FM No: 432066-9-32-02 FEID No: VF-596-000-531

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION LOCALLY FUNDED AGREEMENT

THIS Locally Funded Agreement ("Agreement"), entered into this _____ day of ______ _____20____, by and between the State of Florida Department of Transportation hereinafter called the DEPARTMENT, and Broward County located at 1 North University Drive, Plantation, Florida 33324, hereinafter called the COUNTY.

WITNESSETH

WHEREAS, the DEPARTMENT and the COUNTY are desirous of having the COUNTY provide additional financial assistance to the DEPARTMENT for the continued development (design) of a full set of signed and sealed roadway construction plans for the DEPARTMENT's roadway improvements along SR817/University Drive from N of SR84 to N of NW 1st Street in Broward County, Florida. (Financial Management (FM) Number 432066-9-32-01, Funded in Fiscal Year 2020/2021); and

WHEREAS, the COUNTY's additional financial assistance to the DEPARTMENT provides for additional work related to the engineering design services for an Adaptive Traffic Control System (ATCS) deployment included in a portion of the DEPARTMENT's design work, defined along SR817/ University Drive from Peters Road to Broward Boulevard in Broward County, Florida. (Financial Management (FM) Number 432066-9-32-02, Funded in Fiscal Year 2020/2021) as set forth in Exhibit A attached hereto and made a part hereof and hereinafter referred to as the Project; and

WHEREAS, the improvements are in the interest of both the COUNTY and the DEPARTMENT and it would be more practical, expeditious, and economical for the DEPARTMENT to perform such activities; and

WHEREAS, the COUNTY by Action Item on ______ dated the ______ day of ______ 20____, a copy of which is attached hereto and made a part hereof, authorizes the Mayor, Vice-Mayor, or designee to enter into this Agreement.

NOW, THEREFORE, in consideration of the mutual benefits to be derived from joint participation on the Project, the parties agree to the following:

1. The recitals set forth above are true and correct and are deemed incorporated herein.

- 2. The DEPARTMENT shall be responsible for assuring that the Project complies with all applicable Federal, State and Local laws, rules, regulations, guidelines and standards.
- 3. The COUNTY agrees to make all previous studies, maps, drawings, surveys and other data and information pertaining to the Project available to the DEPARTMENT at no extra cost.
- 4. The DEPARTMENT shall have the sole responsibility for resolving claims and requests for additional work for the Project. The DEPARTMENT will make reasonable efforts to obtain the COUNTY input in its decisions.
- 5. The total cost for the DEPARTMENT'S design work and the Project is estimated to be ONE MILLION FOUR HUNDRED THIRTEEN THOUSAND EIGHT HUNDRED SIXTY TWO DOLLARS AND NO CENTS (\$1,413,862.00). The COUNTY's share of the Project is an estimated amount of FIFTY SIX THOUSAND FIVE HUNDRED NINE DOLLARS AND NO CENTS (\$56,509.00), which sum shall be paid to the DEPARTMENT. In the event the actual cost of the Project is less than the funds provided, the difference will be refunded to the COUNTY. In the event the actual cost of the Project, without modifications, results in a sum greater than that paid by the COUNTY, then such sum shall be the sole responsibility of the COUNTY and shall be paid to the DEPARTMENT.
 - (A) The COUNTY agrees that it will, within thirty (30) days of the execution of this Agreement, furnish the DEPARTMENT with a check in the amount of FIFTY SIX THOUSAND FIVE HUNDRED NINE DOLLARS AND NO CENTS (\$56,509.00) towards the Project Costs.

In the event payment is not received by the DEPARTMENT within thirty (30) days of execution of this Agreement the DEPARTMENT reserves the right to terminate this Agreement and remove the Project from the DEPARTMENT's Work Program.

Remittance shall be made payable to the Department of Transportation. Payment shall be clearly marked to indicate that it is to be applied to FM Number 432066-9-32-02. The DEPARTMENT shall utilize this amount towards costs of Project No. 432066-9-32-02.

Payment shall be mailed to:

Florida Department of Transportation

Program Management Unit - Attention: Leos A. Kennedy, Jr.

3400 W. Commercial Boulevard

Fort Lauderdale, Florida 33309-3421

In lieu of mailing payment to the DEPARTMENT, the COUNTY may also submit the payment for the Project via wire transfer. Wire transfer/Payments are to be made to:

Wells Fargo Bank, N.A. Account # 4834783896 ABA # 121000248 Chief Financial Officer of Florida Re: DOT – K 11-78, Financial project # 432066-9-32-02.

In order for the DEPARTMENT to receive credit for the funds due to the DEPARTMENT, the reference line must contain "FDOT" and an abbreviated purpose, financial project number or LFA account number.

Once the wire transfer is complete, please contact Kenneth Ward at 850-414-4886.

- (B) If the Project costs are in excess of the advance deposit amount, the COUNTY will provide an additional deposit within fourteen (14) calendar days of notification from the DEPARTMENT. The DEPARTMENT will notify the COUNTY as soon as it becomes apparent that Project costs are in excess of the advanced deposit amount; however, failure of the DEPARTMENT to so notify the COUNTY shall not relieve the COUNTY from its obligation to pay for its full participation. If the COUNTY cannot provide the additional deposit within fourteen (14) calendar days, a letter must be submitted to and approved by the DEPARTMENT's Project Manager indicating the date the deposit will be made and the DEPARTMENT's written consent to the payment of the additional deposit on said date. The COUNTY understands the request and approval of the additional time could delay the Project, and additional costs at the COUNTY's expense may be incurred due to delay of the Project. In the event of non-payment, the DEPARTMENT reserves the right to terminate this Agreement and remove the Project from the Department's Work Program.
- (C) Should Project modifications occur that increase the COUNTY's payment for the Project costs, the COUNTY will be notified by the DEPARTMENT. The COUNTY agrees to provide, without delay, in advance of the additional work being performed, adequate funds to ensure that cash on deposit with the DEPARTMENT is sufficient to fully fund the cost of the Project. The

DEPARTMENT shall notify the COUNTY as soon as it becomes apparent the actual costs will exceed the deposit amount. However, failure of the DEPARTMENT to so notify the COUNTY shall not relieve the COUNTY from its obligation to pay for its full participation. Funds due from the COUNTY during the Project not paid within forty (40) calendar days from the date of the invoice are subject to an interest charge at a rate established pursuant to Section 55.03, F.S. In the event the COUNTY fails to make the additional payment within the time hereinabove set forth, in addition to any other remedy, the DEPARTMENT reserves the right to terminate this Agreement.

- (D) The DEPARTMENT intends to have its final and complete accounting of all costs incurred in connection with the work performed hereunder within three hundred sixty (360) days of final payment to the Consultant. The DEPARTMENT considers the Project complete when the final payment has been made to the Consultant, not when the design work is complete. All Project cost records and accounts shall be subject to audit by a representative of the COUNTY for a period of three (3) years after final close out of the Project. The COUNTY will be notified of the final cost. Both parties agree that in the event the final accounting of total Project costs pursuant to the terms of this Agreement is less than the total deposits to date, the excess funding will be refunded to the COUNTY. If the final accounting is not performed within three hundred sixty (360) days, the COUNTY is not relieved from its obligation to pay.
- (E) In the event the final accounting of total Project costs indicate that the Project costs are greater than the total deposits to date, the COUNTY will pay the additional amount within forty (40) calendar days from the date of the invoice from the DEPARTMENT. The COUNTY agrees to pay interest at a rate as established pursuant to *Section 55.03, F.S.*, on any invoice not paid within forty (40) calendar days until the invoice is paid.
- 6. In the event it becomes necessary for either party to institute suit for the enforcement of the provisions of this Agreement, each party shall be responsible to pay their own attorney fees and court costs. Venue with respect to any such litigation shall be in Broward County.
- 7. This Agreement and any interest herein shall not be assigned, transferred or otherwise encumbered by the COUNTY under any circumstances without the prior written consent of the DEPARTMENT. However, this Agreement shall run to the DEPARTMENT and its successors.

- Except as otherwise set forth herein, this Agreement shall continue in effect and be binding to both the COUNTY and the DEPARTMENT until the Project (FM# 441754-1-32-01) is completed as evidenced by the written acceptance of the DEPARTMENT.
- 9. The COUNTY warrants that it has not employed or obtained any company or person, other than bona fide employees of the COUNTY, to solicit or secure this Agreement, and it has not paid or agreed to pay any company, corporation, individual or firm, other than a bona fide employee employed by the COUNTY. For breach or violation of this provision, the DEPARTMENT shall have the right to terminate the Agreement without liability.
- 10. The COUNTY / Vendor/ Contractor:
 - (A) shall utilize the U.S. Department of Homeland Security's E-verify system to verify the employment eligibility of all new employees hired by the COUNTY / Vendor/ Contractor during the term of the contract; and
 - (B) shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.
- 11. This Agreement is governed by and construed in accordance with the laws of the State of Florida.
- 12. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein, and the parties agree that there are no commitments, agreements or understandings concerning the subject matter of this agreement that are not contained in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representation or agreements whether oral or written. It is further agreed that no modification, amendment, or alteration in the terms and conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.
- 13. Any or all notices (except invoices) given or required under this Agreement shall be in writing and either personally delivered with receipt acknowledged or sent by certified mail, return receipt requested. All notices delivered shall be sent to the following addresses:

If to the DEPARTMENT:

Florida Department of Transportation - District Four 3400 West Commercial Blvd. Fort Lauderdale, Florida 33309-3421 Attn: Leos A. Kennedy, Jr. With a copy to: Alexander Estrada A second copy to: Office of the General Counsel

If to the COUNTY:

Broward County 1 North University Drive, Box B300, Suite#3200B Plantation, Florida 33426 Attn: Richard Tornese, P.E., Director, Highway Construction and Engineering Division With a copy to: County Attorney

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BROWARD COUNTY, FLORIDA

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Commissioners

BROWARD COUNTY, by and through its Board of County

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

MAYOR	
day of	<u> </u>

Approved as	to form by:
Andrew J. Me	eyers
Broward Cou	nty Attorney
Governmenta	al Center, Suite # 423
115 South Ar	ndrews Avenue
Fort Lauderda	ale, Florida 33301
Telephone	(954) 357-7600
Telecopier	(954) 357-7641
GAVIN	Digitally signed by GAVIN

ΒY	RYNARD	RYNARD Date: 2020.10.27 13:44:11 -04'00'	10-27-20
	Gavin R	ynard	(date)
	Assistar	nt County Attorn	еу
	MICHAEL KERR	Digitally signed by MICHAEL KERR Date: 2020.10.27 13:44:25 -04'00'	10-27-20
Michael J. Kerr			(date)
Deputy County Attorney			

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ATTEST:_____(SEAL) EXECUTIVE SECRETARY

BY: DIRECTOR OF TRANSPORTATION DEVELOPMENT

NAME:_____

DISTRICT _____

Availability of Funds Approval:

LEGAL REVIEW:

(Date)

OFFICE OF THE GENERAL COUNSEL

EXHIBIT "A" SCOPE OF SERVICES FM# 432066-9-32-02

The DEPARTMENT's project consists of design services for roadway improvements along SR817/University Drive from N of SR84 to N of NW 1st Street. This scope is for additional work on this project related to the DEPARTMENT's design services for roadway improvements, which consists of an Adaptive Traffic Control System (ATCS) deployment along SR817/University Drive from Peters Road to Broward Boulevard, which is within the DEPARTMENT's project limits. The improvements being design shall include, but are not limited to the following:

The construction/ installation of hardware, software, communication equipment, testing, and training County personnel on the operation of the ATCS software and equipment.

The ATCS design must include installation of the hardware/software needed at each traffic signal and any required server and/or centralized management software at the Broward County Traffic Management Center (depends on adaptive system selected) and enhancements to the vehicle detection system along the corridor. Signal performance measures (SPM) provided by high resolution data must be included in the design.

	Replace Controller Cabinet and Controller	ATCS System Deployment	Traffic Detection Upgrade	Existing Comm	Existing Signal Structure	Remarks
Corridor	University Drive					
Intersection						
Broward Boulevard	Yes	Yes	Yes	Ethernet	Truss	
Federated Rd/ S 600 Block	Yes	Yes	Yes	Ethernet	Mast Arm	
Fountains Entrance	Yes	Yes	Yes	Ethernet	Mast Arm	0
Peters Road/ S 12th Street	Yes	Yes	Yes	Ethernet	Mast Arm	

The signalized intersections included in this scope are shown in Table 1 below:

Table 1 – Signalized Intersections

3.1 Field Reviews

Collect information from Broward County and available studies conducted for this project. The field review should include, but is not limited to, the following:

• Existing Controller Timing Data

- Controller Make, Model, Capabilities, firmware version and Condition/Age. Determine if the Controller removed from the project is to be delivered to the County or disposed by the Contractor.
- Type of Detection as compared with what is recommended for the implementation of the ATCS.
- Existing pull boxes and conduit working conditions at the signalized intersections in Table 1.

3.2 ITS Analysis and Design

3.2.1 ITS Analysis

Analysis and document Intelligent Transportations System (ITS) Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, existing ITS standard operating procedures, strategic plans, Florida's SEMP guidelines, National and regional ITS architectures, and current design memoranda. The analysis will be performed by following FHWA Rule 940 and the delivered documents will include the Project System Engineering Management Plan (PSEMP). Work closely with the Department's District Four and Broward County to identify system operations and maintenance requirements.

3.2.2 Vehicle Detection Design

Select vehicle detection technology to meet the selected ATCS needs, SPM system requirements, and as approved by the DEPARTMENT and Broward County.

The vehicle detection devices shall collect and process volume, speed, and occupancy data on a lane-by-lane basis for the corridor mainlines, in both directions of University Dr. The data will be used by the ATCS system and by Broward County for functions including adaptive signal retiming, sharing information with other agencies, and data archiving for transportation planning and historical data analysis. The vehicle detection devices shall allow for connectivity to the Broward County TMC.

Vehicle detectors must meet the Project requirements under all environmental and traffic conditions expected for the corridors. The detection system shall produce accurate volume, speed, and occupancy data for all corridor traffic operation conditions. The design must limit the likelihood of occlusions, other blocking of vehicles and adjacent lanes detection that degrade the detection system performance below specified accuracy. Design the system so that signs, walls,

guardrails, trees, and other physical elements do not degrade detection performance.

3.2.3 Traffic Controller Cabinet Design

Prepare the design for the replacement of six signal controller cabinets with NEMA TS2 Type 1 Size 6 new cabinets, Trafficware 2070 LN2 ITS with 1C Processor Module or equal, and new concrete bases at the signalized intersections identified in Table 1.

New controller cabinets will be in accordance with the FDOT APL and Broward County Approved Signalization Equipment List and will contain a UPS housed in its own cabinet that will be mounted on the outside of the controller cabinet per manufacturer's recommendations. This UPS cabinet shall contain all necessary equipment including the UPS, batteries, and a Power Interface Module (PIM) and transfer switch.

3.2.4 ITS Design

The ITS design of the new system will integrate with Broward County's existing devices. The design will include the necessary infrastructure and components to ensure proper connection of the new ATCS system to the existing components. This shall include all proposed ATCS components as well as existing subsystem that will remain.

At a minimum, the work in this project consists of the following major components:

1. Replacement of any systems or components that are required to implement the ATCS and ATTS systems.

2. Provisions for testing of all furnished and installed components and any other component or subsystems that will remain operational.

3. Provisions for the training of County personnel for the operation of the hardware and software installed as part of this project.

4. Coordination of proposed ATCS improvements with existing vegetation to avoid visibility or installation conflicts with landscape within the public Right-of-Way.

The proposed ATCS and ATTS equipment shall connect to the existing Broward County Traffic signal communications network switch inside each signal cabinet if necessary. The existing IP network consists of Cisco IE3000 Field ethernet switches with eight 10/100 Ethernet ports connected to the Broward County TMC via 1Gb backbone using single mode fiber. The existing Fiber Optic backbone is based on Ethernet rings which allows for redundancy and fault tolerance. All IP address will be issued by Broward County Traffic Engineering Division (BCTED) for use on this project. Design plans shall include a wiring diagram for each cabinet detailing all necessary wiring connections.

3.2.5 Lightning Protection Analysis

Complete a reliable lightning protection system design for the new devices attached to the existing structures as well as ITS field device cabinets and communications hubs if not addressed by the DEPARTMENT's Standard Plans for Road and Bridge Construction and the Interim Drawings. The ITS components of the project shall be protected from damage caused by lightning strikes, transient voltage surges, and induced current. Design all grounding, lightning protection, and surge protection in accordance with Underwriters Lab (UL) 96A specifications.

The design shall include surge protection devices for all cables and conductors (power, video, and data). All Project ITS subsystems, devices and ancillary components with electrical interconnects shall be protected from voltage surges caused by lightning, transient voltage surges, and external electromagnetic fields at the time of installation of each device.

The lightning protection system shall be designed in accordance with the latest version of the DEPARTMENT's Standard Specifications for Road and Bridge Construction, Supplemental Specification 785.

3.2.6 Temporary Traffic Control Plan (TTCP)

Coordination with the DEPARTMENT and Broward County to develop the TTCP plans. All work zone traffic control will be performed in accordance with the FDOT Standard Plans Index 600 series and Broward County's Standard Plans Index 102 series.

3.2.7 Utility Coordination

Certify that all necessary arrangements for utility work on this supplemental task have been made and will not conflict with the physical construction schedule. Work closely with FDOT and Broward County personnel to coordinate transmittals to Utility Companies and meet production schedules.