# State of Florida Department of Transportation



# REQUEST FOR PROPOSAL <u>ITS Software Integration and Maintenance Services for D5</u> <u>SunStore and Future Deployments</u>

# DOT-RFP-20-5008-SIM

State of Florida <u>Department of Transportation</u> <u>719 South Woodland Boulevard</u> <u>DeLand, Fl. 32720-6834</u>

Form No. 1 RFPSHELL. 02/2019

# REQUEST FOR PROPOSAL REGISTRATION

# PLEASE COMPLETE AND RETURN THIS FORM ASAP TO E-FAX NUMBER (850) 412-8092 OR E-MAIL TO D5.ProcurementQuestions@dot.state.fl.us

RFP Number: DOT-RFP-20-5008-SIM

Title: ITS Software Integration and Maintenance Services for D5 SunStore and Future Deployments

Proposal Due Date & Time (On or Before): April 20, 2020 at 2:00 PM

Potential proposers should notify our office by returning this Registration Form as soon as possible after downloading. Complete the information below and fax <u>this sheet only</u> to the Florida Department of Transportation Procurement Office at E-FAX NUMBER (850) 412-8092 or by e-mail to D5.ProcurementQuestions@dot.state.fl.us.

THE REQUEST FOR PROPOSAL DOCUMENT YOU RECEIVED IS SUBJECT TO CHANGE. Notice of changes (Addenda), will be posted on the Florida Vendor Bid System at <u>http://www.myflorida.com/apps/vbs/vbs www.main menu</u>, under this RFP number (click on "Search Advertisements", click on the dropdown arrow beside the box under Advertisement Type, select Competitive Solicitation, click on the drop-down arrow beside the box under Agency, select DEPARTMENT OF TRANSPORTATION, then go to the bottom of the same page and click on Advertisement Search). It is the responsibility of all potential proposers to monitor this site for any changing information prior to submitting your proposal.

Company Name:	
Address:	
City, State, Zip: _	
Telephone: <u>(</u> Contact Person: _	
E-Mail Address:	

# **BID PRICE PROPOSAL FORM**

#### **RFP-DOT-20-5008-SIM**

# ITS Software Integration & Maintenance Services for D5 SunStore and Future Deployments

#### **BID AS SPECIFIED**

#### SERVICES TO BE PROVIDED AS SPECIFIED IN EXHIBIT "A", SCOPE OF SERVICES

Table 1

Job Classification	Estimated Hours (Annually)	Estimated Number of Positions	Hourly Rate	Annual Cost
Traffic Data Scientist	150	1		
Junior Traffic Data Scientist	250	1		
Visualization Specialist	100	1		
Junior Visualization Specialist	200	1		
Programmer	100	1		
Junior Programmer	200	1		

#### TOTAL ANNUAL COST: \$\_\_\_\_\_

NOTE: Proposers will provide a Grand Total Price by multiplying the ESTIMATED HOURS (ANNUALLY) times their HOURLY RATE for each Item number listed and put this total in the ANNUAL COST box. THEN, ADD the six ANNUAL COST TOTALS to produce a Grand Total Price for all Items listed. List this TOTAL ANNUAL COST on the line above and to the right. All proposers must prepare their price proposal on this form and must enter an hourly rate for all items. If any hourly rate boxes are left blank or marked N/A, the proposal shall be considered non-responsive and will be rejected (see Special Condition #21). Procurement reserves the right to review and correct any mathematical errors in Table 1.

The Hourly Rates shown above shall be included in Exhibit "B" Method of Compensation of the contract resulting from this Request for Proposal. Work order fees and payment for services will be calculated using these rates.

NOTE: In submitting a response, the bidder acknowledges they have read and agree to the solicitation terms and conditions and their submission is made in conformance with those terms and conditions.

# ACKNOWLEDGEMENT

I certify that I have read and agree to abide by all terms and conditions of this solicitation and that I am authorized to sign for the bidder. I certify that the response submitted is made in conformance with all requirements of the solicitation. (Please sign and provide the required information at the top of the next page).

Bidder:		FEID#:	
Address:	City	y, State, Zip:	
Phone:	Fax:	Email:	
Authorized Signature:		Date:	
Name Printed/Typed:		Title:	

#### STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION DRUG-FREE WORKPLACE PROGRAM CERTIFICATION

287.087 Preference to businesses with drug-free workplace programs. --Whenever two or more bids, proposals, or replies that are equal with respect to price, quality, and service are received by the state or by any political subdivision for the procurement of commodities or contractual services, a bid, proposal, or reply received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. In order to have a drug-free workplace program, a business shall:

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

(2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

(3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

(4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.

(6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Does the individual responding to this solicitation certify that their firm has implemented a drug-free workplace program in accordance with the provision of Section 287.087, Florida Statutes, as stated above?

🗌 YES

🗌 NO

NAME OF BUSINESS:

375-040-18 PROCUREMENT 03/17

# STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

375-040-24 PROCUREMENT 03/17

PROCUREMENT NO.	DOT-RFP-20-5008	3-SIM	FINANCIAL PROJECT NO.	435445-1-82-04
				(DEPARTMENT USE ONLY)
I,		3		
	(name)			(title)
of				
plan to subcontract at le	east	% (percent) of the	project costs on the above re	ferenced project to Minority
Business Enterprises.				

If I have indicated above that a portion of the project costs will be subcontracted to MBE(s), the firms considered as proposed subconsultants/contractors and the types of services or commodities to be subcontracted are as follows:

#### MBE SUBCONSULTANTS/CONTRACTORS

#### TYPES OF SERVICES/COMMODITIES

I understand that I will need to submit Minority Business Enterprises (MBE) payment certification forms to the Department for reporting purposes only.

Signed:	
Title:	
Date:	

Form No. 5

RFPSHELL. 02/2019

Florida Statutes 287.135	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS DOT-RFP-20-5008-SIM	375-030-60 PROCUREMENT OGC – 07/18
Respondent Vendor Name:		
Vendor FEIN:		
Vendor's Authorized Represen	tative Name and Title:	
Address:		
	_ State:	_Zip:
Phone Number:		
Email Address:		

Section 287.135, F.S. prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of any amount if the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.475, F.S. or is engaged in a boycott of Israel. Section 287.135, F.S. also prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of \$1,000,000 or more, if the company is on either the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector Lists which are created pursuant to s. 215.473, F.S. As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List. I further certify that the company is not engaged in a boycott of Israel. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By: \_\_\_\_\_

who is authorized to sign on behalf of the above referenced company.

Authorized Signature Print Name and Title:

Date: \_\_\_\_\_

# INTRODUCTION SECTION

# 1) INVITATION

The State of Florida Department of Transportation, hereinafter referred to as the "Department", requests written proposals from qualified Proposers to provide <u>ITS Integration and Maintenance Services for D5</u> <u>SunStore and Future Deployments. The SunStore is the central data storage for TSM&O data and information</u>. It is anticipated that the term of the contract will begin on or about <u>July, 2020</u> and be effective for five years from date of execution.

The Department intends to award this contract to the responsive and responsible Proposer whose proposal is determined to be the most advantageous to the Department. After the award, said Proposer will be referred to as the "Vendor". For the purpose of this document, the term "Proposer" means the prime Vendor acting on its own behalf and those individuals, partnerships, firms, or corporations comprising the Proposer team. The term "proposal" means the complete response of the Proposer to the Request for Proposals (RFP), including properly completed forms and supporting documentation.

# 2) <u>TIMELINE</u>

Provided below is a list of critical dates and actions. These dates are subject to change. Notices of changes (Addenda) will be posted on the Florida Vendor Bid System at <u>http://www.myflorida.com/apps/vbs/vbs\_www.main\_menu</u> under this RFP number. It is the responsibility of all potential proposers to monitor this site for any changing information prior to submitting your proposal.

ACTION / LOCATION	DATE	LOCAL TIME
ADVERTISEMENT DATE	March 4, 2020	
DEADLINE FOR ALL QUESTIONS	March 30, 2020	10:00 AM
POSTING OF ALL QUESTIONS AND ANSWERS	April 2, 2020	4:00 PM
PROPOSALS DUE, (Technical and Price Proposal) Florida Department of Transportation District Five Headquarters, MS524 Attn: Jennifer Allcock 719 South Woodland Boulevard DeLand, Florida 32720-6834	April 20, 2020	2:00 PM
PUBLIC OPENING (Technical Proposal) (Same address as above)	April 20, 2020	2:30 PM
PUBLIC MEETING TO AVERAGE SCORES, Open Price Proposals (same address as on Cover Sheet)	May 13, 2020	10:00 AM
PUBLIC MEETING OF THE SELECTION COMMITTEE To determine Intended Award (same address as on Cover Sheet)	May 18, 2020	9:00 AM
POSTING OF INTENDED AWARD (Posting is on the Vendor Bid System)	May 18, 2020	10:00 AM TO 2:00 PM

# 3) AGENDA FOR PUBLIC MEETINGS

#### Agenda – Public Opening (Technical Proposals)

Agenda for Public Opening of Technical Proposals for DOT-RFP-20-5008-SIM:

Starting Time: see "Timeline" in RFP solicitation

- Opening remarks of approx. 2 minutes by Department Procurement Office personnel.
- Public input period To allow a reasonable amount of time for public input related to the RFP solicitation.
- At conclusion of public input period, the Technical Proposals received timely will be opened, with proposer's name read aloud and tabulated. Price proposals will be kept secured and unopened until the Price Proposal Opening.
- Adjourn meeting.

# Agenda – Price Proposal Opening & Intended Award Meeting

Agenda for Price Proposal Opening and Intended Award meeting for DOT-RFP-20-5008-SIM: Starting Time: see "Timeline" in RFP solicitation

- Opening remarks of approx. 2 minutes by Department Procurement Office personnel.
- Public input period To allow a reasonable amount of time for public input related to the RFP solicitation.
- At conclusion of public input period, the Technical evaluation scores will be summarized.
- Announce the firms that did not achieve the minimum technical score.
- Announce the firms that achieved the minimum technical score and their price(s) as price proposals are opened.
  - Calculate price scores and add to technical scores to arrive at total scores.
- Announce Proposer with highest Total Score as Intended Award.
- Announce time and date the decision will be posted on the Vendor Bid System (VBS).
- Adjourn.

# Agenda – Selection Committee Meeting Summarizing Evaluations and Determining Anticipated Award

Agenda for Selection Committee Meeting for DOT-RFP-20-5008-SIM: Starting

Time: see "Timeline" in RFP Solicitation

- Opening remarks of approx. 2 minutes by Department Procurement Office personnel.
- Public input period To allow a reasonable amount of time for public input related to the RFP solicitation
- Summarize Technical Evaluation Scores
- Summarize Price Proposal Scores
- Summarize Total Scores (Technical Scores plus Price Proposal Scores)
- Announce Anticipated Award decision
- Announce time and date decision will be posted on the Vendor Bid System (VBS)
- Adjourn meeting

# 4) SPECIAL ACCOMMODATIONS

Any person with a qualified disability requiring special accommodations at a pre-proposal conference, public meeting, oral presentation and/or opening shall contact the contact person at the phone number, e-mail address or fax number provided on the title page at least five (5) working days prior to the event. If you are hearing or speech impaired, please contact this office by using the Florida Relay Services which can be reached at 1 (800) 955-8771 (TDD).

# SPECIAL CONDITIONS

# 1) <u>MyFloridaMarketPlace</u>

<u>PROPOSERS MUST BE REGISTERED IN THE STATE OF FLORIDA'S MYFLORIDAMARKETPLACE</u> <u>SYSTEM BY THE TIME AND DATE OF THE TECHNICAL PROPOSAL OPENING OR THEY MAY BE</u> <u>CONSIDERED NON-RESPONSIVE (see Special Condition 21)</u>. All prospective proposers that are not registered should go to <u>https://vendor.myfloridamarketplace.com/</u> to complete on-line registration, or call 1-866-352-3776 for assisted registration.

All payment(s) to the vendor resulting from this competitive solicitation **WILL** be subject to the MFMP Transaction Fee in accordance with the referenced Form PUR 1000 General Contract Condition #14. The Transaction Fees imposed shall be based upon the date of issuance of the payment.

# 2) Florida Department of Financial Services (DFS) W-9 REQUIREMENT

The Florida Department of Financial Services (DFS) requires all vendors that do business with the state to submit an electronic Substitute Form W-9. Vendors must submit their W-9 forms electronically at <a href="https://flvendor.myfloridacfo.com">https://flvendor.myfloridacfo.com</a> to receive payments from the state. Contact the DFS Customer Service Desk at (850) 413-5519 or <a href="https://flvendor.myfloridacfo.com">FLW9@myfloridacfo.com</a> with any questions.

# 3) QUESTIONS & ANSWERS

In accordance with section 287.057(23), Florida Statutes, respondents to this solicitation or persons acting on their behalf may not contact, between the release of the solicitation and the end of the 72-hour period following the agency posting the notice of intended award, excluding Saturdays, Sundays, and state holidays, any employee or officer of the executive or legislative branch concerning any aspect of this solicitation, except in writing to the procurement officer or as provided in the solicitation documents. Violation of this provision may be grounds for rejecting a response.

Any questions arising from this Request for Proposal must be forwarded, in writing, to the email address identified below. Questions must be received no later than the time and date reflected on the Timeline. The Department's written response to written inquiries submitted timely by proposers will be posted on the Florida Vendor Bid System at <a href="http://www.myflorida.com/apps/vbs/vbs">http://www.myflorida.com/apps/vbs/vbs</a> www.main menu

It is the responsibility of all potential proposers to monitor this site for any changing information prior to submitting their proposal.

# All QUESTIONS should be submitted to:

D5.ProcurementQuestions@dot.state.fl.us

# 4) ORAL INSTRUCTIONS / CHANGES TO THE REQUEST FOR PROPOSAL (ADDENDA)

No negotiations, decisions, or actions will be initiated or executed by a proposer as a result of any oral discussions with a State employee. Only those communications which are in writing from the Department will be considered as a duly authorized expression on behalf of the Department.

Notices of changes (Addenda) will be posted on the Florida Vendor Bid System at <u>www.myflorida.com</u> (click on "BUSINESS", click on "Doing Business with the State", under "Everything for Vendors and Customers", click on "Vendor Bid System (VBS)", click on "Search Advertisements") under this RFP number. It is the responsibility of all potential proposers to monitor this site for any changing information prior to submitting your proposal. All Addenda will be acknowledged by signature and subsequent submission of Addenda with proposal when so stated in the Addenda.

# 5) DIVERSITY ACHIEVEMENT

# MINORITY BUSINESS ENTERPRISE (MBE) UTILIZATION

The Department, in accordance with *Title VI of the Civil Rights Act of 1964, 42 USC 2000d- 2000d-4, Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21,* Nondiscrimination in federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that the Department will affirmatively ensure

that in any contract/agreement entered into pursuant to this advertisement, minority and disadvantaged business enterprises will be afforded the full opportunity to submit bids in response to this invitation and will not be discriminated on the basis of race, color, national origin, or sex in consideration for an award.

The Department encourages small, minority, women, and service-disabled veteran businesses to compete for Department contracts, both as "Vendor" and as subcontractors. The Department, its vendors, suppliers, and consultants should take all necessary and reasonable steps to ensure that small, minority, women, and service-disabled veteran businesses have the opportunity to compete for and perform contract work for the Department in a nondiscriminatory environment. Bidders are requested to indicate their intention regarding MBE participation on the MBE Planned Utilization form and to submit the completed form with their Price Proposal. The contract vendor will be asked to submit payment certification for MBE subcontractors used.

To request certification or to locate certified MBEs, call the Office of Supplier Diversity, Department of Management Services at (850) 487-0915, or access their MBE directory on the Internet at <u>www.osd.dms.state.fl.us/</u>.

#### 6) SCOPE OF SERVICES

Details of the services, information and items to be furnished by the Vendor are described in Exhibit "A", Scope of Services, attached hereto and made a part hereof.

# 7) INTENDED AWARD

The Department intends to award a contract to the responsive and responsible vendor with the highest cumulative total points for the evaluation criteria specified herein (See Section 30, Proposal Evaluation). The Intended Award decision will be announced at the Selection Committee meeting specified in the Timeline (See Introduction Section 2 Timeline

If the Department is confronted with identical pricing or scoring from multiple vendors, the Department shall determine the order of award using the following criteria, in the order of preference listed below (from highest priority to lowest priority):

- 1. Section 295.187(4), Florida Statutes; Veteran Business Enterprise
- 2. Section 287.087, Florida Statute; Drug Free WorkPlace
- 3. Section 287.057(11); Minority Business Enterprise

In the event that the application of the above referenced preferences does not resolve the identical replies, the Department shall determine the award by means of random drawing.

#### 8) <u>PRE-PROPOSAL CONFERENCE</u>: A PRE-PROPOSAL CONFERENCE WILL NOT BE HELD.

# 9) QUALIFICATIONS

9.1 General

The Department will determine whether the Proposer is qualified to perform the services being contracted based upon their proposal demonstrating satisfactory experience and capability in the work area. The

# 9.2 Qualifications of Key Personnel

Those individuals who will be directly involved in the project should have demonstrated experience in the areas delineated in the scope of work. Individuals whose qualifications are presented will be committed to the project for its duration unless otherwise excepted by the Department's Project Manager. Where State of Florida registration or certification is deemed appropriate, a copy of the registration or certificate should be included in the proposal package.

# 9.3 Authorized to Do Business in the State of Florida

In accordance with sections 607.1501, 605.0211(2)(b), and 620.9102, Florida Statutes, out-of-state corporations, out-of-state limited liability companies, and out-of-state limited partnerships must be authorized to do business in the State of Florida. Such authorization should be obtained by the proposal due date and time, but in any case, must be obtained prior to the award of the contract. For authorization, contact:

Florida Department of State Tallahassee, Florida 32399 (850) 245-6051

# 9.4 Licensed to Conduct Business in the State of Florida

If the business being provided requires that individuals be licensed by the Department of Business and Professional Regulation, such licenses should be obtained by the proposal due date and time, but in any case, must be obtained prior to posting of the intended award of the contract. For licensing, contact:

Florida Department of Business and Professional Regulation Tallahassee, Florida 32399-0797 (850) 487-1395

# 10) WARRANTY/SUBSTITUTIONS

When performance of the services requires the supply of commodities, a warranty is required on all items provided against defective materials, workmanship, and failure to perform in accordance with required industry performance criteria, for a period of not less than ninety (90) days from the date of acceptance by the purchaser. Any deviation from this criteria must be documented in the proposal response or the above statement shall prevail. Delivery of substitute commodities requires prior written approval from the ordering location.

Replacement of all materials found defective within the warranty period shall be made without cost to the purchaser, including transportation if applicable. All fees associated with restocking cancelled orders shall be the responsibility of the vendor.

All items provided during the performance of the contract found to be poorly manufactured will not be accepted, but returned to the vendor, at their expense, for replacement. Replacement of all items found defective shall be made without cost to the Department, including transportation, if applicable. As it may be impossible for each facility to inspect all items upon arrival, a reasonable opportunity must be given to these facilities for inspection of the items and returning those that are defective.

# 11) LIABILITY INSURANCE

The Vendor shall not commence any work until they have obtained the following types of insurance, and certificates of such insurance have been received by the Department. Nor shall the Vendor allow any subcontractor to commence work on this project until all similar insurance required of the subcontractor

has been so obtained. The Vendor shall submit the required Certificates of Insurance to the **Florida Department of Transportation, Procurement Office, Attn: Jennifer Allcock, 719 South Woodland Boulevard, DeLand Fl. 32720-6834** within ten (10) days after the ending date of the period for posting the intended award decision.

The Vendor must carry and keep in force during the period of this contract a general liability insurance policy or policies with a company authorized to do business in the state of Florida, affording public liability insurance with combined bodily injury limits of at least 200,000.00 per person and 300,000.00 each occurrence, and property damage insurance of at least 200,000.00 each occurrence, for the services to be rendered in accordance with this contract.

With respect to any general liability insurance policy required pursuant to this Agreement, all such policies shall be issued by companies licensed to do business in the State of Florida. The Vendor shall provide to the Department certificates showing the required coverage to be in effect with endorsements showing the Department to be an additional insured prior to commencing any work under this Contract. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the Department or as provided in accordance with Florida law.

The Department shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the Vendor or subcontractor providing such insurance. Policies that include Self Insured Retention (SIR) will not be accepted.

# 12) PERFORMANCE BOND

A Performance Bond is not required for this project.

# 13) METHOD OF COMPENSATION

See Attached Exhibit "B" Method of Compensation, attached hereto and made a part hereof.

# 14) CONTRACT DOCUMENT

# STANDARD WRITTEN AGREEMENT

The Department's "Standard Written Agreement" is attached hereto and made a part hereof. The terms and conditions contained therein will become an integral part of the contract resulting from this solicitation. In submitting a proposal, the proposer agrees to be legally bound by these terms and conditions.

# 15) <u>REVIEW OF PROPOSER'S FACILITIES & QUALIFICATIONS</u>

After the proposal due date and prior to contract execution, the Department reserves the right to perform or have performed an on-site review of the Proposer's facilities and qualifications. This review will serve to verify data and representations submitted by the Proposer and may be used to determine whether the Proposer has an adequate, qualified, and experienced staff, and can provide overall management facilities. The review may also serve to verify whether the Proposer has financial capability adequate to meet the contract requirements.

Should the Department determine that the proposal has material misrepresentations or that the size or nature of the Proposer's facilities or the number of experienced personnel (including technical staff) are not adequate to ensure satisfactory contract performance, the Department has the right to reject the proposal.

# 16) PROTEST OF REQUEST FOR PROPOSAL SPECIFICATIONS

Any person who is adversely affected by the contents of this Request for Proposal must file the following with the Department of Transportation, Clerk of Agency Proceedings, Office of the General Counsel, 605 Suwannee Street, Mail Station 58, Tallahassee, Florida 32399-0450:

- 1. A written notice of protest within seventy-two (72) hours after the posting of the solicitation, (the notice of protest may be Faxed to 850-414-5264), and
- 2. A formal written protest in compliance with Section 120.57(3), Florida Statutes, within ten (10) days of the date on which the written notice of protest is filed.

Failure to file a protest within the time prescribed in section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

#### 17) UNAUTHORIZED ALIENS

The employment of unauthorized aliens by any contractor is considered a violation of Section 274A(e) of the Immigration and Nationality Act. If the contractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of the contract.

#### 18) SCRUTINIZED COMPANIES LISTS

ALL Responses, regardless of dollar value, must include a completed <u>Vendor Certification Regarding</u> <u>Scrutinized Companies Lists</u> to certify the respondent is not on either of those lists. The Form should be submitted with the Price Proposal.

A Vendor is ineligible to enter into a contract with the Department for goods or services of any amount if, at the time of entering into such contract, the Vendor is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, Florida Statutes, or is engaged in a boycott of Israel.

Section 287.135, Florida Statutes, also prohibits companies from entering into a contract for goods or services of \$1 million or more that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector Lists which were created pursuant to s. 215.473, Florida Statutes.

If the Department determines the Vendor submitted a false certification under Section 287.135 of the Florida Statutes, the Department shall either terminate the Contract after it has given the Vendor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135 of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135 of the Florida Statutes are met.

# 19) <u>RESERVATIONS</u>

The Department reserves the right to accept or reject any or all proposals received and reserves the right to make an award without further discussion of the proposals submitted. Therefore, the proposals should be submitted initially in the most favorable manner. It is understood that the proposal will become a part of the Department's official file, without obligation to the Department.

# 20) ADDITIONAL TERMS & CONDITIONS

No conditions may be applied to any aspect of the RFP by the proposer. Any conditions placed on any aspect of the proposal documents by the proposer may result in the proposal being rejected as a conditional proposal (see "RESPONSIVENESS OF PROPOSALS"). **DO NOT WRITE IN CHANGES ON ANY RFP SHEET.** The only recognized changes to the RFP prior to proposal opening will be a written Addenda issued by the Department.

# 21) RESPONSIVENESS OF PROPOSALS

#### 21.1 <u>Responsiveness of Proposals</u>

Proposals will not be considered if not received by the Department **on or before** the date and time specified as the due date for submission. All proposals must be typed or printed in ink. A responsive proposal is an offer to perform the scope of services called for in this Request for Proposal in accordance with all requirements of this Request for Proposal and receiving seventy (70) points or more on the Technical Proposal. Proposals found to be non-responsive shall not be considered. Proposals may be rejected if found to be irregular or not in conformance with the requirements and instructions herein contained. A proposal may be found to be irregular or non-responsive by reasons that include, but are not limited to, failure to utilize or complete prescribed forms, conditional proposals, incomplete proposals, indefinite or ambiguous proposals, and improper and/or undated signatures. ALL determinations of responsiveness will be the responsibility of the FDOT Procurement Office.

#### 21.2 <u>Multiple Proposals</u>

Proposals may be rejected if more than one proposal is received from a Proposer. Such duplicate interest may cause the rejection of all proposals in which such Proposer has participated. Subcontractors may appear in more than one proposal.

#### 21.3 Other Conditions

Other conditions which may cause rejection of proposals include, but are not limited to, evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required work, failure to perform or meet financial obligations on previous contracts, or in the event an individual, firm, partnership, or corporation is on the General Services Administration Excluded Parties List. Proposers whose proposals, past performance, or current status do not reflect the capability, integrity, or reliability to fully and in good faith perform the requirements of the Contract may be rejected as non-responsible. The Department reserves the right to determine which proposals meet the requirements of this solicitation, and which Proposers are responsive and responsible.

# 22) PROPOSAL FORMAT INSTRUCTIONS

# 22.1 General Information

This section contains instructions that describe the <u>required format</u> for the proposal. All proposals submitted shall contain two parts and be marked as follows:

PART I TECHNICAL PROPOSAL NUMBER <u>DOT-RFP-20-5008-SIM</u> (<u>One</u> Separately Sealed Package for Technical)

PART II PRICE PROPOSAL NUMBER <u>DOT-RFP-20-5008-SIM</u> (<u>One</u> Separately Sealed Package for Prices)

THE SEPARATELY SEALED PACKAGES <u>MAY</u> BE MAILED TOGETHER IN ONE ENVELOPE OR BOX.

22.2 <u>Technical Proposal (Part I)</u> (One original and one copy) (Do not include price information in Part I)

The Proposer must submit <u>One original and One copy on CD or Flash drive</u> of the technical proposal which are to be divided into the sections described below. Since the Department will expect all technical proposals to be in this format, <u>failure of the Proposer to follow this outline may result in the rejection of the proposal</u>. The technical proposal must be submitted in a separate sealed package marked "TECHNICAL PROPOSAL NUMBER DOT-RFP-20-5008-SIM".

#### 1. MANAGEMENT APPROACH (Limit 1 – 8.5x11 page)

Discuss the Vendor's approach to accomplishing performing management functions, scheduling and meeting the timeframes of the schedule, quality assurance, and customer satisfaction.

#### 2. PROJECT APPROACH (Limit 9 – 8.5x11 pages and 1 – 11x17 page)

Discuss, the Proposer's tasks suggested to achieve Section 3.2 of the Exhibit "A" Scope of Services.

- a. Approach to achieve overall scope and the use of existing and/or proposed resources in the environment, including details about
  - i. Reuse of existing resources
  - ii. Any proposed COTS
  - (Limit 1 8.5x11 pages)
- b. Deliverables description (Limit 8 8.5x11 pages)
- c. Schedule of Tasks (Limit 1 11x17 pages)

#### 3. TECHNICAL EXPERIENCE/WORK HISTORY (Limit 1-8.5x11 page, not including resumes)

Describe how the contract will be staffed including any positions that would need to be hired to staff the contract. Include a description of similar work performed to include Transportation related experience, software experience, experience working with Big Data, and experience working with express lanes as it relates to resources that would be used on this contract. Staffing should include levels (as included in the price proposal), certifications, and availability to work on the contract.

#### 22.3 Price Proposal (Part II) (One copy)

The price proposal information is to be submitted in a separate sealed package marked "PRICE PROPOSAL NUMBER DOT-RFP-20-5008-SIM\_". The Price Proposal information shall be submitted on the forms provided in the Request for Proposal.

#### 22.4 Presenting the Proposal

The proposal shall be limited to a page size described in Section 22.2. Type size shall not be less than 10 point font. The proposals should be indexed and all pages sequentially numbered. Bindings and covers will be at the Proposer's discretion.

Unnecessarily elaborate special brochures, art work, expensive paper and expensive visual and other presentation aids are neither necessary nor desired.

It is recognized that existing financial reports, documents, or brochures, such as those that delineate the Proposer's general capabilities and experience, may not comply with the prescribed format. It is not the intent to have these documents reformatted and they will be acceptable in their existing form.

# 23) "DRUG-FREE WORKPLACE" PREFERENCE

Whenever two or more bids which are equal with respect to price, quality, and service are received, the Department shall determine the order of award first in accordance with section 295.187(4), Florida Statutes, giving preference to "Veteran Business Enterprise" then to bid responses from vendors that certify the business has implemented a drug-free workplace program in accordance with Section 287.087, Florida Statutes. The "Drug-Free Workplace Program Certification" must be completed and submitted with the bid response to be eligible for this preference.

#### 24) COPYRIGHTED MATERIAL

Copyrighted material will be accepted as part of a technical proposal only if accompanied by a waiver that will allow the Department to make paper and electronic copies necessary for the use of Department staff and agents. It is noted that copyrighted material is not exempt from the Public Records Law, Chapter 119, Florida Statutes. Therefore, such material will be subject to viewing by the public, but copies of the material will not be provided to the public.

# 25) ATTACHMENT TO RFP SUBMITTAL - CONFIDENTIAL MATERIAL

The Proposer must include any materials it asserts to be exempted from public disclosure under Chapter 119, Florida Statutes, in a separate bound document labeled <u>"Attachment to Request for Proposals, Number DOT- RFP-20-5008-SIM - Confidential Material"</u>. The Proposer must identify the specific Statute that authorizes exemption from the Public Records Law. Any claim of confidentiality on materials the Proposer asserts to be exempt from public disclosure and placed elsewhere in the proposal will be considered waived by the Proposer upon submission, effective after opening.

#### 26) COSTS INCURRED IN RESPONDING

This Request for Proposal does not commit the Department or any other public agency to pay any costs incurred by an individual firm, partnership, or corporation in the submission of a proposal or to make necessary studies or designs for the preparation thereof, nor to procure or contract for any articles or services.

# 27) MAIL OR DELIVER PROPOSAL TO: (DO NOT FAX OR SEND BY E-MAIL)

Florida Department of Transportation Attn: Jennifer Allcock 719 South Woodland Boulevard DeLand, Florida 32720-6834 Phone # (386)943-5000

It is the proposer's responsibility to assure that the proposal (Technical and Price proposal) is delivered to the proper place **on or before** the Proposal Due date and time (See Introduction Section 2 Timeline). Proposals which for any reason are not so delivered will not be considered.

By submitting a proposal, the Proposer represents that it understands and accepts the terms and conditions to be met and the character, quality and scope of services to be provided.

All proposals and associated forms shall be signed and dated in ink by a duly authorized representative of the Proposer.

Each Proposer shall fully acquaint itself with the conditions relating to the performance of the services under the conditions of this Request for Proposal. This may require an on-site observation.

# 28) MODIFICATIONS, RESUBMITTAL AND WITHDRAWAL

Proposers may modify submitted proposals at any time prior to the proposal due date. Requests for modification of a submitted proposal shall be in writing and must be signed by an authorized signatory of the proposer. Upon receipt and acceptance of such a request, the entire proposal will be returned to the proposer and not considered unless resubmitted by the due date and time. Proposers may also send a change in a sealed envelope to be opened at the same time as the proposal. The RFP number, due date and time should appear on the envelope of the modified proposal.

# 29) PROPOSAL OPENING

All proposal openings are open to the public. Technical Proposals will be opened by the Department at the date, time and location in the Timeline (See Introduction Section 2 Timeline). Price Proposals, which have a corresponding responsive Technical Proposal, will be opened by the Department at the date, time and location in the Timeline (See Introduction Section 2 Timeline).

# 30) PROPOSAL EVALUATION

# 30.1 Evaluation Process:

A Technical Review Committee (TRC) will be established to review and evaluate each proposal submitted in response to this Request for Proposal (RFP). The TRC will be composed of at least three (3) persons who collectively have experience and knowledge in the program areas and service requirements for which the commodities and/or contractual services are sought.

The Procurement Office will distribute to each member of the TRC a copy of each technical proposal. The TRC members will independently evaluate the proposals on the criteria and point system established in the section below entitled "Criteria for Evaluation" in order to assure that proposals are uniformly rated. Due to the complexity of certain procurements, the TRC members are authorized to consult with subject matter experts for the purpose of gathering information, if needed. The independent evaluations will be sent to the Procurement Office and averaged for each vendor. Proposing firms must attain an average score of seventy (70) points or higher on the Technical Proposal to be considered responsive. Should a Proposer receive fewer than seventy (70) points for their average Technical Proposal score, the Price Proposal will not be opened.

During the process of evaluation, the Procurement Office will conduct examinations of proposals for responsiveness to requirements of the RFP. Those determined to be non-responsive will be automatically rejected.

# 30.2 Oral Presentations THERE ARE NO ORAL PRESENTATIONS FOR THIS PROJECT.

#### 30.3 Price Proposal

The Proposer shall complete the Price Proposal form and submit as part of the Price Proposal Package. Any proposal in which this form is not used or in which the form is improperly executed may be considered non-responsive and the proposal will be subject to rejection. The vendor's completed form shall become a part of the contract upon award of the contract.

The Procurement Office will open Price Proposals in accordance with Section 29, Proposal Openings. The Procurement Office and/or the Project Manager/TRC will review and evaluate the price proposals and prepare a summary of its price evaluation. The Procurement Office and/or the Project Manager/TRC will assign points based on price evaluation criteria identified herein.

#### 30.4 Criteria for Evaluation

Proposals will be evaluated and graded in accordance with the criteria detailed below.

a. <u>Technical Proposal</u> (<u>100</u> Points)

Technical evaluation is the process of reviewing the Proposer's response to evaluate the experience, qualifications, and capabilities of the proposers to provide the desired services and assure a quality product.

The following point system is established for scoring the technical proposals:

		Point Value
1.	Management Approach	15
2.	Project Approach	70
3.	Technical Experience/Work History	15

#### b. <u>Price Proposal</u> (<u>30</u> Points)

Price evaluation is the process of examining a prospective price without evaluation of the separate cost elements and proposed profit of the potential provider. Price analysis is conducted through the comparison of price quotations submitted.

The criteria for price evaluation shall be based upon the following formula:

(Low Price / Proposer's Price) x Price Points = Proposer's Awarded Points

#### 31) POSTING OF INTENDED DECISION/AWARD

- 31.1 The Department's decision will be posted on the Florida Vendor Bid System, at <a href="http://www.myflorida.com/apps/vbs/vbs\_www.main\_menu">http://www.myflorida.com/apps/vbs/vbs\_www.main\_menu</a> on date and time in the Timeline, and will remain posted for a period of seventy-two (72) hours. Any proposer who is adversely affected by the Department's recommended award or intended decision must file the following with the Department of Transportation, Clerk of Agency Proceedings, Office of the General Counsel, 605 Suwannee Street, Mail Station 58, Tallahassee, Florida 32399-0450:
- 1. A written notice of protest within seventy-two (72) hours after posting of the Intended Award, (the notice of protest may be Faxed to 850-414-5264), and
- 2. A formal written protest and protest bond in compliance with Section 120.57(3), Florida Statutes, within ten (10) days of the date on which the written notice of protest is filed. At the time of filing the formal written protest, a bond (a cashier's check or money order may be accepted) payable to the Department must also be submitted in an amount equal to one percent (1%) of the estimated contract amount based on the contract price submitted by the protestor.

Failure to file a protest within the time prescribed in Section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

31.2 - Inability to Post:

If the Department is unable to post as defined above, the Department will notify all proposers by electronic notification on the Florida Vendor Bid System (see special condition 31.1, above) or by mail, fax, and/or telephone. The Department will provide notification of any future posting in a timely manner.

31.3 - Request to Withdraw Proposal:

Requests for withdrawal will be considered if received by the Department, in writing, within seventy-two (72) hours after the price proposal opening time and date. Requests received in accordance with this provision will be granted by the Department upon proof of the impossibility to perform based upon obvious error on the part of the proposer.

# 32) AWARD OF THE CONTRACT

Services will be authorized to begin when the Vendor receives the following document(s), as appropriate, indicating the encumbrance of funds and award of the contract:

A Standard Written Agreement executed by both parties, and a written Notice to Proceed, issued by the Project Manager.

# 33) <u>RENEWAL</u>

This agreement will not be renewed.

# 34) ATTACHED FORMS

Registration Form, Form No. 1 Bid Price Proposal Form, Form No. 2 Drug-Free Workplace Program Certification (Form 375-040-18), Form No. 3 MBE Planned Utilization (Form 375-040-24), Form No. 4 Vendor Certification Regarding Scrutinized Companies List, Form No. 5

# 35) TERMS AND CONDITIONS

# 35.1 General Contract Conditions (PUR 1000)

The State of Florida's General Contract Conditions are outlined in form PUR 1000, which is a downloadable document incorporated into this RFP by reference. Any terms and conditions set forth in this RFP document take precedence over the PUR 1000 form where applicable. http://www.dms.myflorida.com/content/download/2933/11777/1000.pdf

<u>The following paragraphs do not apply to this solicitation</u>: Paragraph 31, Dispute Resolution - PUR 1000 Paragraph 40, PRIDE – PUR 1000, when federal funds are utilized.

# 35.2 General Instructions to Respondents (PUR 1001)

The State of Florida's General Instructions to Respondents are outlined in form PUR 1001, which is a downloadable document incorporated into this RFP by reference. Any terms and conditions set forth in this RFP document take precedence over the PUR 1001 form where applicable. http://www.dms.myflorida.com/content/download/2934/11780/1001.pdf

<u>The following paragraphs do not apply to this solicitation:</u> Paragraph 3, Electronic Submission – PUR 1001 Paragraph 4, Terms and Conditions – PUR 1001

#### 35.3 MFMP Purchase Order Terms and Conditions

All MFMP Purchase Order contracts resulting from this solicitation will include the terms and conditions of this solicitation and the State of Florida's standardized Purchase Order Terms and Conditions, which can be found at the Department of Management Services website at the following link: <u>http://www.dms.myflorida.com/content/download/117735/646919/Purchase Order Terms Sept 1, 2015 .pdf</u> Section 8(B), PRIDE, is not applicable when using federal funds.

#### 36) ORDER OF PRECEDENCE

All responses are subject to the terms and conditions of this solicitation, which, in case of conflict, shall have the following order of precedence listed:

Standard Written Agreement Instructions to Respondents (PUR 1001) General Conditions (PUR 1000) Introduction Section

# EXHIBIT "A" SCOPE OF SERVICES

# ITS SOFTWARE INTEGRATION & MAINTENANCE SERVICES FOR THE SUNSTORE AND FUTURE DEPLOYMENTS

#### 1. DESCRIPTION

The Florida Department of Transportation (FDOT) seeks contract services for providing software integration and maintenance services for the SunStore for the District 5 Intelligent Transportation System (ITS). The VENDOR will provide a part time Traffic Data Scientist, a part time Junior Traffic Data Scientist, a part time Visualization Specialist, a part time Junior Visualization Specialist, a part time Programmer, and a part time Junior Programmer to support ITS projects throughout District 5. <u>The agreement will be structured as a five-year contract.</u>

#### 2. BACKGROUND

FDOT District 5 has an existing local data warehouse, the SunStore (https://sunstore.cflsmartroads.com/), where users can search browse, interact with, and download FDOT D5 ITS data. The SunStore is central data storage for all the transportation system management and operations information. SunStore includes Master Data Management, Data Fusion, and Sensor Fusion for increased data quality. Having a wide range of technology out on the roads means there will be an endless stream of data to manage. SunStore connects and integrates many data sources, so FDOT can make the information available to planning, operations, universities, research institution, and businesses to encourage innovation. Data in SunStore will be used to support the PedSafe, GreenWay, and SmartCommunity deployments related to the ATTAIN Central Florida program. The SunStore provides CSV and JSON API access to data in the warehouse and it also provides several custom user interfaces to view and interact with the data.

SunStore consists of 86 data sets, with an additional 6 data sets anticipated to be integrated prior to the start of this contract. The 92 data sets range from publicly available to district only with permission based upon any license agreements in place concerning the data set. User access control to the data is controlled through the SunStore's token-based role managing system. A list of the 92 data sets can be seen in Table 1 on the following page. The SunStore provides data set and metadata information for each dataset including but not limited to loading method, loading procedure and ETL processes, original source of data, data update intervals, data time/historic availability, data size, point of contact, contact information, any additional documentation, access constraint, and access policy. Data is available through export in CSV and JSON.

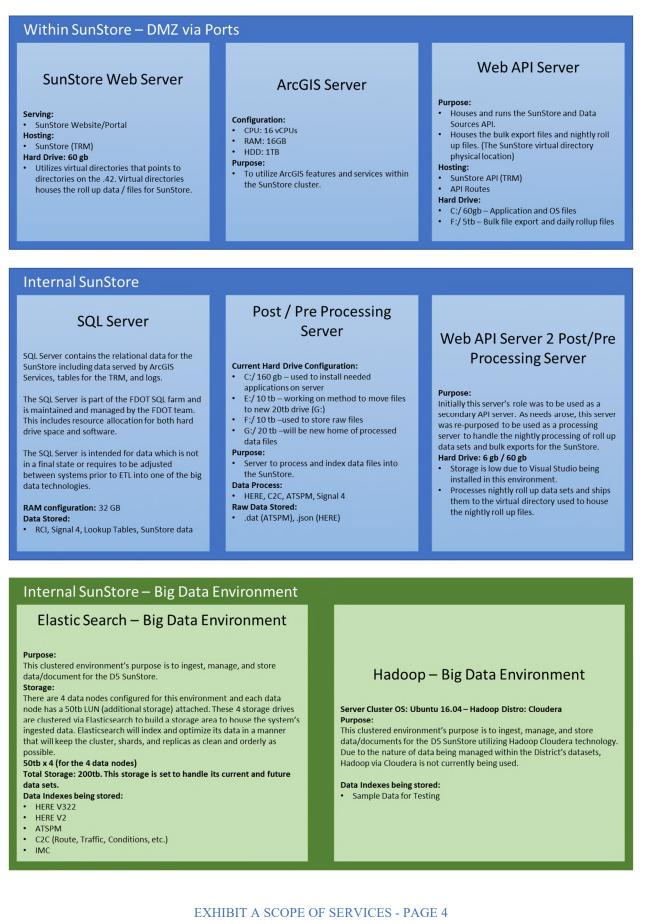
# Table 1 – FDOT District 5 ITS Data Sets in the SunStore

1 – Annual Average Daily Traffic (AADT)	48 – Number of Lanes
	40 Ore West Decile NL Ct. (
2 – Annual Average Daily Truck Traffic (AADTT)	49 – One Way Roads - NavStreets
3 – Active Arterial Management (AAM) Events	50 – Outside Shoulder Type
4 – Access Management	51 – Outside Shoulder Width
5 – Airports	52 – Pavement Conditions
6 – Advanced Traffic Signal Performance Measures (ATSPM) Approach Route Details	53 – Pedestrian Count Data
7 – ATSPM Controller Event Logs	54 – Ports
8 - ATSPM Controller Event Log Counts	55 – Posted Speed / Speed Limit
9 - ATSPM Phase Look Up Values and Codes	56 – Portable Traffic Monitoring Sites (PTMS)
10 - ATSPM Signal Locations	57 – Railroad Crossing
11 - Basemap Route Roads	58 – Rest Areas and Welcome Centers
12 – Bridges	59 – Schools
13 - Center2Center (C2C) CCTV Status	60 – School Schedules
14 - C2C Dynamic Message Sign	61 – School Zones
15 - C2C Event	62 – Signal4 Crash Event
16 - C2C Event Type	63 – Signal4 Crash Event Average and Statistics
17 - C2C Floodgate	64 – Signal4 Crash Participant
18 – C2C Locale Data	65 – Strategic Intermodal System (SIS)
19 – C2C Network Data	66 – SunRail Average Boarding by Station
20 – C2C Speed	67 – SunRail Average Boarding by Train and Time
21 – C2C Traffic Conditions	68 – SunRail Boarding by Train and Time
22 – C2C TVT Status	69 – SunRail Daily Counts Boarding by Station
23 – Day Care Facilities	70 – SunRail GTFSRT – Alerts
24 – FDOT D5 Construction	71 – SunRail GTFSRT – Trip Updates
25 – Functional Classification	72 – SunRail GTFSRT – Vehicle Position
26 – Greyhound Bus Terminals/Facilities	73 – SunRail GTFSRT Enhanced – Alerts

27 – Gridsmart Movement	74 - SunRail GTFSRT Enhanced – Trip Updates
	74 - Sunkan OTFSKT Ennanced – The Opdates
28 – HERE v2	75 - SunRail GTFSRT Enhanced - Vehicle
	Position
29 – HERE v3.1.2	76 - SunRail GTFSRT Protobuf – Alerts
29 – HERE V3.1.2	/0 - Sunkan GIFSKI Protobul – Alerts
30 – HERE v3.2.2	77 - SunRail GTFSRT Protobuf – Trip Updates
	70 0 D'ICTEORTE (1 C MILLE )
31 – Highway Performance Monitoring System	78 - SunRail GTFSRT Protobuf – Vehicle Position
(HPMS) 32 – Inside Shoulder Type	79 – SunRail Route Information
32 – Inside Shoulder Type	79 – Sunkan Koute mormation
33 – Inside Shoulder Width	80 – SunRail Stations
34 – Interchange	81 – SunRail Stop Times GTFS
35 – Intersection	82 – Surface Width
36 – Level of Service (LOS)	83 – Traffic Signal Locations
37 – Lynx -CLEVER – Locale and Stops List	84 – Telemetered Traffic Monitoring Sites
	<u> </u>
38 - Lynx -CLEVER – Predictions	85 – US Military Installations
39 - Lynx -CLEVER – Routes	86 – Weigh-in-Motion Locations
40 - Lynx -CLEVER – RTPI Data Feeds	87 – ITSIQA
41 - Lynx -CLEVER – Service Bulletins	88 – GTFS/GTFS-RT Aggregator Data
42 - Lynx -CLEVER – Vehicles	89 - WAZE
43 – Median Type	90 – BlueMac
	70 - Diuciviat
44 – Median Width	91 - Context Classification
45 NovStroots	02 ATEDM Nighthy Agence atting Data
45 - NavStreets	92 – ATSPM Nightly Aggregation Data
46 – National Highway Planning Network (NHPN)	
47 – National Highway System (NHS)	

The existing SunStore data warehouse is hosted locally at the D5 Regional Traffic Management Center (RTMC). The SunStore functions on a combination of the following software suites, ESRI Arc-GIS Enterprise Server Advanced, Elastic Stack (Logstash, Elasticsearch, and Kibana), Hadoop, Windows Server OS, MS SQL Server, IIS, Node.js, Power BI, and Tableau. The Architecture of the SunStore can be seen on the following pages in Figures 1 through 3.

# Figure 1 – Current SunStore Server Work and Data Flow within the SunStore



# Within SunStore – DMZ via Ports

# SunStore Web Server

Web Server is the application server of the SunStore. This box is hosting the SunStore Web Application, RTMC Map, and the Token Role Manager.

RAM configuration:32GB

# **ArcGIS Server**

Specific ports opened for access to DMZ for ArcGIS RESTful endpoint only. Data is not intended to be stored on this server. This machine acts as a pass through to the tools and services.

RAM configuration:

16GB

# SunStore Web API Server

The Web API server is the main gateway into the SunStore. All traffic for APIs flows through this server with the exception of ArcGIS services.

Documents from Bulk Loader are staged on this machine/cluster. RAM configuration:

- 32GB
- Volume 1 TB for handling bulk data

Additional LUN space for Bulk Loader documents awaiting download from user. Currently 1TB with future expansion as needed based on download and document size.

# Cluster

# Internal SunStore Sandbox

# SQL Server

SQL Server contains the relational data for the SunStore including data served by ArcGIS Services, tables for the TRM, and logs. The SQL Server is part of the FDOT SQL farm and is maintained and managed by the FDOT team. This includes resource allocation for both hard drive space and software. The SQL Server is intended for data which is not in a final state or requires to be adjusted between systems prior to ETL into one of the big data technologies.

RAM configuration:

32GB

To be dynamically updated based on performance and resource sharing of the FDOT SQL farm.

# Post/Pre Processing Server

The Post/Pre processing server is the main hub designed for ingestion of data, files, and information into the SunStore Big Data environment. This server is the central server for ingestion of several large data sets including ATSPM, IMC, HERE, and others. Currently the RAW files in many instances are being stored on this server. These files will be moved to the LUN which will continue to remain available for use but not require server resources for storage.

**RAM configuration:** 

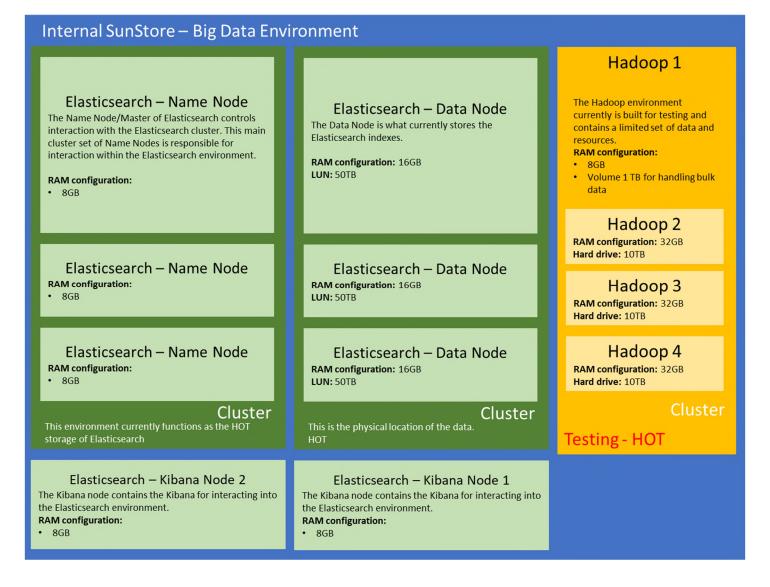
32GB

# Web API Server 2 Post/Pre Processing Server

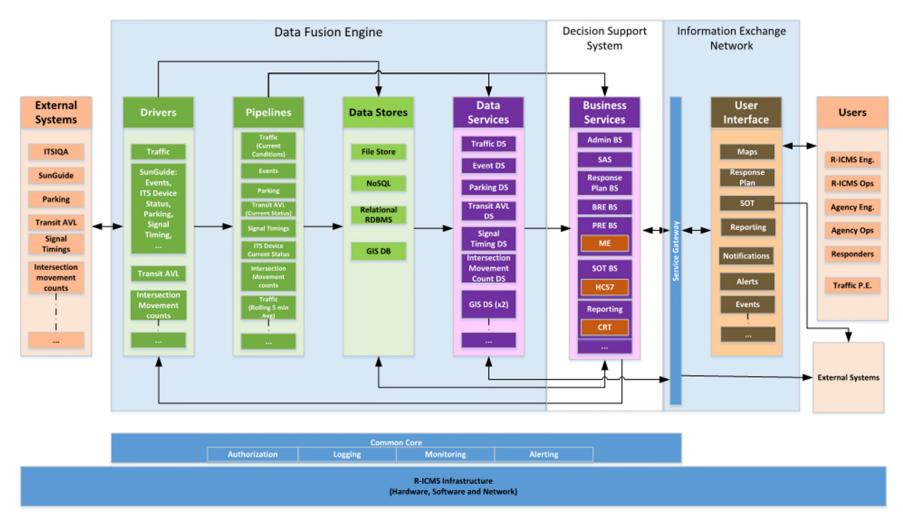
The Web API server 2 is not placed in the DMZ. The server was envisioned to be a web API server but as needs arose this machine has been used for ingestion. It is possible with the number of data sets and volumes being identified for collection that this machine may become a Pre Processing machine. **RAM configuration:** 

32GB

Additional LUN space for the storage of raw files that are part of the ingestion process. These files will be stored on the network and can be made available for use in the SunStore but will free up valuable resource space on the servers.



The DEPARTMENT has another data warehouse in development currently. This data warehouse is known as the Data Fusion Environment (DFE) that serves as the data hub powering the Regional Integrated Corridor Management Software (R-ICMS). The R-ICMS is being developed as a part of Contract BE521 FPID: 436328-1-32-01: Regional ICMS project. The R-ICMS contract is scheduled for completion in 2023. Currently, the DFE is planned to function on a combination of the following software suites; Microsoft Server OS, Ubuntu Server OS, Elasticsearch, Kubernetes, MongoDB, Cloudera Essentials, Hadoop HDFS and Kafka services, NGINX, Redis, ESRI software, MS SQL Server, and HCS7. In should be noted that as the DFE is in active construction this list is subject to change. the future, the DEPARTMENT will seek to merge the SunStore and the DFE into one overall data warehouse. The high-level architecture of the R-ICMS in development can be seen in the following Figures 4 through 9 for reference.



# Figure 4 - R-ICMS High Level Diagram

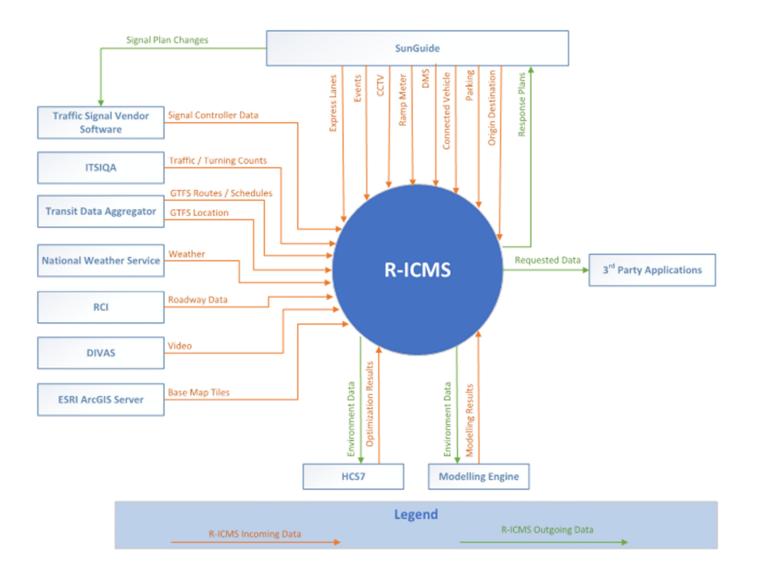
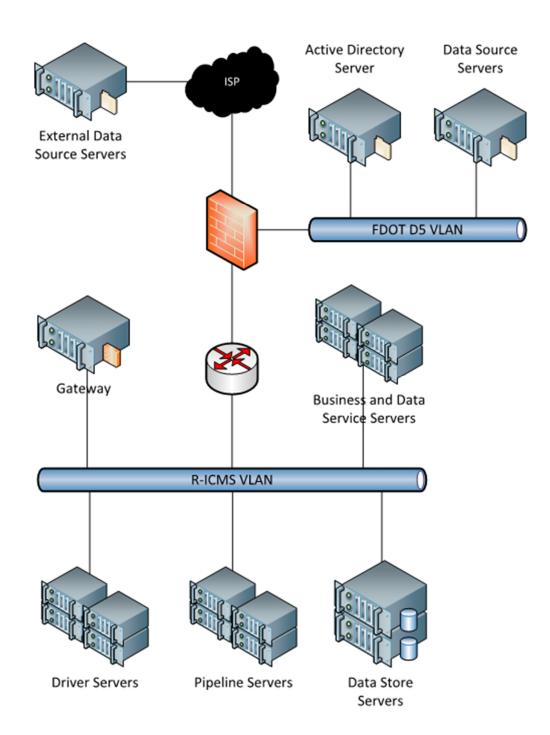
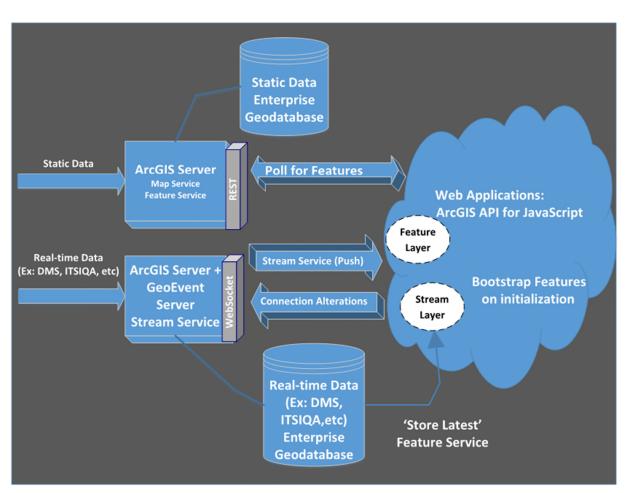


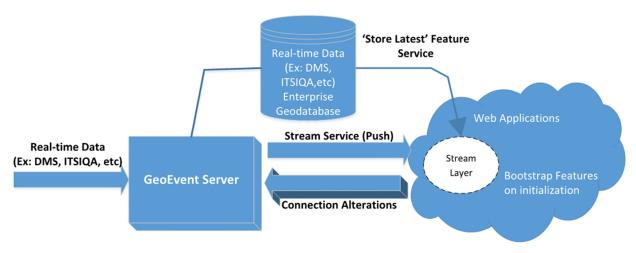
EXHIBIT A SCOPE OF SERVICES - PAGE 8

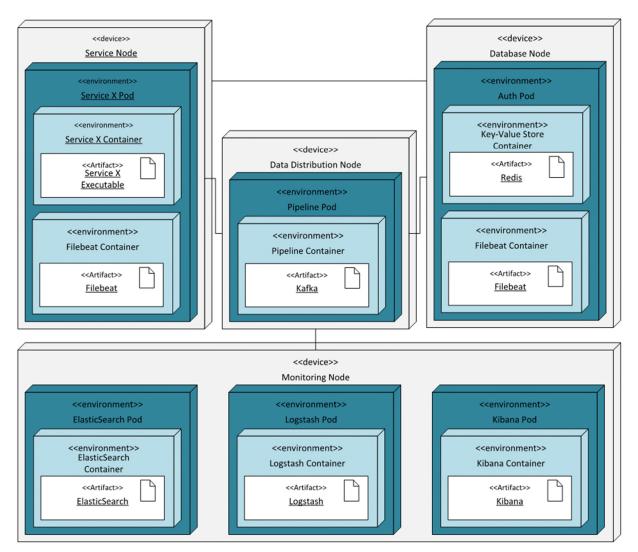




# Figure 7 - R-ICMS GIS Data Store







# Figure 9 - R-ICMS Containerized Service Orchestration

# 3. SUMMARY OF SERVICES

This section describes the roles and responsibilities of the VENDOR. This section is meant to be an overview and is not meant to be all-inclusive. The DEPARTMENT may, at its discretion, add, delete, or revise the responsibilities of the VENDOR. The VENDOR will provide a part time Traffic Data Scientist, a part time Junior Traffic Data Scientist, a part time Visualization Specialist, a part time Junior Visualization Specialist, a part time Programmer, and a part time Junior Programmer to fulfill tasks as assigned.

Contract award is subject to the availability of funds and VENDOR agreement to DEPARTMENT terms and conditions. The VENDOR services for the project shall begin upon written NTP by the DEPARTMENT. This NTP will be issued any time subsequent to the award of the Contract at the DEPARTMENT's discretion.

Prior to being tasked, the VENDOR shall provide a schedule of project milestones. All schedules shall be updated as prior schedules become obsolete.

# 3.1. Coordination with the DEPARTMENT

All aspects of the VENDOR/AGREEMENT and/or of each authorization or task will be coordinated through the DEPARTMENT'S Contract Manager (or his/her designee). All authorizations and approvals shall be in writing and executed by the DEPARTMENT prior to the commencement of work.

The Contract Manager for this software support contract is Patrick White.

Located at:	Florida Department of Transportation
	Traffic Operations – TSM&O
	4975 Wilson Road
	Sanford, FL 32771

In the DEPARTMENT's Contract Manager's temporary absence from the office, the DEPARTMENT shall authorize another individual to perform the Contract Manager's duties.

The DEPARTMENT may replace the DEPARTMENT's Contract Manager (or his/her designee) at any time during the term of this VENDOR AGREEMENT.

# 3.2. VENDOR Tasks

# 3.2.1. Support of Existing Deployments

The VENDOR will be responsible to continue to support and warehouse data in the existing SunStore data warehouse. This includes the 92 datasets that are currently being stored at the District level. Some of these may at some point be hosted by OIT or additional datasets may need to be stored based on TSM&O needs. The VENDOR will store data in the most granular form possible and create means by which external parties may extract the data.

This dataset will serve as the record set for the DEPARTMENT.

# 3.2.2. Future Enhancements

The DEPARTMENT plans to enhance and further the data use and analytic capabilities in the SunStore. Task assignments may include, but are not limited to, the following:

# 3.2.2.1. Incorporation of Additional Data Sets

The VENDOR will be responsible for the ingestion of additional data sets to make available within the SunStore. This includes any data set loading, ETL, meta data creation, customized queries, APIs, user access permissions necessary. Future data sets could include, but may not be limited to, the following:

- Helios
- CV BSM/PSM data

- iCone
- HaaS
- Route and Mode Choice
- SunGuide Origin and Destination
- Parking Availability
- Signalized Intersection Inventory Application (SIIA)
- Traffic Management Data Dictionary (TMDD)
- Trajectory Data

# 3.2.2.2. Implementation of Data Cleaning

The VENDOR will be responsible to implement the application of ITSIQA and other cleaning means to improve the data accuracy for the purposes of generating "truth" dataset for key performance indicators. Cleaning includes improving the measurement, temporal accuracy, spatial accuracy, filling in missing data, or deduplication of records. Key performance indicator data sets include, but may not be limited to, the following:

- Travel Time
- Demand Volume (including Turning Movement Counts)
- Served Volume (including Turning Movement Counts)
- Point Speed
- Origin and Destinations
- Pedestrian and Bicycle Counts
- Trajectory Data

# 3.2.2.3. Use of Business Intelligence

FDOT wants to use the data in the data warehouse for Business Intelligence (BI) purposes. The VENDOR will be responsible for connection of data in the SunStore to BI tools that FDOT has licensing to use. Those BI tools with licensing include:

- Power BI
- Tableau
- Kibana

The VENDOR will be responsible for implementing interactive Dashboards for specific business use cases within the data store. These Dashboards may be Commercial off the Shelf (COTS) and/or custom solutions depending on the use case. Some examples include:

# **COTS and custom**

• MAP 21 (Assume FDOT furnished; may be tasked under this contract)

# COTS

- ATSPM (FDOT furnished)
- Safety Visual (FDOT furnished)

# 3.2.2.4. Cloud Storage Environment

The VENDOR will be responsible to create and store key datasets in a cloud storage environment. The goal of this effort is to make it so users can avoid moving the data but can instead play with the data within a cloud testing environment such as Amazon Web Service (AWS) or Microsoft Azure. FDOT wants external parties to be able to develop critical insights using our data, and for this environment to be attached to our system as COTS products described above. The VENDOR will work with the DEPARTMENT on a deployment and retention plan for data. The VENDOR will coordinate with key stakeholders to determine their willingness to pay for the ability to access the play space and tools through the cloud service. Key Stakeholders include, but may not be limited to, the following:

- Universities
- Third Party (private or vendors)

FDOT has developed a list of potential key data set for deployment in the cloud storage environment. That list can be seen in Table 2 below.

USDOT git repository includes code for ingesting CV pilot data into ITS DataHub S3 Sandbox which may be useful for this effort. (https://github.com/usdot-its-jpo-data-portal/cv pilot ingest)

	by Data Sets for Cloud Storage Environment
1	Advanced Traffic Signal Performance Measures (ATSPM) Approach Route Details
2	ATSPM Controller Event Logs
3	ATSPM Controller Event Log Counts
4	ATSPM Phase Look Up Values and Codes
5	ATSPM Signal Locations
6	Basemap Route Roads
7	C2C Event
8	C2C Event Type
9	C2C Floodgate
10	C2C Locale Data
11	C2C Network Data
12	C2C Speed
13	C2C Traffic Conditions
14	C2C TVT Status
15	SunRail Stop Times GTFS
16	GTFS/GTFS-RT Aggregator Data
17	SIIA
18	ITSIQA Pedestrian Count Data
19	TMDD
20	ITSIQA Volume
21	ITSIQA TMC
22	ITSIQA Travel Time
23	Origin Destination via Sunguide

#### Table 2 – Key Data Sets for Cloud Storage Environment

For the emerging Connected Vehicle Data Sets it is expected the DEPARTMENT wants to have SunStore provide data to the V2X hub that will be acquired by statewide via a separate contract. Storage of data will occur inside the V2X hub and also on the USDOT's Intelligent Transportation Systems Operation Data Environment. Open source code for how this has been accomplished by others can be found at <a href="https://its.dot.gov/code/">https://its.dot.gov/code/</a> under the jpo-ode project. Implementation will include two data sets: one with obfuscation of personally identifiable information, PII, for public consumption and one with PII that is accessible by authorized users only.

# 3.2.2.5. Video Stream Access

Similar to the discussion of the cloud storage mentioned above, the DEPARTMENT wants to allow for key stakeholders to develop refined trajectory data for the DEPARTMENT that is highly accurate. To this end, FDOT is looking to open up a live stream of video representative of intersections and freeway systems. This access could and likely will include point cloud information from LiDAR data in the future. The intent is not to broadcast all the CCTV cameras within the D5 ITS system, but just a few live streams from the pilot CCTV testbeds that the DEPARTMENT is currently deploying. The DEPARTMENT is deploying hardware to allow for a center based or edge-based deployment of trajectory calculations using fixed CCTV cameras. The VENDOR will be responsible to make these live streams available. create and store key datasets in a cloud storage environment. The VENDOR will work with the DEPARTMENT on a selection of which streams from the pilot deployment to make available.

# 3.2.2.6. Data Pipelines

The DEPARTMENT wants to have data pipelines to key real-time data sets for users to access. The intent is to provide the data warehouse with the ability to allow university, third-party (private and vendor) to use cloud data for training up COTS products. The DEPARTMENT wants to have pipelines of real-time data for users to subscribe to so that the requested data can flow real-time to the user. The VENDOR will be responsible to create these data pipelines.

Advanced Traffic Signal Performance Measures (ATSPM) Approach Route Details	
ATSPM Controller Event Logs	
ATSPM Controller Event Log Counts	
ATSPM Phase Look Up Values and Codes	
ATSPM Signal Locations	
Basemap Route Roads	
C2C Event	
C2C Event Type	
C2C Floodgate	
C2C Locale Data	
C2C Network Data	
C2C Speed	
C2C Traffic Conditions	
C2C TVT Status	
SunRail Stop Times GTFS	
GTFS/GTFS-RT Aggregator Data	

#### Table 3 - Key Data Sets for Data Pipelines

17	SIIA
18	ITSIQA Pedestrian Count Data
19	TMDD
20	ITSIQA Volume
21	ITSIQA TMC
22	ITSIQA Travel Time
23	Origin Destination via Sunguide

# 3.2.2.7. Open Source GIS

It is desirable to the DEPARTMENT to explore the ability to use open source GIS platforms for mapping as a solution within the SunStore. The use of licensed GIS solutions is costly and requires annual licensing and maintenance fees. The DEPARTMENT would like to reduce costs on mapping services. The VENDOR will research the feasibility of migrating to an open source GIS solution and if feasible implement the solution.

# 4. **RESPONSIBILITIES**

# 4.1. VENDOR Responsibilities

# 4.1.1. VENDOR Responsibilities - General

The VENDOR will provide services including both administrative and technical aspects of the CONTRACT. All activities are required to be tracked, meetings minutes produced, coordination activities documented, and all other aspects of the CONTRACT.

The VENDOR will provide reference and criminal background checks to the DEPARTMENT and/or the DEPARTMENT's Contract Manager (or his/her designee) on all VENDOR personnel proposed to be used on/during this VENDOR/AGREEMENT.

The VENDOR shall utilize the U.S. Department of Homeland Security E Verify system.

#### VENDOR:

(1) 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 VENDOR during the term of the contract; and

(2) 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.

The VENDOR will provide for all employees supplied under this VENDOR / AGREEMENT weekly time sheet depicting hours worked including overtime. The hours breakout for all employees must be provided to the DEPARTMENT with each invoice.

The VENDOR shall respond to "operational" emergencies within 24 hours. Other tasks shall be performed in accordance with an agreed upon schedule approved by the DEPARTMENT's Contract Manager.

It is required that all VENDOR's personnel be able to communicate effectively with the DEPARTMENT's personnel in the English language. Such communications shall be both verbal and in the form of written documentation.

The VENDOR agrees to compensate employees at the minimum pay raises established in negotiations. Exhibit "B", Contract Price Proposal will be revised to reflect negotiated hourly rate and VENDOR's Billing Rate per Hour. Pay rates include payment of the vacation, sick leave, personal days and holidays observed by the DEPARTMENT and any other benefits as negotiated and agreed upon by the DEPARMENT and the VENDOR.

The VENDOR will provide the DEPARTMENT and/or the DEPARTMENT's Contract Manager (or his/her designee) with a current Certificate of Workman's Compensation Insurance during the period of the VENDOR / AGREEMENT and any subsequent renewals. A certificate from an eligible underwriter indicating proof of coverage will be submitted upon request from the DEPARTMENT at any time.

The VENDOR is responsible for any injury to person(s) or damage to property (ies) that may occur in performing any of the services being performed/provided by the VENDOR under this VENDOR / AGREEMENT as a result of negligence or intentional acts of misuse on the part of its personnel.

The VENDOR will provide the DEPARTMENT with a Project Manager for the life of the contract. Any changes to the VENDOR's Project Manager or any of the other indicated personnel in charge of the work shall be subject to review and approval by the DEPARTMENT in writing before performing any billable services.

The VENDOR will provide cloud environment such as Amazon Web Service (AWS) or Microsoft Azure for the Cloud Storage Environment, Video Stream Access, and Data Pipelines tasks identified in section 3.2 of the Scope of Services. Any incidental cost for cloud services shall be included in the hourly rate for the Job Classifications listed in the Bid Price Proposal Form. The VENDOR shall provide a cloud environment that anticipates the data in the will have unknown or changing access patterns for up to 100 TB in data.

# 4.1.2. VENDOR Responsibilities – Contract Staffing

The VENDOR will provide the names and resumes for the following positions that are required by this VENDOR / AGREEMENT;

- Traffic Data Scientist
- Junior Traffic Data Scientist
- Visualization Specialist
- Junior Visualization Specialist
- Programmer
- Junior Programmer

The DEPARTMENT will review the proposed staff depending on the knowledge and or experience of those individuals. The DEPARTMENT will determine the best available VENDOR required in meeting the needs of this VENDOR / AGREEMENT.

# 4.1.2.1. Traffic Data Scientist and Junior Traffic Data Scientist

The Traffic Data Scientist position is key to the performance measurement function of an organization both for real-time operations decision making as well as longer-term trends analysis. Data is a critical element to drive and improve business processes. Enabling more powerful use of data management techniques should also translate into improved business processes and likely require enhanced use of systems and technology.

DEPARTMENT motivation for the VENDOR to provide contract staffing of Traffic Data Scientist and Junior Traffic Data Scientist includes:

- TSM&O relies on effective extraction and manipulation of "big data."
- Growing opportunity and expectation for data-driven decision-making, including advanced pattern recognition and statistical methods.
- Spatial data requires combining expertise in GIS, statistics, data science, visualization, and web applications.

# Traffic Data Scientist Knowledge, Skills, and Abilities requirements:

The Traffic Data Scientist is responsible for extracting, organizing, integrating, analyzing, and communicating information obtained from a variety of traffic data sources. The purpose of this role is to develop predictive analytics and performance measures, to enhance the planning process and to enable datadriven decision-making for the DEPARTMENT. As such, core knowledge requirements include competency in computer/data science, key database languages and relevant software, and statistical analysis and modeling. Skillsets necessary for this position include those related to communication (written and verbal), mathematics and problem solving, interpersonal relationships, time and task management, and organization. Required abilities for this position are data collection and analysis, professional judgment, teamwork, and a good attitude and work ethic. The junior traffic data scientist may not have the full knowledge as described below.

# Knowledge:

- Knowledge of Statistical Analysis, Modeling, Optimization
- Knowledge of Data/Computer Science, Programming, Software Engineering
- Knowledge of Access, SQL or other database languages
- Knowledge of Microsoft Office Programs
- Knowledge of Machine Learning, Deep Learning Tools
- Knowledge of Geospatial Analysis Techniques and Software
- Knowledge of Relevant Programming Languages
- Knowledge of basic traffic engineering principles
- Knowledge of ITS functionality (i.e., CCTV, DMS, VDS, RWIS)

Skills:

- Communication Skills, Written/Verbal
- Analytical, Mathematical, or Problem-Solving Skills
- Time and Task Management Skills
- Interpersonal Skills
- Organizational Skills,
- Attention to Detail
- Technical Communication, Report Development Skills
- Research Skills

#### Abilities:

- Ability to Work Well on a Team
- Ability to Collect, Enter, or Analyze Data
- Possess Professional Judgment
- Possess Good Attitude/Work Ethic

# 4.1.2.2. Visualization Specialist and Junior Visualization Specialist

The Visualization Specialist is responsible for providing technical guidance, training and support for various visualization tools used in TSM&O including data visualization, data analytics, and others. As such, core knowledge requirements include competency in computer science and data modeling, graphic design, and relevant software. Skillsets necessary for this position include those related to communication (written and verbal), technical communication, mathematics and problem solving, and time and task management. Required abilities for this position are the ability to work independently and to be innovative or creative. Knowledge of AR/VR software is desirable but not required. The junior visualization specialist may not have the full knowledge as described below.

#### Visualization Specialist Knowledge, Skills, and Abilities requirements:

#### Knowledge:

- Knowledge of Data Modeling, Visualization, and Computer Science
- Knowledge of Deliverables and Graphic Design
- Knowledge of Visualization Software Suites
- Knowledge of AR/VR Software
- Knowledge of Relevant Programming Languages Skills

#### Skills:

- Communication Skills, Written/Verbal
- Technical Communication, Report Development Skills
- Analytical, Mathematical, or Problem-Solving Skills
- Time and Task Management Skills

#### Abilities:

- Ability to Work Well on a Team or Independently
- Ability to be Innovative or Creative
- Ability to Collect, Enter, or Analyze Data

# 4.1.2.3. Programmer and Junior Programmer

The Programmer is responsible for using a wide variety of information, knowledge, and tools to develop, modify, and administer databases used to store and retrieve data and to develop standards for the handling of data. This work often involves difficult and complex problems in the administration of databases, in the modification of data elements, in the retrieval and reporting of information from the databases and insuring the security of data. Core requirements include competency in data/computer science, database software and programming languages, and knowledge of Microsoft Office. Skillsets important for this job include communication and interpersonal skills. The Programmer shall include knowledge of specialized hardware/software specific to RTMC from which data are likely to be extracted. The junior programmer may not have the full knowledge as described below.

# Programmer Knowledge, Skills, and Abilities requirements:

# Knowledge:

- Knowledge of Data/Computer Science, Programming, Software Engineering
- Knowledge of Access, SQL, Elasticsearch, MongoDB, or other Database Languages
- Knowledge of Microsoft Office Programs
- Knowledge of Transportation Operations and relevant hardware and software

# <u>Skills:</u>

- Communication Skills, Written/Verbal
- Interpersonal Skills
- Analytical, Mathematical, or Problem-Solving Skills
- Technical Communication, Report Development Skills

# Abilities:

- Ability to Work Well on a Team
- Ability to Work Well Independently
- Ability to Collect, Enter, and Analyze Data
- Ability to Work in a Fast-Paced or Stressful Environment

# 4.2. DEPARTMENT Responsibilities

The DEPARTMENT will furnish, without cost to the VENDOR, the following services and data relevant to the VENDOR'S scope of services.

- Provide workspace within the RTMC and access to the FMS server, SunGuide server, website server and console workstations as needed and other relevant equipment as determined by the DEPARTMENT.
- Provide all criteria and full information as to the DEPARTMENT's requirements for VENDOR's services including objectives, constraints, budgetary limitations and time restraints.
- Furnish all DEPARTMENT policies, procedures, standards, forms as well as applicable software, documentation and source code.

- Facilitation of meetings with applicable agency staff.
- The VENDOR will be allowed to utilize the DEPARTMENT's computer services for programs needed by the VENDOR and approved by the DEPARTMENT in accordance with the VENDOR's agreement for the period of this contract.

#### 4.3. Lost, Stolen or Damaged DEPARTMENT Owned Resources

DEPARTMENT owned resources shall be defined as equipment that is tracked via the DEPARTMENT's internal inventory control system. A representative of the DEPARTMENT will provide a list of DEPARTMENT owned resources to the VENDOR that the VENDOR will need to execute the duties as specified in this contract. The VENDOR will acknowledge receipt of the DEPARTMENT owned resources via the "PROPERTY TRANSFER RECEIPT" form, the VENDOR will be provided with a copy of the "PROPERTY TRANSFER RECEIPT" form for their records. A representative of the DEPARTMENT will inventory all DEPARTMENT owned resources at least one time per year.

# 4.3.1. Lost DEPARTMENT Owned Resources

DEPARTMENT owned resources that have been lost, which had been in the possession of the VENDOR as evidenced by the "Property Transfer Receipt" form, the VENDOR will replace the lost resource at the VENDOR's sole expense. If the item is not directly replaceable due to the non-availability of identical models, the VENDOR shall replace the resource with a similar resource or directly compensate the DEPARTMENT at the DEPARTMENT's discretion.

# 4.3.2. Damaged DEPARTMENT Owned Resources

Damaged resources shall be defined as the state at which the DEPARTMENT owned resource is no longer capable of performing its intended function. DEPARTMENT owned resources that have been damaged, which had been in the possession of the VENDOR as evidenced by the "Property Transfer Receipt" form, the VENDOR shall notify the DEPARTMENT within five (5) business days of damage. The VENDOR will return the damaged DEPARTMENT owned resources to the DEPARTMENT within five (5) business days of notification. The VENDOR will submit a letter to the DEPARTMENT explaining how the DEPARTMENT owned resource was damaged including a plan to prevent reoccurrence.

# 5. LENGTH OF SERVICES

Services to be rendered by the VENDOR, as described in Section 3, will commence upon written notice from the DEPARTMENT, and these services will be completed within the agreed upon schedule on a per Task Work Order basis. This length of service is not to exceed the sixty (60) months from the execution of the overall contract.