required prior to deployment of any new IoT devices or solutions. In addition, proof of concept should be required prior to countywide deployments.

5.2: Prior to deployment, the County and its partners shall identify all stakeholder and user groups (e.g. community residents and county employees) that will be impacted by the IoT and Smart County and establish feedback mechanisms and methods of engagement for these groups. Before and during deployment, the County and its partners should also check for

and address biases in the IoT solution (e.g. information asymmetries) that may result in unintended consequences (e.g. inequitable service delivery).

5.3: All projects and associated contracts or agreements should outline the “who, what, where, when, why and how” of the implementation, operations, risk management, knowledge transfer, and maintenance of IoT systems. This should include clear definitions related to system and data ownership and responsibilities.

5.4: Solutions shall be designed to be flexible and responsive to evolving needs. Agreements should enable the addition of new functions and update of components over the life of the agreement at a fair and transparent cost.

5.5: Performance metrics should be maintained for solutions. Agreements should specify intended outcomes of a solution and levels of service and provide for penalties, modifications, or terminations of the agreement in the event that the solution does not perform.

5.6: The County and its partners should reuse infrastructures and components where possible, leverage countywide contracts or agreements, and develop solutions collaboratively among agencies to avoid duplicating existing solutions or functions and extract the greatest value from investments.

5.7: All components of a solution should be implemented in a modular manner, prioritizing open standards where possible, to ensure interoperability and prevent dependency on a single vendor.

Appendix E: MDC Street Light Inventory

<http://mdc.maps.arcgis.com/apps/webappviewer/index.html?id=e020fb2ef4734a759fb9f88163480d2b>

Appendix F: MDC Roadway Lighting Manual

Appendix G: Minimum Device Requirement Table

Item	Description	Unit Total
Video Cameras	4k Video with configurable framerate cameras to count Vehicle, Bicycle and pedestrians for Arterial Traffic Management	500
Streetlight Circuit Power Meter	FPL Approved Meters	923
Streetlight LED	LED Conversion	27000
Architectural Lighting	Stephen P. Clark Center (To be completed by July 2020) 111 NW First Street Miami, Florida 33128 Rickenbacker Bridge	2
Comprehensive IoT Multi-sensor (such as a combined Bluetooth and Co2 Sensor)	1 Sensor Per 30 Poles (inclusive of all 27000)	900
Fiber Optic Communications	Per mile	231

Appendix H: Maintenance and Support Table

Severity Level	Definition	Availability (Live Support)	Response (Goal)	Resolution Time (Goal)	Status Frequency Updates	Escalation
1	A reported problem in the software, or one of its necessary components, has caused the software to cease functioning or has caused a complete system shutdown.	24 hours a day, seven days per week	Immediately	Continuous work until workaround found or resolved	One Hour	1,3,4,5
2	A reported problem in the software or one of its necessary components has caused a serious disruption of a major business function and cannot be temporarily solved by an alternative method or workaround.	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 2 hour	Continuous work until workaround found or resolved	Two Hours	1,3,4
3	A reported problem in the software or one of its necessary components for which a temporary workaround is readily known and available.	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 1 business day	Next SW Update	Weekly	1,3,4

4	A reported problem, question or request that is not included in the definitions of Priority 1, 2, or 3 and demands less immediate attention than said priorities	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 1 business day	Future SW Update, if applicable	Bi-Weekly	1,3
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Appendix I: FDOT’s Approved Product List for Conventional LED Lights and Underdeck LED Lights

- <https://fdotws1.dot.state.fl.us/ApprovedProductList/ProductTypes/Index/611>
- <https://fdotws1.dot.state.fl.us/ApprovedProductList/ProductTypes/Index/614>

Appendix J: Florida Department of Transportation Maintenance Rating Program

- Maintenance Rating Program Handbook

Appendix K: Draft Utility Accommodation & Appurtenance Specifications for Public Rights of Ways Second Edition which Supersedes UAM First Edition Recorded May 21st, 2009

Appendix L: Fiber Optic Network for ITS and Traffic Signal Systems Specification

PART 1 GENERAL

1.01 SUMMARY

A. Description

1. Design, build, and maintain the Fiber-Optic Communications Network for the County’s Intelligent Transportation System (ITS) and Traffic Signalization System and municipal broadband including fiber optic cable, underground conduit system, and communications network equipment.
2. Develop a system where a Communication Network architecture harmoniously meshes with all other existing systems (hardware/software) in operation keeping in mind future expansions.
3. Prepare and provide, by phased submittals, the systems engineering documents and designs plans outlined herein. The Contractor shall comply with the three design submittal cycles of 60%, 90% and Final Design.

1.02 APPLICABLE REFERENCES

A. Standard Specifications

1. Florida Department of Transportation Standard Specifications for Road and Bridge Construction
 - a. Section 633 (Communication Cable)
 - b. Section 684 (Network Devices)
2. Miami-Dade County Traffic Control Equipment Standards and Specifications
 - a. Section 600 (General Provisions for Traffic Control Devices)

- b. Section 630 (Conduit)
- c. Section 635 (Pull, Splice, and Junction Boxes)

B. Design Standards and References

- 1. FDOT Design Manual
- 2. FDOT Standard Plans for Road and Bridge Construction
- 3. FDOT Utility Accommodation Manual (UAM)
- 4. Utility Accommodation & Appurtenance Specifications for Public Rights of Ways (Latest Version)

C. Related References

- 1. Miami-Dade County Traffic Signals and Signs Division's Qualified Product List (TSSQPL)
- 2. Fiber-Optic Communications Concept Plan for Miami-Dade County's Intelligent Transportation Infrastructure
- 3. FDOT Guide Fiber Design for ITS and Signalization Projects
- 4. FDOT Approved Product List (APL)
- 5. American Society for Testing and Materials (ASTM)
- 6. American Nation Standards Institute (ANSI)
- 7. National Electrical Code (NEC)
- 8. National Electric Safety Code (NESC)

1.03 SYSTEM DESCRIPTION AND DESIGN REQUIREMENTS

A. Design Requirements

- 1. Provide grounding, service, lightning and surge suppression for all ITS devices and cabinets in accordance with Miami-Dade County Traffic Control Equipment Standards and Specifications, FDOT Standard Specifications, FDOT Standards Plans. This includes existing ITS devices where new cabinets are installed.
- 2. Provide test results for all ITS devices, fiber optic cabling and infrastructure, and communications network equipment signed by the Department's Construction Engineering and Inspection (CEI) Contractor, and the Contractor's Engineer of Record (EOR).
- 3. The Contractor is responsible for ensuring project compliance with the Regional ITS Architecture and Federal Title 23 CFR Rule 940 as applicable. This includes, but is not limited to, the development or update of a concept of operations, the development or update of a system engineering master plan (SEMP), and requirement traceability verification matrix (RTVM) as well as coordination of document review.
- 4. The design of the new system shall integrate with the existing devices. The design shall include the necessary infrastructure and components to ensure proper connection of the new ITS components. This shall include but not be limited to all proposed ITS components of this project as well as existing subsystems that remain or are re-deployed as the final project.
- 5. The Contractor shall develop a plan to address technology obsolescence during the life of the project, given the estimated time to complete field ITS device and fiber optic communications system installation.
- 6. The Contractor shall prepare design plans and provide necessary documentation for the procurement and installation fiber optic cable, underground conduit system, and communications network equipment, as well as overall system construction and integration, testing, documentation, training, and warranty services.

The construction plan sheets shall be in accordance with the FDOT Design Manual requirements and include, but not be limited to:

- a. Network Architecture
 - b. Fiber optic splice diagrams and conduit
 - c. Power Service Distribution
 - d. Grounding System Location and connection details
 - e. Wiring and connection details
 - f. Conduit, pull box, and splice vault installation
 - g. Communication Hub and Field Cabinets
 - h. System-level block diagrams
 - i. Device-level block diagrams
 - j. Field hub/router cabinet configuration details
 - k. Fiber optic Splicing Diagrams
 - l. Link loss budget details
 - m. Patch panel details and port assignments
 - n. System configuration/Wiring diagram/Equipment Interface for field equipment at individual locations and communications hubs.
 - o. Maintenance of Communications (MOC) Plan
7. Fiber Optic Communications System
- a. Fiber Optic Network - The fiber network shall use a combination Ring/Tree/Bus topology with the Miami-Dade County Regional Data Processing Communication Center (5680 SW 87 Avenue, Miami, Florida) and the Miami-Dade County Integrated Command Facility Building (11500 NW 25 Street, Miami, Florida) having two separate physical entries on the backbone ring. The network should branch from the centers to other communication hubs, creating smaller or sub-rings providing each branch with redundant paths. The field devices should have a single entry or drop connecting to the branch. The drops should be spliced to the sub-ring to provide an uninterrupted path to two different centers/hubs on the sub-ring. The drop splice should occur close to the field device to minimize vulnerability. The backbone ring shall be a high count cable, 144 single mode fiber, with the branches or sub-rings having medium count cables, 72, and the drops utilizing factory terminated 12 strand terminal block with ST connectors. This minimizes line loss and provide a convenient, secure field connection. From the Termination block, factory terminated jumpers can be used to connect to the field fiber IP modems. The bandwidth requirements shall dictate the requirements of the field modems, however, only field hardened equipment shall be used. Field drops shall be “daisy chained” to create “channels”. Channels shall consist of ten field sites that utilize 1 pair of fiber strands (two strands) that provide two physically separate paths to two different hubs. Channels shall be constructed so that no more than 50% of available bandwidth, as dictated by the field modems, is used. Remaining capacity or incremental capacity provided by the Contractor, beyond Appendix G, which will be provided at no cost to the County, will be leveraged for the inclusive municipal broadband services, as part of the Smart County solution.
 - b. Communications Hubs – Any proposed center/hub shall have a dedicated secure space with separate climate control capable of maintaining temperature within the range required for proper operation by all of the electronic equipment housed within. The power to the center/hub shall be conditioned to meet ANSI standards for computer equipment. New hubs shall have a UPS capable of supplying conditioned power for all servers, control computers, computer room climate control if present, critical workstations and system communications for a minimum of four hours. The UPS's shall be automatically started/switched to in the event of power disruption without disrupting power to the supplied devices. All power events shall be immediately documented and reported to both Centers. The field hubs shall collect the data from the channel sub-rings and concentrate it to the backbone ring. The modems used in the field and the hubs shall

automatically switch to the redundant path, should the used path be interrupted. These communication disruption events shall be documented and reported by the network monitoring software.

- c. Fiber Tracking and Maintenance - An integrated maintenance-tracking feature/system shall be provided to record, track and report on equipment and trouble call information where the Contractor shall be responsible for response and repairs during the contract, in accordance with ITS Maintenance requirements section herein. The Contractor /County shall be able to use the maintenance-tracking tool from the signal control interface without exiting the signal control software. The System shall support the entering of information regarding new equipment, fiber, splices, as well as the tracking of field repairs. The Contractor's system operator shall be capable of storing equipment IDs, a unit description, vendor model, serial number, firmware version, IP addresses, maintenance history, date purchased, date installed, warranty information, vendor contact information and purchase price. The equipment shall be assignable to a specific field site or the signal shop. Vendor information shall be stored in the database for information including company name, contact name, address, phone number, fax number, e-mail addresses and Web page address. A series of reports and dashboards shall be provided for equipment reliability and repair history at a site during the project. These reports shall include equipment type, location, and maintenance record. The Contractor shall develop the database and reports formats for all equipment installed as part of this project prior to Final Completion. This report shall be provided to the County for review and approval.
 - d. Fiber Optic Plant - The FOC communications backbone shall consist of a one hundred and forty-four (144) count single mode fiber optic cable and one (1) – 4 inch HDPE conduit with three (3) inner ducts, two (2) – 1 ¼ inch and one (1) – 1 inch, locate tone wire inside conduit, warning tape, fiber route markers, pull boxes, splice boxes, splice enclosures, and splice vaults. The minimum size of any pull box shall be 24 inch W x 36 inch L x 36 inch D, boxes shall not be greater than 1,000 feet apart, and the lid labeled accordingly. The backbone shall provide access points for the various ITS/Signalization components along the corridor for network connectivity as previously described. Fiber optic cable shall be coiled at 100 feet in each splices vault/HUB location, and 50 feet coiled within all pull boxes. Splice vaults shall be sized to accommodate the bending radius of the fiber optic cable, storing of 100 feet of cable, splice equipment and splice components, and have additional capacity for a second splice connection of the same capacity of cable and splice equipment. Splice enclosures should be located mid-way on fiber cable in splice vaults. 24 inch W x 36 inch L x 36 inch D pull boxes shall not be used for splice vaults. Power service pull boxes shall be 18 inch W x 24 inch L x 18 inch D. All existing conduit and pull boxes not utilized shall be removed within the Project limits unless requested to be left in place by the County.
 - 1) Required fiber paths – At a minimum, fiber backbone ring shall be installed with no exceptions on:
 - a) Appendix C, Traffic Signal and Signs Congestion Management Plan Priority Corridors
 - 2) All other routes with traffic signals or ITS devices are secondary and require fiber connectivity or connectivity through alternative methods. Major and minor HUB locations that require existing connections to be maintained or new connections are shown on the Fiber Route Map and noted below:
 - a) Appendix C, Traffic Signal and Signs Congestion Management Plan Priority Corridors
 - 3) The fiber backbone ring paths and various fiber counts are to be designed to provide DTPW with a highly reliable and redundant system to remain operational during all-weather events and over time with little on-going maintenance.
8. Temporary Traffic Signal and ITS Device Communications
 - a. The Contractor shall prepare and submit to the Department a Maintenance of Communications (MOC) a MOC Plan. The MOC Plan shall detail and document existing ITS equipment and report which devices are to be removed, relocated, or are impacted by the project.

- b. The Contractor shall be responsible for designing, constructing and maintaining (see ITS Maintenance section herein) any temporary communications that may be necessary to provide continual communications to all of the ITS field devices and communications hubs.

1.04 SUBMITTALS

A. Closeout Submittals

1. As-Built Set

- a. The Contractor's Engineer-of-Record (EOR) in responsible charge of the Project's design shall professionally endorse (sign, seal, and certify) the As-Built Plans, the special provisions and all reference and support documents. The professional endorsement shall be performed in accordance with the FDOT Design Manual and Miami-Dade County Traffic Control Equipment Standards and Specifications Section 600 (General Provisions for Traffic Control Devices).
 - b. The Contractor shall complete the As-Built Plans as the Project is being constructed. All changes made subsequent to the "Released for Construction" Plans shall be signed/sealed by the EOR. The As-Built Plans shall reflect all changes initiated by the Contractor or the Department in the form of revisions. The As-Built Plans shall be submitted upon completion of field construction activities and prior to the beginning of the Operational Test for Department review and acceptance as a condition precedent to the Departments issuance of Final Completion.
 - c. As-Built Plans shall include Global Position System (GPS) locations of all newly installed ITS infrastructure, field elements, pull boxes, splice boxes, and conduit routing. GPS locations shall be recorded at sub-meter accuracy. When specifying GPS coordinates, a single datum shall be utilized for all measurements and the datum shall be noted.
 - d. The Department shall review, certify, and accept the As-Built Plans prior to issuing Final Completion of the project.
2. All hardware and software provided by the Contractor shall have the latest stable firmware or software version installed and any necessary upgrades available at the time of Final Completion of Construction. All As-Built documents shall be produced electronically using Department supported software, signed and sealed by the Contractor's Engineer of Record, and submitted by the Contractor to the Department as a condition precedent to issuance of Final Completion. The final approved as-built documents shall be submitted to the Department as a prerequisite to Final Completion.

1.05 SEQUENCING

A. Sequence of Construction

1. The Contractor shall construct the work in a logical manner and with the following objectives as guides:
 - a. Maintain or improve, to the maximum extent possible, the quality of existing traffic operations, both in terms of flow rate and safety, throughout the duration of the Project.
 - b. Minimize the number of different Temporary Traffic Control Plan (TCP) phases, i.e., number of different diversions and detours for a given traffic movement.
 - c. Take advantage of newly constructed portions of the permanent facility as soon as possible when it is in the best interest of traffic operations and construction activity.
 - d. Maintain reasonable direct access to adjacent properties at all times, with the exception in areas of limited access Right-of-Way where direct access is not permitted.
 - e. Coordinate with adjacent construction projects and applicable regulatory agencies and owners.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

Use only material and equipment that meet the requirements of this Specification and are listed on the FDOT's Approved Products List (APL) and the DTPW's Traffic Signals and Signs Division's Qualified Products List (TSSQPL). Notify the TSS Division in writing during the design process when equipment or material is identified that will be needed for the project that appears on the APL but not on the TSSQPL. The TSS Division will provide a response that is specific to the nature of the category or product of concern.

PART 3 EXECUTION

3.01 CONSTRUCTION

Minimum qualifications for personnel supervising or performing work involving electrical Traffic Control Devices and related components or appurtenances;

1. Meet the requirements of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (latest version) for the construction of the indicated system, as indicated in: General Requirements for Traffic Control Signals and Devices (Section 603); Acceptance Procedures for Traffic Control Signals and Devices (Section 611); Manufacturers' Warranties for Traffic Control Signals and Devices (Section 608); Conduit (Section 630); Communication Cable (Section 633); Pull, Splice, and Junction Boxes (Section 635), Network Devices (Section 684), etc.
2. Meet the requirements of Miami-Dade County Traffic Control Equipment Standards and Specifications Section 600.